



HEXAGON TRANSPORTATION CONSULTANTS, INC.



Summit School

Final Transportation Impact Analysis



Prepared for:

City of Sunnyvale

July 2, 2018



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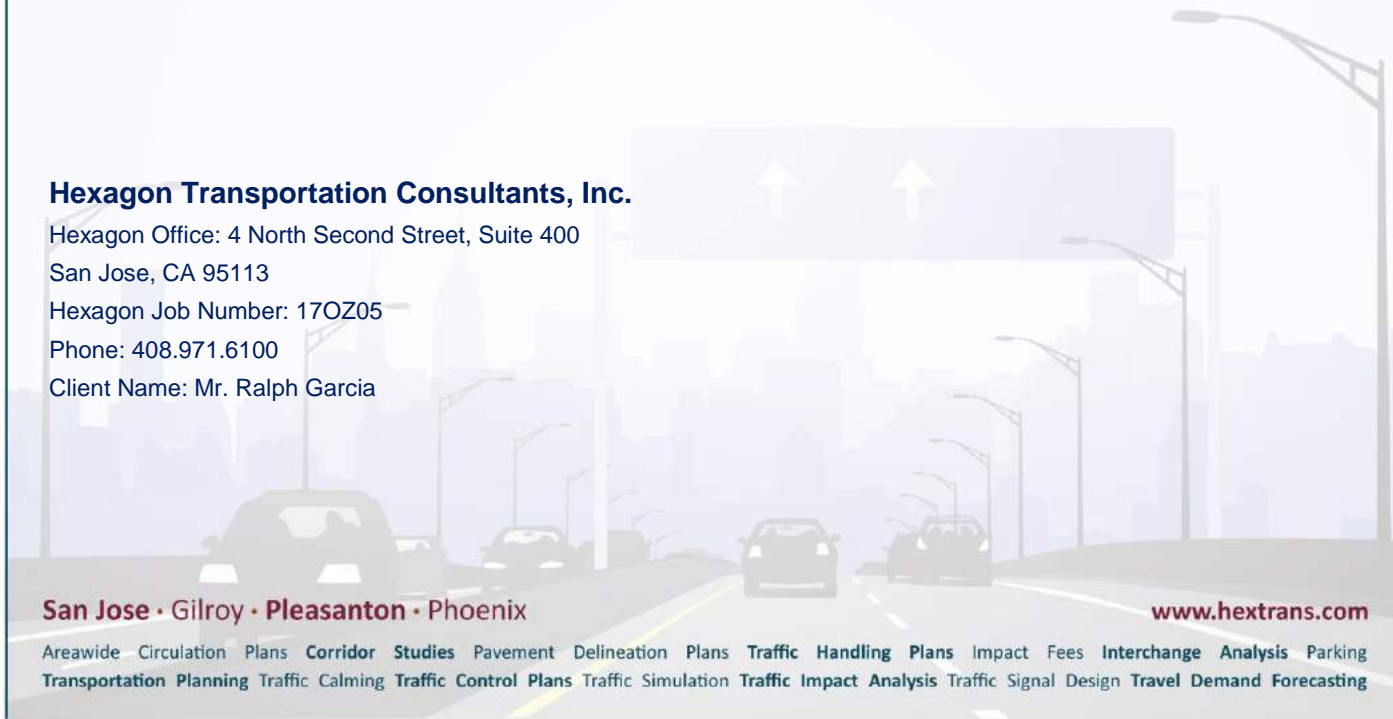


Table of Contents

Executive Summary	vi
1. Introduction	1
2. Existing Conditions	12
3. Background Conditions	31
4. Project Conditions	38
5. Other Transportation Issues	59
6. Conclusions.....	75

Appendices

Appendix A	Traffic Counts
Appendix B	Volume Summary Tables
Appendix C	Intersection Level of Service Calculations
Appendix D	Signal Warrant Checks

List of Tables

Table ES-1 Project Trip Generation Estimates.....	vii
Table ES-2 Intersection Levels of Service Summary – Signalized Intersections.....	ix
Table ES-3 Intersection Levels of Service Summary – Unsignalized Intersections.....	x
Table 1 Signalized Intersection Level of Service Definitions Based on Delay	7
Table 2 Unsignalized Intersection Level of Service Definitions Based on Delay	7
Table 3 Freeway Segment Level of Service Definitions	9
Table 4 Existing Intersection Level of Service Summary – Signalized Study Intersections	20
Table 5 Existing Intersection Level of Service Summary – Unsignalized Study Intersections	21
Table 6 Existing Freeway Level of Service Summary	26
Table 7 Existing Freeway Ramp Capacity Analysis Summary.....	27
Table 8 Background Intersection Level of Service Summary – Signalized Intersections	36
Table 9 Background Intersection Level of Service Summary – Unsignalized Intersections.....	37
Table 10 Project Trip Generation Rates Comparison with ITE Rates	39
Table 11 Project Trip Generation Estimates.....	40
Table 12 Background plus Project Level of Service Summary – Signalized Intersections	51
Table 13 Background plus Project Level of Service Summary – Unsignalized Intersections	52
Table 14 Existing plus Project Level of Service Summary – Signalized Intersections.....	53
Table 15 Existing plus Project Level of Service Summary – Unsignalized Intersections.....	54
Table 16 Project Conditions Freeway Analysis Summary.....	55
Table 17 Project Conditions Freeway Ramp Analysis	56
Table 18 Project Conditions Freeway On-Ramp Queuing Analysis	57
Table 19 AM Peak Hour Queuing Analysis	62
Table 20 PM school Peak Hour Queuing Analysis	63
Table 21 PM commute Peak Hour Queuing Analysis	64
Table 22 Transit Travel Time Delay Analysis	66

List of Figures

Figure 1	Site Location and Study Intersections	2
Figure 2	Project Site Plan.....	3
Figure 3	Existing Bicycle Facilities	15
Figure 4	Existing Pedestrian Facilities.....	16
Figure 5	Existing Transit Services	18
Figure 6	Existing Intersection Lane Configurations	22
Figure 7	Existing Traffic Volumes.....	24
Figure 8	Approved project Locations.....	32
Figure 9	Background Traffic Volumes	33
Figure 10	Project Trip Distribution – Parent/Student Trips.....	42
Figure 11	Project Trip Distribution – School Staff and Light Industrial Trips	43
Figure 12	Project Trip Assignment	44
Figure 13	Background Plus Project Traffic Volumes	46
Figure 14	Existing Plus Project Traffic Volumes.....	48
Figure 15	Recommended School Safety Improvements.....	73

AUTO TRIP REDUCTION STATEMENT

UPDATED: October 2014



PROJECT INFORMATION		Relevant TIA Section:	
Project Name:			
Location:			
Description:			
Size (net new):	D.U. Residential	Sq. Ft. Comm.	Acres (Gr.)
Density:	D.U. / Acre	Floor Area Ratio (FAR)	
Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop?			

PROJECT AUTO TRIP GENERATION		Relevant TIA Section:	
Auto Trips Generated:	AM Pk Hr	PM Pk Hr	Total Weekday
Methodology (check one)	<input type="checkbox"/> ITE	<input type="checkbox"/> Other (Please describe below)	

AUTO TRIP REDUCTION APPROACH		Relevant TIA Section:	
<input type="checkbox"/> Standard Complete Table A below	<input type="checkbox"/> Peer/Study-Based Complete Table B below	<input type="checkbox"/> Target-Based Complete Table C below	<input type="checkbox"/> None Taken

TRIP REDUCTION REQUIREMENTS		Relevant TIA Section:	
Is the project required to meet any trip reduction requirements or targets?		If so, specify percent:	
Reference code or requirement:			

TRIP REDUCTION APPROACHES

A. STANDARD APPROACH		Relevant TIA Section:	
Type of Reduction <i>Specify reduction. See Table 2 in TIA Guidelines</i>	% Reduction from ITE Rates	Total Trips Reduced (AM/PM/Daily)	TOTAL REDUCTION CLAIMED
			% Trips
Transit			
Mixed-Use			
Financial Incentives			
Shuttle			

B. PEER/STUDY-BASED APPROACH		Relevant TIA Section:	
Basis of Reduction		TOTAL REDUCTION CLAIMED	
		%	Trips

Last updated 11/4/2014

C. TARGET-BASED APPROACH			Relevant TIA Section:		
Type of Reduction (check all that apply)				TOTAL REDUCTION CLAIMED	
<input type="checkbox"/> % Trip Reduction	<input type="checkbox"/> % SOV mode share	<input type="checkbox"/> Trip Cap		%	Trips
Description					
Time period for reduction	Peak Hour	Peak Period	Full Day		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

OTHER TDM/REDUCTION MEASURES			
Bicycle/Pedestrian		Relevant TIA Section:	
Parking Management		Relevant TIA Section:	
Transit		Relevant TIA Section:	
Site Planning and Design		Relevant TIA Section:	
TDM Program		Relevant TIA Section:	

IMPLEMENTATION		Relevant TIA Section:
Have the project sponsor and Lead Agency agreed to any of the following measures?		
<input type="checkbox"/> Monitoring		
<input type="checkbox"/> Enforcement		
<input type="checkbox"/> Data Sharing		

Executive Summary

This report presents the results of the Transportation Impact Analysis (TIA) prepared for the proposed Summit high school located at 824 San Aleso Avenue in Sunnyvale, CA. The project proposes to re-purpose the existing building on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The project would be accessed via the existing driveways on site.

This study was conducted for the purpose of identifying the potential near-term transportation impacts related to the proposed high school project. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), potential long-term traffic impacts have already been studied in the PPSP TIA report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc.

Project Trip Estimates

Summit Public Schools (the project applicant) conducted a traffic survey in January 2016 of its other schools within the Bay Area and found that on average, for every 100 students:

- 67 cars arrive each morning, bringing 85 students to school
 - 7 of these cars are driven by students and remain parked at school
 - The remaining 60 cars are driven by parents/guardians and depart the school after drop off
- 59 cars leave the school in the afternoon, taking 77 students

Using the trip generation rates derived from the applicant survey, the project with 400 students is estimated to generate 508 student trips (268 in and 240 out) during the AM peak hour, 332 student trips (156 in and 176 out) during the PM school peak hour, and 112 student trips (53 in and 59 out) during the PM commute peak hour. As a conservative approach, it is assumed that each staff would generate one inbound trip during the AM peak hour and one outbound trip during the PM commute peak hour. The project with 25 staff is estimated to generate 25 inbound trips during the AM peak hour and 25 outbound trips during the PM commute peak hour. Therefore, the project is estimated to generate a gross 533 trips (293 in and 240 out) during the AM peak hour, 332 trips (156 in and 176 out) during the PM school peak hour, and 137 trips (53 in and 84 out) during the PM commute peak hour.

The existing project site is occupied by a 25,100 s.f. light industrial building. After accounting for the trips generated by the existing building on-site, the project is expected to generate a net 510 trips (273 in and 237 out) during the AM peak hour, 315 trips (154 in and 161 out) during the PM school peak hour, and 113 trips (50 in and 63 out) during the PM commute peak hour (see Table ES-1).

**Table ES-1
Project Trip Generation Estimates**

Land Use	Size	Unit	Daily			AM Peak Hour			PM School Peak Hour			PM Commute Peak Hour				
			Rate	Trips		Rate	In	Out	Total	Rate	In	Out	Total	Rate	In	Out
<i>Proposed Land Use (P)</i>																
High School ¹	400	students			1.27	268	240	508	0.83	156	176	332	0.28	53	59	112
	25	staff			1.00	25	0	25	0.00	0	0	0	1.00	0	25	25
		Total		2,132		293	240	533		156	176	332		53	84	137
<i>Existing Land Use (E)</i>																
Light Industrial ²	25.1	ksf	6.97	175	0.92	20	3	23	0.68	2	15	17	0.97	3	21	24
Net Project Trip Generation (P - E)				1,957		273	237	510		154	161	315		50	63	113

Notes:

1. Trip generation for the proposed high school is based on survey results conducted at other Summit schools. The survey was conducted by Summit Public Schools, dated January 2016. Daily trip generation is assumed to be 4 times the AM peak hour trip generation, according to the Institute of Transportation Engineers Trip Generation, 9th Edition.

2. Daily, AM and PM commute peak hour trip generations are based on the average trip generation rates published in the Institute of Transportation Engineers Trip Generation, 9th Edition (Land Use Code: 110). PM school peak hour trip generation is estimated based on intersection volumes at the Mathilda Ave/San Aleso Ave intersection and the PM commute peak hour trip generation rates.

Intersection Level of Service Results

The intersection level of service analysis (see Tables ES-2 and ES-3) concluded that based on City of Sunnyvale intersection impact criteria, the project would not generate a significant intersection impact at any study intersections.

Freeway Impacts

The results of the CMP freeway analysis show that the freeway segments currently operating at acceptable levels of service would continue to operate at acceptable levels of service under project conditions. For freeway segments currently operating at unacceptable LOS F, the project generated freeway traffic would not exceed 1%, thus the project freeway impacts would be less than significant.

Freeway Ramp Impacts

The results of the ramp analysis show that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and the ramps would continue to have sufficient capacity to serve the project traffic volumes under project conditions.

A ramp queuing analysis was conducted for the US 101 southbound on-ramp from northbound Mathilda Avenue, which is metered during the PM peak hour. The analysis found that under project conditions the maximum vehicle queue due to the ramp meter would be contained within the existing ramp storage area.

PPSP Cumulative Impact Fair Share Contribution

The proposed project is estimated to generate a net 510 AM peak hour trips. Since this is a school project, the PPSP cumulative impact fee would apply only to student/parent trips generated outside of the City, as well as to staff trips. Based on the trip generation and distribution assumptions discussed in Chapter 4, the PPSP cumulative impact fee would apply to 231 net AM peak hour trips. According to the ITE *Trip Generation, 9th Edition*, the AM peak hour average trip generation rate for an office building is 1.56 trips per 1,000 s.f. The 231 net peak hour project trips would be equivalent to a 148,077 s.f. office building in terms of peak hour trip generation. Therefore, the project shall pay a fair share contribution for this square footage towards mitigating the PPSP cumulative impacts.

Other Transportation Issues

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis, school safety assessment and parking analysis for the proposed project. Our recommendations and potential improvements are listed below.

Recommendations

- The project applicant should coordinate with City staff to improve the sidewalk on the east side of San Aleso Avenue fronting the project site to the standards outlined in the *Peery Park Specific Plan*.
- The project applicant shall install a yellow high-visibility ladder crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The project applicant shall coordinate with City staff to ensure the crosswalk is installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). Currently, the pedestrian curb ramps at either side of the proposed crosswalk are not ADA compliant. The project applicant shall upgrade the curb ramps to meet ADA standards.
- The project applicant shall prohibit on-street parking along the east side of San Aleso Avenue within 20 feet south of the project outbound-only driveway. The project applicant shall install red curb or install “No Stopping Any Time” R26(S) (CA) signs. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards. The project applicant should ensure that there would not be tall vegetation or objects that could block a driver’s view 150 feet down the road as they exit the project site.
- The project applicant shall install yellow high-visibility ladder crosswalks across all legs of the intersection at Mathilda Avenue and San Aleso Avenue. The project applicant shall coordinate with City staff to ensure the crosswalks are installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). The project applicant shall coordinate with City staff to upgrade the pedestrian push buttons for the north leg crosswalk with APS push buttons. The project applicant shall coordinate with City staff to upgrade the curb ramps to meet ADA standards, if necessary.

- Per the most recent edition of CA MUTCD (2014 Edition, Revision 3) at the time of this report, streets with a 25-mph speed limit that are contiguous to a school building shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. Since San Aleso Avenue has a speed limit of 25 mph, the project applicant shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards and City’s standards and guidelines.
- Hexagon recommends the school implement a 5-car drop-off system, where 5 cars drive up to the drop-off zone and drop off at the same time. Staff members need to be stationed at the front end of the drop-off zone and direct the cars to leave the drop-off zone only when all 5 vehicles have finished dropping off. As soon as the vehicles leave, the next set of 5 cars would enter the drop-off zone. This system could allow the drop-off zone to serve approximately 10.5 vehicles per minute. It is recommended that the school dedicate a 125-foot space along the east side of the building as the drop-off zone. To ensure an efficient vehicular flow, it is recommended that the school block off all parking spaces in the east parking lot. Further, it is recommended that the school discourage parents from dropping off students while waiting in queue as oncoming vehicles may not be aware of such student crossings.
- It is recommended that the school discourage parents from parking off-site to pick up students or arriving prior to school dismissal to pick up students. It is recommended that the school prohibit parents from driving into any parking stalls on-site during the pick-up peak period. It is recommended that pick up operations occur exclusively along the east side of the building.
- It is recommended that the school discourage parents from cutting through parking lots of private properties to access the project site.
- It is recommended that the school dedicate staff to direct vehicular traffic at the inbound driveway as well as at the on-site marked walkway to ensure driver awareness of crossing students.
- Prior to final design, the project applicant should ensure that all parking dimensions meet the City requirements.
- The project applicant should ensure that all car lift spaces are adequately sized to accommodate all passenger car types. It is recommended that the car lift operations be prohibited during the main school drop-off and pick-up periods.
- Prior to final design, the project applicant should ensure that adequate garbage truck access and circulation is provided, if garbage trucks need to access the project site.
- It is recommended that the school monitor student activities and prohibit students who do not receive a parking lottery to drive to school, even if they are parking off site.

Potential Improvements

- Fair Oaks Avenue south of Maude Avenue could be restriped to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.
- Wolfe Road south of the Central Expressway ramps could be modified to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.

**Table ES-2
Intersection Level of Service Summary – Signalized Intersections**

#	Intersection	Peak Hour	Count	Date	LOS Std.	Existing		Existing plus Project				Background		Background plus Project			
						Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Mathilda Ave & SR 237 WB Ramps	AM*	11/00/15		E	23.8	C	24.3	C	0.3	0.010	61.4	E	62.6	E	0.0	0.000
		School PM	05/16/17			19.8	B-	20.0	B-	0.2	0.003	17.0	B	17.2	B	0.1	0.003
		PM*	11/00/15			20.7	C+	20.8	C+	0.4	0.000	51.2	D-	51.3	D-	0.5	0.000
2	Mathilda Ave & SR 237 EB Ramps	AM*	11/00/15		E	21.9	C+	22.2	C+	0.8	0.010	48.0	D	48.3	D	-0.3	0.000
		School PM	05/16/17			17.7	B	17.7	B	0.1	0.005	25.1	C	25.3	C	0.8	0.004
		PM*	11/00/15			68.2	E	67.2	E	-1.7	0.000	53.6	D-	53.8	D-	0.2	0.010
3	Mathilda Ave & Ross Dr	AM*	11/00/15		E	11.9	B+	12.0	B+	0.4	0.010	11.7	B+	12.0	B+	0.5	0.010
		School PM	05/16/17			16.7	B	16.9	B	0.3	0.004	14.3	B	14.5	B	0.2	0.005
		PM*	11/00/15			39.1	D	39.1	D	0.0	0.000	54.9	D-	55.0	D-	0.0	0.000
4	Mathilda Ave & Almanor Ave	AM	11/00/15		E	24.0	C	29.4	C	5.5	0.053	26.6	C	31.9	C	6.5	0.053
		School PM	05/16/17			21.9	C+	20.9	C+	-3.4	0.016	30.9	C	30.9	C	-0.1	0.008
		PM	11/00/15			27.2	C	27.3	C	0.0	0.002	41.1	D	41.2	D	0.1	0.002
5	Mathilda Ave & San Aleso Ave	AM	11/00/15		E	9.6	A	14.2	B	7.8	0.064	14.0	B	18.6	B-	7.9	0.063
		School PM	05/16/17			9.8	A	10.0	B+	0.0	0.007	9.8	A	10.2	B+	0.1	0.006
		PM	11/00/15			12.9	B	13.5	B	0.0	0.002	16.3	B	17.9	B	15.0	0.040
6	Mathilda Ave & Maude Ave	AM	11/00/15		E	41.6	D	43.2	D	2.2	0.044	50.1	D	54.0	D-	4.1	0.030
		School PM	05/16/17			30.2	C	29.6	C	-0.7	-0.001	34.0	C-	34.1	C-	0.0	0.006
		PM	11/00/15			44.9	D	45.0	D	6.3	0.011	63.1	E	63.5	E	0.5	0.003
7	Mathilda Ave & Indio Ave	AM	11/00/15		E	29.6	C	31.2	C	2.1	0.033	41.6	D	45.6	D	5.7	0.032
		School PM	05/16/17			10.4	B+	10.4	B+	0.0	0.008	10.6	B+	10.7	B+	0.1	0.009
		PM	11/00/15			23.7	C	23.7	C	0.0	0.003	26.2	C	26.4	C	0.2	0.003
8	Mathilda Ave & California Ave	AM	11/00/15		E	25.4	C	25.2	C	-0.2	0.007	30.4	C	30.3	C	0.1	0.008
		School PM	05/16/17			17.6	B	17.4	B	-0.1	0.005	19.1	B-	19.0	B-	-0.1	0.005
		PM	11/00/15			28.5	C	28.4	C	0.0	0.001	35.7	D+	35.7	D+	0.2	0.002
12	Sunnyvale Ave/Borregas Ave & Maude Ave	AM	05/16/17		D	41.1	D	40.8	D	-0.5	0.050	40.7	D	40.7	D	0.0	0.050
		School PM	05/16/17			32.7	C-	32.9	C-	0.4	0.007	32.4	C-	32.6	C-	0.4	0.006
		PM	05/16/17			29.3	C	29.4	C	0.2	0.003	29.8	C	29.9	C	0.2	0.003
16	Fair Oaks Ave & Weddell Dr	AM	04/04/17		D	17.2	B	17.2	B	0.0	0.006	20.4	C+	20.3	C+	0.1	0.003
		School PM	12/02/15			20.0	C+	19.9	B-	0.0	0.003	19.5	B-	19.4	B-	0.0	0.003
		PM	04/04/17			16.5	B	16.5	B	0.1	0.001	18.2	B-	18.2	B-	0.1	0.001
17	Fair Oaks Ave & US 101 NB Ramps	AM	04/04/17		E	23.4	C	23.3	C	0.0	0.000	37.8	D+	37.7	D+	0.0	0.000
		School PM	12/02/15			20.0	C+	19.9	B-	0.0	0.003	22.2	C+	22.1	C+	0.1	0.002
		PM	04/04/17			27.4	C	27.4	C	0.0	0.001	46.3	D	46.4	D	0.3	0.000
18	Fair Oaks Ave & Ahwanee Ave	AM	04/04/17		D	22.3	C+	23.3	C	1.2	0.014	21.7	C+	22.8	C+	1.4	0.015
		School PM	12/02/15			18.2	B-	19.2	B-	0.8	0.012	17.4	B	18.4	B-	0.8	0.012
		PM	04/04/17			13.9	B	14.4	B	0.4	0.005	14.8	B	15.2	B	0.4	0.004
19	Fair Oaks Ave & Duane Ave	AM	04/04/17		D	34.6	C-	34.7	C-	0.8	0.009	33.6	C-	33.9	C-	0.9	0.009
		School PM	12/02/15			30.5	C	30.7	C	0.4	0.006	29.9	C	30.2	C	0.5	0.006
		PM	04/04/17			31.4	C	31.6	C	0.2	0.005	34.5	C-	34.7	C-	0.2	0.002
20	Fair Oaks Ave & Wolfe Rd	AM	04/04/17		D	16.0	B	15.8	B	0.0	0.000	17.3	B	17.1	B	0.0	0.000
		School PM	12/02/15			13.4	B	13.1	B	0.2	0.004	14.0	B	13.8	B	0.1	0.004
		PM	04/04/17			14.1	B	14.1	B	0.0	0.002	15.6	B	15.5	B	0.0	0.002
21	Fair Oaks Ave & Maude Ave	AM	05/16/17		D	27.1	C	27.6	C	0.6	0.033	32.6	C-	33.1	C-	0.9	0.042
		School PM	12/02/15			29.0	C	29.3	C	0.7	0.021	29.1	C	29.5	C	0.8	0.022
		PM	05/16/17			31.2	C	31.4	C	0.3	0.006	32.6	C-	32.9	C-	0.4	0.007
23	Wolfe Rd & Arques Ave	AM	04/04/17		D	40.5	D	40.3	D	-0.1	0.000	41.7	D	41.8	D	0.2	-0.009
		School PM	12/02/15			39.3	D	39.1	D	0.0	0.000	38.8	D+	38.6	D+	-0.1	0.002
		PM	04/04/17			40.4	D	40.3	D	-0.1	0.001	41.0	D	40.9	D	-0.1	0.001
24	Wolfe Rd & Central Expwy Ramps	AM	04/04/17		E	37.9	D+	36.7	D+	16.7	0.071	39.6	D	40.4	D	1.0	0.018
		School PM	12/02/15			41.3	D	41.7	D	0.1	0.011	42.8	D	41.0	D	-3.4	0.010
		PM	04/04/17			62.8	E	63.1	E	0.4	0.004	73.9	E	74.5	E	0.7	0.004

Notes:
* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

Table ES-3
Intersection Level of Service Summary – Unsignalized Intersections

#	Intersection	Control	Peak Hour	Count Date	Existing			Existing plus Project				Background			Background plus Project				
					Delay (sec)	LOS	Signal Warrant Met ³	Delay (sec)	Incr. in LOS	Incr. in V/C	Signal Warrant Met ³	Delay (sec)	LOS	Signal Warrant Met ³	Delay (sec)	Incr. in LOS	Incr. in V/C	Signal Warrant Met ³	
9	San Aleso Ave & Ahwanee Ave	Side-Street Stop ¹	AM	05/16/17	9.7	A	-	14.0	B	4.3	0.356	-	9.7	A	-	14.7	B	5.0	0.370
			School PM	05/16/17	9.3	A	-	11.0	B	1.7	0.205	-	9.4	A	-	11.2	B	1.8	0.209
			PM	05/16/17	10.5	B	-	11.7	B	1.2	0.099	-	10.7	B	-	12.0	B	1.3	0.103
10	Borregas Ave & Ahwanee Ave	All-Way Stop ²	AM	05/16/17	9.0	A	-	9.4	A	0.4	0.015	-	9.2	A	-	9.6	A	0.4	0.016
			School PM	05/16/17	7.9	A	-	8.2	A	0.3	0.078	-	7.9	A	-	8.3	A	0.4	0.078
			PM	05/16/17	9.2	A	-	9.4	A	0.2	0.028	-	9.4	A	-	9.6	A	0.2	0.028
11	Borregas Ave & Duane Ave	Side-Street Stop ¹	AM	05/16/17	11.6	B	-	11.9	B	0.3	0.008	-	11.7	B	-	12.0	B	0.3	0.008
			School PM	05/16/17	10.7	B	-	10.9	B	0.2	0.002	-	10.9	B	-	11.1	B	0.2	0.002
			PM	05/16/17	12.0	B	-	12.1	B	0.1	0.001	-	12.2	B	-	12.3	B	0.1	0.001
13	Morse Ave & Ahwanee Ave	Side-Street Stop ¹	AM	05/16/17	18.5	C	-	21.9	C	3.4	0.058	-	19.3	C	-	23.0	C	3.7	0.060
			School PM	05/16/17	11.3	B	-	11.9	B	0.6	0.017	-	11.4	B	-	12.1	B	0.7	0.018
			PM	05/16/17	11.7	B	-	11.9	B	0.2	0.003	-	11.8	B	-	12.1	B	0.3	0.004
14	Morse Ave & Duane Ave	All-Way Stop ²	AM	05/16/17	10.4	B	-	10.5	B	0.1	0.007	-	10.5	B	-	10.7	B	0.2	0.007
			School PM	05/16/17	8.8	A	-	8.9	A	0.1	0.004	-	9.0	A	-	9.1	A	0.1	0.005
			PM	05/16/17	8.6	A	-	8.6	A	0.0	0.002	-	8.8	A	-	8.8	A	0.0	0.002
15	Morse Ave & Maude Ave	Side-Street Stop ¹	AM	05/16/17	14.5	B	-	15.7	C	1.2	0.035	-	15.8	C	-	17.3	C	1.5	0.038
			School PM	05/16/17	13.2	B	-	13.7	B	0.5	0.014	-	14.2	B	-	14.6	B	0.4	0.015
			PM	05/16/17	16.2	C	-	16.4	C	0.2	0.000	-	17.8	C	-	17.9	C	0.1	0.001
22	Wolfe Rd & Maude Ave	Side-Street Stop ¹	AM	05/25/17	26.5	D	No	28.8	D	2.3	0.008	No	50.3	F	No	56.1	F	5.8	0.016
			School PM	05/25/17	20.4	C	-	21.4	C	1.0	0.003	-	25.4	D	-	26.7	C	1.3	0.004
			PM	05/25/17	50.4	F	Yes	51.7	F	1.3	0.003	Yes	>60	F	Yes	>60	F	2.6	0.003

Notes:

- Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
- Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
- The CAMUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

BOLD indicates unacceptable level of service

1.

Introduction

This report presents the results of the Transportation Impact Analysis (TIA) prepared for the proposed Summit high school located at 824 San Aleso Avenue in Sunnyvale, CA (see Figure 1). The project proposes to re-purpose the existing building on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The project would be accessed via the existing driveways on site (see Figure 2).

Scope of Study

This study was conducted for the purpose of identifying the potential near-term transportation impacts related to the proposed high school project. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), potential long-term traffic impacts have already been studied in the PPSP TIA report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc.

Since the project is estimated to generate more than 100 peak hour trips, the potential impacts of the project were evaluated following the standards and methodologies set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP). The traffic study included an analysis of AM (7-9 AM), PM school (2-4 PM), and PM commute (4-6 PM) peak hour traffic conditions for 24 intersections in the vicinity of the project site. One of the study intersections is a CMP intersection, and seven of the study intersections are unsignalized intersections. The study intersections were selected to include locations where the proposed project is expected to generate 10 or more peak-hour trips per lane.

The Santa Clara County VTA CMP guidelines require that freeway segments be evaluated to determine the impact of added traffic for projects that generate trips equal to or greater than one percent of the freeway segment's capacity. Within the project vicinity, six freeway segments and eight nearby freeway ramps were analyzed following the CMP guidelines.

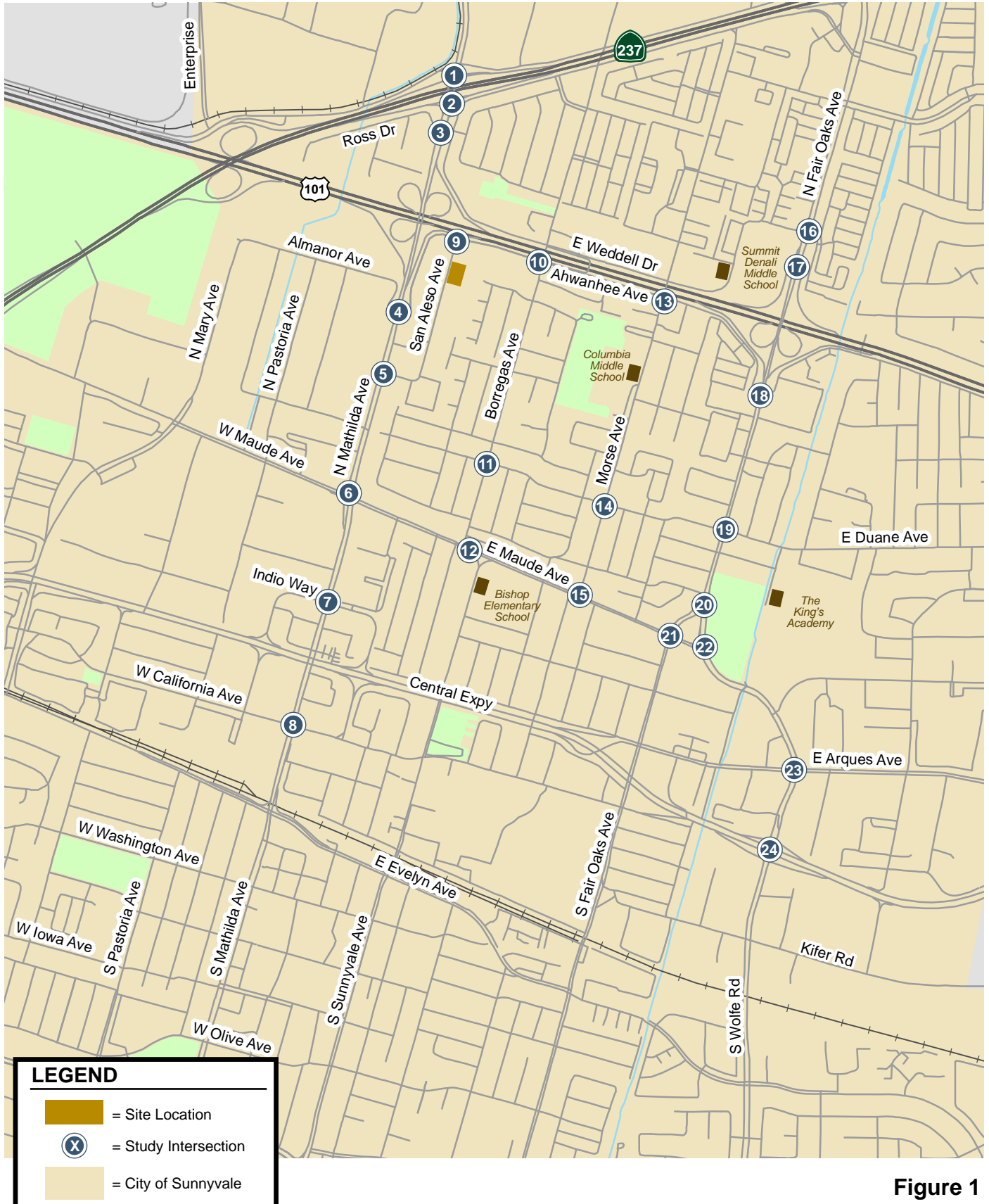
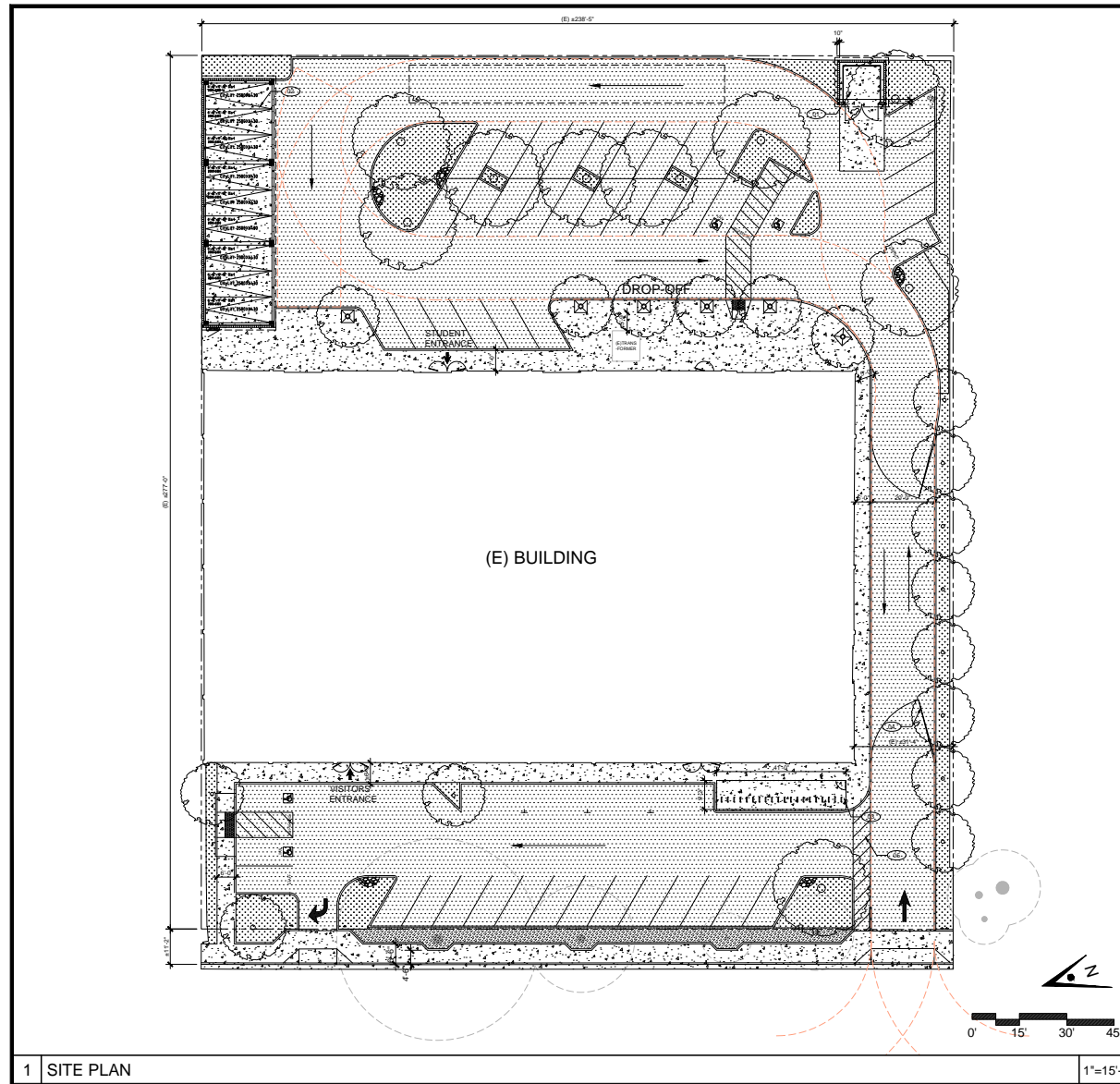


Figure 1
Site Location and Study Intersections

824 San Aleso Ave. Summit High School



PROJECT DATA

PROJECT DATA			
ITEM	ALLOWABLE / REQD.	EXISTING	PROPOSED
ZONING		PP-NEIGHBORHOOD TRANSITION	
LOT SIZE		1.52 ACRE	1.52 ACRE
LOT COVERAGE (40%)		25,416 S.F.	27,383 S.F.
LOT IMPERVIOUS SURFACE AREA		40,470 S.F.	36,425 S.F.
LOT PERVIOUS SURFACE AREA		0 S.F.	4,045 S.F.
F.A.R.	.35	.41	.41
BUILDING AREA (GROSS)		23,174 S.F.	25,070 S.F.
BUILDING AREA (NET)		21,751 S.F.	21,751 S.F.
CAR PARKING	84*	50	76
BICYCLE PARKING	5	0	40

* PER CITY OF SUNNYVALE PARKING REQUIREMENTS, PARKING REQD. FOR HIGH SCHOOL = 0.26 STUDENT NUMBER OF STUDENTS PER GRADE x 150.
 TOTAL NUMBER OF STUDENTS OF SUNNYVALE = 800 (5TH, 11TH, AND 12TH GRADES)
 ASSUMED PARKING REQUIREMENT FOR 8TH GRADE = 3 CLASSROOM (AS REQD. FOR K-8 GRADES)

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Legend

- CONCRETE, REFER TO GRADING PLAN.
- AC PAVING, REFER TO GRADING PLAN.
- PLANTING, REFER TO PLANTING PLAN.
- COBBLE STONES, REFER TO SITE STORM WATER CONTROL PLAN.
- ASSUMED PROPERTY LINE

KEYNOTES

- (1) SOLID WASTE/RECYCLING ENCLOSURE 15'-4" X 14'-0" WITH (2) 30-GD GARBAGE BIN, (1) 30-YD RECYCLING BIN, AND (1) PAPER RECYCLING CART.
- (2) CITY/IFT THREE LEVEL 'PUZZLE' AUTOMATED PARKING LIFT.
- (3) BICYCLE CORRAL 41'-0" X 9'-2" WITH 'WELLE SERIES' BICYCLE RACKS (40) BICYCLE CAPACITY TOTAL.
- (4) 20'-0" WIDE SWING GATES, WITH KNOX BOX
- (5) 5'-0" WIDE PEDESTRIAN CROSS-WALK

Key Plan

Project Title

SUMMIT SAN ALESO

824 SAN ALESO AVENUE
 SUNNYVALE, CA 94085

SUMMIT PUBLIC SCHOOLS

No.	Revisions/Submissions	Date

Drawing Title

PROPOSED SITE PLAN

Regulatory Agency Approval	Architect Seal
File Number	Drawing No.
Application Number	A1.11
Project No.	
Date	

1 SITE PLAN

1"=15'-0"

Figure 2
 Project Site Plan



The study intersections, freeway segments and freeway ramps are listed below.

Study Intersections

1. Mathilda Avenue & SR 237 Westbound Ramps
2. Mathilda Avenue & SR 237 Eastbound Ramps
3. Mathilda Avenue & Ross Drive
4. Mathilda Avenue & Almanor Avenue
5. Mathilda Avenue & San Aleso Avenue
6. Mathilda Avenue & Maude Avenue (CMP)
7. Mathilda Avenue & Indio Avenue
8. Mathilda Avenue & California Avenue
9. San Aleso Avenue & Ahwanee Avenue (unsignalized)
10. Borregas Avenue & Ahwanee Avenue (unsignalized)
11. Borregas Avenue & Duane Avenue (unsignalized)
12. Sunnyvale Avenue/Borregas Avenue & Maude Avenue
13. Morse Avenue & Ahwanee Avenue (unsignalized)
14. Morse Avenue & Duane Avenue (unsignalized)
15. Morse Avenue & Maude Avenue (unsignalized)
16. Fair Oaks Avenue & Weddell Drive
17. Fair Oaks Avenue & US 101 Northbound Ramps
18. Fair Oaks Avenue & Ahwanee Avenue
19. Fair Oaks Avenue & Duane Avenue
20. Fair Oaks Avenue & Wolfe Road
21. Fair Oaks Avenue & Maude Avenue
22. Wolfe Road & Maude Avenue (unsignalized)
23. Wolfe Road & Arques Avenue
24. Wolfe Road & Central Expressway Ramps

Study Freeway Segments

1. US 101, between Lawrence Expressway & Fair Oaks Avenue
2. US 101, between Fair Oaks Avenue & Mathilda Avenue
3. US 101, between Mathilda Avenue & SR 237
4. SR 237, between Lawrence Expressway & Fair Oaks Avenue
5. SR 237, between Fair Oaks Avenue & Mathilda Avenue
6. SR 237, between Mathilda Avenue & US 101

Study Freeway Ramps

1. US 101 & Mathilda Avenue, southbound on-ramp from northbound Mathilda Avenue
2. US 101 & Mathilda Avenue, northbound on-ramp from northbound Mathilda Avenue
3. US 101 & Mathilda Avenue, southbound off-ramp
4. US 101 & Mathilda Avenue, northbound off-ramp to southbound Mathilda Avenue
5. SR 237 & Mathilda Avenue, eastbound on-ramp
6. SR 237 & Mathilda Avenue, westbound on-ramp
7. SR 237 & Mathilda Avenue, eastbound off-ramp
8. SR 237 & Mathilda Avenue, westbound off-ramp

Traffic conditions at the study intersections, freeway segments and freeway ramps were analyzed for the weekday AM and PM peak hours of commute traffic. The study intersections were also analyzed for the PM school peak hour of pick-up activities. In the study area, the AM peak hour is typically between 7:00 AM and 9:00 AM, while the PM commute peak hour is typically between 4:00 PM and 6:00 PM. The PM school peak hour is typically between 2:00 PM and 4:00 PM.

Traffic conditions were evaluated for the following scenarios:

- Scenario 1:** *Existing Conditions.* Existing traffic volumes are based on recent traffic counts conducted between 2016 and 2017 when school was in session and based on Caltrans counts for freeways.
- Scenario 2:** *Background Conditions.* Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet constructed or occupied developments in the study area. Approved project trips and approved project information were obtained from the City of Sunnyvale. In addition, roadway improvements associated with approved developments were assumed as directed by City staff.
- Scenario 3:** *Existing Plus Project Conditions.* Existing plus project conditions were estimated by adding to existing traffic volumes the traffic generated by the project. Trips generated by the existing land uses on the project site were credited based on ITE trip generation rates. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects the project would have on the existing roadway network.
- Scenario 4:** *Background Plus Project Conditions.* Background plus project conditions were estimated by adding to background traffic volumes the traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

According to VTA's CMP TIA guidelines, a scenario analyzing project impacts under cumulative conditions is also required. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), the cumulative project impacts are included in the PPSP TIA document dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc. The project's contribution to the cumulative impacts of the PPSP is discussed in this report.

Methodology

This section describes the methodologies used to determine the traffic conditions for each scenario as described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

Data Requirements

The data required for the analysis were obtained from new traffic counts, previous traffic studies, the City of Sunnyvale, Caltrans records for freeways, field observations, and the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition*. The following data were collected from these sources:

- Existing traffic volumes;
- Existing lane configurations;
- Signal timing and phasing, list of approved projects; and,
- Applicable trip generation rates.

Analysis Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The various analysis methods are described below.

Signalized Study Intersections

The City of Sunnyvale level of service analysis methodology for signalized intersections is the *Highway Capacity Manual* (HCM) 2000 operations method. This method is applied using the TRAFFIX software. The HCM 2000 operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated traffic impact analysis tool, the City of Sunnyvale employs the CMP default values for the analysis parameters within the software.

The Mathilda Avenue intersections at the SR 237 ramps and at Ross Drive are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system during the AM and PM commute peak hours. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations by TRAFFIX. Therefore, Synchro software was used to provide a more accurate assessment of the Mathilda Avenue corridor operational issues. Synchro software was used to analyze these three intersections under all study scenarios during the AM and PM commute peak periods. During the PM school peak hour, traffic conditions are typically better than the AM and PM commute peak hours, and Synchro software was not necessary to accurately assess the operation conditions at these intersections.

The City of Sunnyvale General Plan level of service standard for signalized intersections is LOS D or better, except for intersections on roadways considered to be “regionally significant”, which have a standard of LOS E. In the study area, signalized intersections within Sunnyvale along Mathilda Avenue and ramp junctions at Central Expressway and at US 101 are considered regionally significant.

The correlation between average control delay and level of service is shown in Table 1.

CMP Intersections

The designated level of service analysis methodology for the CMP is also the HCM 2000 operations method for signalized intersections, using TRAFFIX. The CMP level of service standard for signalized intersections within Sunnyvale is LOS E or better.

Unsignalized Study Intersections

The level of service for the unsignalized intersections was evaluated using the HCM 2000 methodology. Level of service for unsignalized (side-street stop-controlled) intersections is evaluated based on the delay experienced by vehicles on the stop-controlled approaches. For two-way or T-intersections, the level of service is reported based on the average delay for the worst approach. For all-way stop-controlled intersections, the level of service is reported based on the average delay for all approaches. The City of Sunnyvale General Plan level of service standard for unsignalized intersections is LOS D or better.

The correlation between delay and level of service for unsignalized intersections is shown in Table 2.

Table 1
Signalized Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B+	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 12.0
B		12.1 to 18.0
B-		18.1 to 20.0
C+	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though many still pass through the	20.1 to 23.0
C		23.1 to 32.0
C-		32.1 to 35.0
D+	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and	35.1 to 39.0
D		39.1 to 51.0
D-		51.1 to 55.0
E+	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 60.0
E		60.1 to 75.0
E-		75.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major-contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *Highway Capacity Manual 2000* (Washington, D.C., 2000) p10-16.

Table 2
Unsignalized Intersection Level of Service Definitions Based on Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Little or no traffic delay	10.0 or less
B	Short Traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, *Highway Capacity Manual 2000* (Washington, D.C., 2000) p17-2.

Traffic Signal Warrant

An assessment of the need for signalization was conducted for the unsignalized intersections. For this study, the need for signalization is assessed on the basis of the peak hour volume signal warrant (Warrant #3) described in the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD). This method provides an indication of whether traffic conditions and peak-hour traffic levels are, or would be, sufficient to justify the installation of a traffic signal. It should be noted that it is just one of the factors/warrants used to indicate whether installation of a traffic control signal is justified.

Freeway Segments

As prescribed in the Santa Clara County CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. Density is calculated by the following formula:

$$D = V / (N * S)$$

Where:

D = density, in vehicles per mile per lane (vpmpl)

V = peak hour volume, in vehicle per hour (vph)

N = number of travel lanes

S = average travel speed, in miles per hour (mph)

The vehicle density on a segment is correlated to level of service as shown in Table 3. The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from high-occupancy vehicle (HOV) lanes (otherwise known as carpool lanes). The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for segments three lanes or wider in one direction, and a capacity of 2,200 vphpl be used for segments two lanes wide in one direction. HOV lanes are specified as having a capacity of 1,650 vphpl. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

Freeway Ramps

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. This analysis consisted of a volume-to-capacity ratio evaluation of the freeway ramps at the study interchanges. The ramp capacities were obtained from the *Highway Capacity Manual 2000*, and considered the free-flow speed, number of lanes on the ramp, and the ramp metering. Hexagon observed the study freeway ramps in May 2017 and observed that some on-ramps are metered during certain peak periods. For the metered on-ramps during the metered periods, a queuing analysis was performed to determine the adequacy of ramp queue space under project conditions.

Table 3
Freeway Segment Level of Service Definitions

Level of Service	Description	Density (vehicles/mile/lane)
A	Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	11.0 or less
B	Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.	11.0 to 18.0
C	Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver.	18.0 to 26.0
D	Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.	26.0 to 46.0
E	At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream.	46.0 to 58.0
F	Vehicular flow breakdowns occurs. Large queues form behind breakdown points.	greater than 58.0

Source: Santa Clara County Valley Transportation Authority, Transportation Impact Analysis Guidelines, Updated March 2009 (Based on the *Highway Capacity Manual (2000)*, Washington, D.C.)

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine significant impacts on signalized and unsignalized intersections as well as freeway facilities are based on the City of Sunnyvale and VTA's CMP level of service standards.

The effects of the project on other transportation facilities, such as bicycle facilities and transit service, were determined on the basis of engineering judgment.

Definition of Significant Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of Sunnyvale if for the study peak hour:

1. The level of service at the intersection drops below its respective level of service standard when project traffic is added; or,
2. An intersection that operates below its level of service standard under no project conditions experiences an increase in critical-movement delay of four (4) or more seconds, *and* the critical volume-to-capacity ratio (V/C) is increased by 0.01 or more when project traffic is added.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical V/C value by 0.01 or more.

The operation of principal arterials and state highways located within urbanized Santa Clara County is measured by the level of service at CMP Intersections. CMP intersections are generally high-volume intersections located along these thoroughfares. The definition of a significant impact at a CMP intersection is the same as for the City of Sunnyvale, except that the standard for acceptable level of service for all CMP and regional intersections is LOS E or better.

A significant impact by the City of Sunnyvale and CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to its LOS standard *or* to an average delay that eliminates the project impact.

Unsignalized Intersections

Level of service analysis at unsignalized intersections is generally used to determine the need for modification in type of intersection control (i.e. all-way stop or signalization). As part of this evaluation, traffic volumes, delays, and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

Per City of Sunnyvale guidelines, for determining the level of service for unsignalized intersections, the average intersection delay is used for all-way stop controlled intersections, and the worst movement delay is used for side-street stop-controlled intersections. Project impacts at City's unsignalized intersections would be considered significant if the intersection satisfies the CA MUTCD peak-hour volume signal warrant under project conditions and one of the following criteria is met:

1. If an intersection operates at an acceptable LOS (i.e. D or better) without the project and degrades to an unacceptable LOS (i.e. LOS E or F) with the addition of project traffic.
2. If an unsignalized intersection operates at an unacceptable LOS (i.e. LOS E or F) without the project and the addition of project traffic increases:
 - a. The average intersection delay by four (4) seconds or more, and the volume-to-capacity value by 0.01 or more for all-way stop controlled intersections; or
 - b. The worst movement delay by four (4) seconds or more, and the volume-to-capacity value by 0.01 or more for side-street stop controlled intersections.

Definition of Significant Freeway Impacts

For this analysis, the criteria used to determine impacts on freeway segments are based on CMP standards. Per CMP requirements, freeway impacts are measured relative to existing conditions (i.e. there is no evaluation of freeways under background conditions). The project is said to create a significant adverse impact on traffic conditions on a freeway segment if for either peak hour:

1. The level of service of the freeway segment drops below the LOS E standard when project traffic is added; or,
2. The level of service of the freeway segment is LOS F under existing conditions and the number of new trips added by the project is more than one percent of the freeway capacity.

Definition of Significant Freeway Ramp Impacts

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. For the purpose of this study, the project is said to create a significant adverse impact on a freeway ramp if its implementation:

1. Causes the volume-to-capacity (V/C) ratio of the freeway ramp to exceed 1.0; or
2. Increases the amount of traffic on a freeway ramp that is already exceeding its capacity by more than one percent (1%) of the ramp's capacity.

Report Organization

This report has a total of six chapters. Chapter 2 describes the existing conditions, including the existing roadway network, transit service, bicycle facilities, and pedestrian facilities. Chapter 3 presents the traffic conditions in the study area under background conditions. Chapter 4 describes the methods used to estimate the project traffic on the roadway network and presents the intersection operations under existing plus project and background plus project conditions. Chapter 5 provides an evaluation of other transportation related issues for the proposed project, such as vehicle queuing, potential project impacts on bicycle, pedestrian, and transit facilities, site access and circulation, and parking. Chapter 6 presents the traffic study conclusions, including a summary of any proposed mitigation measures and recommended improvements.

2. Existing Conditions

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the project site, including the roadway network, transit service, and bicycle and pedestrian facilities. Also included are the existing levels of service of the study intersections.

Existing Roadway Network

Regional access to the project study area is provided by US 101 and SR 237. These facilities are described below.

US 101 is an eight-lane freeway (three mixed-flow lanes and one HOV lane in each direction) in the vicinity of the site. US 101 extends northward through San Francisco and southward through Gilroy. Access to and from the project area is provided via interchanges at Fair Oaks Avenue and Mathilda Avenue.

SR 237 is a four to six-lane freeway in the vicinity of the project site that extends west to El Camino Real (Route 82) and east to I-880 in Milpitas. East of Mathilda Avenue, SR 237 has two mixed-flow lanes and one HOV lane in each direction. West of Mathilda Avenue, SR 237 has two mixed-flow lanes in each direction. SR 237 provides access to the project study area via an interchange at Mathilda Avenue.

Local access to the project site is provided via Mathilda Avenue, Fair Oaks Avenue, Central Expressway, San Aleso Avenue, Ahwanee Avenue, Maude Avenue, Duane Avenue, Borregas Avenue, and Morse Avenue. These roadways are described below.

Mathilda Avenue is a six-lane to eight-lane arterial running north-south. In the study area Mathilda Avenue has four lanes southbound and three lanes northbound. Mathilda Avenue begins at Caribbean Drive in the north, extends southward, and transitions into Sunnyvale-Saratoga Road. Freeway interchanges are located at US 101 and SR 237. Mathilda Avenue provides access to the project site via San Aleso Avenue.

Fair Oaks Avenue is a four-lane to six-lane, north-south arterial. Fair Oaks Avenue begins at Java Drive north of SR 237 and extends southward, and transitions into Remington Drive at its junction with El Camino Real. Fair Oaks Avenue has a full-access freeway interchange with US 101. North of US 101, Fair Oaks Avenue has a raised center median. North of Tasman Drive, light rail runs within the center median of Fair Oaks Avenue.

Central Expressway is a four-lane to six-lane expressway running east-west. In the study area, Central Expressway has two eastbound lanes and two westbound lanes. It begins at Trimble Road in the east, crosses Sunnyvale, extends westward and transitions into Alma Street. Central Expressway connects to Wolfe Road and Mathilda Avenue in the project vicinity.

San Aleso Avenue is a two-lane local road that begins at Mathilda Avenue and ends at Ahwanee Avenue. San Aleso Avenue provides direct access to the project site.

Ahwanee Avenue is a two-lane, east-west collector that begins at Mathilda Avenue and ends just before Lawrence Expressway. West of Mathilda Avenue, Ahwanee Avenue transitions into Almanor Avenue, which eventually turns into the north-south running Mary Avenue. Ahwanee Avenue provides access to the project site via San Aleso Avenue.

Maude Avenue is a two-lane to four-lane collector running east-west. Maude Avenue begins at Wolfe Road and ends at Logue Avenue. Maude Avenue is a four-lane roadway between SR 237 and Mathilda Avenue and a two-lane roadway elsewhere.

Duane Avenue is a two-lane, east-west collector that begins at Lawrence Expressway and ends just before Mathilda Avenue.

Borregas Avenue is a two-lane, north-south collector that begins at Maude Avenue and ends at Ahwanee Avenue. Borregas Avenue links to a bicycle and pedestrian overpass that crosses US 101.

Morse Avenue is a two-lane, north-south local road that begins at Ahwanee Avenue and ends at Fair Oaks Way.

Existing Bicycle Facilities

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths (Class I facilities) are pathways, separate from roadways that are designated for use by bicycles. Often, these pathways also allow pedestrian access. Bike lanes (Class II facilities) are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes (Class III) are existing right-of-way that accommodate bicycles but are not separate from the existing travel lanes. Routes are typically designated only with signs. Existing bicycle facilities within the project vicinity are described below and shown on Figure 3.

Within the project vicinity, the John W. Christian Greenbelt Trail is an east-west running Class I bike path north of US 101. It extends eastward from Borregas Avenue to the Calabazas Creek Trail. There is also a pedestrian/bicycle bridge connecting Borregas Avenue across US 101.

The following roadways have Class II bike lanes:

- Mary Avenue, between Almanor Avenue and Maude Avenue
- Mathilda Avenue between Del Rey Avenue and Almanor Avenue (northbound only)
- Mathilda Avenue between Washington Avenue and Del Rey Avenue
- Borregas Avenue
- Wolfe Road, between Old San Francisco Road and Fair Oaks Avenue
- Fair Oaks Avenue, between Evelyn Avenue and Kifer Road
- Almanor Avenue, between Mary Avenue and Vaqueros Avenue
- Maude Avenue, between SR (CA) 237 Service Road and Borregas Avenue (except on eastbound Maude Avenue between Pastoria Avenue and Mathilda Avenue)
- Morse Avenue north of Weddell Drive
- Tasman Drive, between Morse Avenue and Fair Oaks Avenue
- Weddell Drive, between Morse Avenue and Fair Oaks Avenue
- Duane Avenue east of Fair Oaks Avenue
- Stewart Drive
- Arques Avenue/Scott Boulevard
- Evelyn Avenue
- Kifer Road, between Fair Oaks Avenue and Lawrence Expressway

Within the project vicinity, Central Expressway, Lawrence Expressway, Maude Avenue west of Borregas Avenue, Fair Oaks Avenue north of Weddell Drive, Wolfe Road between El Camino Real and Old San Francisco Road, and Mary Avenue south of Maude Avenue are City-designated Class III bike routes.

Existing Pedestrian Facilities

Within the project vicinity, sidewalks and crosswalks are present along most sections of roadways. As shown on Figure 4, sidewalks and crosswalks are missing along only selected sections of the roadways. Along San Aleso Avenue, which is the roadway fronting the project site, sidewalk is mostly missing on the east side of the street south of the project site. Sidewalk is missing on the west side of San Aleso Avenue around the roadway bend south of the Larkspur Landing hotel. There is a pedestrian/bicycle bridge connecting Borregas Avenue across US 101. At the intersection of Borregas Avenue and Ahwanee Avenue, which is the southern end of the pedestrian bridge, white ladder crosswalks are present across the east, west and south legs, increasing pedestrian visibility to oncoming traffic. At the intersection of Borregas Avenue and Weddell Drive, which is the northern end of the pedestrian bridge, white ladder crosswalk is present across only the west leg. As discussed above, the John W. Christian Greenbelt Trail is a pedestrian/bicycle trail that extends eastward from Borregas Avenue to the Calabazas Creek Trail.

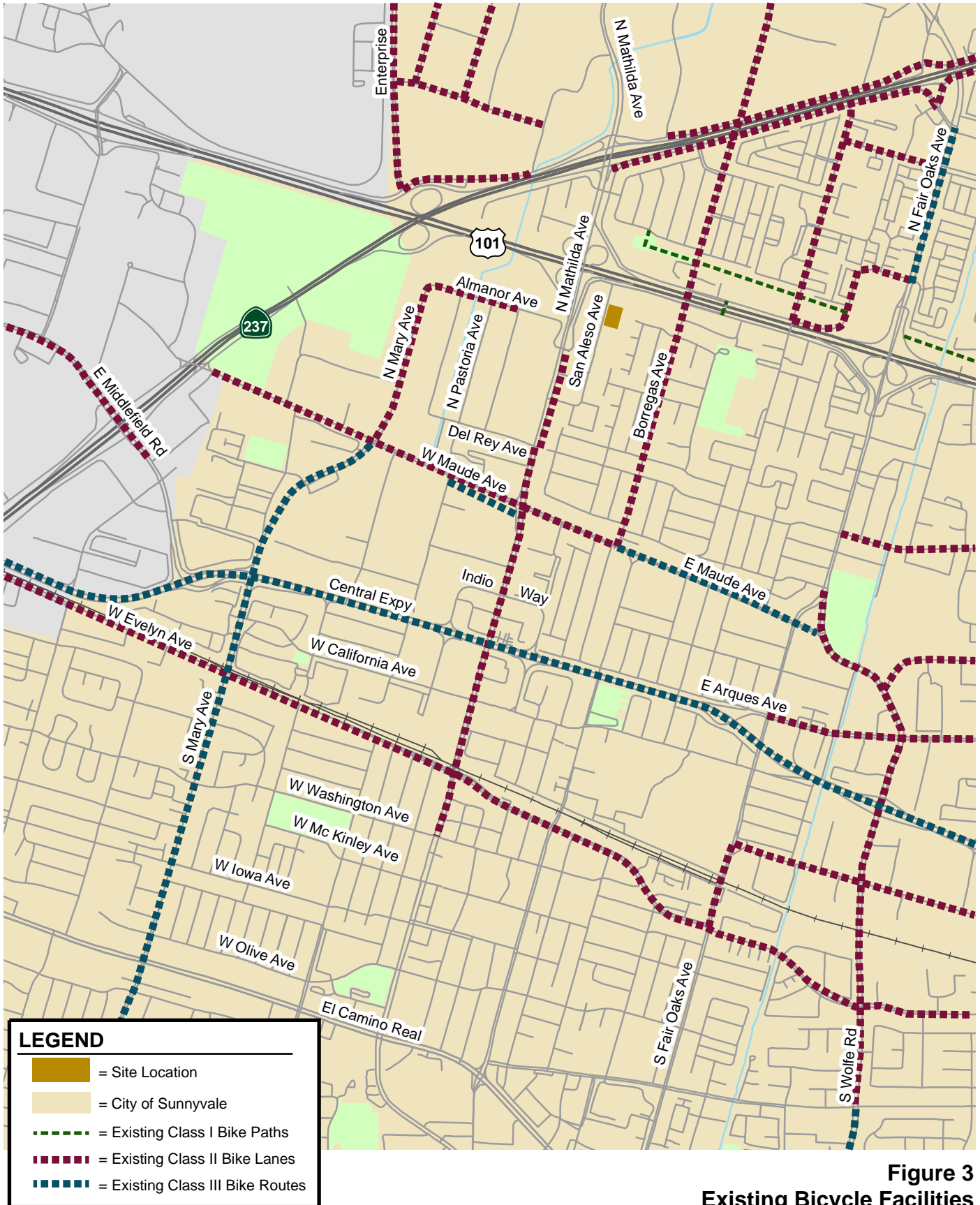


Figure 3
Existing Bicycle Facilities



LEGEND




-  = Site Location
-  = Sidewalk Missing
-  = Crosswalk Missing

Figure 4
Existing Pedestrian Facilities

Existing Transit Service

Existing transit service to the study area is provided by VTA and Caltrain. These services are described below and shown on Figure 5.

VTA Bus Service

The nearest VTA bus stops to the project site are located along Mathilda Avenue between San Aleso Avenue and Ahwanee Avenue, approximately 1,700 feet from the project area. This bus stop is serviced by VTA Bus Route 54. Route 54 travels from De Anza College to the Lockheed Martin/Moffett Industrial Park with headways of approximately 30 minutes on weekdays between 6 AM and 9 PM.

Route 55 travels from De Anza College to Great America and stops at the Sunnyvale Transit Center with approximately 15-minute headways during peak commute hours and 30-minute headways during off-peak hours. Within the project vicinity, Bus Route 55 has a stop at the intersection of Sunnyvale Avenue and Maude Avenue. This bus stop is located approximately one mile from the project site, which is within biking distance. There are bike lanes along most sections of this bike route.

Route 26 travels from the Lockheed Martin Transit Station to the Eastridge Transit Center with approximately 30-minute headways between 5 AM and 10 PM. Within the project vicinity, Bus Route 26 has a stop at the intersection of Fair Oaks Avenue and Maude Avenue. This bus stop is located approximately 1.5 miles from the project site, which is within biking distance. There are bike lanes along most sections of this bike route.

Light Rail Transit (LRT) Service

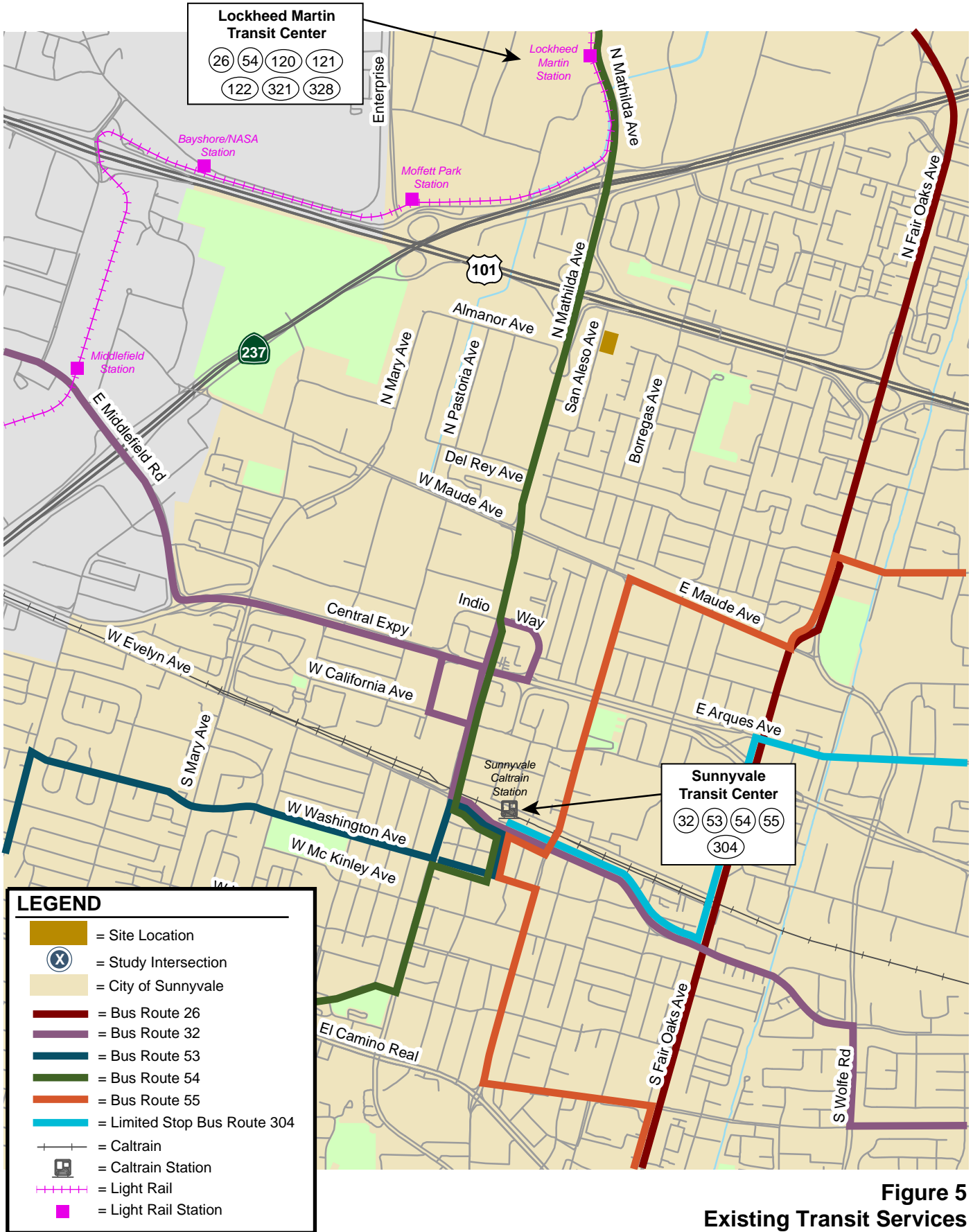
The VTA currently operates the 42.2-mile VTA light rail transit (LRT) line system extending from south San Jose through downtown to the northern areas of San Jose, Santa Clara, Mountain View, Milpitas, Campbell, and Sunnyvale. Service operates 21 hours per day, every 15 minutes during much of the day. There are two LRT stations that are both located approximately the same distance (1.5 miles) from the project site: the Fair Oaks LRT station and the Lockheed Martin LRT station. The Lockheed Martin station is served by Bus Route 54 to and from the project site but lacks continuous pedestrian facilities to the project site. There are continuous pedestrian facilities between the project site and the Fair Oaks LRT station via the Borregas pedestrian overpass over US 101, but there are no direct bus services.

Caltrain Service

Caltrain provides commuter rail service between San Francisco and San Jose, with limited service to Gilroy during commute hours. The closest Caltrain station to the project site is the Sunnyvale Station. The Sunnyvale Station is located approximately 1.5 miles south of the project site. While there are no Caltrain shuttles that connect to the Sunnyvale Station, Caltrain riders can connect to the project site via VTA Bus Route 54.

During the morning peak period from 6:00-9:00 AM, the Sunnyvale Station is served by three baby bullet (express) and nine limited-stop northbound trains with headways between five and thirty minutes. A total of four southbound trains, two local-stop and two limited-stop, serve the Sunnyvale Station in the AM peak period with headways between 30 and 70 minutes. In the PM commute peak period between 4:00 and 7:00 PM, the station is served by two baby bullet, six limited-stop, and one local-stop southbound trains with headways between five and thirty-five minutes. There are three limited-stop northbound trains with approximately one hour headways during the PM commute peak period. During the PM school peak period between 2:00 and 4:00 PM, the station is served by two limited-stop and two local-stop trains in the northbound direction and one limited-stop and two local-stop trains in the southbound direction.

824 San Aleso Ave. Summit High School



Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were confirmed by observations in the field and are shown on Figure 6.

Existing Traffic Volumes

Existing traffic volumes were obtained from traffic counts conducted in 2016 and 2017 (Tables 4 and 5 below show the intersection count dates). The existing AM and PM peak hour intersection volumes are shown graphically on Figure 7. The traffic count data are included in Appendix A.

Existing Intersection Levels of Service

Intersection levels of service were evaluated against the City of Sunnyvale and CMP standards (see Tables 4 and 5). The results of the analysis show that all study intersections currently operate at acceptable levels during all study periods, except the unsignalized intersection at Wolfe Road and Maude Avenue currently operates at an unacceptable LOS F for the worst movement during the PM commute peak hour. Signal warrants were checked at this intersection under existing conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour. Because the remaining unsignalized intersections are currently operating at acceptable levels, peak hour signal warrants were not checked. The intersection level of service calculation sheets are included in Appendix B.

The Mathilda Avenue intersections at the SR 237 ramps and at Ross Drive are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system during the AM and PM commute peak hours. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations by TRAFFIX. Therefore, Synchro software was used to provide a more accurate assessment of the Mathilda Avenue corridor operational issues. Synchro software was used to analyze these three intersections under all study scenarios during the AM and PM commute peak periods. During the PM school peak hour, traffic conditions are typically better than the AM and PM commute peak hours, and Synchro software was not necessary to accurately assess the operation conditions at these intersections. The Synchro analysis results for the intersections along Mathilda Avenue at the SR 237 ramps and at Ross Drive are shown on Table 4.

Table 4
Existing Intersection Level of Service Summary – Signalized Study Intersections

#	Intersection	Peak Hour	Count Date	LOS Std.	Existing	
					Avg. Delay (sec)	LOS
1	Mathilda Ave & SR 237 WB Ramps	AM *	11/00/15	E	23.8	C
		School PM	05/16/17		19.8	B-
		PM *	11/00/15		20.7	C+
2	Mathilda Ave & SR 237 EB Ramps	AM *	11/00/15	E	21.9	C+
		School PM	05/16/17		17.7	B
		PM *	11/00/15		68.2	E
3	Mathilda Ave & Ross Dr	AM *	11/00/15	E	11.9	B+
		School PM	05/16/17		16.7	B
		PM *	11/00/15		39.1	D
4	Mathilda Ave & Almanor Ave	AM	11/00/15	E	24.0	C
		School PM	05/16/17		21.9	C+
		PM	11/00/15		27.2	C
5	Mathilda Ave & San Aleso Ave	AM	11/00/15	E	9.6	A
		School PM	05/16/17		9.8	A
		PM	11/00/15		12.9	B
6	Mathilda Ave & Maude Ave	AM	11/00/15	E	41.6	D
		School PM	05/16/17		30.2	C
		PM	11/00/15		44.9	D
7	Mathilda Ave & Indio Ave	AM	11/00/15	E	29.6	C
		School PM	05/16/17		10.4	B+
		PM	11/00/15		23.7	C
8	Mathilda Ave & California Ave	AM	11/00/15	E	25.4	C
		School PM	05/16/17		17.6	B
		PM	11/00/15		28.5	C
12	Sunnyvale Ave/Borregas Ave & Maude Ave	AM	05/16/17	D	41.1	D
		School PM	05/16/17		32.7	C-
		PM	05/16/17		29.3	C
16	Fair Oaks Ave & Weddell Dr	AM	04/04/17	D	17.2	B
		School PM	12/02/15		20.0	C+
		PM	04/04/17		16.5	B
17	Fair Oaks Ave & US 101 NB Ramps	AM	04/04/17	D	23.4	C
		School PM	12/02/15		20.0	C+
		PM	04/04/17		27.4	C
18	Fair Oaks Ave & Ahwanee Ave	AM	04/04/17	D	22.3	C+
		School PM	12/02/15		18.2	B-
		PM	04/04/17		13.9	B
19	Fair Oaks Ave & Duane Ave	AM	04/04/17	D	34.6	C-
		School PM	12/02/15		30.5	C
		PM	04/04/17		31.4	C
20	Fair Oaks Ave & Wolfe Rd	AM	04/04/17	D	16.0	B
		School PM	12/02/15		13.4	B
		PM	04/04/17		14.1	B
21	Fair Oaks Ave & Maude Ave	AM	05/16/17	D	27.1	C
		School PM	12/02/15		29.0	C
		PM	05/16/17		31.2	C
23	Wolfe Rd & Arques Ave	AM	04/04/17	D	40.5	D
		School PM	12/02/15		39.3	D
		PM	04/04/17		40.4	D
24	Wolfe Rd & Central Expwy Ramps	AM	04/04/17	E	37.9	D+
		School PM	12/02/15		41.3	D
		PM	04/04/17		62.8	E

Notes:

* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

Table 5
Existing Intersection Level of Service Summary – Unsignalized Study Intersections

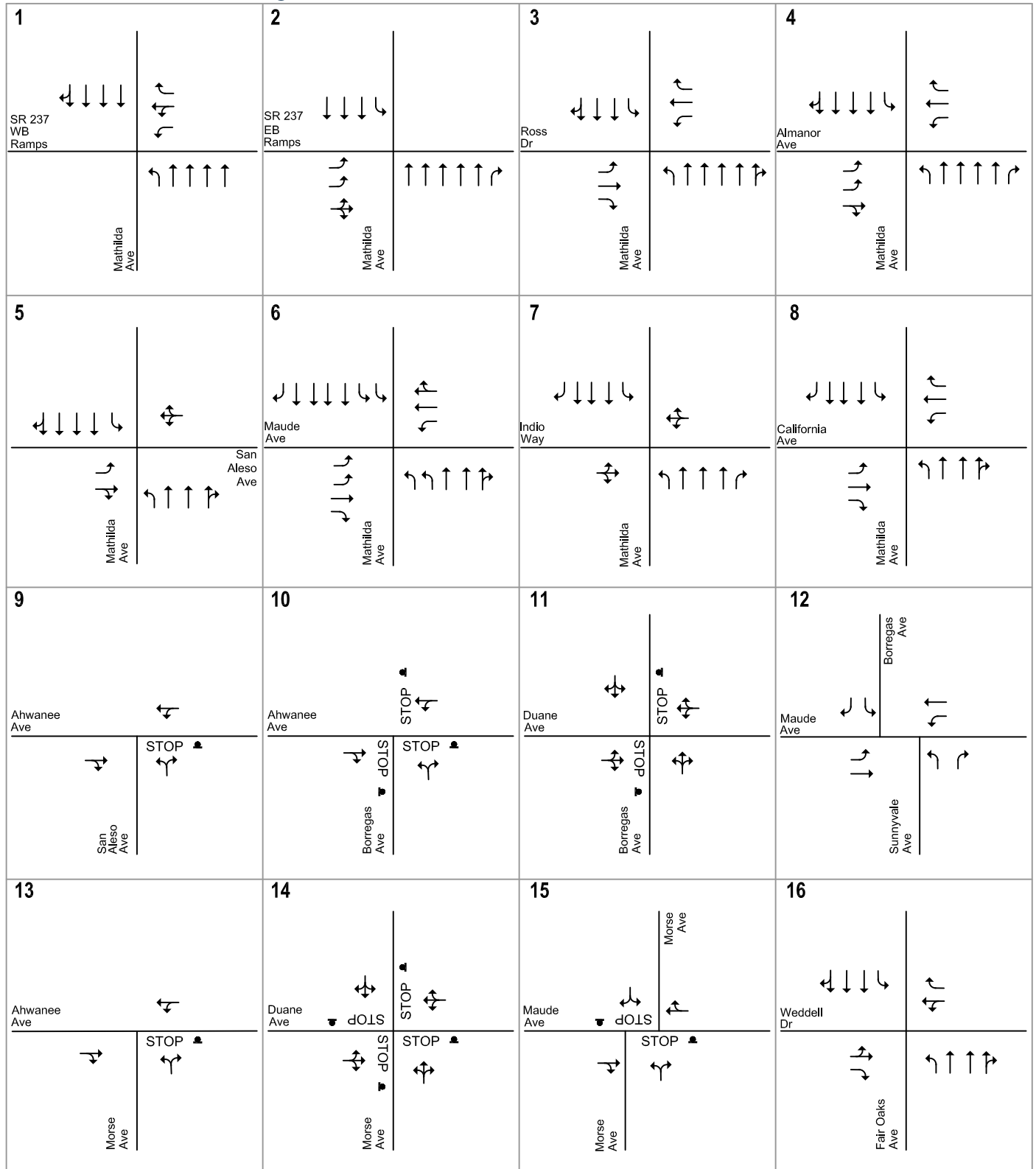
#	Intersection	Control	Peak Hour	Count Date	Existing		
					Delay (sec)	LOS	Signal Warrant Met ³
9	San Aleso Ave & Ahwanee Ave	Side-Street Stop ¹	AM	05/16/17	9.7	A	
			School PM	05/16/17	9.3	A	-
			PM	05/16/17	10.5	B	
10	Borregas Ave & Ahwanee Ave	All-Way Stop ²	AM	05/16/17	9.0	A	
			School PM	05/16/17	7.9	A	-
			PM	05/16/17	9.2	A	
11	Borregas Ave & Duane Ave	Side-Street Stop ¹	AM	05/16/17	11.6	B	
			School PM	05/16/17	10.7	B	-
			PM	05/16/17	12.0	B	
13	Morse Ave & Ahwanee Ave	Side-Street Stop ¹	AM	05/16/17	18.5	C	
			School PM	05/16/17	11.3	B	-
			PM	05/16/17	11.7	B	
14	Morse Ave & Duane Ave	All-Way Stop ²	AM	05/16/17	10.4	B	
			School PM	05/16/17	8.8	A	-
			PM	05/16/17	8.6	A	
15	Morse Ave & Maude Ave	Side-Street Stop ¹	AM	05/16/17	14.5	B	
			School PM	05/16/17	13.2	B	-
			PM	05/16/17	16.2	C	
22	Wolfe Rd & Maude Ave	Side-Street Stop ¹	AM	05/25/17	26.5	D	No
			School PM	05/25/17	20.4	C	-
			PM	05/25/17	50.4	F	Yes

Notes:

1. Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
2. Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections
3. The CA MUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

BOLD indicates unacceptable level of service

824 San Aleso Ave. Summit High School

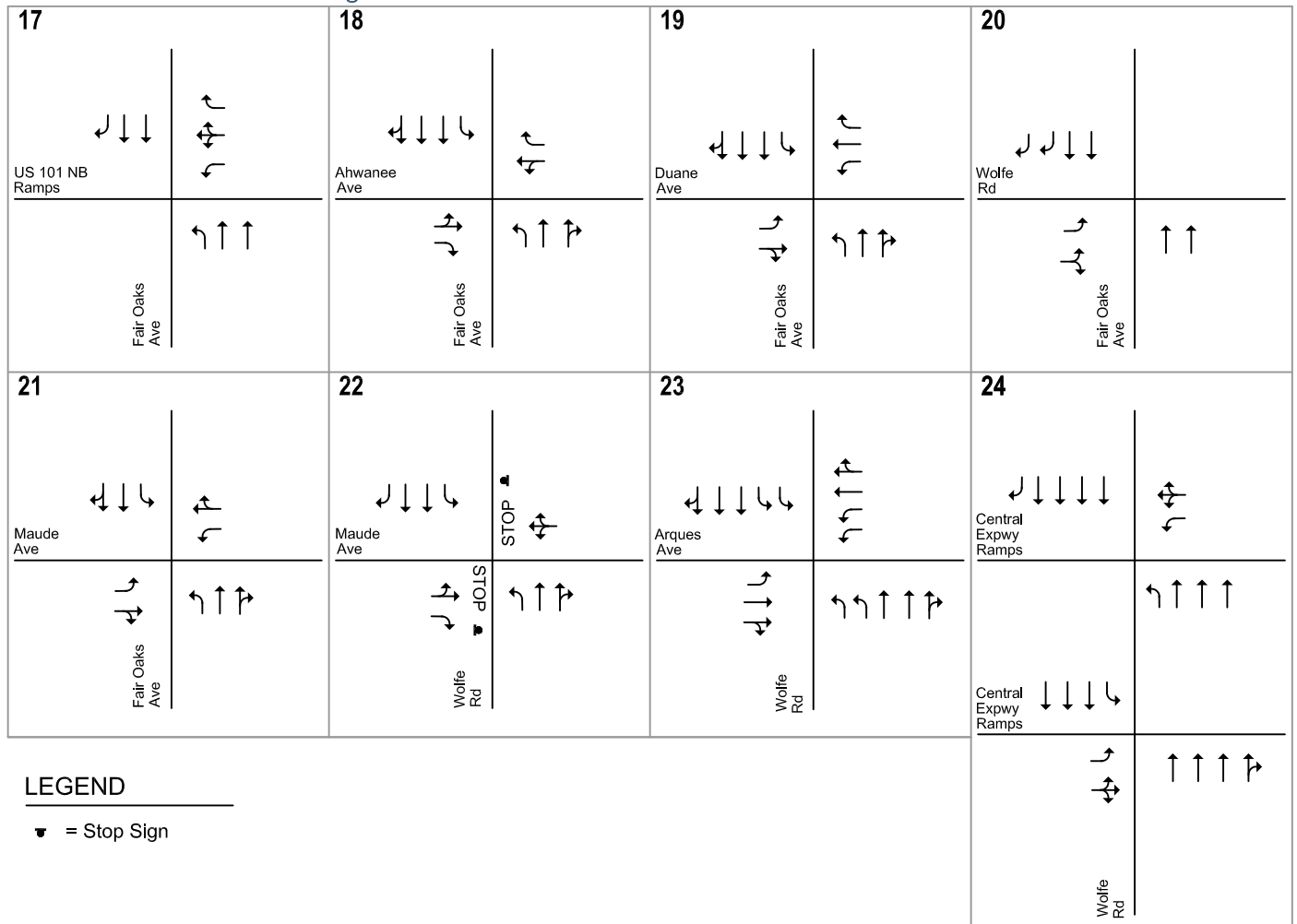


LEGEND

▼ = Stop Sign

Figure 6
Existing Intersection Lane Configurations

824 San Aleso Ave. Summit High School

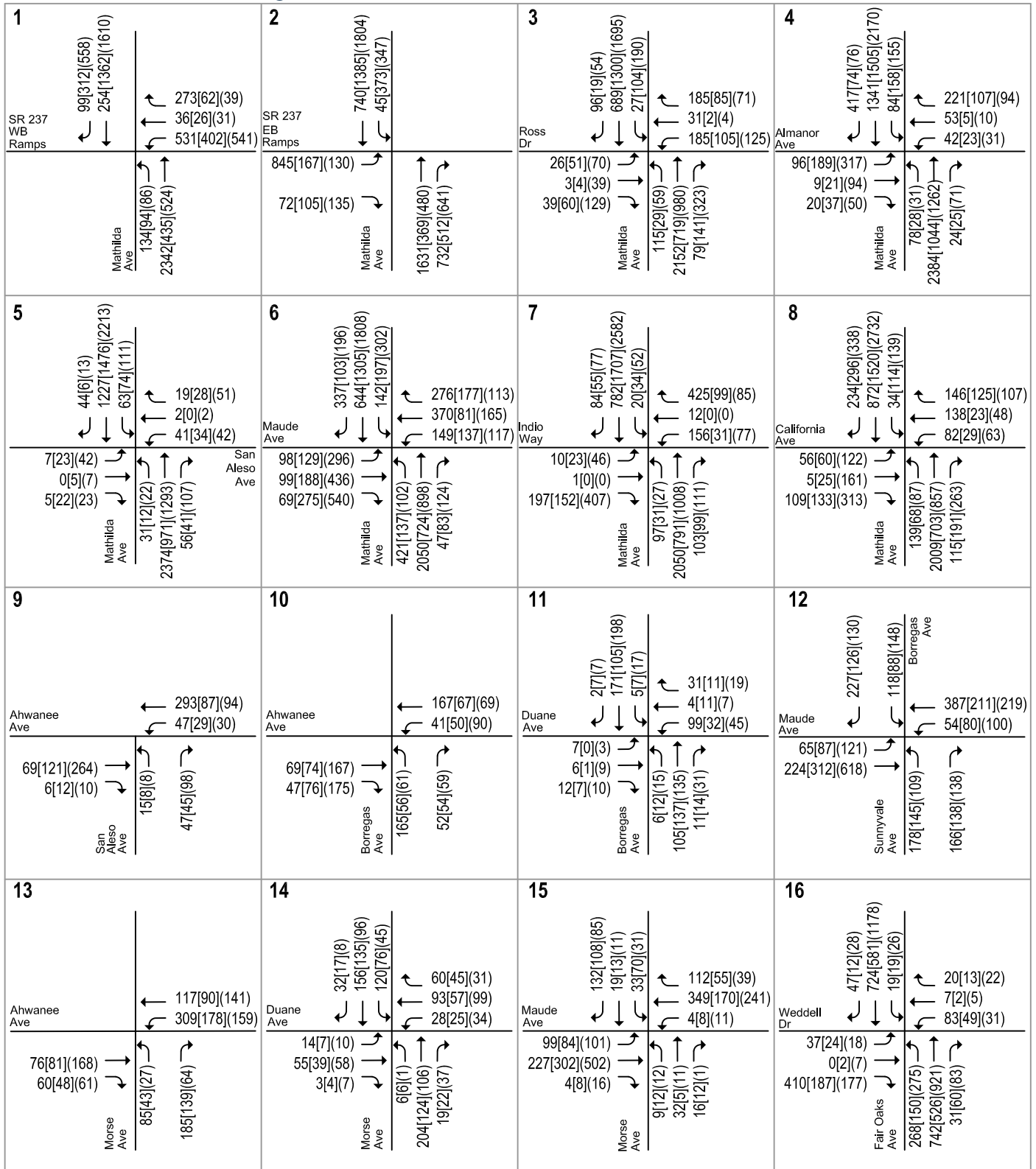


LEGEND

▼ = Stop Sign

Figure 6
Existing Intersection Lane Configurations

824 San Aleso Ave. Summit High School



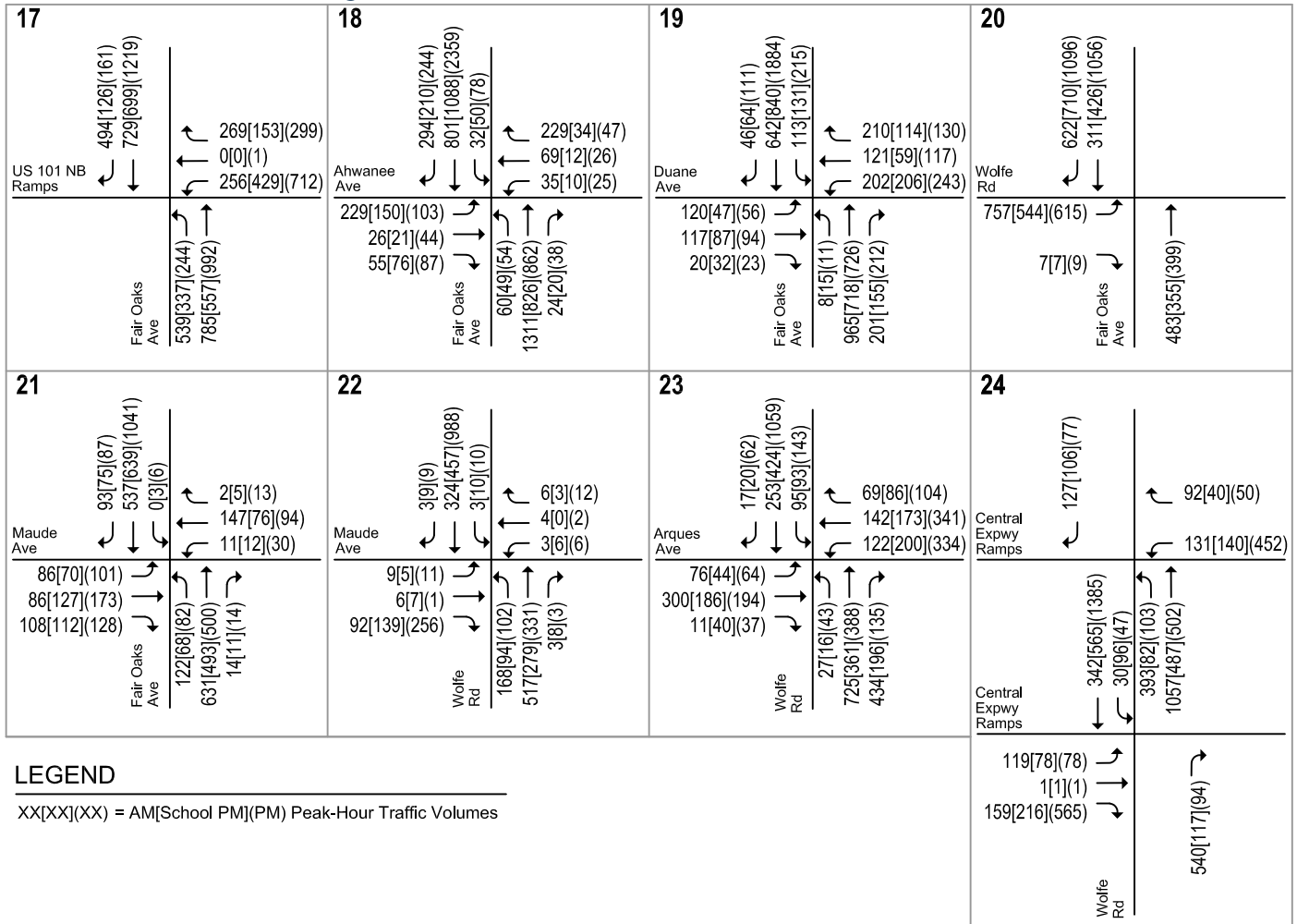
LEGEND

XXXX = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 7
Existing Traffic Volumes



824 San Aleso Ave. Summit High School



LEGEND

XXXX = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 7
Existing Traffic Volumes

Existing Freeway Level of Service

Existing weekday AM and PM peak hour traffic volumes on the study freeway segments were obtained from the *Santa Clara VTA 2016 Monitoring and Conformance Report*. The existing freeway level of service during the weekday AM and PM peak hours of traffic are summarized in Table 6. The mixed-flow lanes on the following directional study freeway segments currently operate at LOS F during either the AM or PM peak hour:

- US 101, northbound from Lawrence Expressway to Fair Oaks Avenue (AM Peak Hour)
- US 101, northbound from Mathilda Avenue to SR 237 (AM Peak Hour)
- US 101, southbound from SR 237 to Lawrence Expressway (PM Peak Hour)
- SR 237, eastbound from US 101 to Lawrence Expressway (PM Peak Hour)
- SR 237, westbound from Lawrence Expressway to Mathilda Avenue (AM Peak Hour)
- SR 237, westbound from Lawrence Expressway to US 101 (PM Peak Hour)

Table 6
Existing Freeway Level of Service Summary

Freeway Segment	Dir.	Peak Hour	Existing Conditions - Mixed Flow Lanes ¹				LOS
			Ave. Speed	Lanes	Capacity	Volume	
US 101 Lawrence Expwy. to Fair Oaks Ave.	NB	AM	33	3	6,900	5,940	F
		PM	66	3	6,900	4,760	C
US 101 Fair Oaks Ave. to Mathilda Ave.	NB	AM	43	3	6,900	6,330	E
		PM	66	3	6,900	4,760	C
US 101 Mathilda Ave. to SR 237	NB	AM	28	3	6,900	5,630	F
		PM	39	3	6,900	6,210	E
US 101 SR 237 to Mathilda Ave.	SB	AM	66	3	6,900	4,560	C
		PM	18	3	6,900	4,700	F
US 101 Mathilda Ave. to Fair Oaks Ave.	SB	AM	66	3	6,900	4,760	C
		PM	25	3	6,900	5,400	F
US 101 Fair Oaks Ave. to Lawrence Expwy.	SB	AM	66	3	6,900	5,510	D
		PM	16	3	6,900	4,420	F
SR 237 US 101 to Mathilda Ave.	EB	AM	55	2	4,400	4,400	D
		PM	9	2	4,400	2,180	F
SR 237 Mathilda Ave. to Fair Oaks Ave.	EB	AM	64	2	4,400	4,230	D
		PM	14	2	4,400	2,800	F
SR 237 Fair Oaks Ave. to Lawrence Expwy.	EB	AM	64	2	4,400	4,230	D
		PM	10	2	4,400	2,300	F
SR 237 Lawrence Expwy. to Fair Oaks Ave.	WB	AM	15	2	4,400	2,850	F
		PM	32	2	4,400	3,910	F
SR 237 Fair Oaks Ave. to Mathilda Ave.	WB	AM	18	3	6,900	4,810	F
		PM	19	3	6,900	4,790	F
SR 237 Mathilda Ave. to US 101	WB	AM	41	2	4,400	4,190	E
		PM	20	2	4,400	3,280	F

Notes:

- Existing freeway conditions referenced the *Santa Clara VTA 2016 Monitoring and Conformance Report*, dated February 2, 2017. **BOLD** indicates a substandard level of service.

Existing Freeway Ramp Capacity Analysis

This analysis consists of a volume-to-capacity ratio evaluation of eight freeway ramps at the interchanges of US 101 and Mathilda Avenue and SR 237 and Mathilda Avenue. The ramp capacities were obtained from the *Highway Capacity Manual 2000*, which considers both the free-flow speed and the number of lanes on the study ramps.

Hexagon conducted field observations at all on ramps in May 2017, and found that the US 101 southbound on-ramp from northbound Mathilda Avenue was metered during the PM peak hour. The US 101 northbound on-ramp from northbound Mathilda Avenue and the SR 237 westbound on-ramp both have ramp meter equipment, and Caltrans could turn on ramp metering in the future. As a conservative approach, it is assumed that all on-ramps with existing ramp meter equipment are metered during both the AM and PM peak hours for the ramp capacity analysis.

It is assumed that the metered ramps would each have a capacity of 900 vehicles per hour. The peak-hour freeway ramp volumes were obtained from personal communication with Caltrans staff and/or derived from collected traffic counts. As shown on Table 7, all freeway ramps currently have sufficient capacity to serve the existing traffic volumes, with volume-to-capacity ratios that are well below 1.0, which means that the existing traffic demand is lower than the ramp capacity during both the AM and PM peak hours.

A ramp metering analysis was conducted for the US 101 southbound on-ramp from northbound Mathilda Avenue during the PM peak hour (see Chapter 4). Hexagon observed that during the PM peak hour the mixed-flow lane on the ramp had an average queue of four vehicles and a maximum queue of 12 vehicles. Queues were minimal in the HOV lane.

Table 7
Existing Freeway Ramp Capacity Analysis Summary

Interchange	Ramp	Type	Peak Hour	Lanes			Existing Conditions		
				Mixed	HOV	Meter ¹	Capacity ²	Peak Volume ³	V/C
US 101/Mathilda Ave	SB On-Ramp fr. NB Mathilda Ave.	Diagonal	AM PM	1	1	Equipment Present	1,800	480 433	0.27 0.24
	NB On-Ramp fr. NB Mathilda Ave.	Loop	AM PM	1	1	Equipment Present	1,800	287 295	0.16 0.16
	SB Off-Ramp	Diagonal	AM PM	1			2,000	340 498	0.17 0.25
	NB Off-Ramp to SB Mathilda Ave.	Loop	AM PM	1			1,800	722 729	0.40 0.41
SR 237/Mathilda Ave	EB On-Ramp	Diagonal	AM PM	1			2,000	765 985	0.38 0.49
	WB On-Ramp	Diagonal	AM PM	1		Equipment Present	900	226 502	0.25 0.56
	EB Off-Ramp	Diagonal	AM PM	2			3,800	1,020 890	0.27 0.23
	WB Off-Ramp	Diagonal	AM PM	1			2,000	840 390	0.42 0.20

Notes:

SB=Southbound, NB=Northbound, EB=Eastbound, WB=Westbound, fr.=from

1. As a conservative approach, if an on-ramp has meter equipment present, the ramp is analyzed assuming it is metered.

2. Ramp capacities were obtained from the *Highway Capacity Manual 2000*, and considered the free-flow speed, the number of lanes on the ramp, and ramp metering.

3. Existing peak hour volumes are obtained through personal communication with Caltrans staff.

Observed Existing Traffic Conditions

Traffic conditions in the field were observed at each study intersection in order to identify existing operational deficiencies and to confirm the accuracy of the calculated level of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, (2) identify any locations where the level of service analysis does not accurately reflect existing traffic conditions. Hexagon conducted field observations on a regular weekday during the AM, PM school (2-4 PM) and PM commute (4-6 PM) peak hours in May 2017. Some of the study intersections had no significant operational issues, and vehicular queues on all approaches were mostly able to clear in one cycle. The observed operational issues at the remaining study intersections are identified below.

It should be noted that the discussion below indicates occasional cycle failures for specific movements. Intersection level of service calculation is based on the average delay of all movements within the peak hour. Therefore, if one movement is failing to clear within one signal cycle but other movements receive minimal delays, the intersection could still operate at acceptable levels of service.

Mathilda Avenue between California Avenue and Almanor Avenue

During the AM peak hour, this corridor experienced relatively high volumes in the northbound direction. Northbound traffic received green phases at the California Avenue intersection and at the Indio Avenue intersection before the northbound green phase at the Maude Avenue intersection. As a result, lengthy northbound queues developed from Maude Avenue and extended south past California Avenue. During the green phase at the Maude Avenue intersection, northbound vehicles were able to clear the California Avenue intersection, but not all were able to clear the Indio Avenue intersection. North of Maude Avenue, northbound vehicles were able to clear the Almanor Avenue intersection and the San Aleso intersection within one signal cycle.

During the PM school (2-4 PM) peak hour, no significant intersection operational issues were observed.

During the PM commute (4-6 PM) peak hour, this corridor experienced relatively high volumes in the southbound direction. Southbound traffic from the Almanor Avenue intersection and the San Aleso Avenue intersection experienced slow progression because of the downstream queue at the Maude Avenue intersection. Most southbound vehicles were able to clear the Almanor Avenue and San Aleso Avenue intersections within one signal cycle, but not all vehicles were able to clear the Maude Avenue intersection within one signal cycle. Because the outside southbound through lane terminates just south of Maude Avenue, vehicles were observed to favor the three inner southbound through lanes more than the outside through lane. At the intersection of Mathilda Avenue and Indio Avenue, the southbound progression was slow because of the downstream queue at the California Avenue intersection. Southbound vehicles were mostly able to clear the Indio Avenue within one signal cycle, but not all vehicles were able to clear the California Avenue intersection within one signal cycle.

At the intersection of Mathilda Avenue and Almanor Avenue during both the AM and PM commute peak hours, the northbound left-turn phase was often skipped even when there were vehicles queued. The signal sometimes went through two to three signal cycles before calling the northbound left-turn phase. As a result, long queues formed in the northbound left-turn pocket.

Mathilda Avenue between Ross Drive and SR 237 Westbound Ramps

During the AM peak hour, this corridor experienced relatively high volumes in the northbound direction. Northbound progression was slow through this corridor because of the close proximity of the intersections. Most northbound vehicles were able to clear this corridor within one signal cycle, but vehicles at the end of queue sometimes were unable to clear all three intersections within one signal cycle. The eastbound left-turn movement at the SR 237 Eastbound Ramps intersection and the westbound right-turn movement at the SR 237 Westbound Ramps intersection both received heavy volumes and required at least two signal cycles to clear this corridor.

During the PM school (2-4 PM) peak hour, no significant intersection operation issues were observed.

During the PM commute (4-6 PM) peak hour, this corridor experienced relatively high volumes in the southbound direction. However, most vehicles were able to clear this corridor within one signal cycle. At the intersection of Mathilda Avenue and SR 237 Westbound Ramps, the westbound left-turn movement occasionally required two signal cycles to clear.

Fair Oaks Avenue and Weddell Drive

During both the AM and PM commute peak hours, the northbound left-turn movement received heavy traffic volumes and often required two signal cycles to clear the intersection.

Fair Oaks Avenue and US 101 Northbound Ramps

During the PM commute peak hour, the westbound left-turn movement received heavy traffic volumes and occasionally required two signal cycles to clear the intersection.

Fair Oaks Avenue and Duane Avenue

During the AM, PM school and PM commute peak hours, the southbound and westbound left-turn movements received heavy traffic volumes and required two signal cycles to clear the intersection. During the AM peak hour, the congestion was observed during only the peak 15-minute of drop-off operations at King's Academy. During the PM school peak hour, the congestion was observed during only the peak 15-minute of pick-up operations.

Fair Oaks Avenue and Wolfe Road

During the PM commute peak hour, southbound through traffic continuing onto southbound Wolfe Road often queued towards the Duane Avenue intersection while waiting for the green phase, but all cleared within one signal cycle. The eastbound left-turn movement often queued towards Maude Avenue, but all cleared within one signal cycle.

Fair Oaks Avenue and Maude Avenue

During the PM commute peak hour, southbound through traffic was heavy. The upstream southbound right-turn movement at Wolfe Road that feeds the southbound through traffic at this intersection rarely received a red phase. As a result, when southbound through traffic at the Maude Avenue intersection received a red phase, southbound through vehicles queued past the upstream intersection towards Balsam Avenue. However, all vehicles cleared within one signal cycle. The eastbound through movement often queued past Worley Avenue and as a result, blocked the eastbound left-turn pocket. Some eastbound left-turn vehicles were unable to turn into the left-turn pocket and as a result had to wait one extra signal cycle to clear the intersection.

Wolfe Road and Arques Avenue

During the PM commute peak hour, southbound through traffic was heavy. Because of the downstream queue at the Central Expressway ramps intersections, southbound through movement progression was often slow as it joined the downstream queue, but all vehicles cleared within one signal cycle. The westbound left-turn movement received heavy traffic and consistently required two signal cycles to clear.

Wolfe Road and Central Expressway Ramps Intersections

The intersections on Wolfe Road at the Central Expressway eastbound and westbound ramps were operating as one intersection during the AM, PM school and PM commute peak hours. Based on the observed signal timing plans, Hexagon observed heavy southbound through movement traffic during the PM commute peak hour that consistently queued towards Arques Avenue. Because of the heavy traffic volumes combined with the southbound downstream queue at the Kifer Road intersection that queued towards the Central Expressway intersections, southbound vehicles consistently required two signal cycles to clear.

Central Expressway Loop Ramps at Mathilda Avenue

Hexagon conducted field observations at the Central Expressway square loop ramps at the Mathilda Avenue interchange during all study periods. During the AM peak period, Central Expressway westbound was the peak commute direction. Because of the downstream signal at Mary Avenue, westbound Central Expressway frequently queued past the Mathilda Avenue interchange. Vehicles merging onto westbound Central Expressway from the two square loop on-ramps did not experience lengthy delays, as there were sufficient gaps. Most vehicles exiting westbound Central Expressway to Mathilda Avenue via Indio Way were observed to use the San Bernardino Way off ramp. Hexagon observed two cycles beginning at 8 AM where westbound Central Expressway vehicles exiting off to San Bernardino Way queued onto the westbound Central Expressway auxiliary lane towards the Sunnyvale Avenue overpass. The queues were contained within the auxiliary lane and did not spill onto the main travel lanes. Prior to and after the two cycles beginning at 8 AM, there were no issues for westbound Central Expressway vehicles exiting onto Indio Way. Central Expressway eastbound was the off-peak direction during the AM peak period, and there were no operational issues at the ramp junctions. Hexagon observed few bicycles on Central Expressway during the one-hour field observation in the morning. For the observed bicycles, there were no issues for bicycles travelling across the ramp junctions.

During the afternoon school peak period, there was light traffic on Central Expressway. Hexagon observed no operational issues at the square loop ramp junctions.

During the PM peak period, Central Expressway eastbound was the peak commute direction. There were no operational issues for vehicles exiting eastbound Central Expressway. Vehicles merging onto eastbound Central Expressway experienced minimal delay. Temporary queues of two to three vehicles occasionally formed at the Sobrante Way on-ramp. Queues dissipated within 30 seconds. There were no other operational issues observed at the square loop ramp junctions.

3.

Background Conditions

This chapter presents background traffic conditions, which are defined as conditions just prior to completion of the proposed project. Traffic volumes for background conditions comprise volumes from existing traffic counts and traffic generated by other approved developments in the vicinity of the site. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions.

Background Transportation Network

It is assumed in this analysis that the transportation network under background conditions, including roadways and intersection lane configurations, would be the same as that described under existing conditions at all study intersections. The Mathilda Avenue Improvements at SR 237 and US 101 project is currently under the design phase and is not expected to be completed prior to completion of the proposed project. This improvement is thus not assumed under background conditions.

Background Traffic Volumes

Background traffic volumes were estimated for the project completion year by adding traffic from approved but not yet completed developments in the project area. The approved but not yet completed developments included in this study are shown on Figure 8. Vehicle trips from each of the approved projects were obtained from the project's traffic impact study, if available. Trips generated during the PM school (2 to 4 PM) peak hour are typically not studied, and the ITE *Trip Generation, 9th Edition* lacks trip generation information during the PM school peak hour. Therefore, trips generated by approved projects during the PM school peak hour are estimated based on the PM commute (4 to 6 PM) peak hour trip generation at each intersection and factored based on the volumes at each intersection during the PM school and PM commute peak hours. The AM, PM school and PM commute peak hour traffic volumes under background conditions are shown on Figure 9.

824 San Aleso Ave. Summit High School

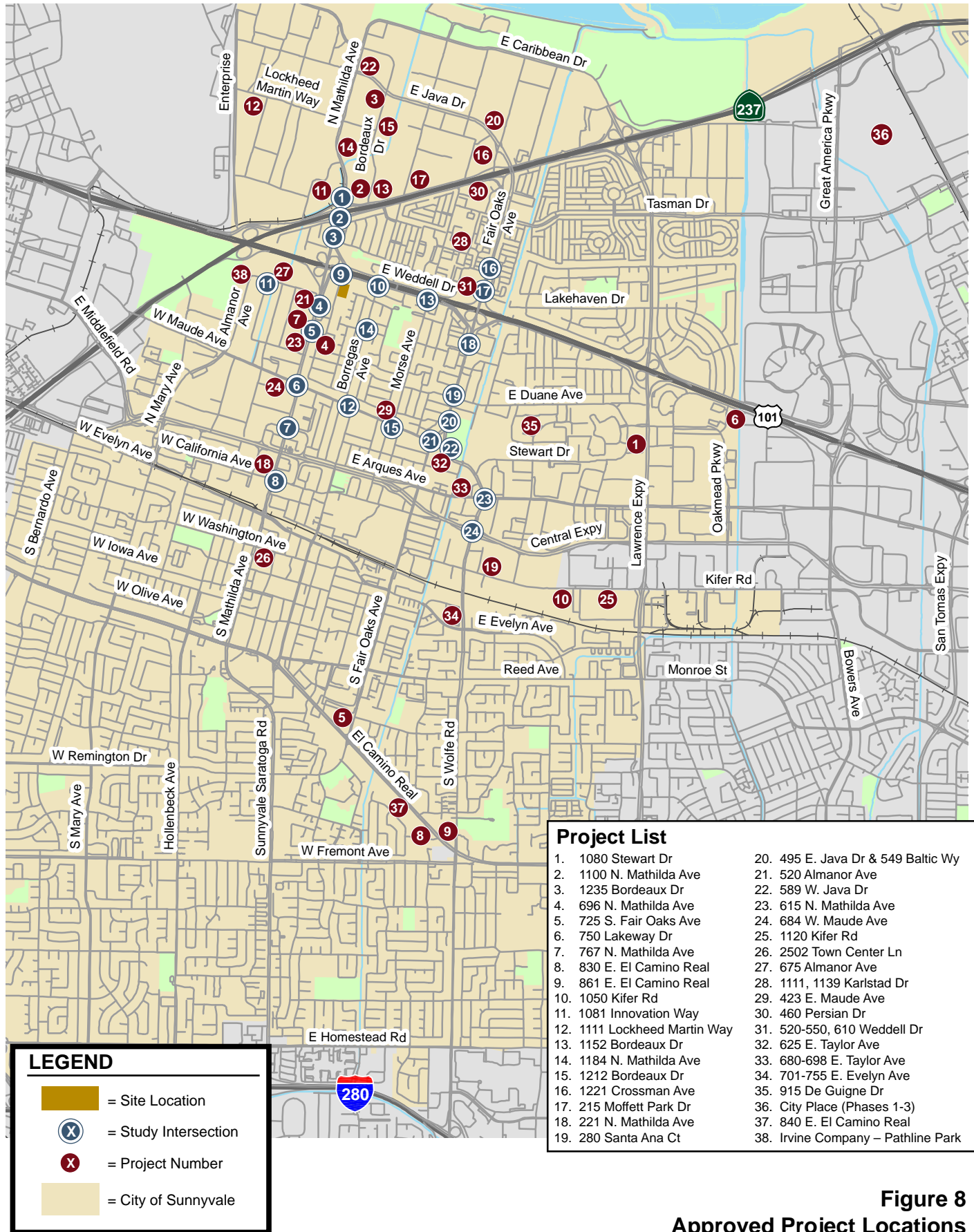
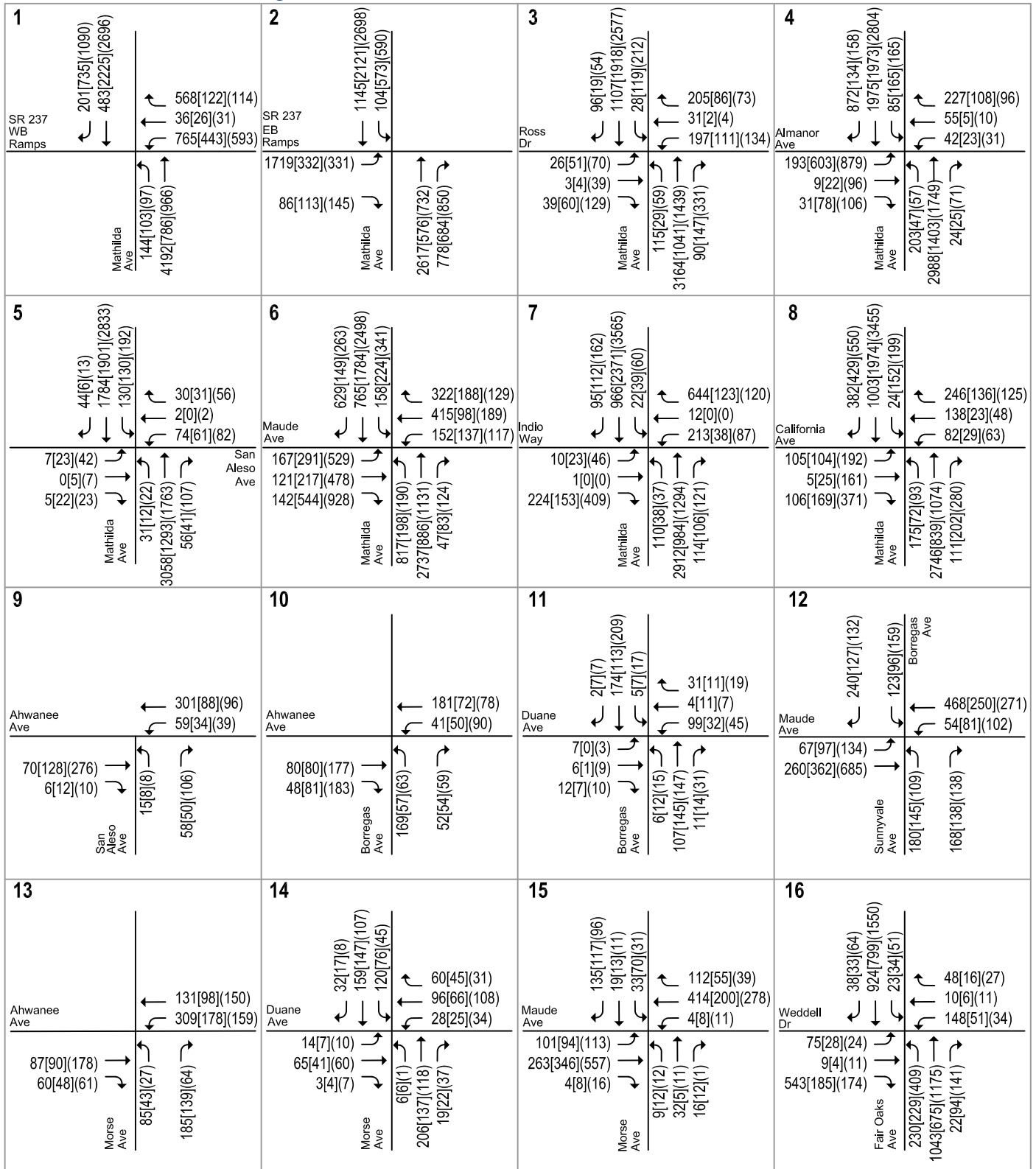


Figure 8
Approved Project Locations

824 San Aleso Ave. Summit High School



LEGEND

XXXX = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 9
Background Traffic Volumes



824 San Aleso Ave. Summit High School

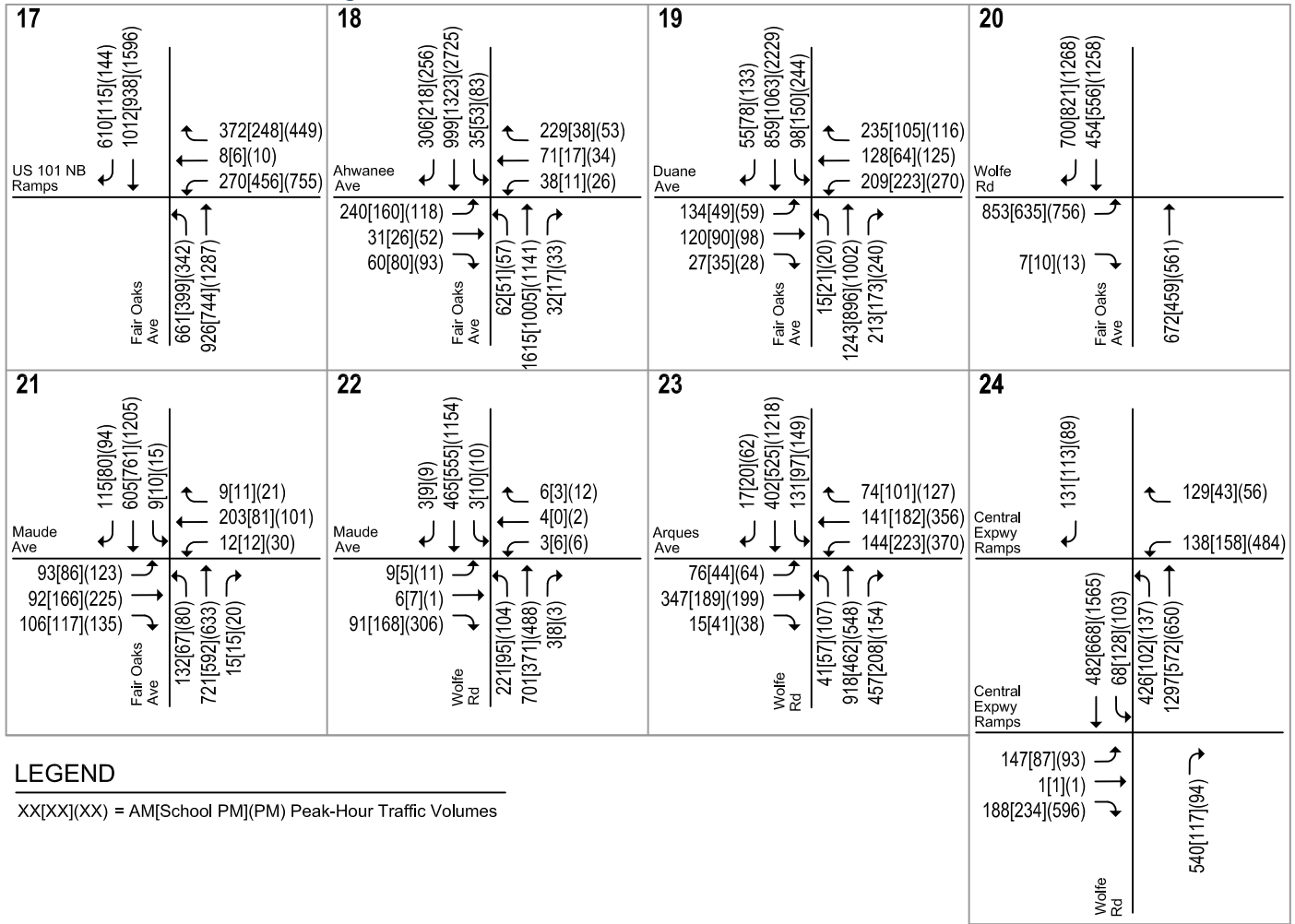


Figure 9
Background Traffic Volumes

Background Intersection Levels of Service

The results of the intersection level of service analysis under background conditions are summarized in Tables 8 and 9. The results of the analysis show that all signalized study intersections would operate at acceptable levels during all study periods. As shown on Table 9, the unsignalized study intersection at Wolfe Road and Maude Avenue would operate at an unacceptable LOS F for the worst movement during both the AM and PM commute peak hours. Signal warrants were conducted at this intersection under background conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour.

All other unsignalized study intersections would continue to operate at an acceptable level of service and peak hour signal warrants thus were not checked.

Table 8
Background Intersection Level of Service Summary – Signalized Intersections

#	Intersection	Peak Hour	Count Date	LOS Std.	Existing		Background	
					Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
1	Mathilda Ave & SR 237 WB Ramps	AM *	11/00/15	E	23.8	C	61.4	E
		School PM	05/16/17		19.8	B-	17.0	B
		PM *	11/00/15		20.7	C+	51.2	D-
2	Mathilda Ave & SR 237 EB Ramps	AM *	11/00/15	E	21.9	C+	48.0	D
		School PM	05/16/17		17.7	B	25.1	C
		PM *	11/00/15		68.2	E	53.6	D-
3	Mathilda Ave & Ross Dr	AM *	11/00/15	E	11.9	B+	11.7	B+
		School PM	05/16/17		16.7	B	14.3	B
		PM *	11/00/15		39.1	D	54.9	D-
4	Mathilda Ave & Almanor Ave	AM	11/00/15	E	24.0	C	26.6	C
		School PM	05/16/17		21.9	C+	30.9	C
		PM	11/00/15		27.2	C	41.1	D
5	Mathilda Ave & San Aleso Ave	AM	11/00/15	E	9.6	A	14.0	B
		School PM	05/16/17		9.8	A	9.8	A
		PM	11/00/15		12.9	B	16.3	B
6	Mathilda Ave & Maude Ave	AM	11/00/15	E	41.6	D	50.1	D
		School PM	05/16/17		30.2	C	34.0	C-
		PM	11/00/15		44.9	D	63.1	E
7	Mathilda Ave & Indio Ave	AM	11/00/15	E	29.6	C	41.6	D
		School PM	05/16/17		10.4	B+	10.6	B+
		PM	11/00/15		23.7	C	26.2	C
8	Mathilda Ave & California Ave	AM	11/00/15	E	25.4	C	30.4	C
		School PM	05/16/17		17.6	B	19.1	B-
		PM	11/00/15		28.5	C	35.7	D+
12	Sunnyvale Ave/Borregas Ave & Maude Ave	AM	05/16/17	D	41.1	D	40.7	D
		School PM	05/16/17		32.7	C-	32.4	C-
		PM	05/16/17		29.3	C	29.8	C
16	Fair Oaks Ave & Weddell Dr	AM	04/04/17	D	17.2	B	20.4	C+
		School PM	12/02/15		20.0	C+	19.5	B-
		PM	04/04/17		16.5	B	18.2	B-
17	Fair Oaks Ave & US 101 NB Ramps	AM	04/04/17	E	23.4	C	37.8	D+
		School PM	12/02/15		20.0	C+	22.2	C+
		PM	04/04/17		27.4	C	46.3	D
18	Fair Oaks Ave & Ahwanee Ave	AM	04/04/17	D	22.3	C+	21.7	C+
		School PM	12/02/15		18.2	B-	17.4	B
		PM	04/04/17		13.9	B	14.8	B
19	Fair Oaks Ave & Duane Ave	AM	04/04/17	D	34.6	C-	33.6	C-
		School PM	12/02/15		30.5	C	29.9	C
		PM	04/04/17		31.4	C	34.5	C-
20	Fair Oaks Ave & Wolfe Rd	AM	04/04/17	D	16.0	B	17.3	B
		School PM	12/02/15		13.4	B	14.0	B
		PM	04/04/17		14.1	B	15.6	B
21	Fair Oaks Ave & Maude Ave	AM	05/16/17	D	27.1	C	32.6	C-
		School PM	12/02/15		29.0	C	29.1	C
		PM	05/16/17		31.2	C	32.6	C-
23	Wolfe Rd & Arques Ave	AM	04/04/17	D	40.5	D	41.7	D
		School PM	12/02/15		39.3	D	38.8	D+
		PM	04/04/17		40.4	D	41.0	D
24	Wolfe Rd & Central Expwy Ramps	AM	04/04/17	E	37.9	D+	39.6	D
		School PM	12/02/15		41.3	D	42.8	D
		PM	04/04/17		62.8	E	73.9	E

Notes:
* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

Table 9
Background Intersection Level of Service Summary – Unsignalized Intersections

#	Intersection	Control	Peak Hour	Count	Date	Existing			Background		
						Delay (sec)	LOS	Signal Warrant Met ³	Delay (sec)	LOS	Signal Warrant Met ³
9	San Aleso Ave & Ahwanee Ave	Side-Street Stop ¹	AM	05/16/17	9.7	A	-	9.7	A	-	
			School PM	05/16/17	9.3	A	-	9.4	A	-	
			PM	05/16/17	10.5	B	-	10.7	B	-	
10	Borregas Ave & Ahwanee Ave	All-Way Stop ²	AM	05/16/17	9.0	A	-	9.2	A	-	
			School PM	05/16/17	7.9	A	-	7.9	A	-	
			PM	05/16/17	9.2	A	-	9.4	A	-	
11	Borregas Ave & Duane Ave	Side-Street Stop ¹	AM	05/16/17	11.6	B	-	11.7	B	-	
			School PM	05/16/17	10.7	B	-	10.9	B	-	
			PM	05/16/17	12.0	B	-	12.2	B	-	
13	Morse Ave & Ahwanee Ave	Side-Street Stop ¹	AM	05/16/17	18.5	C	-	19.3	C	-	
			School PM	05/16/17	11.3	B	-	11.4	B	-	
			PM	05/16/17	11.7	B	-	11.8	B	-	
14	Morse Ave & Duane Ave	All-Way Stop ²	AM	05/16/17	10.4	B	-	10.5	B	-	
			School PM	05/16/17	8.8	A	-	9.0	A	-	
			PM	05/16/17	8.6	A	-	8.8	A	-	
15	Morse Ave & Maude Ave	Side-Street Stop ¹	AM	05/16/17	14.5	B	-	15.8	C	-	
			School PM	05/16/17	13.2	B	-	14.2	B	-	
			PM	05/16/17	16.2	C	-	17.8	C	-	
22	Wolfe Rd & Maude Ave	Side-Street Stop ¹	AM	05/25/17	26.5	D	No	50.3	F	No	
			School PM	05/25/17	20.4	C	-	25.4	D	-	
			PM	05/25/17	50.4	F	Yes	>60	F	Yes	

Notes:

- Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
- Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
- The CAMUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

BOLD indicates unacceptable level of service

4. Project Conditions

This chapter describes the method by which project traffic is estimated, roadway traffic operations under background plus project conditions and existing plus project conditions, and any impacts caused by the project. Existing plus project traffic conditions could potentially occur if the project were to be occupied prior to the other approved projects in the area. However, it is unlikely that this traffic condition would occur, since some of the other approved projects expected to add traffic to the study area would likely be built and occupied during the time this project is going through the development review process.

Project Description

The project proposes to re-purpose the existing building (25,100 s.f.) on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The site would be accessed via the existing driveways. The southern driveway would be a right-turn inbound-only driveway, and the northern driveway would be a right-turn outbound-only driveway.

Staff are expected to arrive between 7 AM and 7:15 AM, and depart between 4 PM and 7 PM. Students are expected to arrive between 7:45 AM and 8:15 PM. 75% of students are dismissed between 3:25 PM and 3:45 PM, with the remaining 25% of students dismissed at 5 PM.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM, PM school and PM commute peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Trip Generation Rates

Summit Public Schools (the project applicant) conducted a traffic survey in January 2016 of its other schools within the Bay Area and found that on average, for every 100 students:

- 67 cars arrive each morning, bringing 85 students to school
 - 7 of these cars are driven by students and remain parked at school
 - The remaining 60 cars are driven by parents/guardians and depart the school after drop off
- 59 cars leave the school in the afternoon, taking 77 students

Based on the survey results, for every 100 students, Summit schools generate 127 trips in the morning with 67 inbound trips and 60 outbound trips, and generate 111 trips in the afternoon with 52 inbound trips (59 departure cars minus the 7 student-driven cars) and 59 outbound trips. This equates to a trip generation rate of 1.27 trips per student in the morning with 53% inbound trips and 1.11 trips per student in the afternoon with 47% inbound trips. Since all students at the proposed school are expected to arrive during the AM peak hour, the project trip generation rate during the AM peak hour is assumed to be 1.27 trips per student. Since the proposed school would dismiss 75% of all students during the PM school peak hour (2 to 4 PM), the project trip generation rate during the PM school peak hour is assumed to be 0.83 trips per student. The remaining 25% of all students would be dismissed during the PM commute peak hour (4 to 6 PM), and the trip generation rate is assumed to be 0.28 trips per student. As shown on Table 10, in comparison to the average trip generation rates reported in Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition* for a high school (Land Use Code 530), which reports a trip generation rate of 0.43, 0.29, and 0.13 trips per student during the AM, PM school, and PM commute peak hours, the assumed trip generation rates derived from the applicant survey are approximately one to two times greater. Therefore, using the trip generation rates derived from the applicant survey would be a conservative approach.

Table 10
Project Trip Generation Rates Comparison with ITE Rates

Source	Peak Hour Trip Generation Rates (trips per student) ³		
	AM Peak	School PM Peak	Commute PM Peak
Applicant Survey ¹	1.27	0.83	0.28
ITE ²	0.43	0.29	0.13
% greater than ITE rates	195%	186%	115%
Notes:			
1. The survey was conducted by Summit Public Schools, dated January 2016.			
2. ITE <i>Trip Generation, 9th Edition</i> , Land Use Code 530: High School, average rates			
3. Trip generation rates are based on trips per student. AM peak hour is between 7 AM and 9 AM. School PM peak hour is between 2 PM and 4 PM. Commute PM peak hour is between 4 PM and 6 PM.			

Trip Generation

Using the trip generation rates derived from the applicant survey, the project with 400 students is estimated to generate 508 student trips (268 in and 240 out) during the AM peak hour, 332 student trips (156 in and 176 out) during the PM school peak hour, and 112 student trips (53 in and 59 out) during the PM commute peak hour. As a conservative approach, it is assumed that each staff would generate one inbound trip during the AM peak hour and one outbound trip during the PM commute peak hour. The project with 25 staff is estimated to generate 25 inbound trips during the AM peak hour and 25 outbound trips during the PM commute peak hour. Therefore, the project is estimated to generate a gross 533 trips (293 in and 240 out) during the AM peak hour, 332 trips (156 in and 176 out) during the PM school peak hour, and 137 trips (53 in and 84 out) during the PM commute peak hour.

The existing project site is occupied by a 25,100 s.f. light industrial building. Using the average trip generation rates for a typical light industrial building (Land Use Code 110) reported in the ITE *Trip Generation, 9th Edition*, the existing building on-site is estimated to currently generate 23 trips (20 in and 3 out) during the AM peak hour and 24 trips (3 in and 21 out) during the PM commute peak hour. The ITE *Trip Generation, 9th Edition* does not report trip generation rates for a light industrial building during the PM school peak hour. Therefore, the trip generation rate for the existing building on-site during the PM school peak hour is estimated using the PM commute peak hour trip generation and the ratio of traffic volume at the Mathilda Avenue and San Aleso Avenue intersection between the PM school and PM commute peak hours. It is estimated the existing building on-site is currently generating 17 trips (2 in and 15 out) during the PM school peak hour.

After accounting for the trips generated by the existing building on-site, the project is expected to generate a net 510 trips (273 in and 237 out) during the AM peak hour, 315 trips (154 in and 161 out) during the PM school peak hour, and 113 trips (50 in and 63 out) during the PM commute peak hour (see Table 11).

Table 11
Project Trip Generation Estimates

Land Use	Size	Unit	Daily		AM Peak Hour			PM School Peak Hour			PM Commute Peak Hour					
			Rate	Trips	Rate	In	Out	Total	Rate	In	Out	Total	Rate	In	Out	Total
<u>Proposed Land Use (P)</u>																
High School ¹	400	students			1.27	268	240	508	0.83	156	176	332	0.28	53	59	112
	25	staff			1.00	25	0	25	0.00	0	0	0	1.00	0	25	25
		Total		2,132		293	240	533		156	176	332		53	84	137
<u>Existing Land Use (E)</u>																
Light Industrial ²	25.1	ksf	6.97	175	0.92	20	3	23	0.68	2	15	17	0.97	3	21	24
Net Project Trip Generation (P - E)				1,957		273	237	510		154	161	315		50	63	113
Notes:																
1. Trip generation for the proposed high school is based on survey results conducted at other Summit schools. The survey was conducted by Summit Public Schools, dated January 2016. Daily trip generation is assumed to be 4 times the AM peak hour trip generation, according to the Institute of Transportation Engineers Trip Generation, 9th Edition.																
2. Daily, AM and PM commute peak hour trip generations are based on the average trip generation rates published in the Institute of Transportation Engineers <i>Trip Generation, 9th Edition (Land Use Code: 110)</i> . PM school peak hour trip generation is estimated based on intersection volumes at the Mathilda Ave/San Aleso Ave intersection and the PM commute peak hour trip generation rates.																

Trip Distribution and Assignment

Trips generated by parents/students of the proposed project were distributed to the study network based on the existing travel patterns on the surrounding roadway system, locations of complementary land uses, and the existing zip code data for the Denali (Summit) Middle School located at 539 E. Weddell Drive, provided by the project applicant (see Figure 10). Trips generated by school staff and by the existing light-industrial land use were distributed to the study network based on the existing travel patterns on the surrounding roadway system and locations of complementary land uses (see Figure 11).

The project trips were assigned to the roadway network based on the directions of approach and departure, the roadway network connections, and the location of project driveways (see Figure 12). Project trips were assigned to the roadway network with the following assumption:

- The project inbound driveway is proposed to be a right-turn inbound-only driveway. All inbound project vehicles are assigned to turn onto San Aleso Avenue from the intersection at Mathilda Avenue and San Aleso Avenue.
- The project outbound driveway is proposed to be a right-turn outbound-only driveway. All outbound project vehicles are assigned to exit onto northbound San Aleso Avenue and turn either left or right at the intersection at San Aleso Avenue and Ahwanee Avenue, depending on their destination.

Project Condition Traffic Volumes

Project impacts were evaluated relative to both (1) background traffic volumes and (2) existing traffic volumes. For the background plus project scenario, the net new trips generated by the project were added to the background traffic volumes (described in Chapter 3) to derive the background plus project traffic volumes (see Figure 13). For the existing plus project scenario, the net new trips generated by the project were added to the existing traffic volumes (described in Chapter 2) to derive the existing plus project traffic volumes (see Figure 14).

Transportation Network Under Project Conditions

It is assumed in this analysis that the transportation network under project conditions, including roadways and intersection lane configurations would be the same as that described under the no-project conditions.

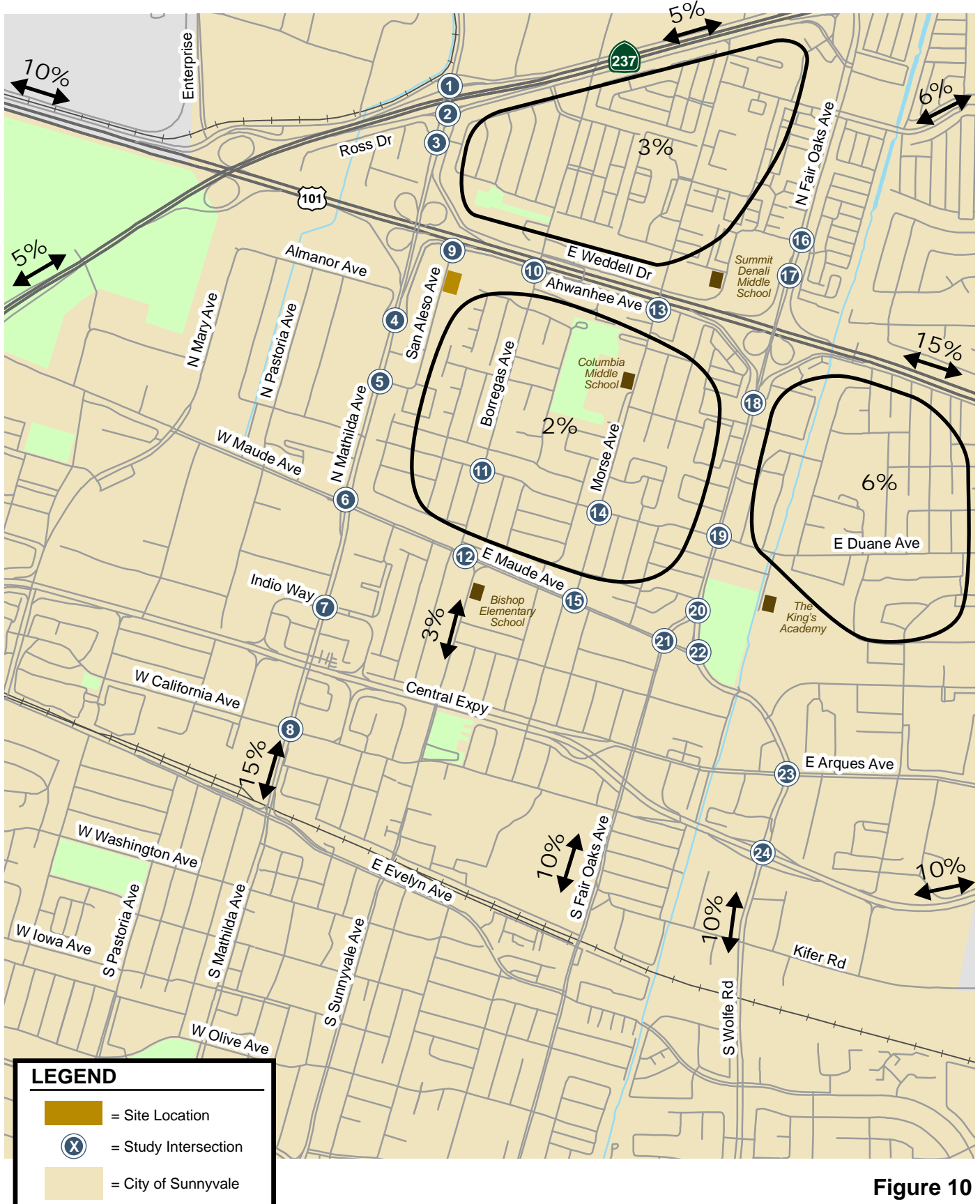


Figure 10
Project Trip Distribution - Parent/Student Trips

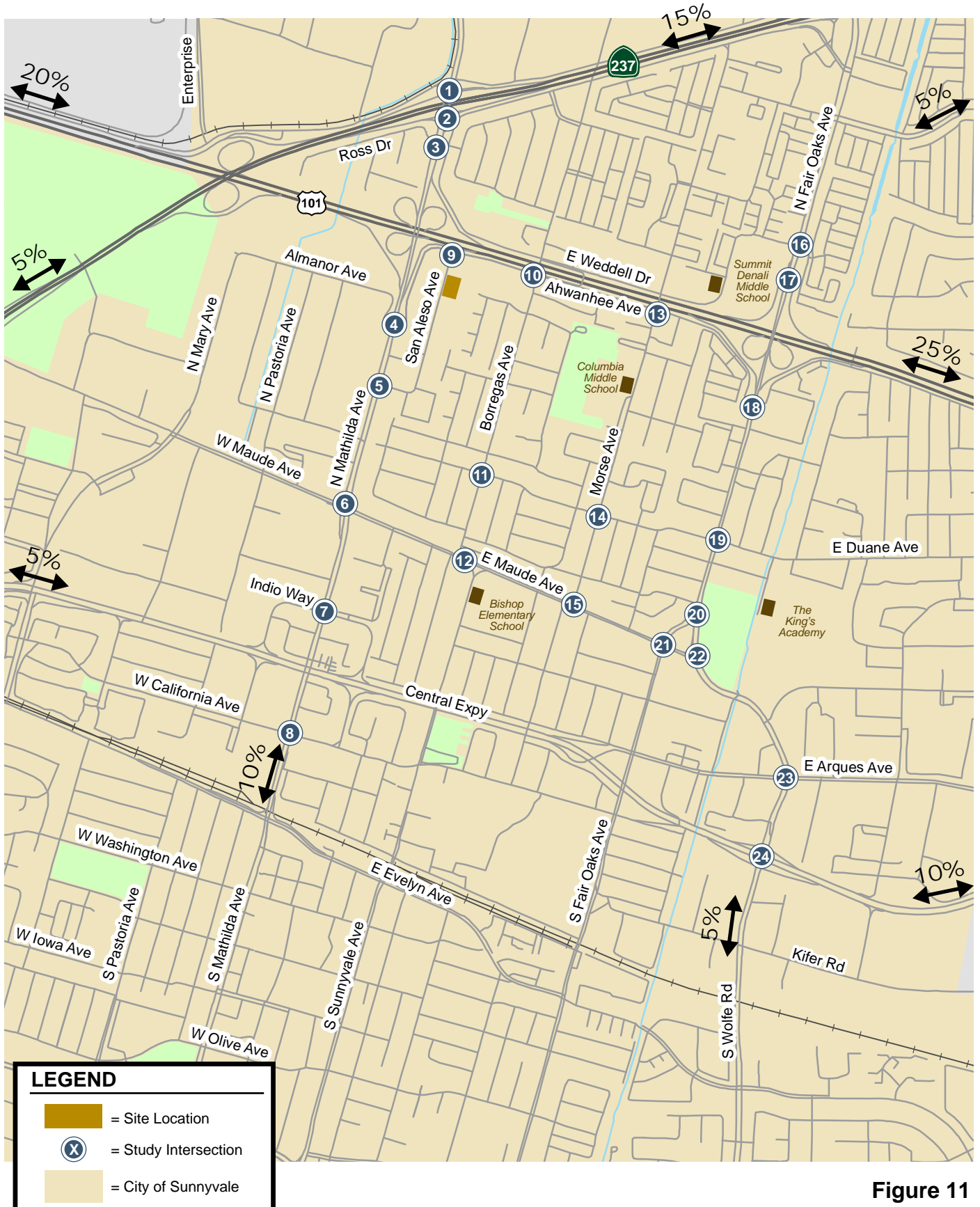
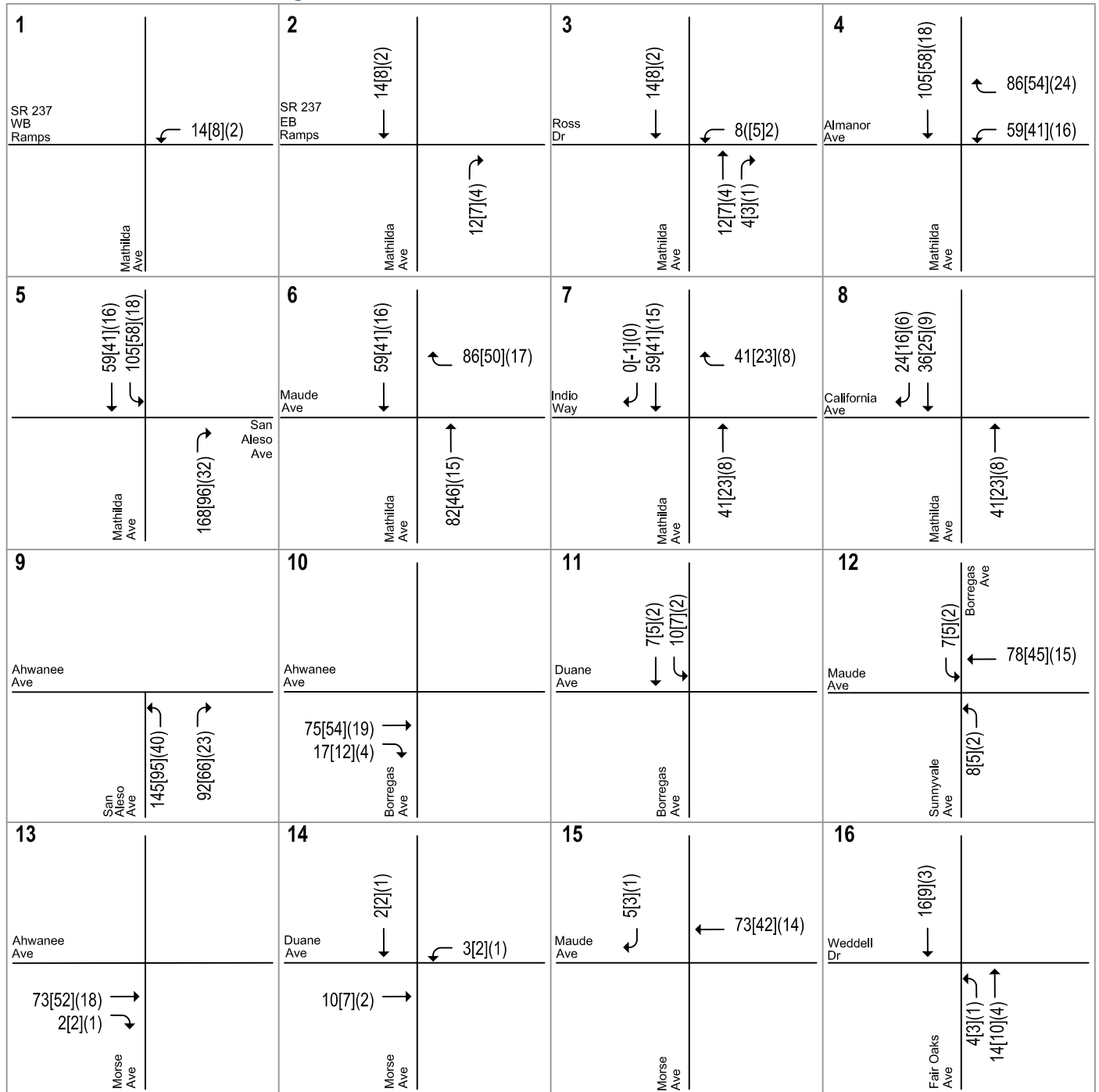


Figure 11
Project Trip Distribution - School Staff and Light Industrial Trips

824 San Aleso Ave. Summit High School

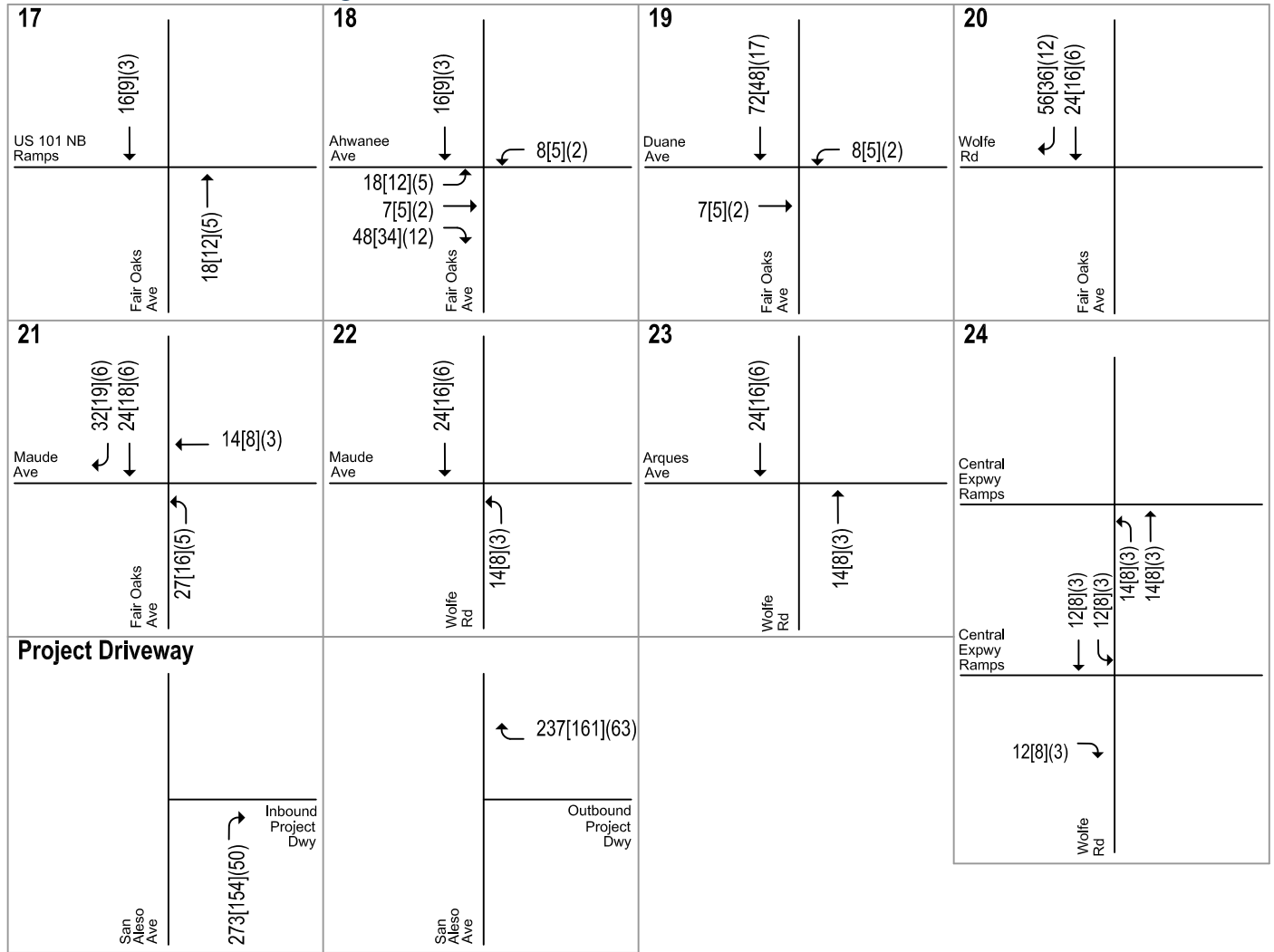


LEGEND

XXXX = AM[School PM](PM) Peak-Hour Trips

Figure 12
Project Trip Assignment

824 San Aleso Ave. Summit High School

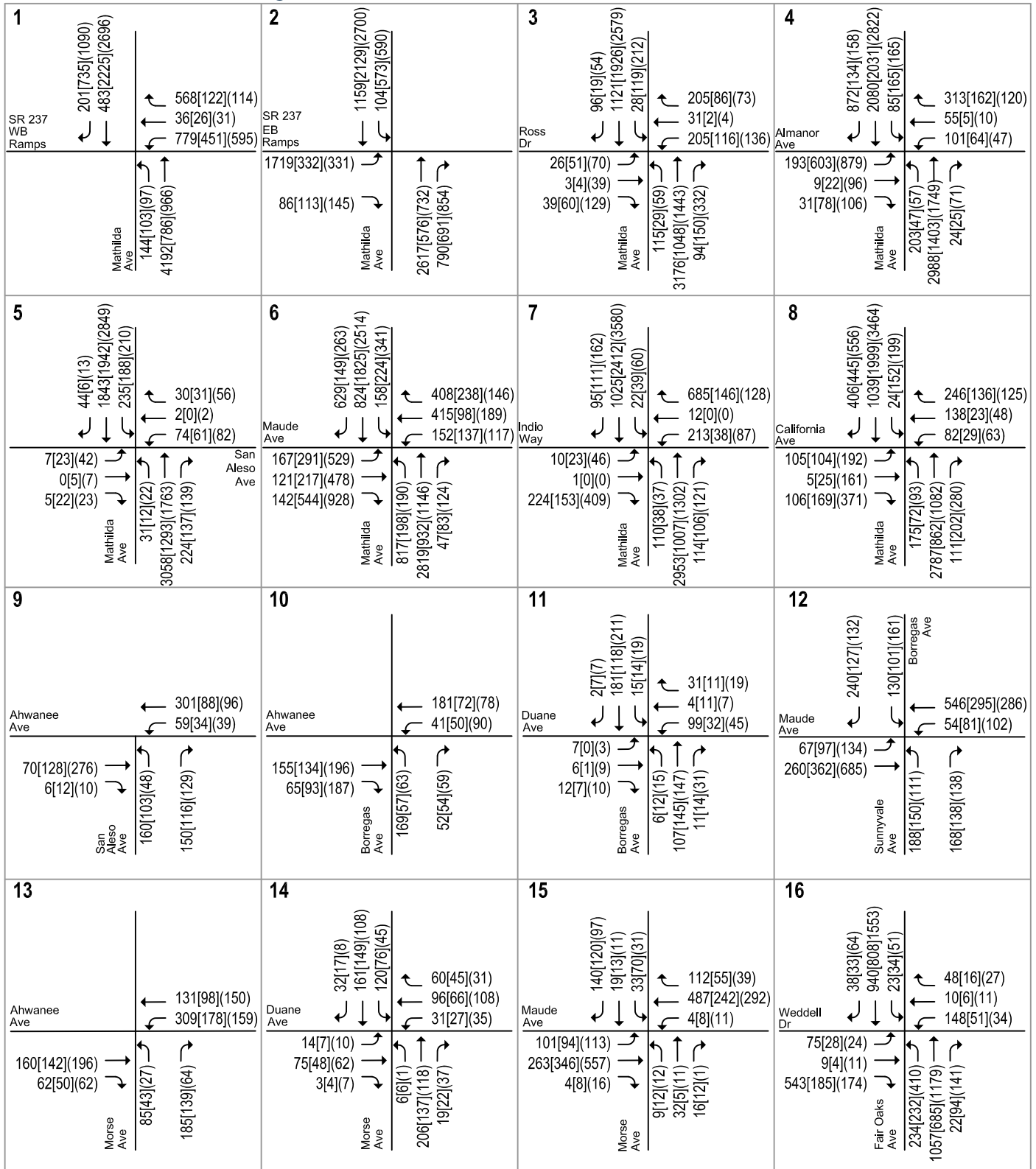


LEGEND

XXXX = AM[School PM](PM) Peak-Hour Trips

Figure 12
Project Trip Assignment

824 San Aleso Ave. Summit High School



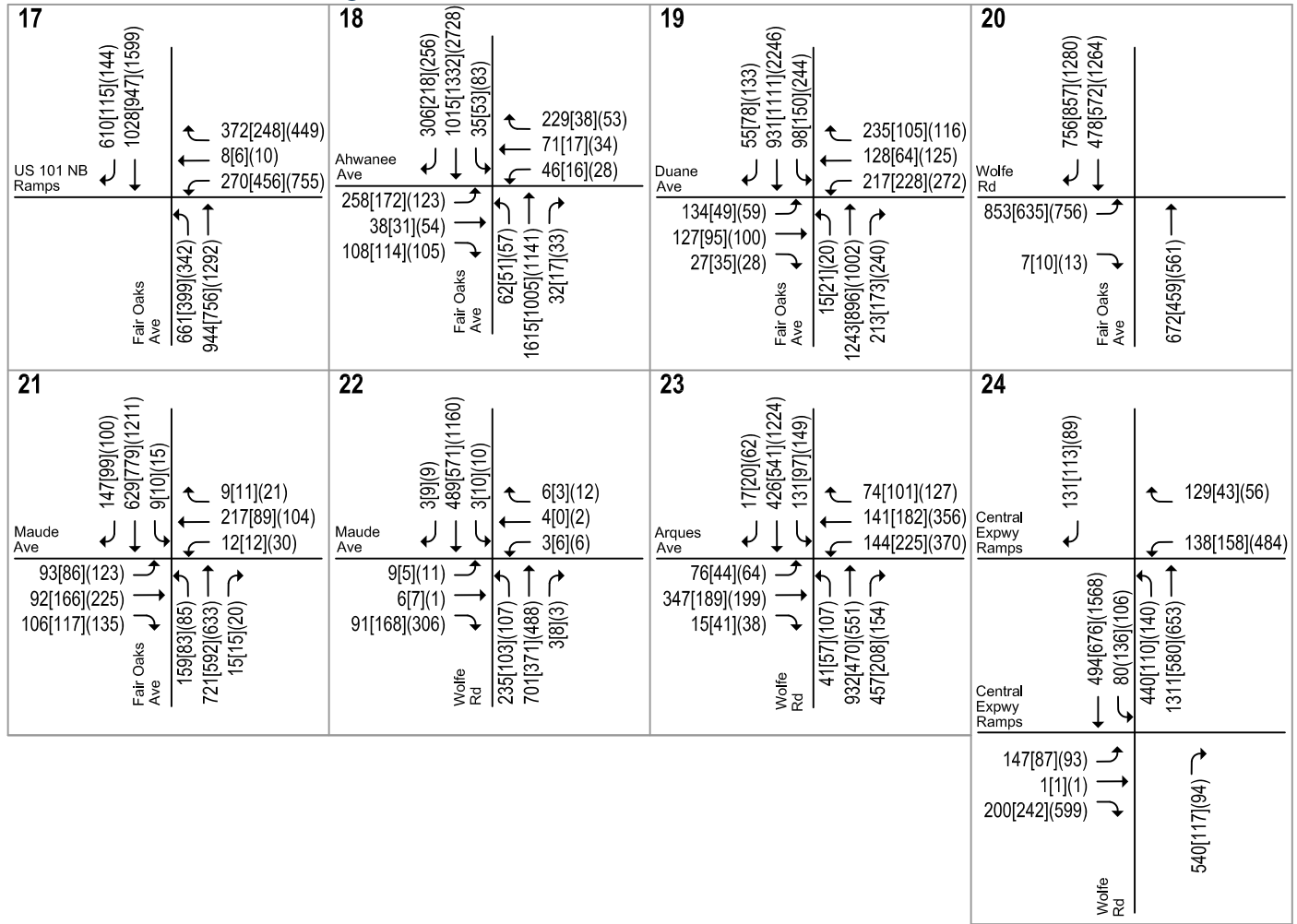
LEGEND

XXXX = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 13
Background Plus Project Traffic Volumes



824 San Aleso Ave. Summit High School

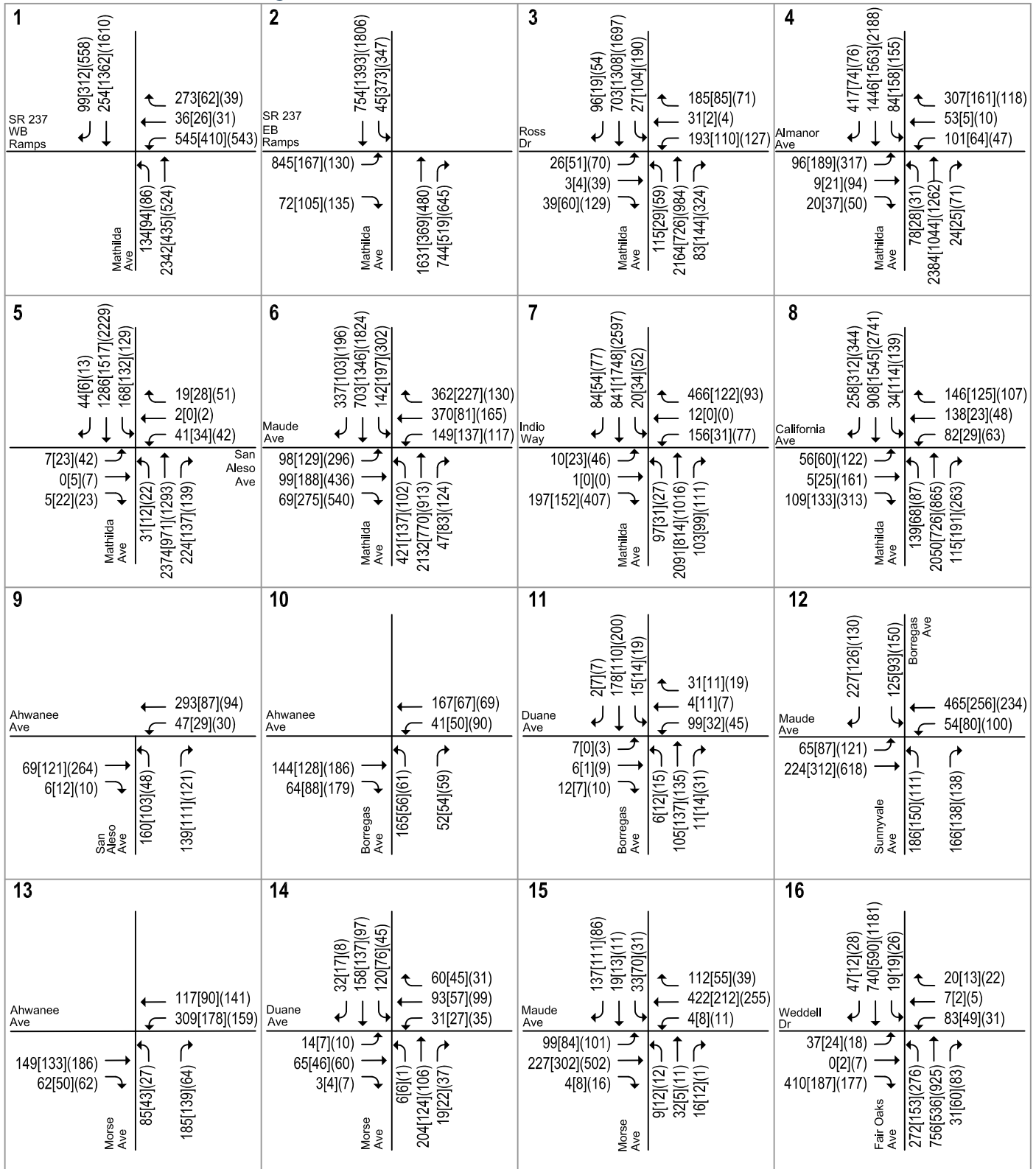


LEGEND

XXXX = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 13
Background Plus Project Traffic Volumes

824 San Aleso Ave. Summit High School



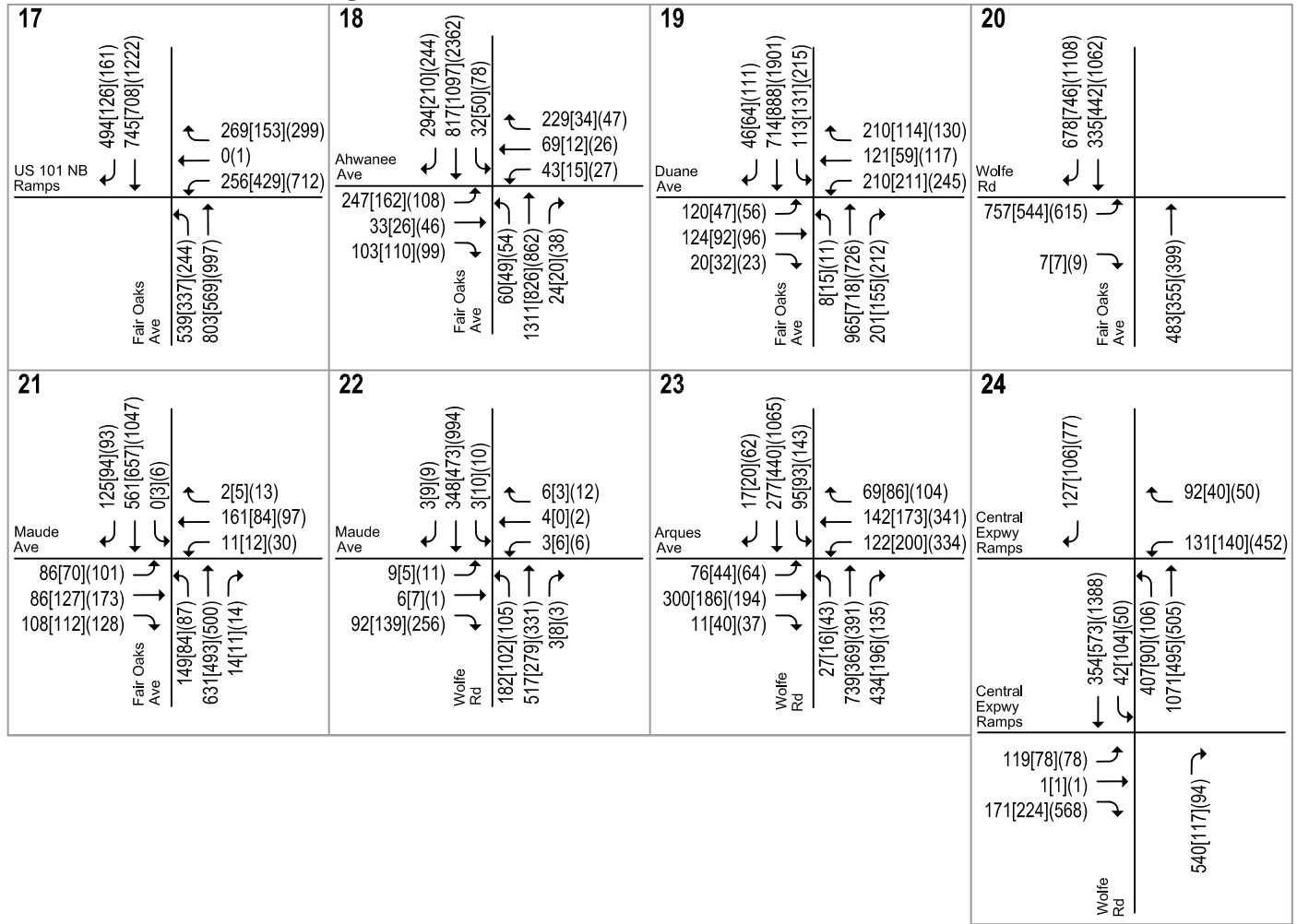
LEGEND

XXXX = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 14
Existing Plus Project Traffic Volumes



824 San Aleso Ave. Summit High School



LEGEND

XXXX = AM[School PM](PM) Peak-Hour Traffic Volumes

Figure 14
Existing Plus Project Traffic Volumes

Background plus Project Intersection Levels of Service

The results of the intersection level of service analysis under background plus project conditions show that all signalized study intersections would operate at acceptable levels during all study periods (see Table 12). As shown in Table 13, the unsignalized study intersection at Wolfe Road and Maude Avenue would operate at an unacceptable LOS F for the worst movement during both the AM and PM commute peak hours. Signal warrants were checked at this intersection under background plus project conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour.

All other unsignalized intersections would continue to operate at an acceptable level of service, and peak hour signal warrants thus were not checked.

Based on City of Sunnyvale intersection impact criteria, the project would not generate a significant intersection impact at any study intersections. While the project would not generate a significant intersection impact at the unsignalized intersection at Wolfe Road and Maude Avenue, the City of Sunnyvale is currently studying design options for signalizing this intersection. It is expected that installing a traffic signal at this intersection would restore intersection operations to acceptable levels of service. The project will pay the Sunnyvale Traffic Impact Fee (TIF), which contributes funds towards signalization of unsignalized intersections.

Existing plus Project Intersection Levels of Service

The results of the intersection level of service analysis under existing plus project conditions are summarized in Tables 14 and 15. The results of the analysis show that all study intersections would operate at acceptable levels during all study periods, except the unsignalized intersection at Wolfe Road and Maude Avenue would operate at an unacceptable LOS F for the worst movement during the PM commute peak hour. Signal warrants were checked at this intersection under existing plus project conditions and found that the Peak Hour Signal Warrant would be met during the PM commute peak hour. Because the remaining unsignalized intersections would be operating at acceptable levels of service under existing plus project conditions, peak hour signal warrants were not checked.

Table 12
Background plus Project Level of Service Summary – Signalized Intersections

#	Intersection	Peak Hour	LOS Std.	Background		Background plus Project			
				Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Mathilda Ave & SR 237 WB Ramps	AM *	E	61.4	E	62.6	E	0.0	0.000
		School PM		17.0	B	17.2	B	0.1	0.003
		PM *		51.2	D-	51.3	D-	0.5	0.000
2	Mathilda Ave & SR 237 EB Ramps	AM *	E	48.0	D	48.3	D	-0.3	0.000
		School PM		25.1	C	25.3	C	0.8	0.004
		PM *		53.6	D-	53.8	D-	0.2	0.010
3	Mathilda Ave & Ross Dr	AM *	E	11.7	B+	12.0	B+	0.5	0.010
		School PM		14.3	B	14.5	B	0.2	0.005
		PM *		54.9	D-	55.0	D-	0.0	0.000
4	Mathilda Ave & Almanor Ave	AM	E	26.6	C	31.9	C	6.5	0.053
		School PM		30.9	C	30.9	C	-0.1	0.008
		PM		41.1	D	41.2	D	0.1	0.002
5	Mathilda Ave & San Aleso Ave	AM	E	14.0	B	18.6	B-	7.9	0.063
		School PM		9.8	A	10.2	B+	0.1	0.006
		PM		16.3	B	17.9	B	15.0	0.040
6	Mathilda Ave & Maude Ave	AM	E	50.1	D	54.0	D-	4.1	0.030
		School PM		34.0	C-	34.1	C-	0.0	0.006
		PM		63.1	E	63.5	E	0.5	0.003
7	Mathilda Ave & Indio Ave	AM	E	41.6	D	45.6	D	5.7	0.032
		School PM		10.6	B+	10.7	B+	0.1	0.009
		PM		26.2	C	26.4	C	0.2	0.003
8	Mathilda Ave & California Ave	AM	E	30.4	C	30.3	C	0.1	0.008
		School PM		19.1	B-	19.0	B-	-0.1	0.005
		PM		35.7	D+	35.7	D+	0.2	0.002
12	Sunnyvale Ave/Borregas Ave & Maude Ave	AM	D	40.7	D	40.7	D	0.0	0.050
		School PM		32.4	C-	32.6	C-	0.4	0.006
		PM		29.8	C	29.9	C	0.2	0.003
16	Fair Oaks Ave & Weddell Dr	AM	D	20.4	C+	20.3	C+	0.1	0.003
		School PM		19.5	B-	19.4	B-	0.0	0.003
		PM		18.2	B-	18.2	B-	0.1	0.001
17	Fair Oaks Ave & US 101 NB Ramps	AM	E	37.8	D+	37.7	D+	0.0	0.000
		School PM		22.2	C+	22.1	C+	0.1	0.002
		PM		46.3	D	46.4	D	0.3	0.000
18	Fair Oaks Ave & Ahwanee Ave	AM	D	21.7	C+	22.8	C+	1.4	0.015
		School PM		17.4	B	18.4	B-	0.8	0.012
		PM		14.8	B	15.2	B	0.4	0.004
19	Fair Oaks Ave & Duane Ave	AM	D	33.6	C-	33.9	C-	0.9	0.009
		School PM		29.9	C	30.2	C	0.5	0.006
		PM		34.5	C-	34.7	C-	0.2	0.002
20	Fair Oaks Ave & Wolfe Rd	AM	D	17.3	B	17.1	B	0.0	0.000
		School PM		14.0	B	13.8	B	0.1	0.004
		PM		15.6	B	15.5	B	0.0	0.002
21	Fair Oaks Ave & Maude Ave	AM	D	32.6	C-	33.1	C-	0.9	0.042
		School PM		29.1	C	29.5	C	0.8	0.022
		PM		32.6	C-	32.9	C-	0.4	0.007
23	Wolfe Rd & Arques Ave	AM	D	41.7	D	41.8	D	0.2	-0.009
		School PM		38.8	D+	38.6	D+	-0.1	0.002
		PM		41.0	D	40.9	D	-0.1	0.001
24	Wolfe Rd & Central Expwy Ramps	AM	E	39.6	D	40.4	D	1.0	0.018
		School PM		42.8	D	41.0	D	-3.4	0.010
		PM		73.9	E	74.5	E	0.7	0.004

Notes:
 * Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

Table 13
Background plus Project Level of Service Summary – Unsignalized Intersections

#	Intersection	Control	Peak Hour	Background			Background plus Project				
				Delay (sec)	LOS	Signal Warrant Met ³	Delay (sec)	LOS	Incr. in Delay	Incr. in V/C	Signal Warrant Met ³
9	San Aleso Ave & Ahwanee Ave	Side-Street Stop ¹	AM	9.7	A	-	14.7	B	5.0	0.370	
			School PM	9.4	A	-	11.2	B	1.8	0.209	-
			PM	10.7	B	-	12.0	B	1.3	0.103	
10	Borregas Ave & Ahwanee Ave	All-Way Stop ²	AM	9.2	A	-	9.6	A	0.4	0.016	
			School PM	7.9	A	-	8.3	A	0.4	0.078	-
			PM	9.4	A	-	9.6	A	0.2	0.028	
11	Borregas Ave & Duane Ave	Side-Street Stop ¹	AM	11.7	B	-	12.0	B	0.3	0.008	
			School PM	10.9	B	-	11.1	B	0.2	0.002	-
			PM	12.2	B	-	12.3	B	0.1	0.001	
13	Morse Ave & Ahwanee Ave	Side-Street Stop ¹	AM	19.3	C	-	23.0	C	3.7	0.060	
			School PM	11.4	B	-	12.1	B	0.7	0.018	-
			PM	11.8	B	-	12.1	B	0.3	0.004	
14	Morse Ave & Duane Ave	All-Way Stop ²	AM	10.5	B	-	10.7	B	0.2	0.007	
			School PM	9.0	A	-	9.1	A	0.1	0.005	-
			PM	8.8	A	-	8.8	A	0.0	0.002	
15	Morse Ave & Maude Ave	Side-Street Stop ¹	AM	15.8	C	-	17.3	C	1.5	0.038	
			School PM	14.2	B	-	14.6	B	0.4	0.015	-
			PM	17.8	C	-	17.9	C	0.1	0.001	
22	Wolfe Rd & Maude Ave	Side-Street Stop ¹	AM	50.3	F	No	56.1	F	5.8	0.016	No
			School PM	25.4	D	-	26.7	C	1.3	0.004	-
			PM	>60	F	Yes	>60	F	2.6	0.003	Yes

Notes:

- Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
- Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
- The CA MUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

BOLD indicates unacceptable level of service

Table 14
Existing plus Project Level of Service Summary – Signalized Intersections

#	Intersection	Peak Hour	Count Date	LOS Std.	Existing		Existing plus Project				
					Avg. Delay (sec)	LOS	Avg. Delay (sec)	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C
1	Mathilda Ave & SR 237 WB Ramps	AM*	11/00/15	E	23.8	C	24.3	24.3	C	0.3	0.010
		School PM	05/16/17		19.8	B-	20.0	20.0	B-	0.2	0.003
		PM*	11/00/15		20.7	C+	20.8	20.8	C+	0.4	0.000
2	Mathilda Ave & SR 237 EB Ramps	AM*	11/00/15	E	21.9	C+	22.2	22.2	C+	0.8	0.010
		School PM	05/16/17		17.7	B	17.7	17.7	B	0.1	0.005
		PM*	11/00/15		68.2	E	67.2	67.2	E	-1.7	0.000
3	Mathilda Ave & Ross Dr	AM*	11/00/15	E	11.9	B+	12.0	12.0	B+	0.4	0.010
		School PM	05/16/17		16.7	B	16.9	16.9	B	0.3	0.004
		PM*	11/00/15		39.1	D	39.1	39.1	D	0.0	0.000
4	Mathilda Ave & Almanor Ave	AM	11/00/15	E	24.0	C	29.4	29.4	C	5.5	0.053
		School PM	05/16/17		21.9	C+	20.9	20.9	C+	-3.4	0.016
		PM	11/00/15		27.2	C	27.3	27.3	C	0.0	0.002
5	Mathilda Ave & San Aleso Ave	AM	11/00/15	E	9.6	A	14.2	14.2	B	7.8	0.064
		School PM	05/16/17		9.8	A	10.0	10.0	B+	0.0	0.007
		PM	11/00/15		12.9	B	13.5	13.5	B	0.0	0.002
6	Mathilda Ave & Maude Ave	AM	11/00/15	E	41.6	D	43.2	43.2	D	2.2	0.044
		School PM	05/16/17		30.2	C	29.6	29.6	C	-0.7	-0.001
		PM	11/00/15		44.9	D	45.0	45.0	D	6.3	0.011
7	Mathilda Ave & Indio Ave	AM	11/00/15	E	29.6	C	31.2	31.2	C	2.1	0.033
		School PM	05/16/17		10.4	B+	10.4	10.4	B+	0.0	0.008
		PM	11/00/15		23.7	C	23.7	23.7	C	0.0	0.003
8	Mathilda Ave & California Ave	AM	11/00/15	E	25.4	C	25.2	25.2	C	-0.2	0.007
		School PM	05/16/17		17.6	B	17.4	17.4	B	-0.1	0.005
		PM	11/00/15		28.5	C	28.4	28.4	C	0.0	0.001
12	Sunnyvale Ave/Borregas Ave & Maude Ave	AM	05/16/17	D	41.1	D	40.8	40.8	D	-0.5	0.050
		School PM	05/16/17		32.7	C-	32.9	32.9	C-	0.4	0.007
		PM	05/16/17		29.3	C	29.4	29.4	C	0.2	0.003
16	Fair Oaks Ave & Weddell Dr	AM	04/04/17	D	17.2	B	17.2	17.2	B	0.0	0.006
		School PM	12/02/15		20.0	C+	19.9	19.9	B-	0.0	0.003
		PM	04/04/17		16.5	B	16.5	16.5	B	0.1	0.001
17	Fair Oaks Ave & US 101 NB Ramps	AM	04/04/17	E	23.4	C	23.3	23.3	C	0.0	0.000
		School PM	12/02/15		20.0	C+	19.9	19.9	B-	0.0	0.003
		PM	04/04/17		27.4	C	27.4	27.4	C	0.0	0.001
18	Fair Oaks Ave & Ahwanee Ave	AM	04/04/17	D	22.3	C+	23.3	23.3	C	1.2	0.014
		School PM	12/02/15		18.2	B-	19.2	19.2	B-	0.8	0.012
		PM	04/04/17		13.9	B	14.4	14.4	B	0.4	0.005
19	Fair Oaks Ave & Duane Ave	AM	04/04/17	D	34.6	C-	34.7	34.7	C-	0.8	0.009
		School PM	12/02/15		30.5	C	30.7	30.7	C	0.4	0.006
		PM	04/04/17		31.4	C	31.6	31.6	C	0.2	0.005
20	Fair Oaks Ave & Wolfe Rd	AM	04/04/17	D	16.0	B	15.8	15.8	B	0.0	0.000
		School PM	12/02/15		13.4	B	13.1	13.1	B	0.2	0.004
		PM	04/04/17		14.1	B	14.1	14.1	B	0.0	0.002
21	Fair Oaks Ave & Maude Ave	AM	05/16/17	D	27.1	C	27.6	27.6	C	0.6	0.033
		School PM	12/02/15		29.0	C	29.3	29.3	C	0.7	0.021
		PM	05/16/17		31.2	C	31.4	31.4	C	0.3	0.006
23	Wolfe Rd & Arques Ave	AM	04/04/17	D	40.5	D	40.3	40.3	D	-0.1	0.000
		School PM	12/02/15		39.3	D	39.1	39.1	D	0.0	0.000
		PM	04/04/17		40.4	D	40.3	40.3	D	-0.1	0.001
24	Wolfe Rd & Central Expwy Ramps	AM	04/04/17	E	37.9	D+	36.7	36.7	D+	16.7	0.071
		School PM	12/02/15		41.3	D	41.7	41.7	D	0.1	0.011
		PM	04/04/17		62.8	E	63.1	63.1	E	0.4	0.004

Notes:

* Intersections are analyzed using the Synchro file provided by City for the AM and PM peak hours. The school PM peak hour analysis is done using TRAFFIX.

Table 15
Existing plus Project Level of Service Summary – Unsignalized Intersections

#	Intersection	Control	Peak Hour	Count Date	Existing			Existing plus Project				
					Delay (sec)	LOS	Signal Warrant Met ³	Delay (sec)	LOS	Incr. in Delay	Incr. in V/C	Signal Warrant Met ³
9	San Aleso Ave & Ahwanee Ave	Side-Street	AM	05/16/17	9.7	A	-	14.0	B	4.3	0.356	
		Stop ¹	School PM	05/16/17	9.3	A	-	11.0	B	1.7	0.205	-
			PM	05/16/17	10.5	B		11.7	B	1.2	0.099	
10	Borregas Ave & Ahwanee Ave	All-Way	AM	05/16/17	9.0	A		9.4	A	0.4	0.015	
		Stop ²	School PM	05/16/17	7.9	A	-	8.2	A	0.3	0.078	-
			PM	05/16/17	9.2	A		9.4	A	0.2	0.028	
11	Borregas Ave & Duane Ave	Side-Street	AM	05/16/17	11.6	B		11.9	B	0.3	0.008	
		Stop ¹	School PM	05/16/17	10.7	B	-	10.9	B	0.2	0.002	-
			PM	05/16/17	12.0	B		12.1	B	0.1	0.001	
13	Morse Ave & Ahwanee Ave	Side-Street	AM	05/16/17	18.5	C		21.9	C	3.4	0.058	
		Stop ¹	School PM	05/16/17	11.3	B	-	11.9	B	0.6	0.017	-
			PM	05/16/17	11.7	B		11.9	B	0.2	0.003	
14	Morse Ave & Duane Ave	All-Way	AM	05/16/17	10.4	B		10.5	B	0.1	0.007	
		Stop ²	School PM	05/16/17	8.8	A	-	8.9	A	0.1	0.004	-
			PM	05/16/17	8.6	A		8.6	A	0.0	0.002	
15	Morse Ave & Maude Ave	Side-Street	AM	05/16/17	14.5	B		15.7	C	1.2	0.035	
		Stop ¹	School PM	05/16/17	13.2	B	-	13.7	B	0.5	0.014	-
			PM	05/16/17	16.2	C		16.4	C	0.2	0.000	
22	Wolfe Rd & Maude Ave	Side-Street	AM	05/25/17	26.5	D	No	28.8	D	2.3	0.008	No
		Stop ¹	School PM	05/25/17	20.4	C	-	21.4	C	1.0	0.003	-
			PM	05/25/17	50.4	F	Yes	51.7	F	1.3	0.003	Yes

Notes:

1. Delay, LOS and volume-to-capacity ratio reported for side-street stop-controlled intersections represent the movement with the worst delay.
2. Delay, LOS and volume-to-capacity ratio reported for all-way stop-controlled intersections represent intersection average.
3. The CAMUTCD Peak Hour Signal Warrant is checked only if the intersection is operating at an unacceptable level of service. Signal warrants are checked only for the AM and PM peak hours of commute traffic.

BOLD indicates unacceptable level of service

Project Conditions Freeway Analysis

The results of the CMP freeway analysis show that the freeway segments currently operating at acceptable levels of service would continue to operate at acceptable levels of service under project conditions. For freeway segments currently operating at unacceptable LOS F, the project generated freeway traffic would not exceed 1%, thus the project freeway impacts would be less than significant (see Table 16).

Table 16
Project Conditions Freeway Analysis Summary

Freeway	Segment	Dir.	Peak Hour	Existing Conditions - Mixed Flow Lanes ¹					Summit School Project		
				Ave. Speed	Lanes	Capacity	Volume	LOS	Trips	% Capacity	LOS
US 101	Lawrence Expwy. to Fair Oaks Ave.	NB	AM	33	3	6,900	5,940	F	41	0.59%	F
			PM	66	3	6,900	4,760	C	7	0.10%	C
US 101	Fair Oaks Ave. to Mathilda Ave.	NB	AM	43	3	6,900	6,330	E	41	0.59%	E
			PM	66	3	6,900	4,760	C	7	0.10%	C
US 101	Mathilda Ave. to SR 237	NB	AM	28	3	6,900	5,630	F	35	0.51%	F
			PM	39	3	6,900	6,210	E	10	0.14%	E
US 101	SR 237 to Mathilda Ave.	SB	AM	66	3	6,900	4,560	C	41	0.59%	C
			PM	18	3	6,900	4,700	F	7	0.10%	F
US 101	Mathilda Ave. to Fair Oaks Ave.	SB	AM	66	3	6,900	4,760	C	35	0.51%	C
			PM	25	3	6,900	5,400	F	10	0.14%	F
US 101	Fair Oaks Ave. to Lawrence Expwy.	SB	AM	66	3	6,900	5,510	D	35	0.51%	D
			PM	16	3	6,900	4,420	F	10	0.14%	F
SR 237	US 101 to Mathilda Ave.	EB	AM	55	2	4,400	4,400	D	0	0.00%	D
			PM	9	2	4,400	2,180	F	0	0.00%	F
SR 237	Mathilda Ave. to Fair Oaks Ave.	EB	AM	64	2	4,400	4,230	D	12	0.27%	D
			PM	14	2	4,400	2,800	F	4	0.09%	F
SR 237	Fair Oaks Ave. to Lawrence Expwy.	EB	AM	64	2	4,400	4,230	D	12	0.27%	D
			PM	10	2	4,400	2,300	F	4	0.09%	F
SR 237	Lawrence Expwy. to Fair Oaks Ave.	WB	AM	15	2	4,400	2,850	F	14	0.32%	F
			PM	32	2	4,400	3,910	F	2	0.05%	F
SR 237	Fair Oaks Ave. to Mathilda Ave.	WB	AM	18	3	6,900	4,810	F	14	0.20%	F
			PM	19	3	6,900	4,790	F	2	0.03%	F
SR 237	Mathilda Ave. to US 101	WB	AM	41	2	4,400	4,190	E	0	0.00%	E
			PM	20	2	4,400	3,280	F	0	0.00%	F

Notes:

1. Existing freeway conditions referenced the *Santa Clara VTA 2016 Monitoring and Conformance Report*, dated February 2, 2017.
BOLD indicates a substandard level of service.

Project Conditions Freeway Ramp Analysis

Freeway ramp volumes under project conditions were estimated by adding project trips to the existing volumes. The peak-hour ramp volumes under project conditions are shown in Table 17.

The ramp analysis shows that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and that the study freeway ramps would continue to have sufficient capacity to serve the projected traffic volumes under project conditions.

Table 17
Project Conditions Freeway Ramp Analysis

Interchange	Ramp	Type	Peak Hour	Existing Conditions			Summit School		
				Capacity ²	Peak Volume ³	V/C	Project Trips	Peak Volume	V/C
US 101/Mathilda Ave	SB On-Ramp fr. NB Mathilda Ave.	Diagonal	AM	1,800	480	0.27	35	515	0.29
			PM		433	0.24		10	443
	NB On-Ramp fr. NB Mathilda Ave.	Loop	AM	1,800	287	0.16	35	322	0.18
			PM		295	0.16		10	305
	SB Off-Ramp	Diagonal	AM	2,000	340	0.17	41	381	0.19
			PM		498	0.25		7	505
	NB Off-Ramp to SB Mathilda Ave.	Loop	AM	1,800	722	0.40	41	763	0.42
			PM		729	0.41		7	736
SR 237/Mathilda Ave	EB On-Ramp	Diagonal	AM	2,000	765	0.38	12	777	0.39
			PM		985	0.49		4	989
	WB On-Ramp	Diagonal	AM	900	226	0.25	0	226	0.25
			PM		502	0.56		0	502
	EB Off-Ramp	Diagonal	AM	3,800	1,020	0.27	0	1,020	0.27
			PM		890	0.23		0	890
	WB Off-Ramp	Diagonal	AM	2,000	840	0.42	14	854	0.43
			PM		390	0.20		2	392

Notes:

SB=Southbound, NB=Northbound, EB=Eastbound, WB=Westbound, fr.=from

- As a conservative approach, if an on-ramp has meter equipment present, the ramp is analyzed assuming it is metered.
- Ramp capacities were obtained from the *Highway Capacity Manual 2000*, and considered the free-flow speed, the number of lanes on the ramp, and ramp metering.
- Existing peak hour volumes are obtained through personal communication with Caltrans staff.

On-Ramp Queues

Hexagon conducted field observations at all on ramps in May 2017, and found that the US 101 southbound on-ramp from northbound Mathilda Avenue was metered during the PM peak hour. Hexagon observed that during the PM peak hour the mixed-flow lane on the ramp had an average queue of four vehicles and a maximum queue of 12 vehicles, which took 98 seconds for the queue to clear. Queues were minimal in the HOV lane.

The ramp volume and the maximum ramp queue at the on-ramp under background conditions were estimated based on the ratio between the northbound through movement volume under existing and background conditions. Based on observed conditions, it is estimated that under background conditions the on-ramp would have a maximum queue of 17 vehicles, which would take 139 seconds to clear. Assuming 25 feet per vehicle, the maximum queue under background conditions would be 425 feet, which would be contained within the existing ramp storage area of approximately 680 feet. As shown on Table 18, the project is expected to add 10 vehicles onto this ramp during the PM peak hour. It is estimated that under background plus project conditions, the maximum queue would remain unchanged compared to background conditions.

Table 18
Project Conditions Freeway On-Ramp Queuing Analysis

Ramp	Peak Hour	Existing ¹			Background Conditions ²			Background plus Project Conditions		
		Volume	Queue Length (veh.)	Wait Time (sec.)	Volume	Queue Length ³ (veh.)	Wait Time ⁴ (sec.)	Volume	Queue Length ³ (veh.)	Wait Time ⁴ (sec.)
US 101 SB On-Ramp fr. NB Mathilda Ave.	PM	433	12	98	600	17	139	610	17	139

Notes:
SB=Southbound, NB=Northbound, fr.=from
1. Existing wait time and queue length represent the longest queue and the corresponding wait time observed during the peak-hour period.
2. Background conditions ramp volumes are estimated based on the northbound through movement volume increase at the intersection of Mathilda Ave. and Almanor Ave.
3. Future queue lengths were estimated based on the ramp volumes under future conditions.
4. Future wait times were estimated based on the projected future queue length.

Potential Project Effects on the Ramp Operations

As discussed in Chapter 4, the project is expected to add 41 vehicles onto the westbound Central Expressway off-ramp to San Bernardino Way during the AM peak hour. It is expected that some project traffic will add onto the queue at this off-ramp during the two cycles beginning at 8 AM when the queue extends towards the Sunnyvale Avenue overpass. However, the westbound auxiliary lane on Central Expressway has sufficient queue space to accommodate the added traffic. Project added traffic at this off-ramp during any other time is not expected to considerably affect the ramp operations. The proposed project would add minimal traffic onto any other ramps at the Central Expressway and Mathilda Avenue interchange during any other study periods. Overall, it is not expected that project traffic would considerably affect the ramp operations.

PPSP Cumulative Impact Fair Share Contribution

According to VTA's CMP TIA guidelines, a scenario analyzing project impacts under cumulative conditions is also required. Because the project is located within and consistent with the recently-adopted Peery Park Specific Plan (PPSP), the cumulative project impacts are included in the PPSP TIA document dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc. The project's contribution to the cumulative impacts of the PPSP is discussed in this section.

PPSP Cumulative Impact Mitigations with PPSP Fair-Share Contributions

Impact: The PPSP would generate a cumulative intersection impact at the intersection of Mary Avenue and Central Expressway.

Mitigation: As a partial mitigation, projects within the PPSP will contribute their fair-share towards a third westbound left-turn lane at this intersection identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

Impact: The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Cabrillo Avenue.

Mitigation: Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

Impact: The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Benton Street.

Mitigation: Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

Impact: The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Homestead Road.

Mitigation: Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 1 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

Impact: The PPSP would generate a cumulative intersection impact at the intersection of Lawrence Expressway and Pruneridge Avenue.

Mitigation: Projects within the PPSP will contribute their fair-share towards the construction of an interchange at this location identified as a Tier 3 project as part of the August 2015 update of the *County of Santa Clara Expressway Plan 2040*.

Impact: The PPSP would generate cumulative freeway impacts along US 101 in the northbound direction from I-280 to Mathilda Avenue and from Shoreline Boulevard to Embarcadero Road, and in the southbound direction from Moffett Boulevard to Ellis Street and from Mathilda Avenue to I-280.

Mitigation: Projects within the PPSP will contribute their fair-share towards the conversion of the existing HOV lanes along US 101 to express lanes and the construction of a second express lane in each direction along US 101.

Project Fair Share Contribution

The proposed project is estimated to generate a net 510 AM peak hour trips. Since this is a school project, the PPSP cumulative impact fee would apply only to student/parent trips generated outside of the City, as well as to staff trips. Based on the trip generation and distribution assumptions discussed in Chapter 4, the PPSP cumulative impact fee would apply to 231 net AM peak hour trips. According to the ITE *Trip Generation, 9th Edition*, the AM peak hour average trip generation rate for an office building is 1.56 trips per 1,000 s.f. The 231 net peak hour project trips would be equivalent to a 148,077 s.f. office building in terms of peak hour trip generation. Therefore, the project shall pay a fair share contribution for this square footage towards mitigating the PPSP cumulative impacts.

5. Other Transportation Issues

This chapter presents an analysis of other transportation issues associated with the project site, including:

- Operations analysis – vehicle queuing and storage at selected intersections,
- Potential impacts to transit, pedestrian and bicycle facilities,
- Site access, on-site circulation,
- Parking, and
- School Safety Assessment.

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to describing the project environment.

Vehicle Queuing

Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

$$P(x = n) = \frac{\lambda^n e^{-\lambda}}{n!}$$

Where:

$P(x = n)$ = probability of “n” vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = Average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The operations analysis is based on vehicle queuing for high-demand left-turn movements at intersections where 10 or more project trips per lane were added. Vehicle queues were estimated using a Poisson probability distribution. The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement to determine if adequate storage is available to accommodate the 95th percentile queues. This analysis thus provides a basis for determining whether the addition of project trips would exacerbate peak hour queues and delays, as well as estimating future storage requirements at intersections.

Based on the selection criteria of 10 or more project trips per left-turn lane, the following lanes were analyzed during the AM peak hour:

- Mathilda Avenue & Almanor Avenue – westbound left-turn lane
- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- San Aleso Avenue & Ahwanee Avenue – northbound lane
- Borregas Avenue & Ahwanee Avenue – eastbound lane
- Fair Oaks Avenue & Ahwanee Avenue – eastbound shared left-through lane
- Fair Oaks Avenue & Maude Avenue – northbound left-turn lane
- Wolfe Road & Maude Avenue – northbound left-turn lane
- Wolfe Road & Central Expressway Ramps – northbound and southbound left-turn lanes

Based on the selection criteria of 10 or more project trips per left-turn lane, the following lanes were analyzed during the PM school peak hour:

- Mathilda Avenue & Almanor Avenue – westbound left-turn lane
- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- San Aleso Avenue & Ahwanee Avenue – northbound lane
- Borregas Avenue & Ahwanee Avenue – eastbound lane
- Fair Oaks Avenue & Ahwanee Avenue – eastbound share left-through lane
- Fair Oaks Avenue & Maude Avenue – northbound left-turn lane

Based on the selection criteria of 10 or more project trips per left-turn lane, the following lanes were analyzed during the PM commute peak hour:

- Mathilda Avenue & Almanor Avenue – westbound left-turn lane
- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- San Aleso Avenue & Ahwanee Avenue – northbound lane
- Borregas Avenue & Ahwanee Avenue – eastbound lane

Hexagon conducted field observations during all study peak periods and calibrated the queuing results to match existing conditions observed in the field. The vehicle queuing estimates at these locations during the AM, PM school and PM commute peak hours are provided in Tables 19 to 22. The queuing results for the background plus project scenario are compared to the background scenario to determine whether the project would cause extensive queuing issues. Under background plus project conditions, left-turn traffic is expected to overflow the existing turn pockets at the following locations during at least one study period:

- Mathilda Avenue & San Aleso Avenue – southbound left-turn lane
- Fair Oaks Avenue & Maude Avenue – northbound left-turn lane
- Wolfe Road & Central Expressway Ramps – northbound left-turn lane

Below is a detailed discussion of the above identified locations under background plus project conditions.

Mathilda Avenue & San Aleso Avenue – southbound left-turn lane

The project is expected to add 105 vehicles during the AM peak hour and 18 vehicles during the PM commute peak hour onto this southbound left-turn lane under background plus project conditions and would lengthen the 95th percentile queues. Since the 95th percentile queue under background plus project conditions is longer during the AM peak hour (425 feet compared to 350 feet during the commute PM peak hour), the following discussion is focused on the AM peak hour.

This left-turn movement has one turn lane with a total queue storage space of approximately 200 feet. Under background conditions during the AM peak hour, the 95th percentile queue length would be 250 feet, with back-of-queue extending out of the turn pocket. Under background plus project conditions, the proposed project would add 105 southbound left-turn vehicles during the AM peak hour. The 95th percentile queue length would be extended by 175 feet to 425 feet.

There is no room to further extend this left-turn lane. There is no feasible improvement for the identified queuing issue.

Fair Oaks Avenue & Maude Avenue – northbound left-turn lane

The project is expected to add 27 vehicles during the AM peak hour and 16 vehicles during the PM school peak hour onto this northbound left-turn lane under background plus project conditions and would lengthen the 95th percentile queues. Since the 95th percentile queue under background plus project conditions is longer during the AM peak hour (325 feet compared to 150 feet during the PM school peak hour), the following discussion is focused on the AM peak hour.

This left-turn movement has one turn lane with a total queue storage space of approximately 140 feet. Under background conditions during the AM peak hour, the 95th percentile queue length would be 275 feet, with back-of-queue extending out of the turn pocket. Under background plus project conditions, the proposed project would add 27 northbound left-turn vehicles during the AM peak hour. The 95th percentile queue length would be extended by 50 feet to 325 feet.

Potential Improvement

Fair Oaks Avenue south of Maude Avenue could potentially be restriped to accommodate a longer northbound left-turn lane. The restriping could be accommodated within the existing right-of-way without eliminating existing on-street parking. While there is insufficient room to accommodate the 95th percentile queue of 325 feet under background plus project conditions during the AM peak hour, the 95th percentile queue is expected to be found only 5% of the times. A lengthened left-turn pocket would reduce the times the northbound left-turn traffic overflows the turn pocket and blocks the inner through lane. The exact storage length should be determined when detailed design is completed for the improvement.

Wolfe Road and Central Expressway Ramps – northbound left-turn lane

This left-turn movement has one turn lane with a total queue storage space of approximately 300 feet. Under background conditions during the AM peak hour, the 95th percentile queue length would be 450 feet, with back-of-queue extending out of the turn pocket. Under background plus project conditions, the proposed project would add 14 northbound left-turn vehicles during the AM peak hour. The 95th percentile queue length would be extended by 25 feet to 475 feet.

Potential Improvement

The northbound left-turn lane could be lengthened to ensure that the left-turn vehicle queues would not overflow the turn pocket. The existing median could be narrowed to extend the left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.

Table 19
AM Peak Hour Queuing Analysis

Measurement	Mathilda Ave & Almanor Ave	Mathilda Ave & San Aleso Ave	San Aleso Ave & Ahwanee Ave	Borregas Ave & Ahwanee Ave	Fair Oaks Ave & Ahwanee Ave	Fair Oaks Ave & Maude Ave	Wolfe Rd & Maude Ave	Wolfe Rd & Central Expwy Ramps	
	WBL	SBL	NB	EB	EBLT ³	NBL ³	NBL	NBL ³	SBL
Existing									
Cycle/Delay ¹ (sec)	170	170	9.7	8.1	75	175	8.3	105	160
Volume (vphpl)	42	63	62	116	255	122	168	393	30
Avg. Queue (veh./ln.)	2	3	0	0	5	6	0	11	1
Avg. Queue ² (ft./ln)	50	75	0	0	125	150	0	275	25
95th % . Queue (veh./ln.)	5	6	1	1	9	10	2	17	3
95th % . Queue (ft./ln)	125	150	25	25	225	250	50	425	75
Storage (ft./ ln.)	270	200	85	50	100	140	750	300	290
Adequate (Y/N)	Y	Y	Y	Y	N	N	Y	N	Y
Background									
Cycle/Delay ¹ (sec)	170	170	9.7	8.3	75	175	9.1	105	160
Volume (vphpl)	42	130	73	128	271	132	221	426	68
Avg. Queue (veh./ln.)	2	6	0	0	6	6	1	12	3
Avg. Queue ² (ft./ln)	50	150	0	0	150	150	25	300	75
95th % . Queue (veh./ln.)	5	10	1	1	10	11	2	18	6
95th % . Queue (ft./ln)	125	250	25	25	250	275	50	450	150
Storage (ft./ ln.)	270	200	85	50	100	140	750	300	290
Adequate (Y/N)	Y	N	Y	Y	N	N	Y	N	Y
Background plus Project									
Cycle/Delay ¹ (sec)	170	170	14.7	9.3	75	175	9.2	105	160
Volume (vphpl)	101	235	310	220	296	159	235	440	80
Avg. Queue (veh./ln.)	5	11	1	1	6	8	1	13	4
Avg. Queue ² (ft./ln)	125	275	25	25	150	200	25	325	100
95th % . Queue (veh./ln.)	9	17	3	2	10	13	2	19	7
95th % . Queue (ft./ln)	225	425	75	50	250	325	50	475	175
Storage (ft./ ln.)	270	200	85	50	100	140	750	300	290
Adequate (Y/N)	Y	N	Y	Y	N	N	Y	N	Y
<ol style="list-style-type: none"> Vehicle queue calculations based on cycle length for signalized intersections, and delay for unsignalized intersections Assumes 25 Feet Per Vehicle Queued Cycle length calibrated so calculated average queue length match conditions observed in the field. 									
Bold indicates project traffic would lengthen the 95th percentile queues that are already overflowing the storage space under background conditions.									

Table 20
PM school Peak Hour Queuing Analysis

Measurement	Mathilda Ave & Almanor Ave	Mathilda Ave & San Aleso Ave	San Aleso Ave & Ahwanee Ave	Borregas Ave & Ahwanee Ave	Fair Oaks Ave & Ahwanee Ave	Fair Oaks Ave & Maude Ave
	WBL	SBL	NB	EB	EBLT	NBL
Existing						
Cycle/Delay ¹ (sec)	120	70	9.3	7.7	120	120
Volume (vphpl)	23	74	53	150	171	68
Avg. Queue (veh/ln.)	1	1	0	0	6	2
Avg. Queue ² (ft./ln)	25	25	0	0	150	50
95th % Queue (veh/ln.)	2	4	1	1	10	5
95th % Queue (ft./ln)	50	100	25	25	250	125
Storage (ft./ ln.)	270	200	85	50	100	140
Adequate (Y/N)	Y	Y	Y	Y	N	Y
Background						
Cycle/Delay ¹ (sec)	120	70	9.4	7.8	120	120
Volume (vphpl)	23	130	58	161	186	67
Avg. Queue (veh/ln.)	1	3	0	0	6	2
Avg. Queue ² (ft./ln)	25	75	0	0	150	50
95th % Queue (veh/ln.)	2	5	1	1	11	5
95th % Queue (ft./ln)	50	125	25	25	275	125
Storage (ft./ ln.)	270	200	85	50	100	140
Adequate (Y/N)	Y	Y	Y	Y	N	Y
Background plus Project						
Cycle/Delay ¹ (sec)	120	70	11.2	8.4	120	120
Volume (vphpl)	64	188	219	227	203	83
Avg. Queue (veh/ln.)	2	4	1	1	7	3
Avg. Queue ² (ft./ln)	50	100	25	25	175	75
95th % Queue (veh/ln.)	5	7	2	2	11	6
95th % Queue (ft./ln)	125	175	50	50	275	150
Storage (ft./ ln.)	270	200	85	50	100	140
Adequate (Y/N)	Y	Y	Y	Y	N	N
<p>1. Vehicle queue calculations based on cycle length for signalized intersections, and delay for unsignalized intersections</p> <p>2. Assumes 25 Feet Per Vehicle Queued</p> <p>Bold indicates project traffic would lengthen the 95th percentile queues that are already overflowing the storage space under background conditions.</p>						

Table 21
PM commute Peak Hour Queuing Analysis

	Mathilda Ave & Almanor Ave	Mathilda Ave & San Aleso Ave	San Aleso Ave & Ahwanee Ave	Borregas Ave & Ahwanee Ave
Measurement	WBL	SBL	NB	EB
Existing				
Cycle/Delay ¹ (sec)	150	150	10.5	9.6
Volume (vphpl)	31	111	106	342
Avg. Queue (veh./ln.)	1	5	0	1
Avg. Queue ² (ft./ln)	25	125	0	25
95th % . Queue (veh./ln.)	3	8	1	3
95th % . Queue (ft./ln)	75	200	25	75
Storage (ft./ ln.)	270	200	85	50
Adequate (Y/N)	Y	Y	Y	N
Background				
Cycle/Delay ¹ (sec)	150	150	10.7	9.9
Volume (vphpl)	31	192	114	360
Avg. Queue (veh./ln.)	1	8	0	1
Avg. Queue ² (ft./ln)	25	200	0	25
95th % . Queue (veh./ln.)	3	13	1	3
95th % . Queue (ft./ln)	75	325	25	75
Storage (ft./ ln.)	270	200	85	50
Adequate (Y/N)	Y	N	Y	N
Background plus Project				
Cycle/Delay ¹ (sec)	150	150	12	10.2
Volume (vphpl)	47	210	177	383
Avg. Queue (veh./ln.)	2	9	1	1
Avg. Queue ² (ft./ln)	50	225	25	25
95th % . Queue (veh./ln.)	4	14	2	3
95th % . Queue (ft./ln)	100	350	50	75
Storage (ft./ ln.)	270	200	85	50
Adequate (Y/N)	Y	N	Y	N
<p>1. Vehicle queue calculations based on cycle length for signalized intersections, and delay for unsignalized intersections</p> <p>2. Assumes 25 Feet Per Vehicle Queued</p> <p>Bold indicates project traffic would lengthen the 95th percentile queues that are already overflowing the storage space under background conditions.</p>				

Potential Impacts to Transit Facilities

Transit Facility Impacts

Within the project vicinity, VTA Bus Route 54 stops along Mathilda Avenue between San Aleso Avenue and Ahwanee Avenue, approximately 1,700 feet from the project area. VTA Bus Route 55 stops at the intersection of Sunnyvale Avenue and Maude Avenue, which is approximately one mile from the project site. VTA Bus Route 26 stops at the intersection of Fair Oaks Avenue and Maude Avenue, which is located approximately 1.5 miles from the project site. Only the stop for Bus Route 54 is within walking distance, while the stops for Bus Routes 55 and 26 are within biking distance. While Bus Route 54 stops within walking distance, this bus operates with 30-minute headways and would likely see a minor ridership increase on the one bus that arrives before school starts or after school ends. Bus Routes 55 and 26 stop farther away from the project site, and would require students to either walk a long distance or bike to school. Therefore, it is expected that the project would minorly increase the bus ridership.

The project is also served by two light rail stations (Moffett Park Station and Fair Oaks Station) and one Caltrain station (Sunnyvale Station). Bus connectivity between the project site and the light rail stations is poor, and students who take the light rail train would need to walk to the project site. Since both light rail stations are located outside of walking distance, it is expected that the project would generate only minor increases in ridership on the light rail trains. The Sunnyvale Caltrain station is a stop for the Baby-Bullet train, but it is located outside of walking distance to the proposed school and the bus that connects the project site and the Caltrain station (Bus Route 54 and 55) runs on only 30-minute headways. Therefore, it is expected that the project would generate only minor increases in ridership on Caltrain.

According to the traffic survey conducted by Summit Public Schools in January 2016, the surveyed schools had varying degrees of public transit utilization (between 0% and 5%), depending on the school proximity to transit and the types of transit serving the school. The 5% transit utilization rate was found at a school served by 3 bus lines. As discussed above, it is not expected that many of the students would take transit to school. Assuming 3% of the 400 students were to take transit to school, that would be 12 students. It is expected that the VTA bus service and the Caltrain service would both have the capacity to accommodate 12 additional transit riders.

Transit Travel Time Impacts

Currently, VTA Bus Route 54 travels on Mathilda Avenue within the project vicinity, Bus Route 55 travels on Sunnyvale Avenue, Maude Avenue, Fair Oaks Avenue and Duane Avenue within the project vicinity, and Bus Route 26 travels on Fair Oaks Avenue within the project vicinity. To assess the transit travel time impacts, the bus route travel times in the study area under background plus project conditions were compared to background conditions. Bus route travel times are estimated using published schedules and adjusted based on delays experienced at study intersection turning movements. VTA does not have established criteria to determine impact to transit services. Therefore, this analysis is presented for information purposes only.

The results show that there would be minimal changes in transit delay in the study area under the project scenario. For most bus routes, the project would increase route delay by only a few seconds. For Bus Route 54 during the AM peak hour, the project would increase route delay by 22 seconds compared to background conditions. The proposed project is consistent with the Peery Park Specific Plan (PPSP), and the cumulative transit impacts related to PPSP buildout are disclosed in the *Peery Park Specific Plan TIA* report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc. The project is expected to worsen left-turn queuing at three left-turn movements (identified in above section). None of the transit routes would turn left at these three left-turn movements. The results of the transit travel time comparison are summarized in Table 23.

Table 22
Transit Travel Time Delay Analysis

Route	Peak Hour	Existing		Background	Background + Project			
		Travel Time min	Delay in the Study Area (sec)	Delay in the Study Area (sec)	Delay in the Study Area (sec)	Change in Delay (sec)	% Change in Travel Time	
<i>Route 26</i>								
Eastbound	AM	106	112.4	120.1	122.3	2.2	0.035%	
	School PM	116	103.6	106.3	107.9	1.6	0.023%	
	PM	122	104	153	154.4	1.4	0.019%	
Westbound	AM	121	82.4	105.3	106.2	0.9	0.012%	
	School PM	119	105.6	103.8	104.5	0.7	0.010%	
	PM	119	127.4	127.9	128.3	0.4	0.006%	
<i>Route 54</i>								
Northbound	AM	29	103.4	157.9	179.9	22.0	1.226%	
	School PM	30	141.4	149.9	149.5	-0.4	-0.022%	
	PM	32	236.8	242.8	243.3	0.5	0.026%	
Southbound	AM	34	189.2	186.2	192.5	6.3	0.309%	
	School PM	33	89.4	109.7	110.1	0.4	0.020%	
	PM	40	143.9	297.9	301.2	3.3	0.129%	
<i>Route 55</i>								
Northbound	AM	60	122	131	134.2	3.2	0.089%	
	School PM	68	114.5	119.2	120.5	1.3	0.032%	
	PM	67	157.2	159.3	159.7	0.4	0.010%	
Southbound	AM	55	135.6	145.6	145.7	0.1	0.003%	
	School PM	56	116.8	122.6	123.3	0.7	0.021%	
	PM	66	130	144	144.6	0.6	0.015%	

Potential Impact to Pedestrian Facilities

Within the project vicinity, it is anticipated that students from the Snail neighborhood, Lowlanders neighborhood and Morse park neighborhood would be the students most likely to walk to school. These neighborhoods are all located within an approximately 1-mile radius of the project site. From the Morse Park neighborhood, students could cross US 101 using the pedestrian/bicycle bridge at Borregas Avenue. At the northern end of the bridge, there is a crosswalk across the west leg of the intersection at Borregas Avenue and Weddell Drive. At the southern end of the bridge, there are crosswalks across all legs of the intersection at Borregas Avenue and Ahwanee Avenue. There is continuous sidewalk from the southern end of the bridge to the project site. From the Snail neighborhood, continuous sidewalks exist on Borregas Avenue, Morse Avenue, Ahwanee Avenue and Maude Avenue. There exist continuous sidewalks if students walk to school using Ahwanee Avenue. For students using Maude Avenue, Mathilda Avenue and San Aleso Avenue to walk to school, there is continuous sidewalk until they reach San Aleso Avenue. Between the project site and Mathilda Avenue, sidewalks are discontinuous along both sides of San Aleso Avenue. From the Lowlanders neighborhood, students would walk to Maude Avenue from any one of the north-south streets, all of which have sidewalks. Once they reach Maude Avenue, students could either walk north to Ahwanee Avenue to access the project site or walk west to Mathilda Avenue.

In general, pedestrian facilities are present along most of the streets within the project vicinity; however, the sidewalks along San Aleso Avenue south of the project site are discontinuous. The discontinuous sidewalks could discourage students from using transit, since the only bus (route 54) stopping within walking distance of the project site requires students to walk along a part of San Aleso Avenue without sidewalks to get to school. The discontinuous sidewalks could also force students to cut-through properties between Mathilda Avenue and San Aleso Avenue. The *Peery Park Specific Plan* identifies San Aleso Avenue as a roadway needing new/improved sidewalks. The project applicant should coordinate with City staff to improve the sidewalk fronting the project site per the City's current design standard.

Since the intersection at Mathilda Avenue and San Aleso Avenue is the closest intersection south of the project site, the crosswalks should be upgraded to yellow high visibility crosswalks for all legs of the intersection. The "School Safety Assessment" section below discusses in detail the type of crosswalk recommended at this location and complementary infrastructure that should be upgraded as well.

An apartment complex exists on the southwest quadrant at the intersection of San Aleso Avenue and Ahwanee Avenue. Potential students from this complex enrolled in the proposed high school would not have a marked location to cross San Aleso Avenue. Therefore, it is recommended that the project applicant coordinate with City staff to install a high visibility crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The "School Safety Assessment" section below discusses in detail the type of crosswalk recommended at this location. At the proposed crosswalk location, the existing pedestrian ramps on either side of the crosswalk are not ADA compliant. The project applicant should coordinate with City staff to install ADA-compliant pedestrian ramps on both sides of the crosswalk.

Potential Impact to Bicycle Facilities

Within the project vicinity, the John W. Christian Greenbelt Trail is an east-west running Class I bike path north of US 101. It extends eastward from Borregas Avenue to the Calabazas Creek Trail. There exists a pedestrian/bicycle bridge connecting Borregas Avenue across US 101. Within the immediate project vicinity, Class II bike lanes are present on Mathilda Avenue, Borregas Avenue and Maude Avenue west of Borregas Avenue. San Aleso Avenue carries low traffic volumes and could be conducive to bicyclists. Overall, the project site is well connected to existing bicycle facilities.

Bicycle Parking Requirements

According to the City of Sunnyvale Municipal Code 19.46.150, the proposed project is required to provide bicycle parking in the amount of five percent of the total number of vehicular parking spaces provided. The project currently proposes 76 vehicle parking spaces (see discussion in the Parking Section on Pg 74) and would be required to provide four bicycle parking spaces. The project proposes 40 bicycle parking spaces at the southwest corner of the school building, which would meet the bicycle parking requirement.

Site Access and Circulation

This section describes the site access and circulation of the proposed project. This review is based on project site plans shown on Figure 2. This section focuses the discussion on general site access and circulation. The pick-up and drop-off operations are discussed in the following section.

Site Access

Site access was evaluated to determine the adequacy of the site driveways with regard to corner sight distance. The project site is served by two driveways on San Aleso Avenue. The southern driveway would be a right-turn inbound-only driveway, while the northern driveway would be a right-turn outbound-only driveway.

Sight Distance

The project access points should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other roadway users travelling on adjacent roadways. Landscaping and parking should not conflict with a driver's ability to locate a gap in traffic and see oncoming pedestrians and bicyclists. Adequate corner sight distance (sight distance triangles) should be provided at all site access points in accordance with City standards.

Sight distance requirements vary depending on the roadway speeds. The speed limit on San Aleso Avenue is 25 mph. The Caltrans recommended stopping sight distance is 150 feet. To maintain the Caltrans recommended stopping sight distance, it is recommended that on-street parking within 20 feet south of the outbound-only driveway be prohibited. Because morning drop-offs could be done very quickly along the curbside, some parents may choose to ignore the no-parking signs and drop off students within this 20-feet of no-parking zone. Therefore, a no-stopping sign is recommended at this location instead of a no-parking sign.

The project applicant should ensure that there would not be tall vegetation or objects that could block a driver's view 150 feet down the road as they exit the project site.

Cut-Through Traffic

For vehicles on southbound Mathilda Avenue accessing the project site, the routes to the project site (turning onto Ahwanee Avenue or San Aleso Avenue) are both circuitous. Some vehicles might therefore desire to cut-through the properties between Mathilda Avenue and San Aleso Avenue. It is recommended that the school discourage parents from cutting through parking lots of private properties to access the project site. If the property owners believe too many vehicles are cutting across their parking lots, they may, at their own expense, elect to block off their driveways on San Aleso Avenue during school drop-off and pick-up periods.

Pedestrian Site Access

The school building proposes to have two main entrances, one each on the east and west sides of the building. The student entrance would be on the east side of the building, while the entrance on the west side of the building would be a visitor's entrance and is assumed to be closed during morning drop-off and afternoon pick-up periods. The project proposes a sidewalk along the north property line that connects to the sidewalk wrapping around the school building. This provides continuous sidewalk for students coming from north of the project site on San Aleso Avenue, and students would not have to cross any drive aisles on site to reach the building. The project proposes a marked pedestrian walkway extending from the west edge of the project site just north of the inbound-only driveway to the south sidewalk wrapping around the school building. This walkway would provide enhanced driver awareness of crossing students on-site. Students coming from south of the project site on San Aleso Avenue would need to cross the inbound driveway to access the proposed on-site marked walkway.

Recommendation

It is recommended that the school dedicate staff to direct vehicular traffic at the inbound driveway as well as at the on-site marked walkway to ensure driver awareness of crossing students.

Bicycle Site Access

The proposed bike parking spaces are located along the west side of the school building, just north of the proposed on-site pedestrian walkway. Students who bike to school would have adequate access to the bike parking spaces. Students would walk along the sidewalk wrapping around the school building to enter the school.

On-Site Circulation

The proposed school will repurpose the existing building on site, which is situated in the middle of the project site. Parking is provided both west and east of the building. There exists a 20-foot two-way drive aisle along the southern edge of the building that extends eastward from the inbound-only driveway to the eastern parking area. Between the two project driveways there is also a one-way northbound drive aisle that is just west of the building. This northbound drive aisle provides access to the parking spaces west of the building. Parking space and drive aisle dimensions are mostly not shown on the site plan. Prior to final design, the project applicant should ensure that all dimensions meet the City requirements.

Car Lifts

25 of the 76 parking spaces proposed on site would be provided via a three-level automated car lift system. The configurations of the car lifts are not shown on the site plan. The project applicant should ensure that all car lift spaces are adequately sized to accommodate all passenger car types. Passenger vehicles can have heights up to seven feet, so the lifts need to be able to accommodate this height.

According to CityLift, the vendor for the car lifts, the average retrieval time for a vehicle is approximately 33 seconds. Each lift can serve only one car at a time. During school drop-off and pick-up periods, many vehicles driven by parents would circulate the project site at the area where the car lifts are located. To prevent potential queuing issues emerging from a vehicle waiting to get into the car lifts blocking the drive aisle, it is recommended that the car lift operations be prohibited during the main school drop-off and pick-up periods.

Garbage Trucks Access and Circulation

The project site plan proposes a trash enclosure at the southeast corner of the project site. Adequate garbage truck circulation is provided on site.

Pick-Up and Drop-Off Operations

Morning Drop-Off Operations

As discussed above, the project with a 400-student capacity is expected to generate 508 trips by students or parents (268 in and 240 out) during the AM peak. It is expected that the morning drop-off trips would arrive mostly within a 30-minute period prior to the school start time (7:45 AM to 8:15 AM). Staff trips are expected to arrive before the 30-minute peak period of student drop-off and are therefore excluded from the morning drop-off operations analysis.

As shown on the site plan, the main drop-off area is located east of the school building. Vehicles would enter the project inbound-only driveway, drive eastbound along the 20-foot drive aisle along the south project site edge, loop counterclockwise around the parking lot east of the school building, and drop off along the east building edge. Vehicles would then drive westbound along the 20-foot drive aisle, turn right onto the northbound-only drive aisle and exit the site via the outbound-only driveway. With this configuration, the project would have approximately 650 feet of on-site queuing space for vehicles before they drop off students. Based on engineering judgement, assuming 50% of students are dropped off within a 20-minute period (7:45 AM to 8:05 AM), 30% of students are dropped off between 8:05 AM and 8:10 AM and the remaining 20% of students are dropped off between 8:10 AM and 8:15 AM, and assuming the school implements a 5-car drop-off system (discussed later), the drop-off queue based on a 268-trip inbound demand (see discussion in Chapter 4) could be up to 700 feet between 8:10 AM and 8:15 AM. Since the project is a high school, assuming some of the 268 inbound trips are students driving to school and would not join the drop-off queue, it is expected that the drop-off queue would be contained entirely on site.

Recommended Drop-Off System

As discussed above, the school needs to implement an efficient drop-off system to be able to contain all vehicles on site. Hexagon recommends the school implement a 5-car drop-off system, where 5 cars drive up to the drop-off zone and drop off at the same time. Staff members need to be stationed at the front end of the drop-off zone and direct the cars to leave the drop-off zone only when all 5 vehicles have finished dropping off. As soon as the vehicles leave, the next set of 5 cars would enter the drop-off zone. This system could allow the drop-off zone to serve approximately 10.5 vehicles per minute. It is recommended that the school dedicate a 125-foot space along the east side of the building as the drop-off zone. To ensure an efficient vehicular flow, it is recommended that the school block off all parking spaces in the east parking lot. Further, it is recommended that the school discourage parents from dropping off students while waiting in queue as oncoming vehicles may not be aware of such student crossings.

Afternoon Pick-Up Operations

As discussed above, the project with a 400-student capacity is expected to generate 332 trips by students or parents (156 in and 176 out) during the PM school peak period. The school is expected to generate 112 trips by students or parents during the PM commute peak period. Since most of the student pick-up operations will occur during the PM school peak period, this discussion focuses on the pick-up operations during the PM school peak period. Afternoon school dismissal is proposed at 3:25 PM.

Recommendations

School pick-up operations are different from drop-off operations because parents typically arrive prior to the school dismissal time, park somewhere and wait for students. Once school is dismissed, some parents may choose to drive into the school to pick up students, while others would ask students to walk to the car parked somewhere off site. Parents who park off-site would likely park on-street on San Aleso Avenue or on one of the properties between Mathilda Avenue and San Aleso Avenue. As discussed above, San Aleso Avenue has discontinuous sidewalks and there are no mid-segment crosswalks crossing San Aleso Avenue near the project site. Therefore, students walking to cars parked off-site would have to either walk on the street or cross the street at unmarked locations. To minimize pedestrian exposure to on-street traffic, it is recommended that the school discourage parents from parking off-site to pick up students.

Afternoon pick-up operations should occur on the project site. However, the project site has limited queuing space on site (approximately 650 feet) and would be able to accommodate only approximately 26 vehicles to queue on site. If more than 26 vehicles arrive at school prior to school dismissal, they would have to park on the street or queue onto the street. It is recommended that the school discourage parents from arriving prior to school dismissal to pick up students. Pick-up operations should occur exclusively along the east side of the building. To avoid unnecessary vehicle conflicts, it is recommended that the school prohibit parents from driving into any parking stalls on-site during the pick-up period.

School Safety Assessment

The roadway, bicycle and pedestrian facilities adjacent to the proposed school were evaluated to assess the safety for students and parents. This section discusses proposed improvements the school should implement to improve safety for all road users related to the school.

Existing roadway, bicycle and pedestrian facilities have been discussed in sections above. The key deficiencies that would require improvements are identified below:

- San Aleso Avenue has incomplete sidewalks
- The intersection of San Aleso Avenue and Ahwanee Avenue lacks a marked crosswalk
- The intersection of Mathilda Avenue and San Aleso Avenue lacks yellow-striped crosswalks
- Sight distance is an issue at the outbound-only driveway

Recommendations

In addition, the proposed school would need accompanying signage along nearby roadways to alert drivers of the presence of a school. The recommended improvements to improve safety for all road users related to the school are discussed below and shown on Figure 15:

- The project applicant should coordinate with City staff to improve the sidewalk on the east side of San Aleso Avenue fronting the project site to the standards outlined in the *Peery Park Specific Plan*.
- The project applicant shall install a yellow high-visibility ladder crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The project applicant shall coordinate with City staff to ensure the crosswalk is installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). Currently, the pedestrian curb ramps at either side of the proposed crosswalk are not ADA compliant. The project applicant shall upgrade the curb ramps to meet ADA standards.
- The project applicant shall install yellow high-visibility ladder crosswalks across all legs of the intersection at Mathilda Avenue and San Aleso Avenue. The project applicant shall coordinate with City staff to ensure the crosswalks are installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). The project applicant shall coordinate with City staff to upgrade the pedestrian push buttons for the north leg crosswalk with APS push buttons. The project applicant shall coordinate with City staff to upgrade the curb ramps to meet ADA standards, if necessary.
- The project applicant shall prohibit on-street parking along the east side of San Aleso Avenue within 20 feet south of the project outbound-only driveway. The project applicant shall install red curb or install “No Stopping Any Time” R26(S) (CA) signs. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards. The project applicant should ensure that there would not be tall vegetation or objects that could block a driver's view 150 feet down the road as they exit the project site.
- Per the most recent edition of CA MUTCD (2014 Edition, Revision 3) at the time of this report, streets with a 25-mph speed limit that are contiguous to a school building shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. Since San Aleso Avenue has a speed limit of 25 mph, the project applicant shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards and City’s standards and guidelines.

824 San Aleso Ave. Summit High School

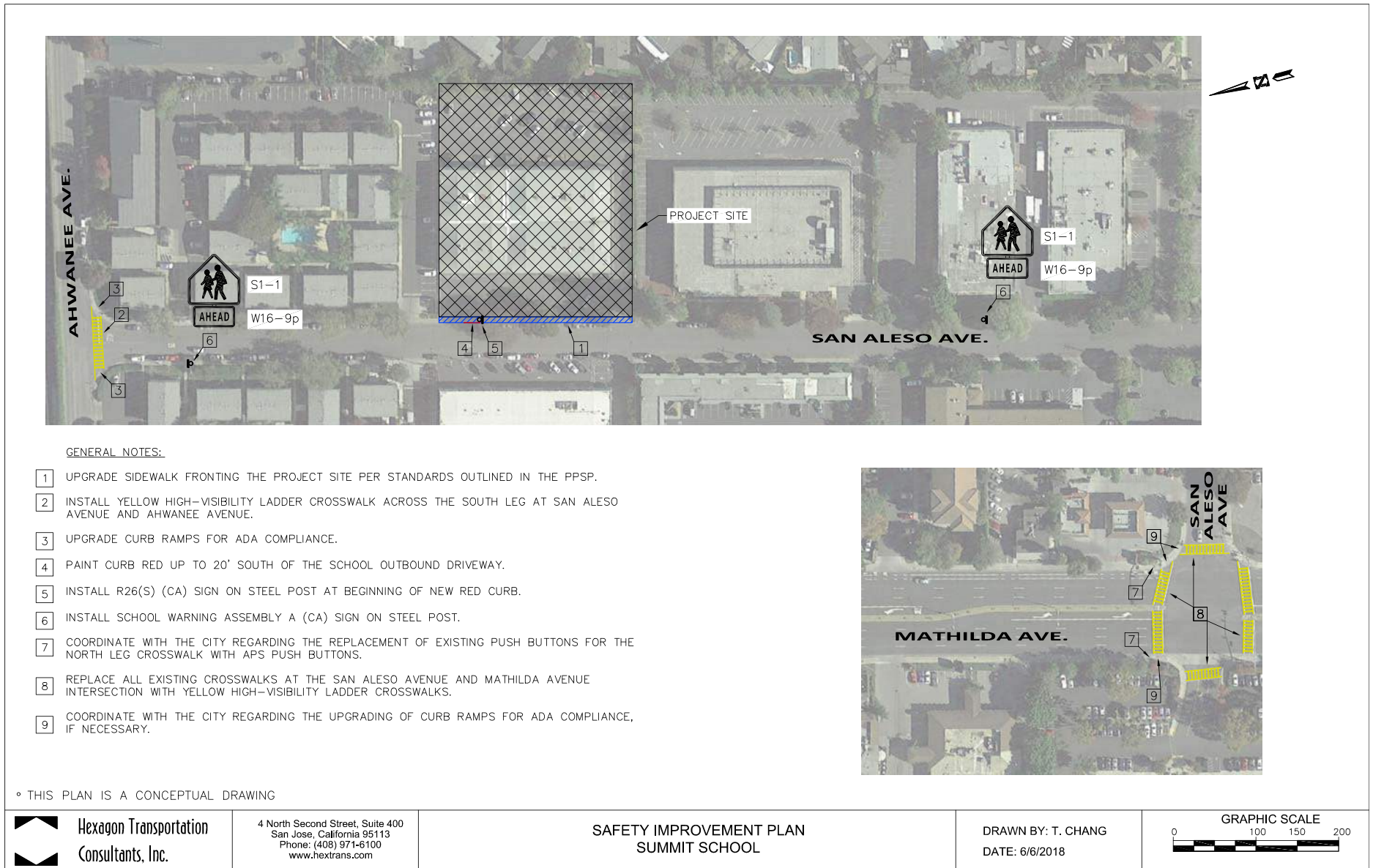


Figure 15
Recommended School Safety Improvements

Parking

The project site is located within the Peery Park Specific Plan (PPSP) area, and the project parking requirements should be subject to requirements outlined in the *Peery Park Specific Plan*. However, the PPSP plan does not specify a parking requirement for high school use. The City of Sunnyvale parking requirement (Municipal Code 19.46.100) states that high school uses (Grades 9-12) shall provide at a minimum 0.25 parking spaces per student. The project at capacity would enroll 400 students ranging from Grade 9 to Grade 12 and would be required to provide 100 parking spaces. The project proposes 76 parking spaces on site, 25 of which would be provided via parking lifts.

According to the traffic survey conducted by Summit Public Schools in January 2016, for every 100 students, seven students would drive to and park their cars at the school. Based on this data and the proposed enrollment, it is expected that 28 students would drive to school. Assuming the school reserves 25 parking spaces for the staff (one for each staff member), the expected parking demand would be 53 spaces. The project has also indicated that student parking at the school will be given parking permits by lottery. Therefore, while the school parking supply does not meet the City's parking requirement, it is anticipated that the 76 proposed parking spaces on site would be sufficient to meet the parking demand. It is possible that students who do not get the lottery could park their cars off site. It is recommended that the school monitor student activities and prohibit students from parking off site.

6. Conclusions

This report presents the results of the Transportation Impact Analysis (TIA) prepared for the proposed Summit high school located at 824 San Aleso Avenue in Sunnyvale, CA. The project proposes to re-purpose the existing building on-site into a 17-classroom high school with a 400-student capacity and 25 full-time staff. The project would be accessed via the existing driveways on site.

This study was conducted for the purpose of identifying the potential near-term transportation impacts related to the proposed high school project. Because the project is consistent with the recently-adopted Peery Park Specific Plan (PPSP), potential long-term traffic impacts have already been studied in the PPSP TIA report dated February 25, 2016, prepared by Hexagon Transportation Consultants, Inc.

Since the project is estimated to generate more than 100 peak hour trips, the potential impacts of the project were evaluated following the standards and methodologies set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP). The traffic study included an analysis of AM (7-9 AM), PM school (2-4 PM), and PM commute (4-6 PM) peak hour traffic conditions for 24 intersections in the vicinity of the project site. One of the study intersections is a CMP intersection, and seven of the study intersections are unsignalized intersections. The study intersections were selected to include locations where the proposed project is expected to generate 10 or more peak-hour trips per lane. Project impacts on other transportation categories, such as vehicle queuing, pedestrian, bicycle and transit facilities, site access and on-site circulation, were determined on the basis of engineering judgment.

The Santa Clara County VTA CMP guidelines require that freeway segments be evaluated to determine the impact of added traffic for projects that generate trips equal to or greater than one percent of the freeway segment's capacity. Within the project vicinity, six freeway segments and eight nearby freeway ramps were analyzed following the CMP guidelines.

Intersection Level of Service Results

The intersection level of service analysis concluded that based on City of Sunnyvale intersection impact criteria, the project would not generate a significant intersection impact at any study intersections.

Freeway Impacts

The results of the CMP freeway analysis show that the freeway segments currently operating at acceptable levels of service would continue to operate at acceptable levels of service under project conditions. For freeway segments currently operating at unacceptable LOS F, the project generated freeway traffic would not exceed 1%, thus the project freeway impacts would be less than significant.

Freeway Ramp Impacts

The results of the ramp analysis show that the study freeway ramps currently have sufficient capacity to service the existing traffic volumes and the ramps would continue to have sufficient capacity to serve the project traffic volumes under project conditions.

A ramp queuing analysis was conducted for the US 101 southbound on-ramp from northbound Mathilda Avenue, which is metered during the PM peak hour. The analysis found that under project conditions the maximum vehicle queue due to the ramp meter would be contained within the existing ramp storage area.

PPSP Cumulative Impact Fair Share Contribution

The proposed project is estimated to generate a net 510 AM peak hour trips. Since this is a school project, the PPSP cumulative impact fee would apply only to student/parent trips generated outside of the City, as well as to staff trips. Based on the trip generation and distribution assumptions discussed in Chapter 4, the PPSP cumulative impact fee would apply to 231 net AM peak hour trips. According to the *ITE Trip Generation, 9th Edition*, the AM peak hour average trip generation rate for an office building is 1.56 trips per 1,000 s.f. The 231 net peak hour project trips would be equivalent to a 148,077 s.f. office building in terms of peak hour trip generation. Therefore, the project shall pay a fair share contribution for this square footage towards mitigating the PPSP cumulative impacts.

Other Transportation Issues

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis, school safety assessment and parking analysis for the proposed project. Our recommendations and potential improvements are listed below.

Recommendations

- The project applicant should coordinate with City staff to improve the sidewalk on the east side of San Aleso Avenue fronting the project site to the standards outlined in the *Peery Park Specific Plan*.
- The project applicant shall install a yellow high-visibility ladder crosswalk across the south leg of the intersection at San Aleso Avenue and Ahwanee Avenue. The project applicant shall coordinate with City staff to ensure the crosswalk is installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). Currently, the pedestrian curb ramps at either side of the proposed crosswalk are not ADA compliant. The project applicant shall upgrade the curb ramps to meet ADA standards.
- The project applicant shall prohibit on-street parking along the east side of San Aleso Avenue within 20 feet south of the project outbound-only driveway. The project applicant shall install red curb or install “No Stopping Any Time” R26(S) (CA) signs. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards. The project applicant should ensure that there would not be tall vegetation or objects that could block a driver’s view 150 feet down the road as they exit the project site.
- The project applicant shall install yellow high-visibility ladder crosswalks across all legs of the intersection at Mathilda Avenue and San Aleso Avenue. The project applicant shall coordinate with City staff to ensure the crosswalks are installed per standards and guidance in the most recent California Manual of Uniform Traffic Control Devices (CA MUTCD). The project applicant shall coordinate with City staff to upgrade the pedestrian push buttons for the north leg crosswalk with APS push buttons. The project applicant shall coordinate with City staff to upgrade the curb ramps to meet ADA standards, if necessary.
- Per the most recent edition of CA MUTCD (2014 Edition, Revision 3) at the time of this report, streets with a 25-mph speed limit that are contiguous to a school building shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. Since San Aleso Avenue has a speed limit of 25 mph, the project applicant shall install the “School Warning Assembly A(CA)” sign within 500 feet of the school boundary. The project applicant shall coordinate with City staff to ensure the installations meet current CA MUTCD standards and City’s standards and guidelines.
- Hexagon recommends the school implement a 5-car drop-off system, where 5 cars drive up to the drop-off zone and drop off at the same time. Staff members need to be stationed at the front end of the drop-off zone and direct the cars to leave the drop-off zone only when all 5 vehicles have finished dropping off. As soon as the vehicles leave, the next set of 5 cars would enter the drop-off zone. This system could allow the drop-off zone to serve approximately 10.5 vehicles per minute. It is recommended that the school dedicate a 125-foot space along the east side of the building as the drop-off zone. To ensure an efficient vehicular flow, it is recommended that the school block off all parking spaces in the east parking lot. Further, it is recommended that the school discourage parents from dropping off students while waiting in queue as oncoming vehicles may not be aware of such student crossings.

- It is recommended that the school discourage parents from parking off-site to pick up students or arriving prior to school dismissal to pick up students. It is recommended that the school prohibit parents from driving into any parking stalls on-site during the pick-up peak period. It is recommended that pick up operations occur exclusively along the east side of the building.
- It is recommended that the school discourage parents from cutting through parking lots of private properties to access the project site.
- It is recommended that the school dedicate staff to direct vehicular traffic at the inbound driveway as well as at the on-site marked walkway to ensure driver awareness of crossing students.
- Prior to final design, the project applicant should ensure that all parking dimensions meet the City requirements.
- The project applicant should ensure that all car lift spaces are adequately sized to accommodate all passenger car types. It is recommended that the car lift operations be prohibited during the main school drop-off and pick-up periods.
- Prior to final design, the project applicant should ensure that adequate garbage truck access and circulation is provided, if garbage trucks need to access the project site.
- It is recommended that the school monitor student activities and prohibit students who do not receive a parking lottery to drive to school, even if they are parking off site.

Potential Improvements

- Fair Oaks Avenue south of Maude Avenue could be restriped to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.
- Wolfe Road south of the Central Expressway ramps could be modified to accommodate a longer northbound left-turn lane. The exact storage length should be determined when detailed design is completed for the improvement.

**Summit School
Final Transportation Impact Analysis
Technical Appendices**

Appendix A
Traffic Counts

North/South	East/West	Count Date	AM																	Grand Total	PM																	Grand Total		
			PHF	Northbound				Southbound				Eastbound				Westbound					PHF	Northbound				Southbound				Eastbound				Westbound						
			whole intersection	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		L	T	R	Total	L	T	R	Total	L	T	R	Total								
Mathilda Avenue	Almanor / Ahwanee Avenue	November 2015	0.96	78	2384	24	2486	84	1341	417	1842	96	9	20	125	42	53	221	316	4769	0.94	31	1262	71	1364	155	2170	76	2401	317	94	50	461	31	10	94	135	4361		
Mathilda Avenue	California Avenue	November 2015	0.96	139	2009	115	2263	34	872	234	1140	56	5	109	170	82	138	146	366	3939	0.89	87	857	263	1207	139	2732	338	3209	122	161	313	596	63	48	107	218	5230		
Mathilda Avenue	Indio Way	November 2015	0.96	97	2050	103	2250	20	782	84	886	10	1	197	208	156	12	425	593	3937	0.92	27	1008	111	1146	52	2582	77	2711	46	0	407	453	77	0	85	162	4472		
Mathilda Avenue	Maude Avenue	November 2015	0.91	421	2050	47	2518	142	644	337	1123	98	99	69	266	149	370	276	795	4702	0.90	102	898	124	1124	302	1808	196	2306	296	436	540	1272	117	165	113	395	5097		
Mathilda Avenue	Ross Drive	November 2015	0.95	115	2152	79	2346	27	689	96	812	26	3	39	68	185	31	185	401	3627	0.98	59	980	323	1362	190	1695	54	1939	70	39	129	238	125	4	71	200	3739		
Mathilda Avenue	San Aleso Avenue	November 2015	0.96	31	2374	56	2461	63	1227	44	1334	7	0	5	12	41	2	19	62	3869	0.93	22	1293	107	1422	111	2213	13	2337	42	7	23	72	42	2	51	95	3926		
Mathilda Avenue	SR-237 EB Ramps	November 2015	0.96	0	1631	732	2363	45	740	0	785	845	0	72	917	0	0	0	0	4065	0.94	0	480	641	1121	347	1804	0	2151	130	0	135	265	0	0	0	0	3537		
Mathilda Avenue	SR-237 WB Ramps	November 2015	0.93	134	2342	0	2476	0	254	99	353	0	0	0	0	531	36	273	840	3669	0.95	86	524	0	610	0	1610	558	2168	541	31	39	611	0	0	0	0	3389		

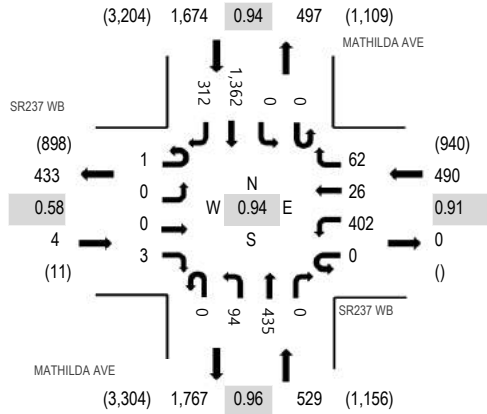
North/South	East/West	Count Date	AM		PM	
			Bike	Ped	Bike	Ped
Mathilda Avenue	237 EB Off/ On Ramps	November 2015	9	0	5	6
Mathilda Avenue	237 WB Off/On Ramps	November 2015	2	5	0	6
Mathilda Avenue	Almanor Ave / Ahwanee Ave	November 2015	4	13	0	17
Mathilda Avenue	California Ave	November 2015	6	27	6	33
Mathilda Avenue	Indio Wy	November 2015	8	35	3	17
Mathilda Avenue	Maude Avenue	November 2015	8	88	30	129
Mathilda Avenue	Ross Dr	November 2015	5	16	3	3
Mathilda Avenue	San Aleso Ave	November 2015	2	14	1	19



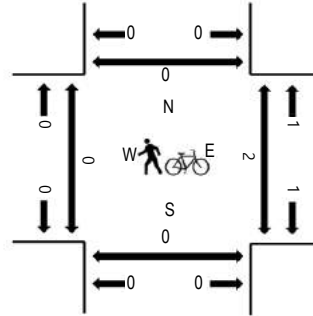
(303) 216-2439
www.alltrafficdata.net

Location: 11 MATHILDA AVE & SR237 WB PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SR237 WB Eastbound				SR237 WB Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	1	0	0	2	0	103	3	21	0	25	138	0	0	0	269	93	655	2,614	0	0	0	0
2:15 PM	0	0	0	3	0	87	9	19	1	20	140	0	0	0	297	86	662	2,624	0	0	0	0
2:30 PM	0	0	0	1	0	84	5	16	1	22	141	0	0	0	353	110	733	2,613	0	0	0	0
2:45 PM	0	0	0	0	0	81	1	21	0	23	116	0	0	0	255	67	564	2,595	0	0	0	0
3:00 PM	1	0	0	2	0	106	9	16	0	28	96	0	0	0	335	72	665	2,697	0	0	0	0
3:15 PM	0	0	0	0	0	83	6	16	0	18	106	0	0	0	353	69	651		0	2	0	0
3:30 PM	0	0	0	0	0	100	6	13	0	32	121	0	0	0	362	81	715		0	0	0	0
3:45 PM	0	0	0	1	0	113	5	17	0	16	112	0	0	0	312	90	666		0	0	0	0

Peak Rolling Hour Flow Rates

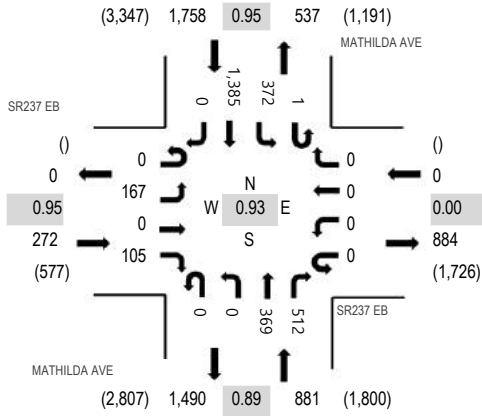
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	2	0	0	0	0	3	0	0	0	1	1	7
Lights	1	0	0	3	0	393	25	60	0	92	412	0	0	0	1,344	307	2,637
Mediums	0	0	0	0	0	7	1	2	0	2	20	0	0	0	17	4	53
Total	1	0	0	3	0	402	26	62	0	94	435	0	0	0	1,362	312	2,697



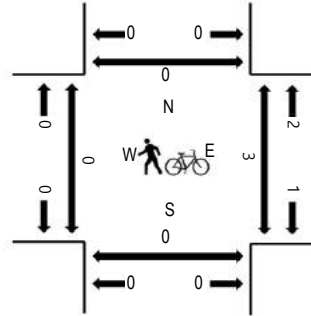
(303) 216-2439
www.alltrafficdata.net

Location: 12 MATHILDA AVE & SR237 EB PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SR237 EB Eastbound				SR237 EB Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	58	0	13	0	0	0	0	0	0	111	147	0	69	305	0	703	2,813	0	0	0	0
2:15 PM	0	67	0	14	0	0	0	0	0	0	104	121	2	85	302	0	695	2,876	0	0	0	0
2:30 PM	0	57	0	22	0	0	0	0	0	0	107	140	0	111	370	0	807	2,854	0	0	0	0
2:45 PM	0	54	0	20	0	0	0	0	0	0	94	95	0	74	271	0	608	2,829	0	0	0	0
3:00 PM	0	43	0	30	0	0	0	0	0	0	90	159	0	88	356	0	766	2,911	0	0	0	0
3:15 PM	0	42	0	21	0	0	0	0	0	0	71	106	1	96	336	0	673		0	1	0	0
3:30 PM	0	54	0	27	0	0	0	0	0	0	110	128	0	112	351	0	782		0	1	0	0
3:45 PM	0	28	0	27	0	0	0	0	0	0	98	119	0	76	342	0	690		0	1	0	0

Peak Rolling Hour Flow Rates

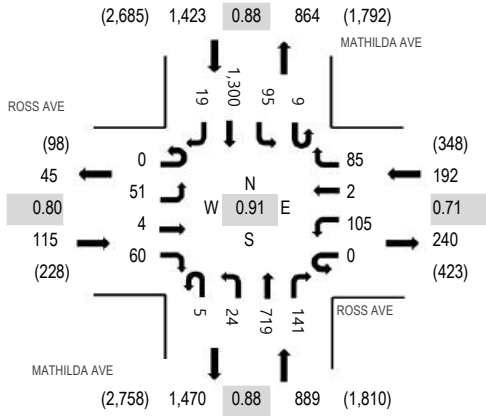
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	1	0	0	0	3	0	5
Lights	0	164	0	104	0	0	0	0	0	0	345	501	1	366	1,363	0	2,844
Mediums	0	2	0	1	0	0	0	0	0	0	23	11	0	6	19	0	62
Total	0	167	0	105	0	0	0	0	0	0	369	512	1	372	1,385	0	2,911



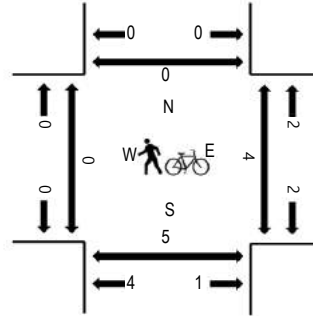
(303) 216-2439
www.alltrafficdata.net

Location: 13 MATHILDA AVE & ROSS AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	ROSS AVE Eastbound				ROSS AVE Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	12	2	16	0	24	1	19	8	8	215	32	15	18	276	1	647	2,452	0	0	0	0
2:15 PM	0	14	2	10	0	17	2	15	2	13	185	22	9	13	271	3	578	2,482	0	2	2	0
2:30 PM	0	15	1	16	0	17	0	16	2	9	193	21	14	19	345	7	675	2,512	0	0	0	0
2:45 PM	0	16	0	9	0	24	0	21	7	5	164	35	5	18	244	4	552	2,557	0	0	0	0
3:00 PM	0	14	0	10	0	20	0	17	3	9	188	40	2	26	340	8	677	2,619	0	0	0	0
3:15 PM	0	5	2	17	0	27	0	17	0	6	174	38	5	20	293	4	608		0	2	0	0
3:30 PM	0	15	0	16	0	36	2	31	0	6	184	27	2	28	370	3	720		0	1	3	0
3:45 PM	0	17	2	17	0	22	0	20	2	3	173	36	0	21	297	4	614		0	1	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	7
Lights	0	50	4	59	0	105	2	81	5	22	691	141	9	95	1,274	18	2,556
Mediums	0	1	0	1	0	0	0	4	0	2	27	0	0	0	20	1	56
Total	0	51	4	60	0	105	2	85	5	24	719	141	9	95	1,300	19	2,619



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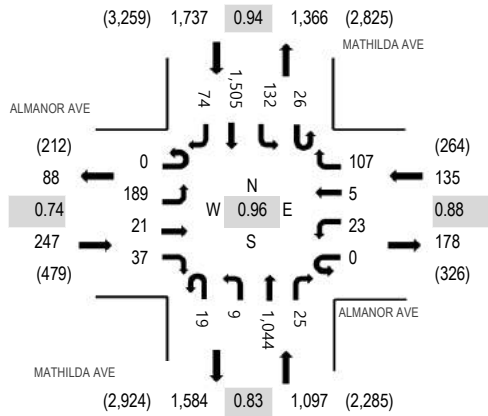
Location: 1 MATHILDA AVE & ALMANOR AVE PM

Date and Start Time: Tuesday, May 16, 2017

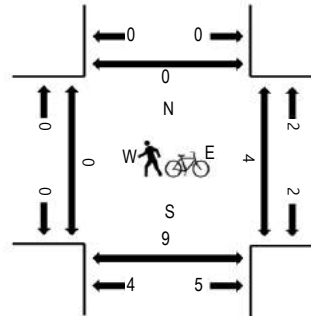
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	ALMANOR AVE Eastbound				ALMANOR AVE Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	54	6	12	0	3	2	29	2	8	334	6	9	28	304	24	821	3,071	0	0	0	0
2:15 PM	0	45	1	8	0	4	0	23	2	2	237	6	12	22	297	20	679	3,065	0	1	2	0
2:30 PM	0	52	6	6	0	10	1	25	6	7	341	3	8	34	332	31	862	3,154	0	0	2	0
2:45 PM	0	33	5	4	0	6	3	23	3	4	224	3	10	28	341	22	709	3,131	0	0	7	0
3:00 PM	0	36	8	6	0	9	1	28	5	4	290	5	8	36	362	17	815	3,216	0	0	1	0
3:15 PM	0	34	4	10	0	4	0	25	6	2	256	5	6	32	362	22	768		0	1	5	0
3:30 PM	0	67	4	12	0	5	2	32	5	1	240	10	7	40	396	18	839		0	1	2	0
3:45 PM	0	52	5	9	0	5	2	22	3	2	258	5	5	24	385	17	794		0	1	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4
Lights	0	185	19	36	0	23	4	104	19	8	1,017	25	26	132	1,474	70	3,142
Mediums	0	4	2	1	0	0	1	3	0	1	26	0	0	0	28	4	70
Total	0	189	21	37	0	23	5	107	19	9	1,044	25	26	132	1,505	74	3,216



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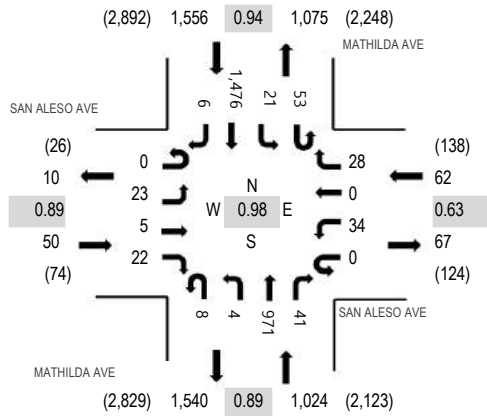
Location: 2 MATHILDA AVE & SAN ALESO AVE PM

Date and Start Time: Tuesday, May 16, 2017

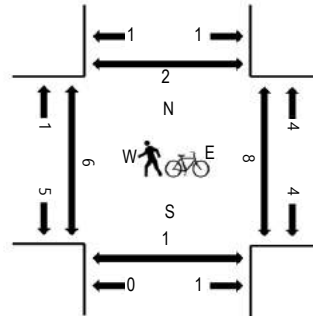
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SAN ALESO AVE Eastbound				SAN ALESO AVE Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	6	0	3	0	11	0	19	2	1	296	6	21	7	286	3	661	2,535	2	2	2	0
2:15 PM	0	5	0	1	0	5	0	10	2	0	235	6	12	10	277	1	564	2,548	1	4	0	1
2:30 PM	0	3	0	2	0	13	1	4	2	0	298	9	9	5	348	3	697	2,637	4	2	0	5
2:45 PM	0	0	0	4	0	10	0	3	0	1	233	8	19	6	323	6	613	2,626	0	0	0	0
3:00 PM	0	4	1	6	0	6	0	10	1	1	261	12	12	5	353	2	674	2,692	1	0	0	1
3:15 PM	0	4	3	6	0	7	0	10	1	1	239	7	12	7	355	1	653		0	1	0	0
3:30 PM	0	8	1	5	0	5	0	4	2	0	237	12	10	5	395	2	686		4	3	1	1
3:45 PM	0	7	0	5	0	16	0	4	4	2	234	10	19	4	373	1	679		1	3	0	0

Peak Rolling Hour Flow Rates

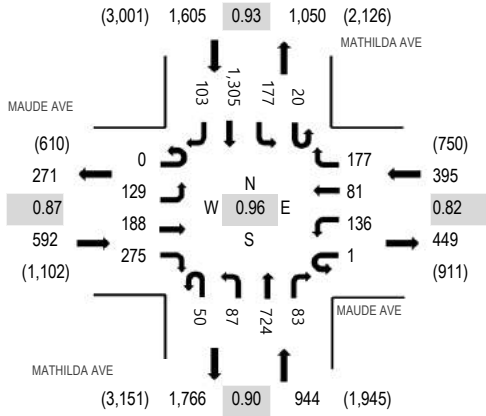
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Lights	0	22	4	22	0	34	0	26	8	4	949	41	53	19	1,452	6	2,640
Mediums	0	1	1	0	0	0	0	2	0	0	22	0	0	2	20	0	48
Total	0	23	5	22	0	34	0	28	8	4	971	41	53	21	1,476	6	2,692



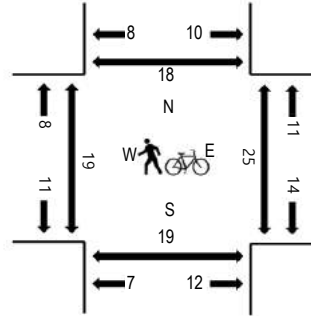
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Location: 3 MATHILDA AVE & MAUDE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	27	46	29	0	24	42	40	9	36	218	25	4	53	232	29	814	3,278	5	10	8	3
2:15 PM	0	35	30	35	0	29	27	34	9	24	216	21	6	52	240	28	786	3,355	2	2	4	1
2:30 PM	0	39	48	38	0	18	25	46	9	33	187	18	5	47	267	32	812	3,423	2	9	0	8
2:45 PM	0	27	47	61	0	42	29	55	10	31	172	23	3	48	298	20	866	3,536	1	3	1	0
3:00 PM	0	30	51	66	0	36	21	48	14	24	182	20	8	19	344	28	891	3,520	8	5	5	4
3:15 PM	0	32	47	78	1	28	20	34	14	14	168	20	6	60	307	25	854		5	7	5	6
3:30 PM	0	40	43	70	0	30	11	40	12	18	202	20	3	50	356	30	925		5	9	6	6
3:45 PM	0	40	57	86	0	19	21	30	16	20	144	16	5	49	325	22	850		3	4	11	6

Peak Rolling Hour Flow Rates

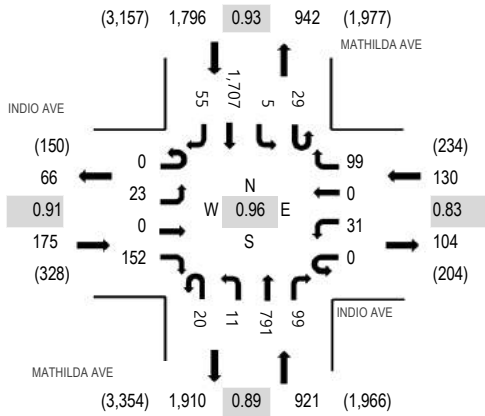
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	1	5
Lights	0	124	185	271	1	135	80	174	49	77	705	83	20	174	1,275	96	3,449
Mediums	0	5	3	4	0	1	1	3	1	10	18	0	0	3	27	6	82
Total	0	129	188	275	1	136	81	177	50	87	724	83	20	177	1,305	103	3,536



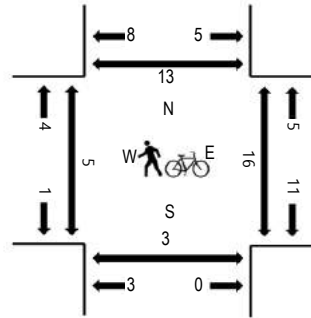
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Location: 4 MATHILDA AVE & INDIO AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	INDIO AVE Eastbound				INDIO AVE Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	2	0	41	0	12	0	19	7	7	254	26	8	1	269	12	658	2,663	3	5	2	1
2:15 PM	0	13	0	20	0	2	0	19	9	4	209	26	10	0	297	21	630	2,716	1	2	0	0
2:30 PM	0	5	0	35	0	8	0	18	6	7	239	18	6	1	348	14	705	2,826	1	3	1	12
2:45 PM	0	4	1	32	0	7	2	17	2	6	200	25	12	2	349	11	670	2,907	2	3	0	6
3:00 PM	0	5	0	35	0	9	0	30	6	3	181	26	13	0	391	12	711	3,022	0	5	2	7
3:15 PM	0	5	0	38	0	4	0	26	5	1	205	26	7	0	407	16	740		1	1	0	1
3:30 PM	0	6	0	38	0	8	0	25	4	6	211	21	4	2	446	15	786		2	5	0	3
3:45 PM	0	7	0	41	0	10	0	18	5	1	194	26	5	3	463	12	785		2	5	0	2

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	0	0	0	0	2	0	0	0	3	0	6
Lights	0	23	0	149	0	29	0	98	20	10	774	97	29	5	1,668	50	2,952
Mediums	0	0	0	3	0	1	0	1	0	1	15	2	0	0	36	5	64
Total	0	23	0	152	0	31	0	99	20	11	791	99	29	5	1,707	55	3,022



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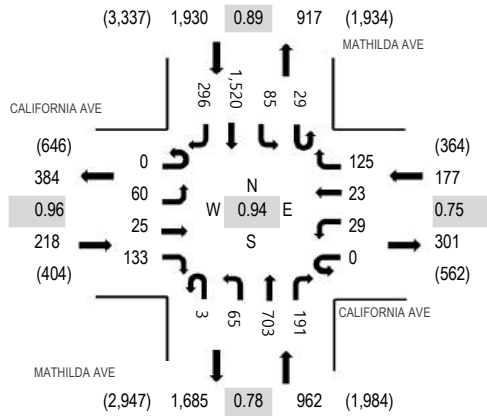
Location: 5 MATHILDA AVE & CALIFORNIA AVE PM

Date and Start Time: Tuesday, May 16, 2017

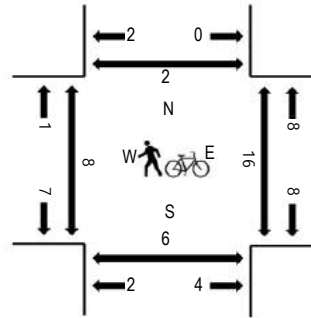
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	CALIFORNIA AVE Eastbound				CALIFORNIA AVE Westbound				MATHILDA AVE Northbound				MATHILDA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	8	5	19	0	8	14	31	1	8	275	43	2	25	261	48	748	2,802	0	0	4	0
2:15 PM	0	16	13	27	0	9	8	28	0	5	181	34	5	16	235	24	601	2,835	1	2	2	2
2:30 PM	0	18	7	22	0	15	5	30	1	12	200	34	7	15	312	62	740	3,044	0	1	2	1
2:45 PM	0	16	5	30	0	11	4	24	0	14	172	42	4	22	311	58	713	3,122	2	4	1	2
3:00 PM	0	13	5	34	0	10	8	50	0	20	158	56	9	27	325	66	781	3,287	1	4	1	1
3:15 PM	0	15	12	30	0	11	8	27	1	13	173	47	4	9	388	72	810		3	4	2	0
3:30 PM	0	21	4	31	0	2	3	26	1	18	186	41	10	25	366	84	818		3	2	2	0
3:45 PM	0	11	4	38	0	6	4	22	1	14	186	47	6	24	441	74	878		1	4	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
Lights	0	60	24	121	0	29	23	121	3	56	682	187	28	82	1,502	289	3,207
Mediums	0	0	1	12	0	0	0	4	0	9	21	4	1	3	16	5	76
Total	0	60	25	133	0	29	23	125	3	65	703	191	29	85	1,520	296	3,287



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Location: 6 SAN ALESO AVE & AHWANEE AVE AM

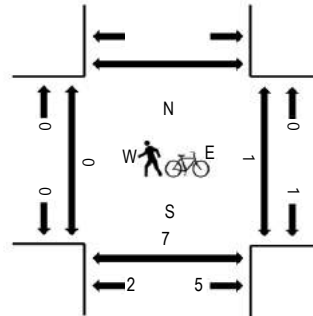
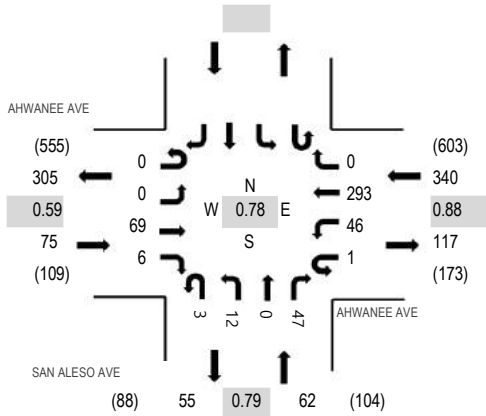
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				SAN ALESO AVE Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	7	5	0	3	49	0	0	0	2	0	10	0	0	0	0	76	449	0	0	4
7:15 AM	0	0	8	1	0	9	53	0	0	0	5	0	14	0	0	0	0	90	466	0	0	0
7:30 AM	0	0	20	2	0	12	78	0	1	2	0	0	16	0	0	0	0	131	477	0	0	3
7:45 AM	0	0	31	1	1	16	80	0	1	3	0	0	19	0	0	0	0	152	435	0	0	2
8:00 AM	0	0	7	3	0	12	60	0	1	2	0	0	8	0	0	0	0	93	367	0	1	2
8:15 AM	0	0	11	0	0	6	75	0	0	5	0	0	4	0	0	0	0	101	0	0	0	0
8:30 AM	0	0	6	1	0	6	73	0	0	2	0	0	1	0	0	0	0	89	0	0	0	5
8:45 AM	0	0	5	1	0	7	63	0	0	3	0	0	5	0	0	0	0	84	0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	68	5	1	46	292	0	3	12	0	47	0	0	0	0	474
Mediums	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	3
Total	0	0	69	6	1	46	293	0	3	12	0	47	0	0	0	0	477



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Location: 6 SAN ALESO AVE & AHWANEE AVE PM

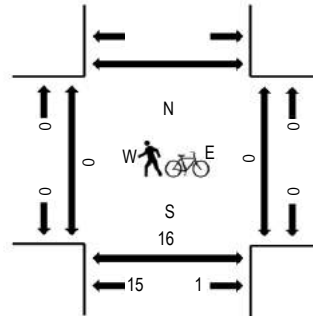
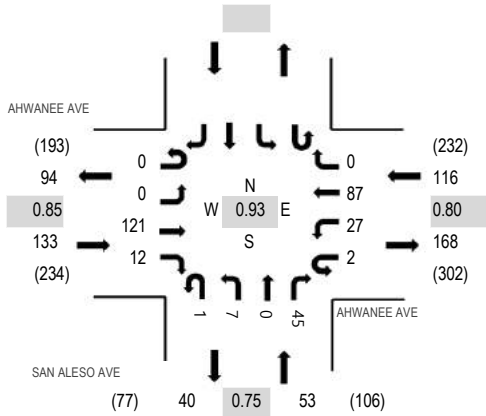
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 02:45 PM - 03:45 PM

Peak 15-Minutes: 02:45 PM - 03:00 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				SAN ALESO AVE Northbound				SAN ALESO AVE Southbound				Total	Rolling Hour	Pedestrian Crossings		
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South
2:00 PM	0	0	18	3	1	5	26	0	0	0	2	0	10	65	284	0	0	1			
2:15 PM	0	0	20	0	0	13	25	0	1	1	0	12	72	296	0	0	2				
2:30 PM	0	0	26	4	0	6	17	0	0	4	0	9	66	287	0	0	2				
2:45 PM	0	0	37	2	1	7	21	0	0	2	0	11	81	302	0	0	2				
3:00 PM	0	0	24	3	0	6	24	0	1	1	0	18	77	288	0	0	7				
3:15 PM	0	0	28	3	0	6	21	0	0	0	0	5	63		0	0	6				
3:30 PM	0	0	32	4	1	8	21	0	0	4	0	11	81		0	0	1				
3:45 PM	0	0	26	4	0	1	22	0	0	2	0	12	67		0	0	0				

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	121	11	2	27	84	0	1	7	0	45					298
Mediums	0	0	0	1	0	0	3	0	0	0	0	0					4
Total	0	0	121	12	2	27	87	0	1	7	0	45					302



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Location: 6 SAN ALESO AVE & AHWANEE AVE PM

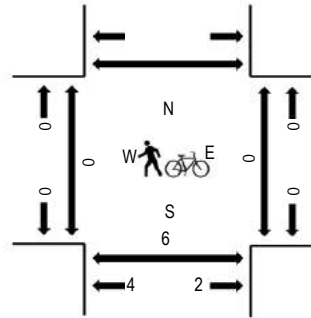
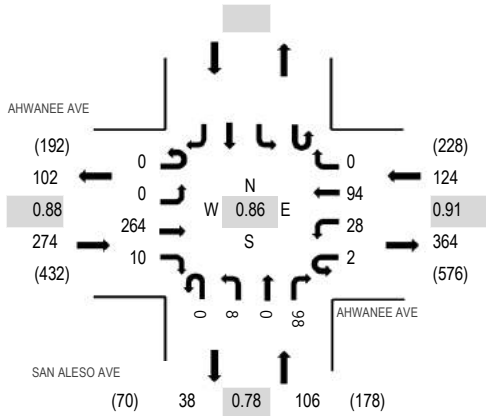
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				SAN ALESO AVE Northbound				SAN ALESO AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	30	4	0	3	23	0	0	1	0	11	0	0	0	0	72	334	0	0	1	
4:15 PM	0	0	32	4	0	5	20	0	0	2	0	16	0	0	0	0	79	357	0	0	1	
4:30 PM	0	0	46	1	1	5	20	0	0	2	0	15	0	0	0	0	90	412	0	0	1	
4:45 PM	0	0	40	1	0	9	18	0	0	4	0	21	0	0	0	0	93	468	0	0	3	
5:00 PM	0	0	44	2	0	5	24	0	0	0	0	20	0	0	0	0	95	504	0	0	2	
5:15 PM	0	0	73	3	1	6	24	0	0	2	0	25	0	0	0	0	134		0	0	1	
5:30 PM	0	0	75	3	1	9	24	0	0	4	0	30	0	0	0	0	146		0	0	2	
5:45 PM	0	0	72	2	0	8	22	0	0	2	0	23	0	0	0	0	129		0	0	1	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	262	10	2	28	93	0	0	8	0	96	0	0	0	0	499
Mediums	0	0	2	0	0	0	1	0	0	0	0	2	0	0	0	0	5
Total	0	0	264	10	2	28	94	0	0	8	0	98	0	0	0	0	504



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Location: 7 BORREGAS AVE & AHWANEE AVE AM

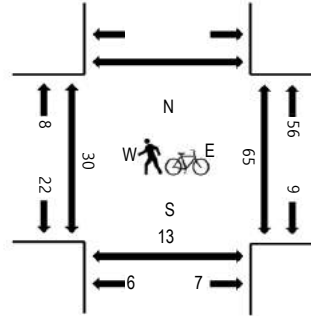
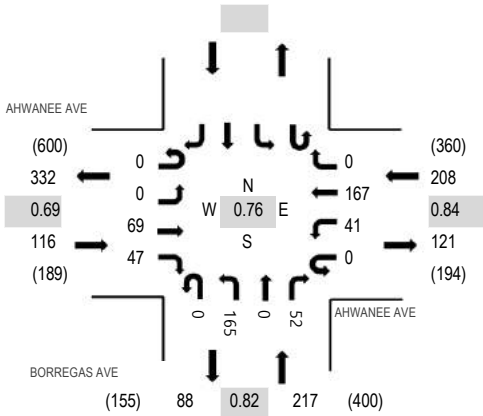
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				BORREGAS AVE Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	8	13	0	9	21	0	0	0	33	0	12					96	533	2	5	0
7:15 AM	0	0	15	13	0	11	25	0	0	0	39	0	9					112	538	1	6	4
7:30 AM	0	0	28	20	0	8	54	0	0	0	50	0	17					177	541	6	7	10
7:45 AM	0	0	20	16	0	12	41	0	0	0	46	0	13					148	464	5	5	1
8:00 AM	0	0	10	7	0	10	31	0	0	0	33	0	10					101	416	3	3	0
8:15 AM	0	0	11	4	0	11	41	0	0	0	36	0	12					115		3	3	2
8:30 AM	0	0	3	5	0	3	42	0	0	0	32	0	15					100		1	1	1
8:45 AM	0	0	9	7	0	6	35	0	0	0	41	0	2					100		1	3	4

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lights	0	0	68	47	0	41	166	0	0	0	165	0	48					535
Mediums	0	0	1	0	0	0	1	0	0	0	0	4					6	
Total	0	0	69	47	0	41	167	0	0	0	165	0	52					541



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Location: 7 BORREGAS AVE & AHWANEE AVE PM

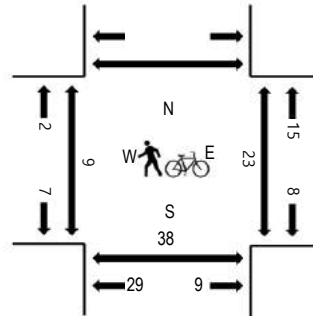
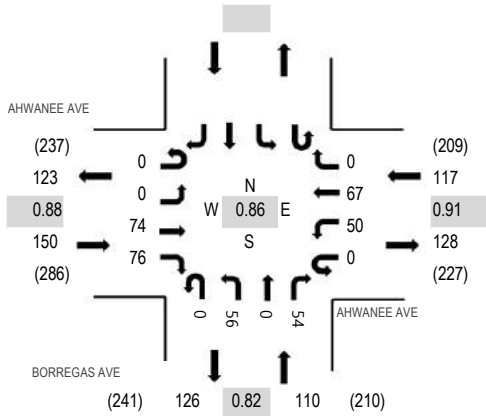
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 02:45 PM - 03:45 PM

Peak 15-Minutes: 02:45 PM - 03:00 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				BORREGAS AVE Northbound				BORREGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	8	15	0	10	12	0	0	0	21	0	10	0	0	0	0	76	357	0	0	4
2:15 PM	0	0	14	18	0	9	18	0	0	0	16	0	11	0	0	0	0	86	375	0	2	2
2:30 PM	0	0	21	24	0	11	10	0	0	0	11	0	9	0	0	0	0	86	374	2	1	4
2:45 PM	0	0	19	25	0	15	16	0	0	0	17	0	17	0	0	0	0	109	377	0	6	16
3:00 PM	0	0	15	22	0	15	15	0	0	0	15	0	12	0	0	0	0	94	348	0	2	11
3:15 PM	0	0	19	9	0	12	20	0	0	0	12	0	13	0	0	0	0	85		2	9	7
3:30 PM	0	0	21	20	0	8	16	0	0	0	12	0	12	0	0	0	0	89		1	1	2
3:45 PM	0	0	17	19	0	9	13	0	0	0	13	0	9	0	0	0	0	80		1	2	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lights	0	0	74	76	0	50	66	0	0	0	55	0	50	0	0	0	0	371
Mediums	0	0	0	0	0	0	1	0	0	0	1	0	4	0	0	0	0	6
Total	0	0	74	76	0	50	67	0	0	0	56	0	54	0	0	0	0	377



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Location: 7 BORREGAS AVE & AHWANEE AVE PM

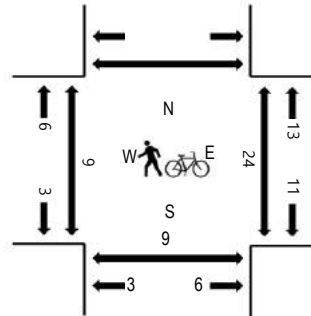
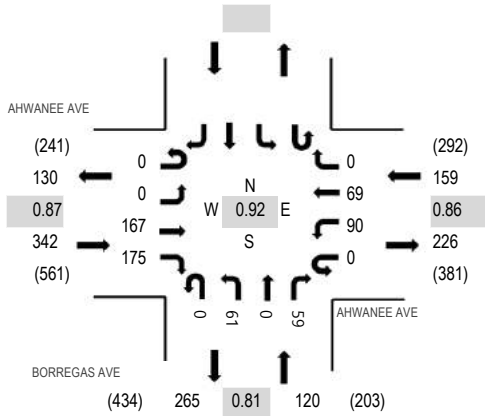
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				BORREGAS AVE Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	19	26	0	7	21	0	0	0	10	0	11	0	0	0	0	94	435	0	1	4
4:15 PM	0	0	30	26	0	18	15	0	0	0	10	0	11	0	0	0	0	110	472	2	3	2
4:30 PM	0	0	28	24	0	20	18	0	0	0	15	0	7	0	0	0	0	112	531	5	3	3
4:45 PM	0	0	38	28	0	20	14	0	0	0	8	0	11	0	0	0	0	119	581	2	2	3
5:00 PM	0	0	35	28	0	22	16	0	0	0	19	0	11	0	0	0	0	131	621	1	5	4
5:15 PM	0	0	49	49	0	16	18	0	0	0	16	0	21	0	0	0	0	169		5	2	0
5:30 PM	0	0	48	45	0	20	21	0	0	0	15	0	13	0	0	0	0	162		0	2	4
5:45 PM	0	0	35	53	0	32	14	0	0	0	11	0	14	0	0	0	0	159		2	5	0

Peak Rolling Hour Flow Rates

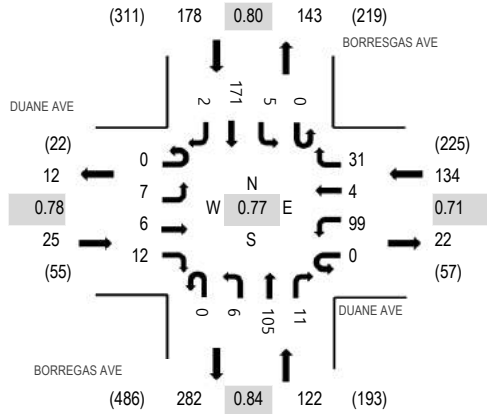
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lights	0	0	165	174	0	89	67	0	0	0	61	0	58	0	0	0	0	614
Mediums	0	0	2	1	0	1	2	0	0	0	0	0	1	0	0	0	0	7
Total	0	0	167	175	0	90	69	0	0	0	61	0	59	0	0	0	0	621



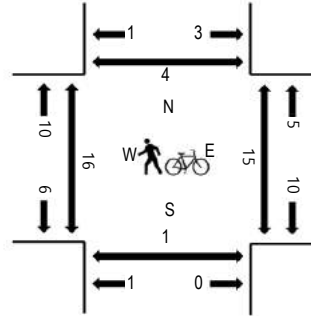
(303) 216-2439
www.alltrafficdata.net

Location: 8 BORREGAS AVE & DUANE AVE AM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DUANE AVE Eastbound				DUANE AVE Westbound				BORREGAS AVE Northbound				BORREGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	1	2	1	0	15	0	0	0	1	12	2	0	0	1	45	0	80	438	1	2	0	0
7:15 AM	0	2	1	5	0	17	0	4	0	0	12	2	0	1	36	0	80	459	3	6	0	0	
7:30 AM	0	3	4	0	0	28	1	10	0	3	26	4	0	1	48	0	128	452	6	2	0	3	
7:45 AM	0	0	0	5	0	33	2	12	0	1	35	2	0	2	57	1	150	403	5	5	0	0	
8:00 AM	0	2	1	2	0	21	1	5	0	2	32	3	0	1	30	1	101	346	2	2	1	1	
8:15 AM	0	2	2	4	0	12	1	7	0	2	14	3	0	3	22	1	73		4	6	1	0	
8:30 AM	0	1	4	3	0	21	0	3	0	0	7	6	0	6	28	0	79		2	2	0	0	
8:45 AM	0	3	2	5	0	23	2	7	0	2	19	3	0	1	25	1	93		1	1	0	1	

Peak Rolling Hour Flow Rates

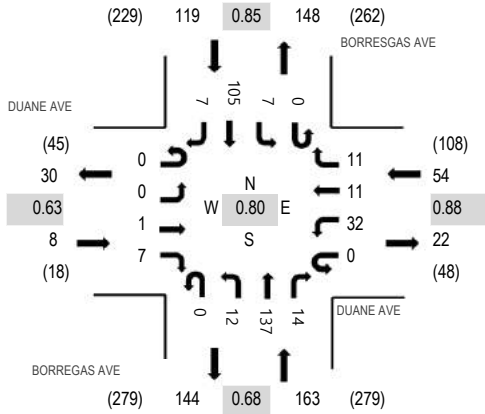
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	7	6	12	0	99	4	31	0	6	104	11	0	5	170	2	457
Mediums	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Total	0	7	6	12	0	99	4	31	0	6	105	11	0	5	171	2	459



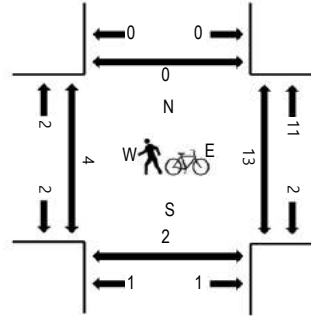
(303) 216-2439
www.alltrafficdata.net

Location: 8 BORREGAS AVE & DUANE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 02:00 PM - 03:00 PM
Peak 15-Minutes: 02:15 PM - 02:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DUANE AVE Eastbound				DUANE AVE Westbound				BORREGAS AVE Northbound				BORREGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	1	2	0	4	4	2	0	5	29	2	0	3	24	2	78	344	1	2	1	0
2:15 PM	0	0	0	2	0	6	3	3	0	4	54	2	0	0	32	1	107	343	2	3	1	0
2:30 PM	0	0	0	2	0	8	4	4	0	2	22	7	0	1	19	1	70	311	0	4	0	0
2:45 PM	0	0	0	1	0	14	0	2	0	1	32	3	0	3	30	3	89	312	1	3	0	0
3:00 PM	0	0	1	0	0	5	1	7	0	2	25	4	0	1	31	0	77	290	5	3	0	1
3:15 PM	0	0	0	2	0	14	0	4	0	3	24	7	0	2	19	0	75		3	4	0	1
3:30 PM	0	0	1	3	0	5	1	2	0	2	22	2	0	5	28	0	71		4	7	0	0
3:45 PM	0	0	1	2	0	5	3	7	0	2	23	0	0	2	21	1	67		2	4	1	0

Peak Rolling Hour Flow Rates

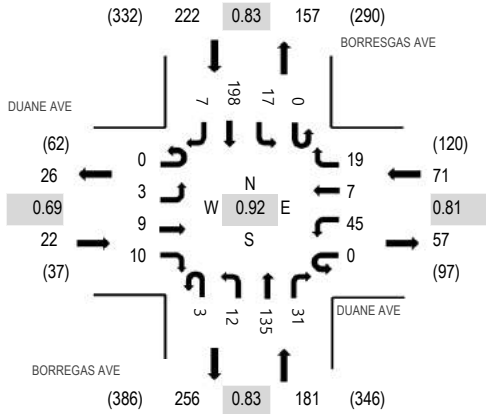
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	1	7	0	31	11	11	0	12	136	14	0	7	103	6	339
Mediums	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	1	5
Total	0	0	1	7	0	32	11	11	0	12	137	14	0	7	105	7	344



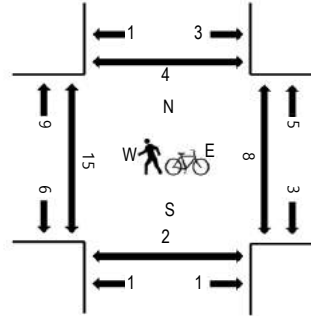
(303) 216-2439
www.alltrafficdata.net

Location: 8 BORREGAS AVE & DUANE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DUANE AVE Eastbound				DUANE AVE Westbound				BORREGAS AVE Northbound				BORREGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	1	1	0	10	2	1	0	2	28	7	0	0	19	0	71	339	1	6	0	0
4:15 PM	0	1	1	0	0	8	3	5	1	4	25	7	0	3	24	1	83	371	4	1	0	0
4:30 PM	0	3	2	1	0	3	3	3	1	7	28	7	0	2	25	2	87	412	2	6	0	0
4:45 PM	0	0	1	4	0	4	4	3	0	6	36	6	0	3	29	2	98	460	3	4	0	0
5:00 PM	0	1	2	2	0	11	2	5	0	0	32	7	0	4	33	4	103	496	5	2	1	0
5:15 PM	0	2	0	3	0	12	1	3	3	4	29	11	0	4	51	1	124		3	1	0	4
5:30 PM	0	0	1	3	0	9	2	4	0	4	45	9	0	4	53	1	135		3	3	0	0
5:45 PM	0	0	6	2	0	13	2	7	0	4	29	4	0	5	61	1	134		4	2	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	3	8	9	0	45	7	19	3	12	134	31	0	17	197	6	491
Mediums	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	1	5
Total	0	3	9	10	0	45	7	19	3	12	135	31	0	17	198	7	496

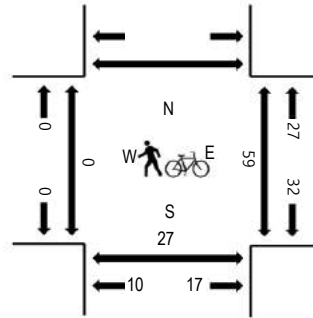
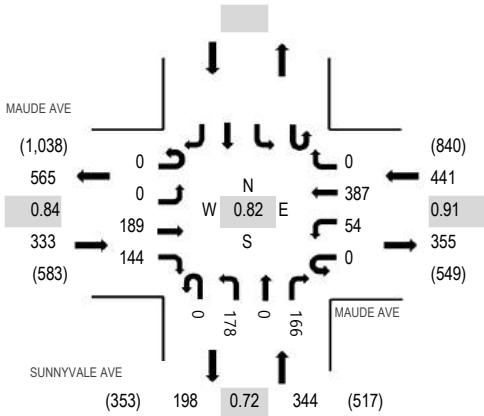


(303) 216-2439
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Location: 9 SUNNYVALE AVE & MAUDE AVE AM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				SUNNYVALE AVE Northbound				SUNNYVALE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	26	30	0	14	59	0	0	0	24	0	5	0	0	0	0	158	929	0	3	1
7:15 AM	0	0	40	26	0	9	65	0	0	0	28	0	15	0	0	0	0	183	1,063	0	0	2
7:30 AM	0	0	60	29	0	16	63	0	0	0	44	0	35	0	0	0	0	247	1,118	0	7	3
7:45 AM	0	0	37	62	0	15	107	0	0	0	50	0	70	0	0	0	0	341	1,107	0	36	18
8:00 AM	0	0	43	26	0	14	116	0	0	0	60	0	33	0	0	0	0	292	1,011	0	14	5
8:15 AM	0	0	49	27	0	9	101	0	0	0	24	0	28	0	0	0	0	238		0	1	0
8:30 AM	0	0	44	27	0	16	101	0	0	0	33	0	15	0	0	0	0	236		0	1	3
8:45 AM	0	0	35	22	0	11	124	0	0	0	39	0	14	0	0	0	0	245		0	0	0

Peak Rolling Hour Flow Rates

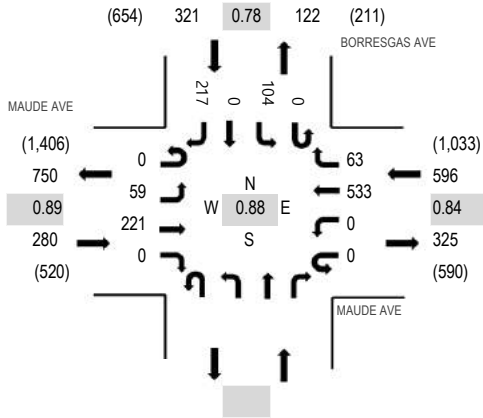
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lights	0	0	183	143	0	51	380	0	0	0	178	0	163	0	0	0	0	1,098
Mediums	0	0	6	1	0	3	7	0	0	0	0	0	3	0	0	0	0	20
Total	0	0	189	144	0	54	387	0	0	0	178	0	166	0	0	0	0	1,118



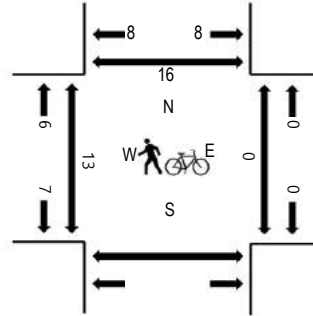
(303) 216-2439
www.alltrafficdata.net

Location: 9 BORRESGAS AVE & MAUDE AVE
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				Northbound			BORRESGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South
7:00 AM	0	5	43	0	0	0	81	7				0	14	0	69	219	1,056	3	0	1	
7:15 AM	0	10	46	0	0	0	84	7				0	18	0	69	234	1,152	2	0	3	
7:30 AM	0	18	60	0	0	0	83	17				0	28	0	58	264	1,195	7	0	3	
7:45 AM	0	18	51	0	0	0	131	19				0	55	0	65	339	1,197	4	0	4	
8:00 AM	0	10	51	0	0	0	152	27				0	21	0	54	315	1,151	3	0	4	
8:15 AM	0	19	62	0	0	0	120	12				0	14	0	50	277		4	0	5	
8:30 AM	0	12	57	0	0	0	130	5				0	14	0	48	266		1	0	3	
8:45 AM	0	18	40	0	0	0	151	7				0	16	0	61	293		1	0	1	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	0					0	0	0	0	2
Lights	0	59	211	0	0	0	524	62					0	104	0	217	1,177
Mediums	0	0	9	0	0	0	8	1					0	0	0	0	18
Total	0	59	221	0	0	0	533	63					0	104	0	217	1,197



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Location: 9 SUNNYVALE AVE & MAUDE AVE PM

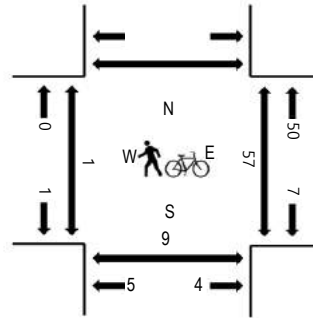
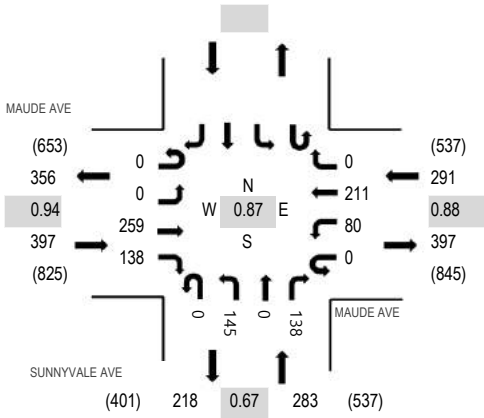
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 02:15 PM - 03:15 PM

Peak 15-Minutes: 02:15 PM - 02:30 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				SUNNYVALE AVE Northbound				SUNNYVALE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	1	0	70	38	0	12	51	0	0	0	31	0	42	245	960	0	18	8				
2:15 PM	0	0	58	37	0	21	53	0	0	0	52	0	57	278	971	0	44	6				
2:30 PM	0	0	62	30	0	16	44	0	0	0	19	0	21	192	930	0	1	1				
2:45 PM	0	0	68	36	0	18	55	0	0	0	33	0	35	245	959	0	1	1				
3:00 PM	0	0	71	35	0	25	59	0	0	0	41	0	25	256	939	1	6	0				
3:15 PM	0	0	66	31	0	25	55	0	0	0	29	0	31	237		0	2	2				
3:30 PM	0	0	85	28	0	14	40	0	0	0	26	0	28	221		0	8	0				
3:45 PM	0	0	85	24	0	11	38	0	0	0	26	0	41	225		0	3	3				

Peak Rolling Hour Flow Rates

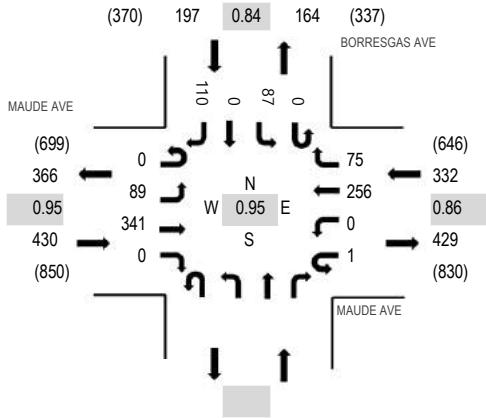
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right				
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	252	137	0	76	205	0	0	0	144	0	134	0	0	0	0	0	0	948
Mediums	0	0	7	1	0	4	6	0	0	0	1	0	4	0	0	0	0	0	0	23
Total	0	0	259	138	0	80	211	0	0	0	145	0	138	0	0	0	0	0	0	971



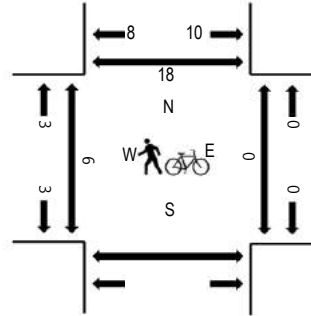
(303) 216-2439
www.alltrafficdata.net

Location: 9 BORRESGAS AVE & MAUDE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				Northbound		BORRESGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Thru	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	19	94	0	0	0	66	18			0	17	0	20	234	931	0	0	4	
2:15 PM	0	20	75	0	0	0	57	41			0	21	0	43	257	950	0	0	18	
2:30 PM	0	22	73	0	0	0	48	13			0	15	0	23	194	926	2	0	2	
2:45 PM	0	26	75	0	1	0	64	22			0	26	0	32	246	959	3	0	5	
3:00 PM	0	19	89	0	0	0	78	13			0	26	0	28	253	935	1	0	4	
3:15 PM	0	24	83	0	0	0	63	20			0	17	0	26	233		2	0	2	
3:30 PM	0	20	94	0	0	0	51	20			0	18	0	24	227		0	0	6	
3:45 PM	0	24	93	0	0	0	55	16			0	13	0	21	222		1	0	9	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0					0	0	0	0	1
Lights	0	89	337	0	1	0	250	74					0	86	0	110	947
Mediums	0	0	3	0	0	0	6	1					0	1	0	0	11
Total	0	89	341	0	1	0	256	75					0	87	0	110	959



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Location: 9 SUNNYVALE AVE & MAUDE AVE PM

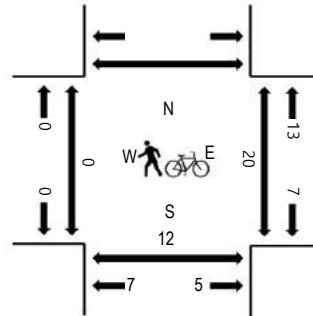
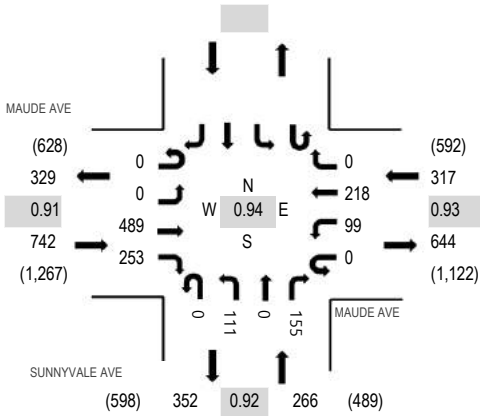
Date and Start Time: Tuesday, May 16, 2017

Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				SUNNYVALE AVE Northbound				SUNNYVALE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	86	31	0	14	43	0	0	0	22	0	35	0	0	0	0	231	1,025	0	0	1
4:15 PM	0	0	86	28	0	14	45	0	0	0	27	0	29	0	0	0	0	229	1,100	0	3	1
4:30 PM	0	0	81	27	0	26	47	0	0	0	32	0	33	0	0	0	0	246	1,220	0	2	4
4:45 PM	0	0	118	53	0	23	61	0	0	0	23	0	41	0	0	0	0	319	1,325	0	4	2
5:00 PM	0	0	116	46	0	23	52	0	0	0	32	0	37	0	0	0	0	306	1,323	0	3	1
5:15 PM	0	0	136	73	0	27	52	0	0	0	24	0	37	0	0	0	0	349		0	6	3
5:30 PM	0	0	119	81	0	26	53	0	0	0	32	0	40	0	0	0	0	351		0	6	6
5:45 PM	0	0	104	82	0	24	62	0	0	0	21	0	24	0	0	0	0	317		0	7	5

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lights	0	0	485	252	0	96	217	0	0	0	110	0	151	0	0	0	0	1,311
Mediums	0	0	4	1	0	3	1	0	0	0	1	0	4	0	0	0	0	14
Total	0	0	489	253	0	99	218	0	0	0	111	0	155	0	0	0	0	1,325



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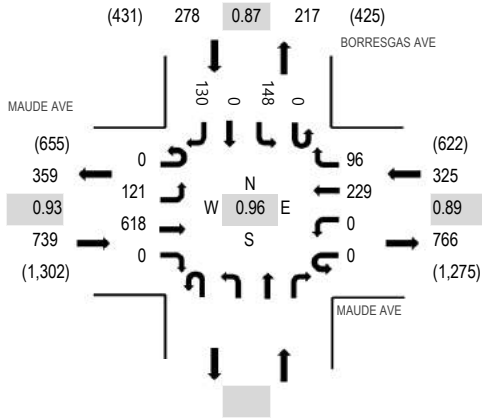
Location: 9 BORREGAS AVE & MAUDE AVE PM

Date and Start Time: Tuesday, May 16, 2017

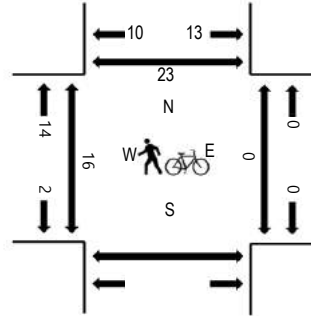
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				Northbound			BORREGAS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	26	103	0	0	0	42	22				0	14	0	21	228	1,013	3	0	1	
4:15 PM	0	25	100	0	0	0	52	17				0	14	0	25	233	1,092	0	0	1	
4:30 PM	0	32	85	0	0	0	55	21				0	19	0	20	232	1,203	3	0	3	
4:45 PM	0	38	154	0	0	0	61	27				0	20	0	20	320	1,319	1	0	1	
5:00 PM	0	21	149	0	0	0	57	21				0	19	0	40	307	1,342	3	0	3	
5:15 PM	0	34	170	0	0	0	55	23				0	36	0	26	344		2	0	4	
5:30 PM	0	29	161	0	0	0	48	30				0	49	0	31	348		4	0	10	
5:45 PM	0	37	138	0	0	0	69	22				0	44	0	33	343		6	0	6	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	121	614	0	0	0	228	96					0	147	0	130	1,336
Mediums	0	0	4	0	0	0	1	0					0	1	0	0	6
Total	0	121	618	0	0	0	229	96					0	148	0	130	1,342

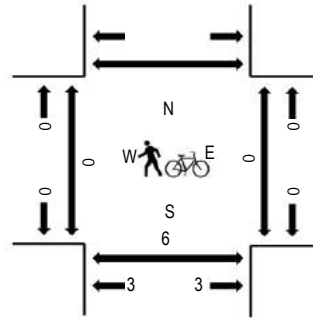
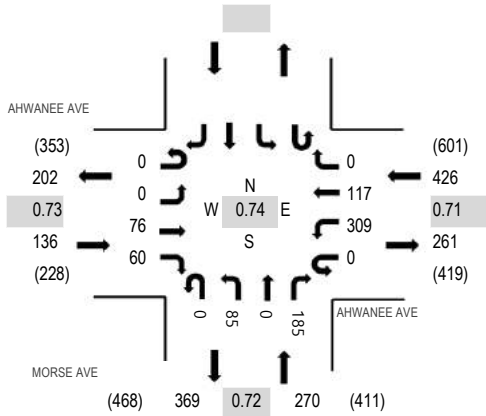


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Location: 16 MORSE AVE & AHWANEE AVE AM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				MORSE AVE Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	23	0	0	18	21	0	0	0	7	0	9	0	0	0	0	78	765	0	0	0
7:15 AM	0	0	22	11	0	44	23	0	0	0	16	0	30	0	0	0	0	146	817	0	0	2
7:30 AM	0	0	25	25	0	107	27	0	0	0	26	0	49	0	0	0	0	259	832	0	0	5
7:45 AM	0	0	18	20	0	121	29	0	0	0	26	0	68	0	0	0	0	282	685	0	0	0
8:00 AM	0	0	16	8	0	33	32	0	0	0	12	0	29	0	0	0	0	130	475	0	0	0
8:15 AM	0	0	17	7	0	48	29	0	0	0	21	0	39	0	0	0	0	161		0	0	1
8:30 AM	0	0	20	4	0	13	21	0	0	0	26	0	28	0	0	0	0	112		0	0	2
8:45 AM	0	0	11	1	0	8	27	0	0	0	10	0	15	0	0	0	0	72		0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lights	0	0	73	59	0	302	116	0	0	0	85	0	182	0	0	0	0	817
Mediums	0	0	3	1	0	7	1	0	0	0	0	0	3	0	0	0	0	15
Total	0	0	76	60	0	309	117	0	0	0	85	0	185	0	0	0	0	832

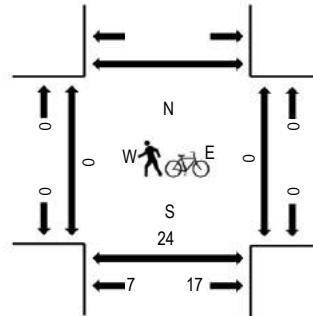
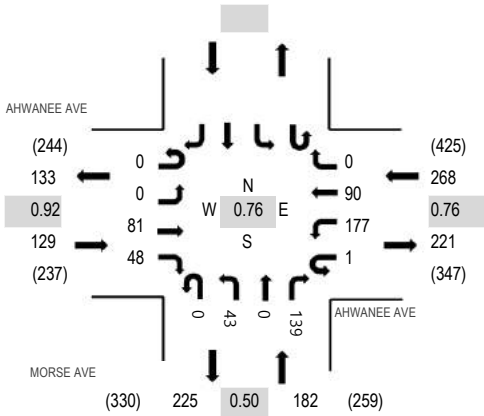


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Location: 16 MORSE AVE & AHWANEE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 02:30 PM - 03:30 PM
Peak 15-Minutes: 02:45 PM - 03:00 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				MORSE AVE Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	13	3	0	8	15	0	0	7	0	4	0	0	0	0	50	481	0	0	1	
2:15 PM	0	0	15	11	1	27	21	0	0	12	0	7	0	0	0	0	94	559	0	0	2	
2:30 PM	0	0	17	16	0	67	21	0	0	5	0	20	0	0	0	0	146	579	0	0	2	
2:45 PM	0	0	22	13	0	46	19	0	0	18	0	73	0	0	0	0	191	531	0	0	14	
3:00 PM	0	0	21	6	0	45	22	0	0	8	0	26	0	0	0	0	128	440	0	0	2	
3:15 PM	0	0	21	13	1	19	28	0	0	12	0	20	0	0	0	0	114		0	0	4	
3:30 PM	0	0	28	8	0	18	21	0	0	5	0	18	0	0	0	0	98		0	0	5	
3:45 PM	0	0	24	6	0	24	22	0	0	8	0	16	0	0	0	0	100		0	0	4	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right					
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Lights	0	0	79	48	1	175	89	0	0	42	0	138	0	0	0	0	572				
Mediums	0	0	2	0	0	2	1	0	0	1	0	1	0	0	0	0	7				
Total	0	0	81	48	1	177	90	0	0	43	0	139	0	0	0	0	579				

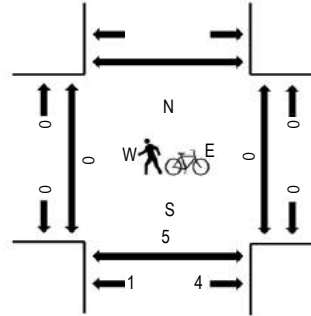
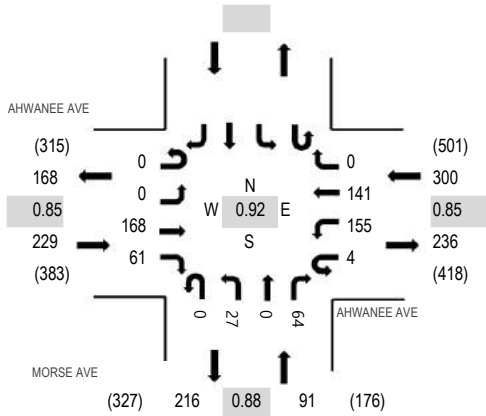


(303) 216-2439
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Location: 16 MORSE AVE & AHWANEE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	AHWANEE AVE Eastbound				AHWANEE AVE Westbound				MORSE AVE Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	22	8	0	14	19	0	0	0	9	0	11	0	0	0	0	83	440	0	0	1
4:15 PM	0	0	35	6	0	29	30	0	0	0	9	0	13	0	0	0	0	122	485	0	0	1
4:30 PM	0	0	26	9	1	18	39	0	0	0	4	0	17	0	0	0	0	114	521	0	0	3
4:45 PM	0	0	43	5	0	22	29	0	0	0	8	0	14	0	0	0	0	121	576	0	0	5
5:00 PM	0	0	35	14	2	19	34	0	0	0	9	0	15	0	0	0	0	128	620	0	0	1
5:15 PM	0	0	49	18	0	41	31	0	0	0	5	0	14	0	0	0	0	158		0	0	0
5:30 PM	0	0	43	16	0	52	36	0	0	0	4	0	18	0	0	0	0	169		0	0	2
5:45 PM	0	0	41	13	2	43	40	0	0	0	9	0	17	0	0	0	0	165		0	0	2

Peak Rolling Hour Flow Rates

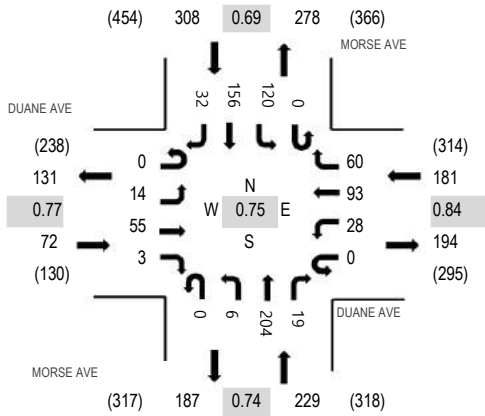
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lights	0	0	167	60	4	155	139	0	0	0	27	0	64	0	0	0	0	616
Mediums	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	168	61	4	155	141	0	0	0	27	0	64	0	0	0	0	620



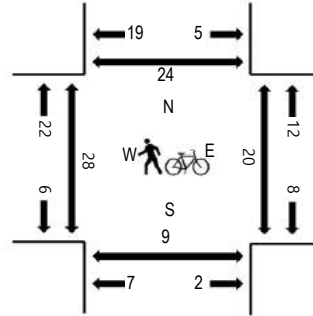
(303) 216-2439
www.alltrafficdata.net

Location: 10 MORSE AVE & DUANE AVE AM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DUANE AVE Eastbound				DUANE AVE Westbound				MORSE AVE Northbound				MORSE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	2	6	0	0	8	14	2	0	0	8	1	0	1	22	1	65	626	1	1	0	1
7:15 AM	0	1	7	2	0	7	13	7	0	2	21	3	0	13	26	7	109	727	5	1	4	0
7:30 AM	0	4	15	0	0	4	26	10	0	1	50	7	0	25	39	9	190	790	7	5	1	13
7:45 AM	0	3	19	2	0	10	24	15	0	0	76	1	0	47	56	9	262	747	15	11	5	6
8:00 AM	0	4	6	0	0	9	29	16	0	4	19	3	0	31	37	8	166	590	3	0	0	3
8:15 AM	0	3	15	1	0	5	14	19	0	1	59	8	0	17	24	6	172		2	4	1	1
8:30 AM	0	1	18	2	0	7	26	3	0	0	26	8	0	18	32	6	147		0	3	1	2
8:45 AM	0	2	16	1	0	9	33	4	0	3	11	6	0	4	14	2	105		1	0	0	2

Peak Rolling Hour Flow Rates

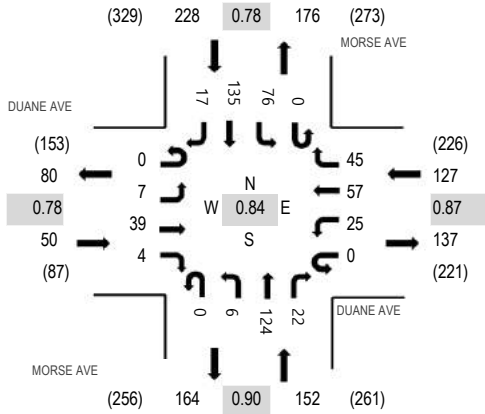
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	14	55	3	0	28	93	60	0	6	203	18	0	119	154	31	784
Mediums	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	1	6
Total	0	14	55	3	0	28	93	60	0	6	204	19	0	120	156	32	790



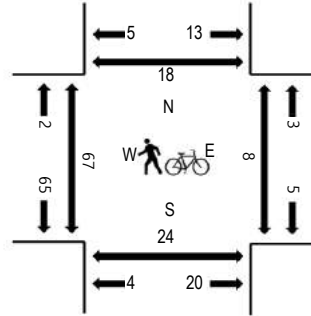
(303) 216-2439
www.alltrafficdata.net

Location: 10 MORSE AVE & DUANE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 02:30 PM - 03:30 PM
Peak 15-Minutes: 02:45 PM - 03:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DUANE AVE Eastbound				DUANE AVE Westbound				MORSE AVE Northbound				MORSE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	13	0	0	4	11	5	0	2	15	8	0	5	21	1	85	443	1	0	0	0
2:15 PM	0	2	6	0	0	9	16	3	0	2	28	5	0	2	12	3	88	504	6	4	0	4
2:30 PM	0	2	12	1	0	4	15	18	0	1	31	4	0	4	11	1	104	557	0	2	5	1
2:45 PM	0	2	7	0	0	8	15	12	0	2	36	6	0	34	42	2	166	536	40	1	13	8
3:00 PM	0	1	6	3	0	7	13	9	0	2	32	9	0	21	38	5	146	460	20	4	1	7
3:15 PM	0	2	14	0	0	6	14	6	0	1	25	3	0	17	44	9	141		2	1	4	0
3:30 PM	0	0	9	0	0	3	16	3	0	2	14	5	0	10	19	2	83		8	1	1	0
3:45 PM	0	0	6	1	0	7	16	6	0	0	21	7	0	8	16	2	90		1	0	0	0

Peak Rolling Hour Flow Rates

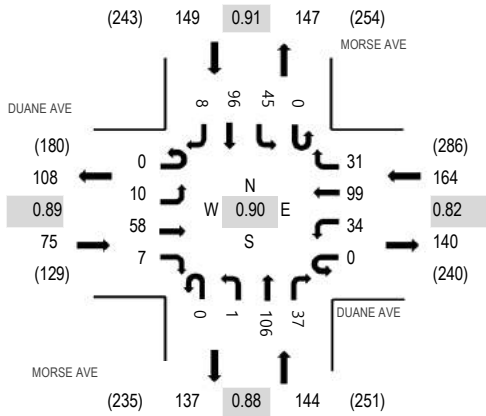
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	7	38	4	0	25	55	45	0	5	122	22	0	72	134	17	546
Mediums	0	0	1	0	0	0	2	0	0	1	2	0	0	4	1	0	11
Total	0	7	39	4	0	25	57	45	0	6	124	22	0	76	135	17	557



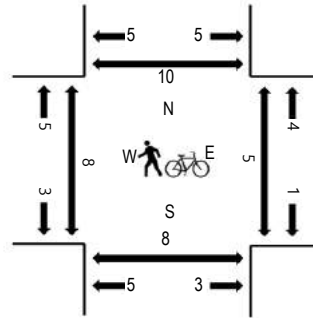
(303) 216-2439
www.alltrafficdata.net

Location: 10 MORSE AVE & DUANE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DUANE AVE Eastbound				DUANE AVE Westbound				MORSE AVE Northbound				MORSE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	1	10	0	0	13	12	4	0	1	22	3	0	4	13	3	86	377	1	0	0	3
4:15 PM	0	0	14	0	0	4	21	7	0	3	14	5	0	5	19	0	92	418	6	1	0	0
4:30 PM	0	3	15	0	0	5	18	9	0	0	14	8	0	9	18	0	99	449	2	0	6	0
4:45 PM	0	0	11	0	0	8	13	8	0	0	25	12	0	4	18	1	100	484	3	1	4	2
5:00 PM	0	3	14	1	0	4	27	6	0	0	30	8	0	9	24	1	127	532	2	0	5	1
5:15 PM	0	3	16	2	0	7	25	8	0	0	18	8	0	13	23	0	123		1	0	0	2
5:30 PM	0	1	17	0	0	12	18	7	0	0	32	9	0	11	25	2	134		0	1	1	1
5:45 PM	0	3	11	4	0	11	29	10	0	1	26	12	0	12	24	5	148		5	4	2	5

Peak Rolling Hour Flow Rates

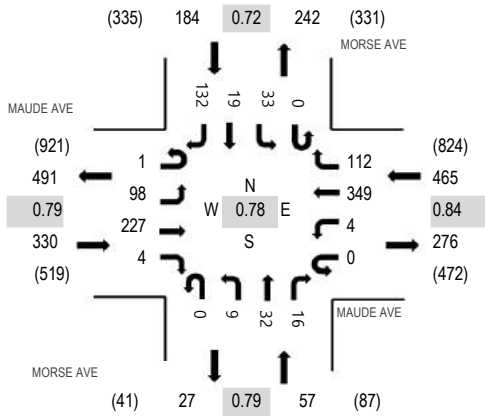
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	10	57	7	0	34	99	31	0	1	105	37	0	45	96	8	530
Mediums	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Total	0	10	58	7	0	34	99	31	0	1	106	37	0	45	96	8	532



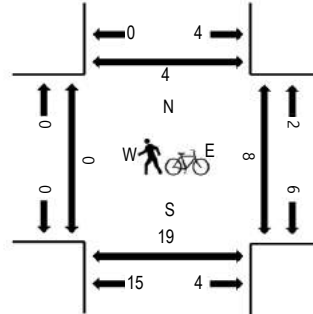
(303) 216-2439
www.alltrafficdata.net

Location: 17 MORSE AVE & MAUDE AVE AM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				MORSE AVE Northbound				MORSE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	6	24	0	0	1	55	4	0	3	0	6	0	7	4	25	135	865	1	0	2	3
7:15 AM	0	10	38	0	0	0	58	18	0	4	2	2	0	9	1	25	167	956	2	0	7	2
7:30 AM	0	22	57	1	0	0	71	29	0	1	8	6	0	8	2	28	233	1,036	0	4	4	0
7:45 AM	1	37	65	1	0	4	103	32	0	1	13	4	0	7	8	54	330	1,016	0	1	7	0
8:00 AM	0	15	59	2	0	0	81	9	0	4	4	5	0	11	8	28	226	900	0	2	6	3
8:15 AM	0	24	46	0	0	0	94	42	0	3	7	1	0	7	1	22	247		0	1	1	1
8:30 AM	0	18	41	0	0	1	81	10	0	4	3	2	0	18	3	32	213		1	1	7	3
8:45 AM	0	12	39	1	0	0	125	6	0	4	0	0	0	10	3	14	214		0	0	1	0

Peak Rolling Hour Flow Rates

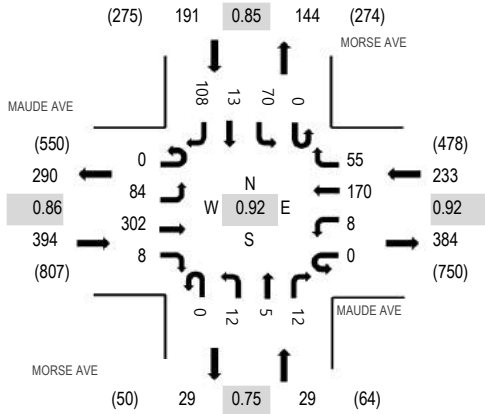
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	1	97	222	4	0	4	340	110	0	9	32	16	0	33	19	131	1,018
Mediums	0	1	5	0	0	0	9	2	0	0	0	0	0	0	0	1	18
Total	1	98	227	4	0	4	349	112	0	9	32	16	0	33	19	132	1,036



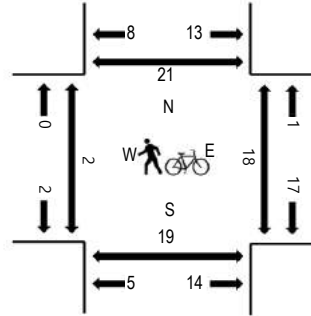
(303) 216-2439
www.alltrafficdata.net

Location: 17 MORSE AVE & MAUDE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				MORSE AVE Northbound				MORSE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	17	74	4	0	0	56	8	0	2	1	1	0	4	2	20	189	794	0	1	14	3
2:15 PM	0	27	93	3	0	2	51	6	0	2	9	5	0	6	1	14	219	835	0	0	23	4
2:30 PM	0	11	60	0	0	1	49	20	0	1	5	4	0	6	4	5	166	822	0	0	0	8
2:45 PM	0	26	63	1	0	0	43	21	0	4	2	4	0	18	8	30	220	847	0	4	5	1
3:00 PM	0	25	73	4	0	2	43	17	0	5	2	5	0	20	0	34	230	830	2	9	3	8
3:15 PM	0	15	76	1	0	4	43	8	0	2	0	1	0	22	2	32	206		0	4	6	1
3:30 PM	0	18	90	2	0	2	41	9	0	1	1	2	0	10	3	12	191		0	1	5	10
3:45 PM	0	18	105	1	0	1	45	6	0	1	2	2	0	6	2	14	203		1	1	1	0

Peak Rolling Hour Flow Rates

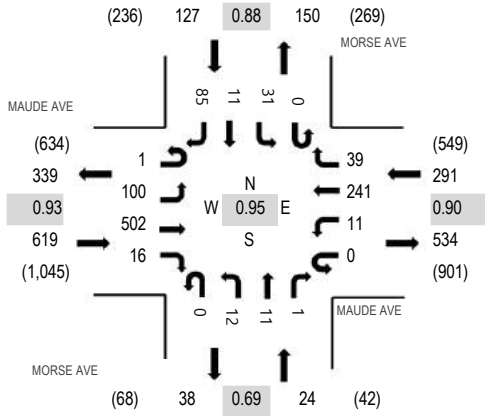
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	83	290	8	0	8	164	55	0	12	5	12	0	69	12	107	825
Mediums	0	1	12	0	0	0	6	0	0	0	0	0	0	1	1	1	22
Total	0	84	302	8	0	8	170	55	0	12	5	12	0	70	13	108	847



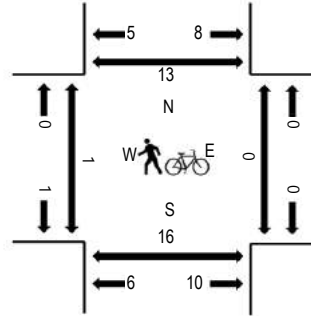
(303) 216-2439
www.alltrafficdata.net

Location: 17 MORSE AVE & MAUDE AVE PM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				MORSE AVE Northbound				MORSE AVE Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	17	97	2	0	0	44	9	0	3	2	0	0	0	5	1	20	200	829	0	0	2	4
4:15 PM	0	14	83	3	0	5	52	8	0	1	2	0	0	7	3	15	193	895	2	2	4	0	
4:30 PM	0	18	69	6	0	0	52	5	0	2	2	2	0	7	1	15	179	960	0	1	1	4	
4:45 PM	0	22	120	2	0	0	67	9	0	4	4	1	0	3	3	22	257	1,061	1	0	1	3	
5:00 PM	0	30	122	7	0	3	50	11	0	2	3	0	0	12	5	21	266	1,043	0	0	4	5	
5:15 PM	1	21	125	2	0	4	63	9	0	3	2	0	0	7	1	20	258		0	0	5	3	
5:30 PM	0	27	135	5	0	4	61	10	0	3	2	0	0	9	2	22	280		0	0	6	2	
5:45 PM	0	28	88	1	0	2	68	13	0	3	1	0	0	9	6	20	239		0	1	7	5	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	1	100	491	16	0	11	238	38	0	11	11	1	0	31	11	85	1,045	
Mediums	0	0	11	0	0	0	3	1	0	1	0	0	0	0	0	0	16	
Total	1	100	502	16	0	11	241	39	0	12	11	1	0	31	11	85	1,061	

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-002 Fair Oaks Ave & Weddell Dr
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Fair Oaks Ave Southbound					Weddell Dr Westbound					Fair Oaks Ave Northbound					Weddell Dr Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	4	102	2	0	108	23	1	1	0	25	17	106	10	1	134	2	0	24	0	26	293	1
7:15	1	138	3	2	144	25	1	0	0	26	24	102	5	0	131	4	0	46	0	50	351	2
7:30	1	177	5	2	185	13	1	9	0	23	56	125	10	1	192	6	1	68	0	75	475	3
7:45	4	193	6	1	204	22	0	9	0	31	82	179	4	3	268	11	0	97	0	108	611	4
Total	10	610	16	5	641	83	3	19	0	105	179	512	29	5	725	23	1	235	0	259	1730	10
8:00	3	182	26	2	213	24	6	3	0	33	108	210	18	1	337	17	0	148	0	165	748	3
8:15	3	167	11	0	181	13	0	3	0	16	37	170	5	1	213	7	0	94	0	101	511	1
8:30	5	182	4	1	192	24	1	5	0	30	35	183	4	1	223	2	0	71	0	73	518	2
8:45	1	171	3	2	177	23	2	4	0	29	35	240	7	2	284	9	0	109	0	118	608	4
Total	12	702	44	5	763	84	9	15	0	108	215	803	34	5	1057	35	0	422	0	457	2385	10
9:00	3	151	0	0	154	16	0	5	0	21	36	201	5	1	243	3	1	93	0	97	515	1
9:15	2	152	3	2	159	9	0	2	0	11	24	224	10	1	259	2	1	90	0	93	522	3
9:30	1	148	1	1	151	12	0	3	0	15	28	169	9	0	206	3	3	73	0	79	451	1
9:45	0	136	4	2	142	19	0	1	0	20	37	205	7	1	250	2	0	71	0	73	485	3
Total	6	587	8	5	606	56	0	11	0	67	125	799	31	3	958	10	5	327	0	342	1973	8
16:00	2	142	9	0	153	9	3	2	0	14	52	134	13	1	200	3	0	36	0	39	406	1
16:15	3	207	3	2	215	14	1	1	0	16	52	153	21	0	226	7	1	50	0	58	515	2
16:30	5	232	9	0	246	18	0	7	0	25	48	130	21	1	200	11	1	52	0	64	535	1
16:45	3	242	7	2	254	7	0	4	0	11	49	193	20	0	262	6	0	52	0	58	585	2
Total	13	823	28	4	868	48	4	14	0	66	201	610	75	2	888	27	2	190	0	219	2041	6
17:00	7	268	5	2	282	11	1	4	0	16	53	176	23	1	253	11	3	64	0	78	629	3
17:15	4	315	7	2	328	8	2	4	0	14	64	224	24	2	314	5	2	48	0	55	711	4
17:30	1	293	2	1	297	5	1	3	0	9	70	229	20	1	320	6	3	47	0	56	682	2
17:45	8	313	15	0	336	10	0	8	0	18	58	245	19	1	323	5	2	43	0	50	727	1
Total	20	1189	29	5	1243	34	4	19	0	57	245	874	86	5	1210	27	10	202	0	239	2749	10
18:00	7	257	4	3	271	8	2	7	0	17	77	223	20	2	322	2	0	39	0	41	651	5
18:15	5	241	9	2	257	13	0	3	0	16	69	206	18	2	295	7	0	46	0	53	621	4
18:30	2	234	11	1	248	8	0	1	0	9	57	174	11	1	243	3	0	47	0	50	550	2
18:45	4	170	9	2	185	17	2	1	0	20	61	183	14	1	259	5	0	41	0	46	510	3
Total	18	902	33	8	961	46	4	12	0	62	264	786	63	6	1119	17	0	173	0	190	2332	14
Grand Total	79	4813	158	32	5082	351	24	90	0	465	1229	4384	318	26	5957	139	18	1549	0	1706	13210	58
Apprch %	1.6%	94.7%	3.1%	0.6%		75.5%	5.2%	19.4%	0.0%		20.6%	73.6%	5.3%	0.4%		8.1%	1.1%	90.8%	0.0%			
Total %	0.6%	36.4%	1.2%	0.2%	38.5%	2.7%	0.2%	0.7%	0.0%	3.5%	9.3%	33.2%	2.4%	0.2%	45.1%	1.1%	0.1%	11.7%	0.0%	12.9%	100.0%	

AM PEAK HOUR	Fair Oaks Ave Southbound					Weddell Dr Westbound					Fair Oaks Ave Northbound					Weddell Dr Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	4	193	6	1	204	22	0	9	0	31	82	179	4	3	268	11	0	97	0	108	611
8:00	3	182	26	2	213	24	6	3	0	33	108	210	18	1	337	17	0	148	0	165	748
8:15	3	167	11	0	181	13	0	3	0	16	37	170	5	1	213	7	0	94	0	101	511
8:30	5	182	4	1	192	24	1	5	0	30	35	183	4	1	223	2	0	71	0	73	518
Total Volume	15	724	47	4	790	83	7	20	0	110	262	742	31	6	1041	37	0	410	0	447	2388
% App Total	1.9%	91.6%	5.9%	0.5%		75.5%	6.4%	18.2%	0.0%		25.2%	71.3%	3.0%	0.6%		8.3%	0.0%	91.7%	0.0%		
PHF	.750	.938	.452	.500	.927	.865	.292	.556	.000	.833	.606	.883	.431	.500	.772	.544	.000	.693	.000	.677	.798

PM PEAK HOUR	Fair Oaks Ave Southbound					Weddell Dr Westbound					Fair Oaks Ave Northbound					Weddell Dr Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	4	315	7	2	328	8	2	4	0	14	64	224	24	2	314	5	2	48	0	55	711
17:30	1	293	2	1	297	5	1	3	0	9	70	229	20	1	320	6	3	47	0	56	682
17:45	8	313	15	0	336	10	0	8	0	18	58	245	19	1	323	5	2	43	0	50	727
18:00	7	257	4	3	271	8	2	7	0	17	77	223	20	2	322	2	0	39	0	41	651
Total Volume	20	1178	28	6	1232	31	5	22	0	58	269	921	83	6	1279	18	7	177	0	202	2771
% App Total	1.6%	95.6%	2.3%	0.5%		53.4%	8.6%	37.9%	0.0%		21.0%	72.0%	6.5%	0.5%		8.9%	3.5%	87.6%	0.0%		
PHF	.625	.935	.467	.500	.917	.775	.625	.688	.000	.806	.873	.940	.865	.750	.990	.750	.583	.922	.000	.902	.953

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Utturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-002 Fair Oaks Ave & Weddell Dr
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Fair Oaks Ave Southbound					Weddell Dr Westbound					Fair Oaks Ave Northbound					Weddell Dr Eastbound					Total	Peds Total			
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL					
7:00	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	1	2
7:15	0	0	0	3	0	0	0	1	1	1	0	0	0	1	0	0	1	0	0	1	0	0	0	1	6
7:30	0	0	0	2	0	0	1	0	3	1	1	0	0	1	1	0	7	0	0	7	0	4	0	0	6
7:45	0	1	0	2	1	0	2	0	0	2	1	1	0	0	2	0	4	0	0	4	0	0	0	0	2
Total	0	1	0	8	1	0	3	1	4	4	2	2	0	3	4	1	11	0	1	12	1	11	0	1	16
8:00	0	0	0	8	0	0	3	1	0	4	0	1	0	2	1	1	0	0	1	1	0	0	0	1	11
8:15	0	0	0	8	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
8:30	0	0	0	4	0	0	2	1	3	3	0	0	0	0	0	0	1	0	0	1	0	1	0	0	7
8:45	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	1	0	1	0	1	3
Total	0	0	0	22	0	1	5	2	4	8	0	1	0	2	1	1	2	0	2	3	0	2	0	2	30
9:00	0	0	0	4	0	0	1	0	4	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	10
9:15	0	0	0	9	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	10
9:30	0	0	0	2	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
9:45	1	0	0	3	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	1	0	0	18	1	0	3	1	5	4	0	2	0	2	2	0	0	0	0	0	0	0	0	0	25
16:00	0	0	0	6	0	0	2	0	3	2	0	0	0	2	0	1	1	0	1	2	0	1	0	0	12
16:15	0	0	0	5	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0	6
16:30	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	4
16:45	0	1	0	3	1	0	0	0	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	6
Total	0	1	0	17	1	0	2	0	7	2	1	0	1	2	2	1	3	0	2	4	0	2	0	0	28
17:00	2	0	2	5	4	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	0	1	0	0	5
17:15	0	0	0	3	0	0	0	0	2	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	5
17:30	0	2	0	5	2	0	5	0	5	5	0	1	0	0	1	0	1	0	0	1	0	1	0	0	10
17:45	1	0	1	0	2	0	0	0	3	0	0	1	0	0	1	0	3	0	0	3	0	3	0	0	3
Total	3	2	3	13	8	0	9	0	10	9	0	3	0	0	3	0	12	0	0	12	0	3	0	0	23
18:00	0	1	0	1	1	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1	0	1	0	0	3
18:15	0	0	0	16	0	0	1	0	4	1	0	0	0	0	0	0	4	0	0	4	0	4	0	0	20
18:30	0	1	1	3	2	0	3	0	2	3	0	0	1	0	1	0	1	0	0	1	0	1	0	0	5
18:45	0	0	1	1	1	1	1	0	2	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
Total	0	2	2	21	4	1	5	0	8	6	0	0	1	2	1	0	6	0	1	6	0	6	0	1	32
Grand Total	4	6	5	99	15	2	27	4	38	33	3	8	2	11	13	3	34	0	6	37	98	154			
Apprch %	26.7%	40.0%	33.3%			6.1%	81.8%	12.1%			23.1%	61.5%	15.4%			8.1%	91.9%	0.0%							
Total %	4.1%	6.1%	5.1%		15.3%	2.0%	27.6%	4.1%		33.7%	3.1%	8.2%	2.0%		13.3%	3.1%	34.7%	0.0%		37.8%	100.0%				

AM PEAK HOUR	Fair Oaks Ave Southbound					Weddell Dr Westbound					Fair Oaks Ave Northbound					Weddell Dr Eastbound					Total	
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	
Peak Hour Analysis From 07:45 to 08:45																						
Peak Hour For Entire Intersection Begins at 07:45																						
7:45	0	1	0	2	1	0	2	0	0	2	1	1	0	0	2	0	4	0	0	4	0	9
8:00	0	0	0	8	0	0	0	3	1	0	4	0	1	0	2	1	1	0	0	1	1	6
8:15	0	0	0	8	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	4	0	0	0	2	1	3	3	0	0	0	0	0	0	1	0	0	1	4
Total Volume	0	1	0	22	1	0	7	2	4	9	1	2	0	2	3	1	5	0	1	6	19	
% App Total	0.0%	100.0%	0.0%			0.0%	77.8%	22.2%			33.3%	66.7%	0.0%			16.7%	83.3%	0.0%				
PHF	.000	.250	.000		.250	.000	.583	.500		.563	.250	.500	.000		.375	.250	.313	.000		.375	.528	

PM PEAK HOUR	Fair Oaks Ave Southbound					Weddell Dr Westbound					Fair Oaks Ave Northbound					Weddell Dr Eastbound					Total	
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	
Peak Hour Analysis From 17:15 to 18:15																						
Peak Hour For Entire Intersection Begins at 17:15																						
17:15	0	0	0	3	0	0	0	0	2	0	0	1	0	0	1	0	1	0	0	1	0	2
17:30	0	2	0	5	2	0	5	0	5	5	0	1	0	0	1	0	1	0	0	1	0	9
17:45	1	0	1	0	2	0	0	0	3	0	0	0	1	0	0	1	0	3	0	0	3	6
18:00	0	1	0	1	1	0	0	0	0	0	0	0	1	0	2	0	0	1	0	0	1	2
Total Volume	1	3	1	9	5	0	5	0	10	5	0	3	0	2	3	0	6	0	0	6	19	
% App Total	20.0%	60.0%	20.0%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%				
PHF	.250	.375	.250		.625	.000	.250	.000		.250	.000	.750	.000		.750	.000	.500	.000		.500	.528	

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Utturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-002 N Fair Oaks Avenue & Weddell Drive
 Date : 12/2/2015

Unshifted Count = All Vehicles & Utturns

START TIME	N Fair Oaks Avenue Southbound					Weddell Drive Westbound					N Fair Oaks Avenue Northbound					Weddell Drive Eastbound					Total	Utturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	3	149	5	2	159	15	2	6	0	23	25	137	18	0	180	6	0	36	0	42	404	2
14:15	4	135	3	2	144	13	1	2	0	16	30	117	19	0	166	4	0	38	1	43	369	3
14:30	5	146	4	4	159	18	0	6	0	24	24	89	13	2	128	6	0	28	0	34	345	6
14:45	3	139	6	0	148	18	1	3	0	22	32	105	23	3	163	2	0	36	0	38	371	3
Total	15	569	18	8	610	64	4	17	0	85	111	448	73	5	637	18	0	138	1	157	1489	14
15:00	5	130	4	1	140	18	2	3	0	23	44	136	12	2	194	11	1	59	0	71	428	3
15:15	4	140	3	1	148	13	0	6	0	19	26	125	16	2	169	2	1	29	0	32	368	3
15:30	2	180	4	0	186	8	0	2	0	10	39	140	14	0	193	4	0	58	0	62	451	0
15:45	4	131	1	2	138	10	0	2	0	12	37	125	18	0	180	7	0	41	0	48	378	2
Total	15	581	12	4	612	49	2	13	0	64	146	526	60	4	736	24	2	187	0	213	1625	8
Grand Total	30	1150	30	12	1222	113	6	30	0	149	257	974	133	9	1373	42	2	325	1	370	3114	22
Apprch %	2.5%	94.1%	2.5%	1.0%		75.8%	4.0%	20.1%	0.0%		18.7%	70.9%	9.7%	0.7%		11.4%	0.5%	87.8%	0.3%			
Total %	1.0%	36.9%	1.0%	0.4%	39.2%	3.6%	0.2%	1.0%	0.0%	4.8%	8.3%	31.3%	4.3%	0.3%	44.1%	1.3%	0.1%	10.4%	0.0%	11.9%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					Weddell Drive Westbound					N Fair Oaks Avenue Northbound					Weddell Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	5	130	4	1	140	18	2	3	0	23	44	136	12	2	194	11	1	59	0	71	428
15:15	4	140	3	1	148	13	0	6	0	19	26	125	16	2	169	2	1	29	0	32	368
15:30	2	180	4	0	186	8	0	2	0	10	39	140	14	0	193	4	0	58	0	62	451
15:45	4	131	1	2	138	10	0	2	0	12	37	125	18	0	180	7	0	41	0	48	378
Total Volume	15	581	12	4	612	49	2	13	0	64	146	526	60	4	736	24	2	187	0	213	1625
% App Total	2.5%	94.9%	2.0%	0.7%		76.6%	3.1%	20.3%	0.0%		19.8%	71.5%	8.2%	0.5%		11.3%	0.9%	87.8%	0.0%		
PHF	.750	.807	.750	.500	.823	.681	.250	.542	.000	.696	.830	.939	.833	.500	.948	.545	.500	.792	.000	.750	.901

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-002 N Fair Oaks Avenue & Weddell Drive
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Fair Oaks Avenue Southbound					Weddell Drive Westbound					N Fair Oaks Avenue Northbound					Weddell Drive Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
14:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
14:30	0	0	0	2	0	0	2	0	1	2	0	0	0	0	0	0	0	0	1	0	2	4
14:45	0	0	0	2	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	1	4
Total	0	0	0	6	0	0	3	0	3	3	0	0	0	0	0	0	1	0	2	1	4	11
15:00	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2	1
15:15	1	1	0	2	2	0	2	0	1	2	0	0	0	0	0	0	0	0	0	0	4	3
15:30	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
15:45	0	1	0	2	1	0	1	0	2	1	0	1	0	0	1	0	2	0	0	2	5	4
Total	1	2	0	6	3	0	3	1	4	4	0	1	1	0	2	0	2	0	0	2	11	10
Grand Total	1	2	0	12	3	0	6	1	7	7	0	1	1	0	2	0	3	0	2	3	15	21
Apprch %	33.3%	66.7%	0.0%			0.0%	85.7%	14.3%			0.0%	50.0%	50.0%			0.0%	100.0%	0.0%				
Total %	6.7%	13.3%	0.0%		20.0%	0.0%	40.0%	6.7%		46.7%	0.0%	6.7%	6.7%		13.3%	0.0%	20.0%	0.0%		20.0%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					Weddell Drive Westbound					N Fair Oaks Avenue Northbound					Weddell Drive Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2
15:15	1	1	0	2	2	0	2	0	1	2	0	0	0	0	0	0	0	0	0	0	4
15:30	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	1	0	2	1	0	1	0	2	1	0	1	0	0	1	0	2	0	0	2	5
Total Volume	1	2	0	6	3	0	3	1	4	4	0	1	1	0	2	0	2	0	0	2	11
% App Total	33.3%	66.7%	0.0%			0.0%	75.0%	25.0%			0.0%	50.0%	50.0%			0.0%	100.0%	0.0%			
PHF	.250	.500	.000		.375	.000	.375	.250		.500	.000	.250	.250		.500	.000	.250	.000		.250	.550

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-003 Fair Oaks Ave & US 101 NB ramps
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Fair Oaks Ave Southbound					US 101 NB ramps Westbound					Fair Oaks Ave Northbound					US 101 NB ramps Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	1	1
7:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3
Total	0	1	0	0	1	0	0	0	4	0	0	3	0	0	3	0	0	0	0	0	4	4
8:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	1	3
9:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
9:15	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	1	1
9:30	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	2	1
9:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	5	0	0	2	0	0	2	0	0	0	0	0	3	5
16:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
16:15	0	0	0	0	0	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	1	3
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	1	0	0	1	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	2	3
Total	0	1	0	0	1	0	0	0	11	0	0	2	0	0	2	0	0	0	0	0	3	11
17:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	1	2
17:30	0	2	0	0	2	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	3	4
17:45	0	0	0	0	0	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	1	4
Total	0	2	0	0	2	0	0	0	11	0	0	3	0	0	3	0	0	0	0	0	5	11
18:00	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	2
18:15	0	0	0	0	0	0	0	0	7	0	0	1	0	0	1	0	0	0	0	0	1	7
18:30	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	2
18:45	0	1	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	4
Total	0	3	0	0	3	0	0	0	15	0	0	1	0	0	1	0	0	0	0	0	4	15
Grand Total	0	8	0	0	8	0	0	0	49	0	0	12	0	0	12	0	0	0	0	0	20	49
Apprch %	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%		0.0%	0.0%	0.0%					
Total %	0.0%	40.0%	0.0%		40.0%	0.0%	0.0%	0.0%		0.0%	0.0%	60.0%	0.0%		60.0%	0.0%	0.0%		0.0%	100.0%		

AM PEAK HOUR	Fair Oaks Ave Southbound					US 101 NB ramps Westbound					Fair Oaks Ave Northbound					US 101 NB ramps Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
8:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	0	2	0	0	3	0	0	3	0	0	0	0	0	4
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%		0.0%	0.0%	0.0%				
PHF	.000	.250	.000		.250	.000	.000	.000		.000	.000	.375	.000		.375	.000	.000	.000		.000	.333

PM PEAK HOUR	Fair Oaks Ave Southbound					US 101 NB ramps Westbound					Fair Oaks Ave Northbound					US 101 NB ramps Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	1
17:30	0	2	0	0	2	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	3
17:45	0	0	0	0	0	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	1
18:00	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	3	0	0	3	0	0	0	12	0	0	3	0	0	3	0	0	0	0	0	6
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%		0.0%	0.0%	0.0%				
PHF	.000	.375	.000		.375	.000	.000	.000		.000	.000	.750	.000		.750	.000	.000	.000		.000	.500

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-003 N Fair Oaks Avenue & US-101 NB Ramps
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Fair Oaks Avenue Southbound					US-101 NB Ramps Westbound					N Fair Oaks Avenue Northbound					US-101 NB Ramps Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
15:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
15:15	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
15:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15:45	0	1	0	0	1	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	2	2
Total	0	2	0	0	2	0	0	0	4	0	0	2	0	0	2	0	0	0	0	0	4	4
Grand Total	0	2	0	0	2	0	0	0	8	0	0	2	0	0	2	0	0	0	0	0	4	8
Apprch %	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
Total %	0.0%	50.0%	0.0%		50.0%	0.0%	0.0%	0.0%		0.0%	0.0%	50.0%	0.0%		50.0%	0.0%	0.0%	0.0%		0.0%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					US-101 NB Ramps Westbound					N Fair Oaks Avenue Northbound					US-101 NB Ramps Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 14:45 to 15:45																						
Peak Hour For Entire Intersection Begins at 14:45																						
14:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
15:15	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	2
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
PHF	.000	.250	.000		.250	.000	.000	.000		.000	.000	.250	.000		.250	.000	.000	.000		.000	.500	

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7255-004 Fair Oaks Ave & Ahwanee Ave
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Fair Oaks Ave Southbound					Ahwanee Ave Westbound					Fair Oaks Ave Northbound					Ahwanee Ave Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	2	141	27	0	170	3	4	24	0	31	5	156	0	0	161	21	0	17	0	38	400	0
7:15	10	238	23	1	272	1	5	38	0	44	14	208	3	0	225	30	1	12	0	43	584	1
7:30	9	254	86	0	349	6	12	52	0	70	13	282	4	0	299	71	3	8	0	82	800	0
7:45	10	203	104	0	317	8	28	63	0	99	23	389	6	0	418	67	11	17	0	95	929	0
Total	31	836	240	1	1108	18	49	177	0	244	55	1035	13	0	1103	189	15	54	0	258	2713	1
8:00	4	186	60	0	250	14	21	72	0	107	11	331	7	0	349	53	6	16	0	75	781	0
8:15	9	158	44	0	211	7	8	42	0	57	13	309	7	0	329	38	6	14	0	58	655	0
8:30	3	154	37	0	194	8	15	53	0	76	14	380	0	0	394	47	4	7	0	58	722	0
8:45	5	187	21	0	213	6	5	45	0	56	9	371	5	0	385	26	0	10	0	36	690	0
Total	21	685	162	0	868	35	49	212	0	296	47	1391	19	0	1457	164	16	47	0	227	2848	0
9:00	2	157	17	0	176	5	6	33	0	44	6	367	1	0	374	23	1	8	0	32	626	0
9:15	4	175	13	0	192	4	5	31	0	40	7	360	3	0	370	16	1	11	0	28	630	0
9:30	2	160	13	0	175	7	3	36	0	46	13	358	4	0	375	30	3	10	0	43	639	0
9:45	8	164	15	0	187	10	5	31	0	46	7	307	4	0	318	25	0	11	0	36	587	0
Total	16	656	58	0	730	26	19	131	0	176	33	1392	12	0	1437	94	5	40	0	139	2482	0
16:00	17	318	43	0	378	6	0	12	0	18	14	181	7	0	202	20	4	16	0	40	638	0
16:15	11	357	37	0	405	3	5	9	0	17	4	178	6	0	188	27	3	5	0	35	645	0
16:30	29	392	58	0	479	4	5	8	0	17	12	192	7	0	211	32	5	22	0	59	766	0
16:45	25	436	52	0	513	2	1	12	0	15	11	181	5	0	197	25	8	15	0	48	773	0
Total	82	1503	190	0	1775	15	11	41	0	67	41	732	25	0	798	104	20	58	0	182	2822	0
17:00	12	507	54	0	573	5	4	10	0	19	8	190	4	0	202	29	8	19	0	56	850	0
17:15	18	589	56	0	663	4	3	6	0	13	13	211	8	0	232	30	14	29	0	73	981	0
17:30	18	623	67	0	708	9	6	18	0	33	7	205	10	0	222	17	14	19	0	50	1013	0
17:45	16	611	73	0	700	8	8	14	0	30	15	215	7	0	237	28	8	17	0	53	1020	0
Total	64	2330	250	0	2644	26	21	48	0	95	43	821	29	0	893	104	44	84	0	232	3864	0
18:00	26	536	48	0	610	4	9	9	0	22	19	231	13	0	263	28	8	22	0	58	953	0
18:15	23	523	55	0	601	6	4	16	0	26	18	189	9	0	216	23	4	22	0	49	892	0
18:30	24	480	31	0	535	4	4	13	0	21	13	222	12	0	247	21	8	22	0	51	854	0
18:45	17	423	37	0	477	5	5	13	0	23	16	210	9	0	235	24	7	16	0	47	782	0
Total	90	1962	171	0	2223	19	22	51	0	92	66	852	43	0	961	96	27	82	0	205	3481	0
Grand Total	304	7972	1071	1	9348	139	171	660	0	970	285	6223	141	0	6649	751	127	365	0	1243	18210	1
Apprch %	3.3%	85.3%	11.5%	0.0%		14.3%	17.6%	68.0%	0.0%		4.3%	93.6%	2.1%	0.0%		60.4%	10.2%	29.4%	0.0%			
Total %	1.7%	43.8%	5.9%	0.0%	51.3%	0.8%	0.9%	3.6%	0.0%	5.3%	1.6%	34.2%	0.8%	0.0%	36.5%	4.1%	0.7%	2.0%	0.0%	6.8%	100.0%	

AM PEAK HOUR	Fair Oaks Ave Southbound					Ahwanee Ave Westbound					Fair Oaks Ave Northbound					Ahwanee Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	9	254	86	0	349	6	12	52	0	70	13	282	4	0	299	71	3	8	0	82	800
7:45	10	203	104	0	317	8	28	63	0	99	23	389	6	0	418	67	11	17	0	95	929
8:00	4	186	60	0	250	14	21	72	0	107	11	331	7	0	349	53	6	16	0	75	781
8:15	9	158	44	0	211	7	8	42	0	57	13	309	7	0	329	38	6	14	0	58	655
Total Volume	32	801	294	0	1127	35	69	229	0	333	60	1311	24	0	1395	229	26	55	0	310	3165
% App Total	2.8%	71.1%	26.1%	0.0%		10.5%	20.7%	68.8%	0.0%		4.3%	94.0%	1.7%	0.0%		73.9%	8.4%	17.7%	0.0%		
PHF	.800	.788	.707	.000	.807	.625	.616	.795	.000	.778	.652	.843	.857	.000	.834	.806	.591	.809	.000	.816	.852

PM PEAK HOUR	Fair Oaks Ave Southbound					Ahwanee Ave Westbound					Fair Oaks Ave Northbound					Ahwanee Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	18	589	56	0	663	4	3	6	0	13	13	211	8	0	232	30	14	29	0	73	981
17:30	18	623	67	0	708	9	6	18	0	33	7	205	10	0	222	17	14	19	0	50	1013
17:45	16	611	73	0	700	8	8	14	0	30	15	215	7	0	237	28	8	17	0	53	1020
18:00	26	536	48	0	610	4	9	9	0	22	19	231	13	0	263	28	8	22	0	58	953
Total Volume	78	2359	244	0	2681	25	26	47	0	98	54	862	38	0	954	103	44	87	0	234	3967
% App Total	2.9%	88.0%	9.1%	0.0%		25.5%	26.5%	48.0%	0.0%		5.7%	90.4%	4.0%	0.0%		44.0%	18.8%	37.2%	0.0%		
PHF	.750	.947	.836	.000	.947	.694	.722	.653	.000	.742	.711	.933	.731	.000	.907	.858	.786	.750	.000	.801	.972

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Utturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-004 Fair Oaks Ave & Ahwanee Ave
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Fair Oaks Ave Southbound					Ahwanee Ave Westbound					Fair Oaks Ave Northbound					Ahwanee Ave Eastbound					Total	Peds Total			
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL					
7:00	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	0	0	0	0	0	0	0	1	3
7:15	0	0	0	0	0	0	4	0	3	4	0	0	0	2	0	0	0	0	0	0	0	0	0	4	5
7:30	0	0	0	0	0	0	2	0	2	2	0	0	0	9	0	0	0	0	0	0	0	0	0	2	11
7:45	0	1	0	0	1	0	0	0	0	0	0	2	0	4	2	0	0	0	0	0	0	0	0	3	4
Total	0	1	0	0	1	0	6	0	5	6	0	3	0	18	3	0	0	0	0	0	0	0	0	10	23
8:00	0	0	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0	0	0	0	0	0	0	1	5
8:15	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	1	0	1	0	1	0	2	2
8:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	6	0	1	1	0	6	2	0	0	1	0	1	0	1	0	3	12
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1
9:30	0	1	0	0	1	0	0	0	4	0	0	1	0	1	1	0	1	0	0	1	0	1	0	3	5
9:45	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	2
Total	0	1	0	0	1	0	0	0	6	0	0	2	0	2	2	0	2	0	0	2	0	2	0	5	8
16:00	0	0	0	0	0	0	0	0	1	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	7
16:15	0	0	0	0	0	0	0	0	1	0	0	1	0	2	1	0	0	0	0	0	0	0	0	1	3
16:30	0	0	0	0	0	0	0	0	5	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	11
16:45	0	0	0	0	0	0	2	0	1	2	0	1	0	2	1	0	1	0	0	1	0	1	0	4	3
Total	0	0	0	0	0	0	2	0	8	2	0	2	0	16	2	0	1	0	0	1	0	1	0	5	24
17:00	0	0	0	0	0	0	0	0	0	0	0	1	0	4	1	0	0	0	0	0	0	0	0	1	4
17:15	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	1	0	0	1	0	1	0	2	3
17:30	0	0	0	0	0	0	0	0	2	0	0	1	0	3	1	0	0	0	0	0	0	0	0	1	5
17:45	0	0	1	0	1	0	2	0	2	2	0	0	0	6	0	0	0	0	0	0	0	0	0	3	8
Total	0	0	1	0	1	0	2	0	4	2	0	3	0	16	3	0	1	0	0	1	0	1	0	7	20
18:00	0	1	0	0	1	0	0	0	7	0	0	0	0	9	0	0	0	0	0	0	0	0	0	1	16
18:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
18:30	0	1	0	0	1	0	1	0	3	1	0	0	0	2	0	0	1	0	0	1	0	1	0	3	5
18:45	0	0	0	0	0	0	2	0	2	2	0	0	0	2	0	0	0	1	0	1	0	1	0	3	4
Total	0	2	0	0	2	0	3	0	17	3	0	0	0	13	0	0	1	1	0	2	0	2	0	7	30
Grand Total	0	4	1	0	5	0	13	0	46	13	1	11	0	71	12	0	5	2	0	7	0	37	0	117	
Apprch %	0.0%	80.0%	20.0%			0.0%	100.0%	0.0%			8.3%	91.7%	0.0%			0.0%	71.4%	28.6%							
Total %	0.0%	10.8%	2.7%		13.5%	0.0%	35.1%	0.0%		35.1%	2.7%	29.7%	0.0%	32.4%		0.0%	13.5%	5.4%		18.9%		100.0%			

AM PEAK HOUR	Fair Oaks Ave Southbound					Ahwanee Ave Westbound					Fair Oaks Ave Northbound					Ahwanee Ave Eastbound					Total	
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	
Peak Hour Analysis From 07:30 to 08:30																						
Peak Hour For Entire Intersection Begins at 07:30																						
7:30	0	0	0	0	0	0	2	0	2	2	0	0	0	9	0	0	0	0	0	0	0	2
7:45	0	1	0	0	1	0	0	0	0	0	0	2	0	4	2	0	0	0	0	0	0	3
8:00	0	0	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	1	0	1	0	2
Total Volume	0	1	0	0	1	0	2	0	3	2	1	3	0	19	4	0	0	1	0	1	0	8
% App Total	0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			25.0%	75.0%	0.0%			0.0%	0.0%	100.0%				
PHF	.000	.250	.000		.250	.000	.250	.000		.250	.250	.375	.000		.500	.000	.000	.250		.250	.667	

PM PEAK HOUR	Fair Oaks Ave Southbound					Ahwanee Ave Westbound					Fair Oaks Ave Northbound					Ahwanee Ave Eastbound					Total	
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	
Peak Hour Analysis From 17:15 to 18:15																						
Peak Hour For Entire Intersection Begins at 17:15																						
17:15	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	1	0	0	1	0	2
17:30	0	0	0	0	0	0	0	0	2	0	0	1	0	3	1	0	0	0	0	0	0	1
17:45	0	0	1	0	1	0	2	0	2	2	0	0	0	6	0	0	0	0	0	0	0	3
18:00	0	1	0	0	1	0	0	0	7	0	0	0	0	9	0	0	0	0	0	0	0	1
Total Volume	0	1	1	0	2	0	2	0	11	2	0	2	0	21	2	0	1	0	0	1	0	7
% App Total	0.0%	50.0%	50.0%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%				
PHF	.000	.250	.250		.500	.000	.250	.000		.250	.000	.500	.000		.500	.000	.250	.000		.250	.583	

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Turns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-004 N Fair Oaks Avenue & Ahwanee Avenue
 Date : 12/2/2015

Unshifted Count = All Vehicles & Turns

START TIME	N Fair Oaks Avenue Southbound					Ahwanee Avenue Westbound					N Fair Oaks Avenue Northbound					Ahwanee Avenue Eastbound					Total	UtURNS Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	15	217	34	0	266	6	0	8	0	14	6	195	8	0	209	23	5	13	0	41	530	0
14:15	11	243	35	0	289	7	7	18	0	32	9	189	2	0	200	16	1	12	0	29	550	0
14:30	15	208	54	0	277	2	8	11	0	21	15	164	4	1	184	21	0	12	0	33	515	1
14:45	10	270	81	0	361	4	6	13	0	23	19	182	7	0	208	39	9	20	0	68	660	0
Total	51	938	204	0	1193	19	21	50	0	90	49	730	21	1	801	99	15	57	0	171	2255	1
15:00	13	283	53	2	351	4	4	11	0	19	7	262	4	0	273	61	8	21	0	90	733	2
15:15	12	260	42	0	314	1	1	5	0	7	13	180	3	0	196	22	3	19	0	44	561	0
15:30	13	275	34	0	322	1	1	5	0	7	10	202	6	0	218	28	1	16	0	45	592	0
15:45	18	308	30	1	357	2	1	10	0	13	9	156	6	0	171	17	3	17	0	37	578	1
Total	56	1126	159	3	1344	8	7	31	0	46	39	800	19	0	858	128	15	73	0	216	2464	3
Grand Total	107	2064	363	3	2537	27	28	81	0	136	88	1530	40	1	1659	227	30	130	0	387	4719	4
Apprch %	4.2%	81.4%	14.3%	0.1%		19.9%	20.6%	59.6%	0.0%		5.3%	92.2%	2.4%	0.1%		58.7%	7.8%	33.6%	0.0%			
Total %	2.3%	43.7%	7.7%	0.1%	53.8%	0.6%	0.6%	1.7%	0.0%	2.9%	1.9%	32.4%	0.8%	0.0%	35.2%	4.8%	0.6%	2.8%	0.0%	8.2%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					Ahwanee Avenue Westbound					N Fair Oaks Avenue Northbound					Ahwanee Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:45 to 15:45																					
Peak Hour For Entire Intersection Begins at 14:45																					
14:45	10	270	81	0	361	4	6	13	0	23	19	182	7	0	208	39	9	20	0	68	660
15:00	13	283	53	2	351	4	4	11	0	19	7	262	4	0	273	61	8	21	0	90	733
15:15	12	260	42	0	314	1	1	5	0	7	13	180	3	0	196	22	3	19	0	44	561
15:30	13	275	34	0	322	1	1	5	0	7	10	202	6	0	218	28	1	16	0	45	592
Total Volume	48	1088	210	2	1348	10	12	34	0	56	49	826	20	0	895	150	21	76	0	247	2546
% App Total	3.6%	80.7%	15.6%	0.1%		17.9%	21.4%	60.7%	0.0%		5.5%	92.3%	2.2%	0.0%		60.7%	8.5%	30.8%	0.0%		
PHF	.923	.961	.648	.250	.934	.625	.500	.654	.000	.609	.645	.788	.714	.000	.820	.615	.583	.905	.000	.686	.868

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-004 N Fair Oaks Avenue & Ahwanee Avenue
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Fair Oaks Avenue Southbound					Ahwanee Avenue Westbound					N Fair Oaks Avenue Northbound					Ahwanee Avenue Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
14:15	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
14:30	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
14:45	0	0	0	0	0	0	0	0	2	0	0	0	0	4	0	0	1	0	0	1	1	6
Total	0	0	0	0	0	0	0	0	4	0	0	0	0	7	0	0	1	0	0	1	1	11
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	1	2	0	0	3	3	40
15:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
15:30	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
15:45	0	1	0	0	1	1	0	0	5	1	0	1	0	3	1	0	0	0	0	0	3	8
Total	0	2	0	0	2	1	1	0	6	2	0	1	0	43	1	1	2	0	0	3	8	49
Grand Total	0	2	0	0	2	1	1	0	10	2	0	1	0	50	1	1	3	0	0	4	9	60
Apprch %	0.0%	100.0%	0.0%			50.0%	50.0%	0.0%			0.0%	100.0%	0.0%			25.0%	75.0%	0.0%				
Total %	0.0%	22.2%	0.0%		22.2%	11.1%	11.1%	0.0%		22.2%	0.0%	11.1%	0.0%		11.1%	11.1%	33.3%	0.0%		44.4%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					Ahwanee Avenue Westbound					N Fair Oaks Avenue Northbound					Ahwanee Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 14:45 to 15:45																						
Peak Hour For Entire Intersection Begins at 14:45																						
14:45	0	0	0	0	0	0	0	0	2	0	0	0	0	4	0	0	1	0	0	1	1	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	1	2	0	0	3	3	
15:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
15:30	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	
Total Volume	0	1	0	0	1	0	1	0	3	1	0	0	0	44	0	1	3	0	0	4	6	
% App Total	0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			25.0%	75.0%	0.0%				
PHF	.000	.250	.000		.250	.000	.250	.000		.250	.000	.000	.000		.000	.250	.375	.000		.333	.500	

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-006 Fair Oaks Ave & E. Duane Ave
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Fair Oaks Ave Southbound					E. Duane Ave Westbound					Fair Oaks Ave Northbound					E. Duane Ave Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	0	2	4	2	1	3	0	1	4	0	1	0	2	1	0	1	0	4	1	8	11
7:15	0	0	0	12	0	0	1	0	1	1	0	0	0	2	0	0	0	0	2	0	0	1
7:30	0	1	0	5	1	0	1	0	3	1	0	1	0	2	1	0	0	0	0	0	3	17
7:45	0	0	1	10	1	0	2	0	2	2	0	1	0	3	1	0	0	0	5	0	4	20
Total	0	1	3	31	4	1	7	0	7	8	0	3	0	9	3	0	1	0	11	1	16	58
8:00	0	0	1	5	1	0	3	1	9	4	0	0	0	0	0	0	0	0	1	0	5	15
8:15	1	0	1	0	2	0	2	0	10	2	0	0	0	5	0	0	1	0	4	1	5	19
8:30	0	1	1	3	2	0	0	0	3	0	0	0	0	1	0	0	0	0	1	0	2	8
8:45	0	0	0	0	0	0	4	0	1	4	0	0	0	3	0	0	1	0	0	1	5	4
Total	1	1	3	8	5	0	9	1	23	10	0	0	0	9	0	0	2	0	6	2	17	46
9:00	0	1	0	4	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	3	4
9:15	1	0	0	2	1	2	1	1	2	4	0	1	0	0	1	0	1	0	1	1	7	5
9:30	0	1	0	2	1	1	1	0	1	2	0	0	0	0	0	0	0	0	1	0	3	4
9:45	0	0	0	4	0	1	0	0	4	1	0	0	0	5	0	0	0	0	2	0	1	15
Total	1	2	0	12	3	5	2	1	7	8	0	1	0	5	1	1	1	0	4	2	14	28
16:00	0	0	0	2	0	0	2	0	1	2	0	1	0	1	1	0	1	0	1	1	4	5
16:15	0	0	0	1	0	0	0	0	5	0	0	1	0	2	1	0	2	0	0	2	3	8
16:30	0	0	0	3	0	0	2	0	4	2	0	0	0	2	0	0	0	0	0	0	2	9
16:45	0	0	0	0	0	0	1	0	0	1	0	1	0	1	1	0	1	0	0	1	3	1
Total	0	0	0	6	0	0	5	0	10	5	0	3	0	6	3	0	4	0	1	4	12	23
17:00	0	1	0	1	1	0	1	0	4	1	0	0	0	3	0	1	1	0	1	2	4	9
17:15	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	6
17:30	0	0	0	4	0	0	0	0	2	0	0	1	0	1	1	0	3	0	2	3	4	9
17:45	0	0	0	4	0	0	1	0	4	1	0	0	0	2	0	1	0	0	4	1	2	14
Total	0	1	0	11	1	0	2	0	10	2	0	1	0	8	1	2	4	0	9	6	10	38
18:00	0	1	0	2	1	0	0	0	3	0	0	0	0	1	0	1	4	0	1	5	6	7
18:15	0	1	0	0	1	0	1	0	2	1	0	1	0	0	1	0	2	0	2	2	5	4
18:30	0	1	0	5	1	0	1	0	1	1	0	1	0	3	1	3	1	0	1	4	7	10
18:45	0	0	0	4	0	0	0	0	6	0	0	0	0	1	0	1	0	0	1	1	1	12
Total	0	3	0	11	3	0	2	0	12	2	0	2	0	5	2	5	7	0	5	12	19	33
Grand Total	2	8	6	79	16	6	27	2	69	35	0	10	0	42	10	8	19	0	36	27	88	226
Apprch %	12.5%	50.0%	37.5%			17.1%	77.1%	5.7%			0.0%	100.0%	0.0%			29.6%	70.4%	0.0%				
Total %	2.3%	9.1%	6.8%		18.2%	6.8%	30.7%	2.3%		39.8%	0.0%	11.4%	0.0%		11.4%	9.1%	21.6%	0.0%		30.7%	100.0%	

AM PEAK HOUR	Fair Oaks Ave Southbound					E. Duane Ave Westbound					Fair Oaks Ave Northbound					E. Duane Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	0	1	10	1	0	2	0	2	2	0	1	0	3	1	0	0	0	5	0	4
8:00	0	0	1	5	1	0	3	1	9	4	0	0	0	0	0	0	0	0	1	0	5
8:15	1	0	1	0	2	0	2	0	10	2	0	0	0	5	0	0	1	0	4	1	5
8:30	0	1	1	3	2	0	0	0	3	0	0	0	0	1	0	0	0	0	1	0	2
Total Volume	1	1	4	18	6	0	7	1	24	8	0	1	0	9	1	0	1	0	11	1	16
% App Total	16.7%	16.7%	66.7%			0.0%	87.5%	12.5%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.250	.250	1.000		.750	.000	.583	.250		.500	.000	.250	.000		.250	.000	.250	.000		.250	.800

PM PEAK HOUR	Fair Oaks Ave Southbound					E. Duane Ave Westbound					Fair Oaks Ave Northbound					E. Duane Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0
17:30	0	0	0	4	0	0	0	0	2	0	0	1	0	1	1	0	3	0	2	3	4
17:45	0	0	0	4	0	0	1	0	4	1	0	0	0	2	0	1	0	0	4	1	2
18:00	0	1	0	2	1	0	0	0	3	0	0	0	0	1	0	1	4	0	1	5	6
Total Volume	0	1	0	12	1	0	1	0	9	1	0	1	0	6	1	2	7	0	9	9	12
% App Total	0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			22.2%	77.8%	0.0%			
PHF	.000	.250	.000		.250	.000	.250	.000		.250	.000	.250	.000		.250	.500	.438	.000		.450	.500

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-006 N Fair Oaks Avenue & E Duane Avenue
 Date : 12/2/2015

Unshifted Count = All Vehicles & Uturns

START TIME	N Fair Oaks Avenue Southbound					E Duane Avenue Westbound					N Fair Oaks Avenue Northbound					E Duane Avenue Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	10	169	13	0	192	44	10	19	0	73	3	154	29	0	186	8	11	5	0	24	475	0
14:15	14	206	12	0	232	41	19	14	0	74	1	152	28	0	181	11	9	5	0	25	512	0
14:30	8	180	16	0	204	41	20	12	0	73	1	151	27	0	179	16	8	3	0	27	483	0
14:45	39	207	18	0	264	41	22	17	0	80	5	175	38	0	218	17	29	6	0	52	614	0
Total	71	762	59	0	892	167	71	62	0	300	10	632	122	0	764	52	57	19	0	128	2084	0
15:00	33	203	11	0	247	62	19	47	0	128	2	184	37	0	223	15	21	4	0	40	638	0
15:15	40	212	16	0	268	53	9	33	0	95	5	165	32	0	202	11	22	14	0	47	612	0
15:30	19	218	19	0	256	50	9	17	0	76	3	194	48	0	245	4	15	8	0	27	604	0
15:45	22	249	14	0	285	51	13	15	0	79	4	129	43	0	176	11	11	2	0	24	564	0
Total	114	882	60	0	1056	216	50	112	0	378	14	672	160	0	846	41	69	28	0	138	2418	0
Grand Total	185	1644	119	0	1948	383	121	174	0	678	24	1304	282	0	1610	93	126	47	0	266	4502	0
Apprch %	9.5%	84.4%	6.1%	0.0%		56.5%	17.8%	25.7%	0.0%		1.5%	81.0%	17.5%	0.0%		35.0%	47.4%	17.7%	0.0%			
Total %	4.1%	36.5%	2.6%	0.0%	43.3%	8.5%	2.7%	3.9%	0.0%	15.1%	0.5%	29.0%	6.3%	0.0%	35.8%	2.1%	2.8%	1.0%	0.0%	5.9%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					E Duane Avenue Westbound					N Fair Oaks Avenue Northbound					E Duane Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:45 to 15:45																					
Peak Hour For Entire Intersection Begins at 14:45																					
14:45	39	207	18	0	264	41	22	17	0	80	5	175	38	0	218	17	29	6	0	52	614
15:00	33	203	11	0	247	62	19	47	0	128	2	184	37	0	223	15	21	4	0	40	638
15:15	40	212	16	0	268	53	9	33	0	95	5	165	32	0	202	11	22	14	0	47	612
15:30	19	218	19	0	256	50	9	17	0	76	3	194	48	0	245	4	15	8	0	27	604
Total Volume	131	840	64	0	1035	206	59	114	0	379	15	718	155	0	888	47	87	32	0	166	2468
% App Total	12.7%	81.2%	6.2%	0.0%		54.4%	15.6%	30.1%	0.0%		1.7%	80.9%	17.5%	0.0%		28.3%	52.4%	19.3%	0.0%		
PHF	.819	.963	.842	.000	.965	.831	.670	.606	.000	.740	.750	.925	.807	.000	.906	.691	.750	.571	.000	.798	.967

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-006 N Fair Oaks Avenue & E Duane Avenue
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Fair Oaks Avenue Southbound					E Duane Avenue Westbound					N Fair Oaks Avenue Northbound					E Duane Avenue Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	0	0	2	0	1	0	0	2	1	0	0	0	1	0	0	1	0	3	1	2	8
14:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	3	3	3	4
14:30	0	1	0	5	1	0	0	0	3	0	0	0	0	2	0	1	0	0	1	1	2	11
14:45	0	0	0	5	0	0	0	0	2	0	0	0	0	0	0	0	2	0	1	2	2	8
Total	0	1	0	12	1	1	0	0	8	1	0	0	0	3	0	1	6	0	8	7	9	31
15:00	0	0	0	16	0	0	0	0	3	0	0	0	0	7	0	0	0	0	4	0	0	30
15:15	0	1	0	12	1	0	1	0	4	1	0	0	0	1	0	0	1	0	4	1	3	21
15:30	0	0	0	5	0	0	7	0	5	7	0	0	1	15	1	0	0	0	11	0	8	36
15:45	0	1	0	5	1	0	0	0	14	0	0	0	0	6	0	0	0	0	2	0	1	27
Total	0	2	0	38	2	0	8	0	26	8	0	0	1	29	1	0	1	0	21	1	12	114
Grand Total	0	3	0	50	3	1	8	0	34	9	0	0	1	32	1	1	7	0	29	8	21	145
Apprch %	0.0%	100.0%	0.0%			11.1%	88.9%	0.0%			0.0%	0.0%	100.0%			12.5%	87.5%	0.0%				
Total %	0.0%	14.3%	0.0%		14.3%	4.8%	38.1%	0.0%		42.9%	0.0%	0.0%	4.8%		4.8%	4.8%	33.3%	0.0%		38.1%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					E Duane Avenue Westbound					N Fair Oaks Avenue Northbound					E Duane Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 14:45 to 15:45																						
Peak Hour For Entire Intersection Begins at 14:45																						
14:45	0	0	0	5	0	0	0	0	2	0	0	0	0	0	0	0	2	0	1	2	2	
15:00	0	0	0	16	0	0	0	0	3	0	0	0	0	7	0	0	0	0	4	0	0	
15:15	0	1	0	12	1	0	1	0	4	1	0	0	0	1	0	0	1	0	4	1	3	
15:30	0	0	0	5	0	0	7	0	5	7	0	0	1	15	1	0	0	0	11	0	8	
Total Volume	0	1	0	38	1	0	8	0	14	8	0	0	1	23	1	0	3	0	20	3	13	
% App Total	0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%				
PHF	.000	.250	.000		.250	.000	.286	.000		.286	.000	.000	.250		.250	.000	.375	.000		.375	.406	

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7255-007 Fair Oaks Ave/N. Wolfe Rd & Fair Oaks Ave
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Fair Oaks Ave/N. Wolfe Rd Southbound					Fair Oaks Ave Westbound					Fair Oaks Ave/N. Wolfe Rd Northbound					Fair Oaks Ave Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	51	162	0	213	0	0	0	0	0	0	47	0	0	47	91	0	1	0	92	352	0
7:15	0	63	202	0	265	0	0	0	0	0	0	68	0	0	68	121	0	0	0	121	454	0
7:30	0	54	160	0	214	0	0	0	0	0	0	127	0	0	127	186	0	1	0	187	528	0
7:45	0	89	175	0	264	0	0	0	0	0	0	113	0	0	113	177	0	4	0	181	558	0
Total	0	257	699	0	956	0	0	0	0	0	0	355	0	0	355	575	0	6	0	581	1892	0
8:00	0	75	170	0	245	0	0	0	0	0	0	106	0	0	106	157	0	1	0	158	509	0
8:15	0	75	140	0	215	0	0	0	0	0	0	119	0	0	119	214	0	1	0	215	549	0
8:30	0	72	137	0	209	0	0	0	0	0	0	145	0	0	145	209	0	1	0	210	564	0
8:45	0	85	164	0	249	0	0	0	0	0	0	119	0	0	119	175	0	0	0	175	543	0
Total	0	307	611	0	918	0	0	0	0	0	0	489	0	0	489	755	0	3	0	758	2165	0
9:00	0	77	127	0	204	0	0	0	0	0	0	132	0	0	132	178	0	0	0	178	514	0
9:15	0	87	132	0	219	0	0	0	0	0	0	109	0	0	109	208	0	0	0	208	536	0
9:30	0	76	107	0	183	0	0	0	0	0	0	109	0	0	109	167	0	1	0	168	460	0
9:45	0	75	131	0	206	0	0	0	0	0	0	103	0	0	103	160	0	1	0	161	470	0
Total	0	315	497	0	812	0	0	0	0	0	0	453	0	0	453	713	0	2	0	715	1980	0
16:00	0	110	183	0	293	0	0	0	0	0	0	63	0	0	63	141	0	3	0	144	500	0
16:15	0	131	196	0	327	0	0	0	0	0	0	51	0	0	51	153	0	3	0	156	534	0
16:30	0	145	212	0	357	0	0	0	0	0	0	79	0	0	79	136	0	1	0	137	573	0
16:45	0	185	185	0	370	0	0	0	0	0	0	84	0	0	84	141	0	1	0	142	596	0
Total	0	571	776	0	1347	0	0	0	0	0	0	277	0	0	277	571	0	8	0	579	2203	0
17:00	0	221	250	0	471	0	0	0	0	0	0	75	0	0	75	169	0	2	0	171	717	0
17:15	0	268	264	0	532	0	0	0	0	0	0	105	0	0	105	158	0	0	0	158	795	0
17:30	0	251	286	0	537	0	0	0	0	0	0	95	0	0	95	165	0	1	0	166	798	0
17:45	0	284	287	0	571	0	0	0	0	0	0	97	0	0	97	148	0	4	0	152	820	0
Total	0	1024	1087	0	2111	0	0	0	0	0	0	372	0	0	372	640	0	7	0	647	3130	0
18:00	0	253	259	0	512	0	0	0	0	0	0	102	0	0	102	144	0	4	0	148	762	0
18:15	0	216	258	0	474	0	0	0	0	0	0	79	0	0	79	141	0	1	0	142	695	0
18:30	0	198	232	0	430	0	0	0	0	0	0	103	0	0	103	169	0	5	0	174	707	0
18:45	0	178	226	0	404	0	0	0	0	0	0	100	0	0	100	141	0	1	0	142	646	0
Total	0	845	975	0	1820	0	0	0	0	0	0	384	0	0	384	595	0	11	0	606	2810	0
Grand Total	0	3319	4645	0	7964	0	0	0	0	0	0	2330	0	0	2330	3849	0	37	0	3886	14180	0
Apprch %	0.0%	41.7%	58.3%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%		99.0%	0.0%	1.0%	0.0%			
Total %	0.0%	23.4%	32.8%	0.0%	56.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.4%	0.0%	0.0%	16.4%	27.1%	0.0%	0.3%	0.0%	27.4%	100.0%	

AM PEAK HOUR	Fair Oaks Ave/N. Wolfe Rd Southbound					Fair Oaks Ave Westbound					Fair Oaks Ave/N. Wolfe Rd Northbound					Fair Oaks Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	0	89	175	0	264	0	0	0	0	0	0	113	0	0	113	177	0	4	0	181	558
8:00	0	75	170	0	245	0	0	0	0	0	0	106	0	0	106	157	0	1	0	158	509
8:15	0	75	140	0	215	0	0	0	0	0	0	119	0	0	119	214	0	1	0	215	549
8:30	0	72	137	0	209	0	0	0	0	0	0	145	0	0	145	209	0	1	0	210	564
Total Volume	0	311	622	0	933	0	0	0	0	0	0	483	0	0	483	757	0	7	0	764	2180
% App Total	0.0%	33.3%	66.7%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%		99.1%	0.0%	0.9%	0.0%		
PHF	.000	.874	.889	.000	.884	.000	.000	.000	.000	.000	.000	.833	.000	.000	.833	.884	.000	.438	.000	.888	.966

PM PEAK HOUR	Fair Oaks Ave/N. Wolfe Rd Southbound					Fair Oaks Ave Westbound					Fair Oaks Ave/N. Wolfe Rd Northbound					Fair Oaks Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	0	268	264	0	532	0	0	0	0	0	0	105	0	0	105	158	0	0	0	158	795
17:30	0	251	286	0	537	0	0	0	0	0	0	95	0	0	95	165	0	1	0	166	798
17:45	0	284	287	0	571	0	0	0	0	0	0	97	0	0	97	148	0	4	0	152	820
18:00	0	253	259	0	512	0	0	0	0	0	0	102	0	0	102	144	0	4	0	148	762
Total Volume	0	1056	1096	0	2152	0	0	0	0	0	0	399	0	0	399	615	0	9	0	624	3175
% App Total	0.0%	49.1%	50.9%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%		98.6%	0.0%	1.4%	0.0%		
PHF	.000	.930	.955	.000	.942	.000	.000	.000	.000	.000	.000	.950	.000	.000	.950	.932	.000	.563	.000	.940	.968

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-007 Fair Oaks Ave/N. Wolfe Rd & Fair Oaks Ave
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Fair Oaks Ave/N. Wolfe Rd Southbound					Fair Oaks Ave Westbound					Fair Oaks Ave/N. Wolfe Rd Northbound					Fair Oaks Ave Eastbound					Total	Peds Total			
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL					
7:00	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	1	0	1	0	0	0	0	0	0	2	0	2	2	2	0	0	1	2	2	5	3	0	0
7:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Total	0	0	3	0	3	0	0	0	0	0	0	3	0	2	3	2	0	0	1	2	2	8	3		
8:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	2		
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	2		
8:45	0	1	0	0	1	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	2	2		
Total	0	1	2	0	3	0	0	0	0	0	0	1	0	4	1	0	0	0	2	0	0	4	6		
9:00	0	1	1	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	3		
9:15	0	0	2	0	2	0	0	0	0	0	0	0	0	2	0	2	0	0	1	2	4	4	3		
9:30	0	1	1	0	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	2	5		
9:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2	0		
Total	0	2	5	0	7	0	0	0	0	0	0	0	0	9	0	3	0	0	2	3	10	11			
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	2	1	1	4			
16:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	1	1		
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2			
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2			
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	5	1	1	0	0	4	1	1	9			
17:00	0	1	1	0	2	0	0	0	0	0	0	0	0	5	0	0	0	0	1	0	2	6			
17:15	0	1	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0	3	0	1	10			
17:30	0	0	1	0	1	0	0	0	0	0	0	1	0	3	1	0	0	1	0	1	3	3			
17:45	0	0	0	0	0	0	0	0	0	0	1	0	0	13	1	0	0	0	7	0	1	20			
Total	0	2	2	0	4	0	0	0	0	0	1	1	0	28	2	0	0	1	11	1	7	39			
18:00	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	4	0			
18:15	0	0	1	0	1	0	0	0	0	0	0	1	0	8	1	0	0	0	2	0	2	10			
18:30	0	1	0	0	1	0	0	0	0	0	0	0	0	6	0	1	0	2	2	3	4	8			
18:45	0	0	1	0	1	0	0	0	0	0	0	2	0	2	2	0	0	1	0	1	4	2			
Total	0	2	2	0	4	0	0	0	0	0	1	4	0	16	5	1	0	4	4	5	14	20			
Grand Total	0	7	14	0	21	0	0	0	0	0	2	10	0	64	12	7	0	5	24	12	45	88			
Apprch %	0.0%	33.3%	66.7%			0.0%	0.0%	0.0%			16.7%	83.3%	0.0%		58.3%	0.0%	41.7%								
Total %	0.0%	15.6%	31.1%		46.7%	0.0%	0.0%	0.0%		0.0%	4.4%	22.2%	0.0%		26.7%	15.6%	0.0%	11.1%		26.7%	100.0%				

AM PEAK HOUR	Fair Oaks Ave/N. Wolfe Rd Southbound					Fair Oaks Ave Westbound					Fair Oaks Ave/N. Wolfe Rd Northbound					Fair Oaks Ave Eastbound					Total	
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	
Peak Hour Analysis From 07:45 to 08:45																						
Peak Hour For Entire Intersection Begins at 07:45																						
7:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Total Volume	0	0	3	0	3	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	3
% App Total	0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%		0.0%	0.0%	0.0%					
PHF	.000	.000	.750		.750	.000	.000	.000		.000	.000	.000	.000		.000	.000	.000		.000		.750	

PM PEAK HOUR	Fair Oaks Ave/N. Wolfe Rd Southbound					Fair Oaks Ave Westbound					Fair Oaks Ave/N. Wolfe Rd Northbound					Fair Oaks Ave Eastbound					Total	
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	
Peak Hour Analysis From 17:15 to 18:15																						
Peak Hour For Entire Intersection Begins at 17:15																						
17:15	0	1	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0	3	0	1	1
17:30	0	0	1	0	1	0	0	0	0	0	0	1	0	3	1	0	0	1	0	1	3	3
17:45	0	0	0	0	0	0	0	0	0	0	1	0	0	13	1	0	0	0	7	0	1	1
18:00	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	4	4
Total Volume	0	2	1	0	3	0	0	0	0	0	2	2	0	23	4	0	0	2	10	2	9	
% App Total	0.0%	66.7%	33.3%			0.0%	0.0%	0.0%			50.0%	50.0%	0.0%		0.0%	0.0%	100.0%					
PHF	.000	.500	.250		.750	.000	.000	.000		.000	.500	.500	.000		.500	.000	.000	.500		.500	.563	

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Turns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-007 N Fair Oaks Avenue & N Wolfe Road
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Fair Oaks Avenue Southbound					N Wolfe Road Westbound					N Fair Oaks Avenue Northbound					N Wolfe Road Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	1	0	0	1	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	2	2
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	2	0	0	1	0	2	1	0	0	0	0	0	2	4
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2	0
15:30	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	1	2
15:45	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	1	3	1	0	2	0	2	2	0	0	0	0	0	3	5
Grand Total	0	1	0	0	1	0	0	1	5	1	0	3	0	4	3	0	0	0	0	0	5	9
Apprch %	0.0%	100.0%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
Total %	0.0%	20.0%	0.0%		20.0%	0.0%	0.0%	20.0%		20.0%	0.0%	60.0%	0.0%		60.0%	0.0%	0.0%	0.0%		0.0%	100.0%	

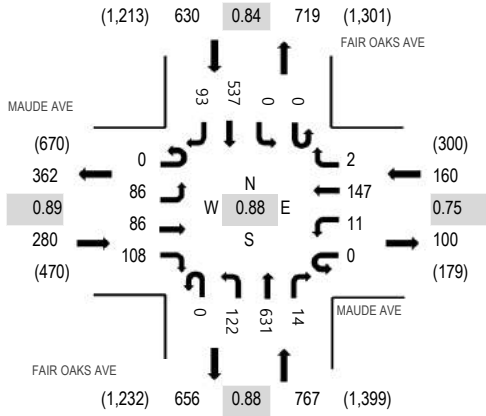
PM PEAK HOUR	N Fair Oaks Avenue Southbound					N Wolfe Road Westbound					N Fair Oaks Avenue Northbound					N Wolfe Road Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 15:00 to 16:00																						
Peak Hour For Entire Intersection Begins at 15:00																						
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	2
15:30	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	1	3	1	0	2	0	2	2	0	0	0	0	0	0	3
% App Total	0.0%	0.0%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
PHF	.000	.000	.000		.000	.000	.000	.250		.250	.000	.500	.000		.500	.000	.000	.000		.000	.375	



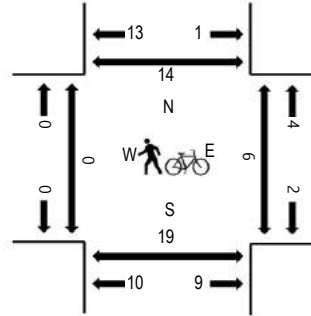
(303) 216-2439
www.alltrafficdata.net

Location: 14 FAIR OAKS AVE & MAUDE AVE AM
Date and Start Time: Tuesday, May 16, 2017
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	13	15	17	0	0	21	2	0	14	79	4	0	0	1	144	15	325	1,634	0	1	3	1
7:15 AM	0	16	11	14	0	8	16	0	0	23	98	1	0	0	0	133	20	340	1,726	0	0	2	1
7:30 AM	0	32	19	27	0	4	29	0	0	26	163	2	0	0	0	127	18	447	1,837	0	0	2	0
7:45 AM	0	26	19	25	0	2	52	2	0	32	167	4	0	0	0	163	30	522	1,831	0	1	8	1
8:00 AM	0	17	24	38	0	3	32	0	0	24	121	3	0	0	0	134	21	417	1,748	0	1	6	1
8:15 AM	0	11	24	18	0	2	34	0	0	40	180	5	0	0	0	113	24	451		0	2	2	0
8:30 AM	0	17	18	23	0	3	38	1	0	30	181	2	0	2	0	103	23	441		1	2	6	0
8:45 AM	0	9	18	19	0	4	46	1	0	30	165	5	0	2	0	108	32	439		0	0	3	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	5
Lights	0	81	81	105	0	11	143	2	0	116	617	13	0	0	521	87	1,777
Mediums	0	5	5	3	0	0	4	0	0	6	11	0	0	0	15	6	55
Total	0	86	86	108	0	11	147	2	0	122	631	14	0	0	537	93	1,837

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Turns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-008 N Fair Oaks Avenue & E Maude Avenue
 Date : 12/2/2015

Unshifted Count = All Vehicles & Turns

START TIME	N Fair Oaks Avenue Southbound					E Maude Avenue Westbound					N Fair Oaks Avenue Northbound					E Maude Avenue Eastbound					Total	UtURNS Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	2	142	20	0	164	3	17	1	0	21	17	89	2	0	108	18	26	14	0	58	351	0
14:15	2	143	19	0	164	3	18	1	0	22	16	99	3	0	118	26	29	21	0	76	380	0
14:30	1	151	21	0	173	7	17	2	0	26	27	99	3	0	129	19	26	16	0	61	389	0
14:45	0	144	22	0	166	0	13	4	0	17	12	130	4	0	146	22	30	25	0	77	406	0
Total	5	580	82	0	667	13	65	8	0	86	72	417	12	0	501	85	111	76	0	272	1526	0
15:00	0	149	21	0	170	3	18	3	0	24	19	129	1	0	149	14	31	29	0	74	417	0
15:15	1	167	19	0	187	5	23	1	0	29	18	106	2	0	126	14	35	28	0	77	419	0
15:30	2	159	17	0	178	2	20	1	0	23	11	130	7	0	148	24	30	31	0	85	434	0
15:45	0	164	18	0	182	2	15	0	0	17	20	128	1	0	149	18	31	24	0	73	421	0
Total	3	639	75	0	717	12	76	5	0	93	68	493	11	0	572	70	127	112	0	309	1691	0
Grand Total	8	1219	157	0	1384	25	141	13	0	179	140	910	23	0	1073	155	238	188	0	581	3217	0
Apprch %	0.6%	88.1%	11.3%	0.0%		14.0%	78.8%	7.3%	0.0%		13.0%	84.8%	2.1%	0.0%		26.7%	41.0%	32.4%	0.0%			
Total %	0.2%	37.9%	4.9%	0.0%	43.0%	0.8%	4.4%	0.4%	0.0%	5.6%	4.4%	28.3%	0.7%	0.0%	33.4%	4.8%	7.4%	5.8%	0.0%	18.1%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					E Maude Avenue Westbound					N Fair Oaks Avenue Northbound					E Maude Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	0	149	21	0	170	3	18	3	0	24	19	129	1	0	149	14	31	29	0	74	417
15:15	1	167	19	0	187	5	23	1	0	29	18	106	2	0	126	14	35	28	0	77	419
15:30	2	159	17	0	178	2	20	1	0	23	11	130	7	0	148	24	30	31	0	85	434
15:45	0	164	18	0	182	2	15	0	0	17	20	128	1	0	149	18	31	24	0	73	421
Total Volume	3	639	75	0	717	12	76	5	0	93	68	493	11	0	572	70	127	112	0	309	1691
% App Total	0.4%	89.1%	10.5%	0.0%		12.9%	81.7%	5.4%	0.0%		11.9%	86.2%	1.9%	0.0%		22.7%	41.1%	36.2%	0.0%		
PHF	.375	.957	.893	.000	.959	.600	.826	.417	.000	.802	.850	.948	.393	.000	.960	.729	.907	.903	.000	.909	.974

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Turns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-008 N Fair Oaks Avenue & E Maude Avenue
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Fair Oaks Avenue Southbound					E Maude Avenue Westbound					N Fair Oaks Avenue Northbound					E Maude Avenue Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	1	2	0	0	3	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	4	2
14:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	4
14:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
14:45	0	0	0	1	0	0	1	0	0	1	0	0	0	2	0	0	0	0	1	0	1	4
Total	1	2	0	1	3	0	1	0	3	1	0	0	0	4	0	1	0	0	5	1	5	13
15:00	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	6
15:15	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	1	0	0	3	1	1	8
15:30	0	0	0	1	0	0	0	0	4	0	0	1	0	12	1	0	1	0	4	1	2	21
15:45	0	0	0	2	0	0	1	0	1	1	0	0	0	12	0	5	0	0	4	5	6	19
Total	0	0	0	10	0	0	1	0	7	1	0	1	0	24	1	6	0	0	13	7	9	54
Grand Total	1	2	0	11	3	0	2	0	10	2	0	1	0	28	1	6	0	0	18	8	14	67
Apprch %	33.3%	66.7%	0.0%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			25.0%	75.0%	0.0%				
Total %	7.1%	14.3%	0.0%		21.4%	0.0%	14.3%	0.0%		14.3%	0.0%	7.1%	0.0%		14.3%	42.9%	0.0%			57.1%	100.0%	

PM PEAK HOUR	N Fair Oaks Avenue Southbound					E Maude Avenue Westbound					N Fair Oaks Avenue Northbound					E Maude Avenue Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0
15:15	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	1	0	0	3	1	1
15:30	0	0	0	1	0	0	0	0	4	0	0	1	0	12	1	0	1	0	4	1	2
15:45	0	0	0	2	0	0	1	0	1	1	0	0	0	12	0	5	0	0	4	5	6
Total Volume	0	0	0	10	0	0	1	0	7	1	0	1	0	24	1	6	0	0	13	7	9
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			14.3%	85.7%	0.0%			
PHF	.000	.000	.000		.000	.000	.250	.000		.250	.000	.250	.000		.250	.300	.000		.350		.375



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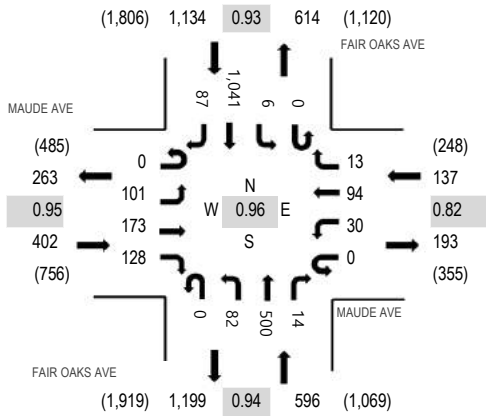
Location: 14 FAIR OAKS AVE & MAUDE AVE PM

Date and Start Time: Tuesday, May 16, 2017

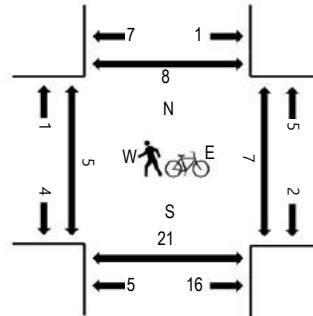
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				MAUDE AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	35	39	18	0	4	21	0	0	0	10	106	2	0	0	132	14	381	1,610	0	2	2	3
4:15 PM	0	22	35	36	0	0	20	2	0	20	98	1	0	0	137	13	384	1,765	0	2	4	1	
4:30 PM	0	21	28	16	0	11	18	1	0	18	97	5	0	2	153	11	381	1,957	2	0	1	1	
4:45 PM	0	30	47	27	0	7	27	0	0	20	94	2	0	1	179	30	464	2,169	1	2	1	3	
5:00 PM	0	22	51	36	0	7	17	2	0	19	125	3	0	3	222	29	536	2,269	1	3	10	0	
5:15 PM	0	35	30	35	0	11	28	2	0	24	130	4	0	1	259	17	576		1	0	2	3	
5:30 PM	0	24	51	28	0	9	27	8	0	16	125	1	0	1	286	17	593		3	3	4	1	
5:45 PM	0	20	41	29	0	3	22	1	0	23	120	6	0	1	274	24	564		0	1	5	1	

Peak Rolling Hour Flow Rates

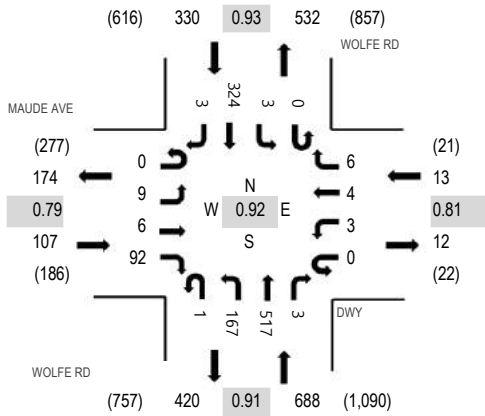
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Lights	0	96	171	127	0	30	93	13	0	82	491	14	0	6	1,033	84	2,240
Mediums	0	5	2	1	0	0	1	0	0	0	9	0	0	0	8	2	28
Total	0	101	173	128	0	30	94	13	0	82	500	14	0	6	1,041	87	2,269



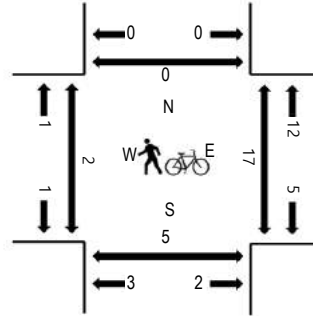
(303) 216-2439
www.alltrafficdata.net

Location: 15 WOLFE RD & DWY AM
Date and Start Time: Thursday, May 25, 2017
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				DWY Westbound				WOLFE RD Northbound				WOLFE RD Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	1	1	9	0	0	1	0	0	15	41	0	0	0	3	52	1	124	775	0	2	0	0
7:15 AM	0	3	1	11	0	1	2	0	0	22	54	0	1	1	65	2	163	913	0	5	2	0	
7:30 AM	0	6	0	15	0	0	0	1	0	23	97	1	0	1	70	0	214	1,027	1	6	1	1	
7:45 AM	0	3	0	29	0	0	0	3	0	33	115	1	0	1	85	4	274	1,104	0	6	1	1	
8:00 AM	0	4	2	15	0	0	0	2	0	31	118	0	0	1	87	2	262	1,138	1	6	1	0	
8:15 AM	0	3	2	17	0	2	2	0	1	41	135	1	0	1	72	0	277		0	4	0	0	
8:30 AM	0	2	1	32	0	0	1	2	0	46	126	1	0	1	78	1	291		1	4	1	0	
8:45 AM	0	0	1	28	0	1	1	2	0	49	138	1	0	0	87	0	308		0	1	3	0	

Peak Rolling Hour Flow Rates

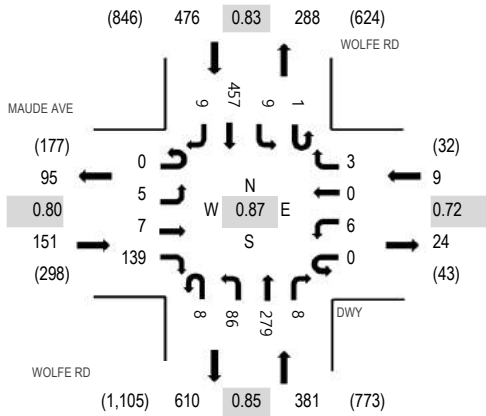
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Lights	0	9	6	88	0	3	4	5	1	166	507	3	0	2	314	2	1,110
Mediums	0	0	0	4	0	0	0	1	0	1	9	0	0	1	9	1	26
Total	0	9	6	92	0	3	4	6	1	167	517	3	0	3	324	3	1,138



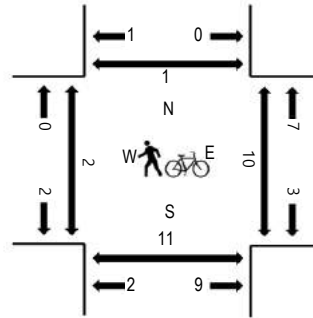
(303) 216-2439
www.alltrafficdata.net

Location: 15 WOLFE RD & DWY PM
Date and Start Time: Thursday, May 25, 2017
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				DWY Westbound				WOLFE RD Northbound				WOLFE RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	5	2	24	0	1	0	3	1	16	85	1	0	1	68	1	208	932	0	1	1	0
2:15 PM	0	2	1	38	0	5	0	3	1	23	86	5	0	3	87	6	260	956	0	3	0	2
2:30 PM	0	4	0	27	0	0	1	6	2	13	64	0	0	2	86	3	208	953	0	2	1	0
2:45 PM	0	2	3	39	0	2	0	2	2	19	73	1	1	0	112	0	256	982	0	1	3	0
3:00 PM	0	1	2	25	0	1	0	1	2	23	68	1	0	2	101	5	232	1,017	0	5	2	0
3:15 PM	0	1	2	45	0	1	0	0	1	22	66	2	0	2	113	2	257		0	2	0	0
3:30 PM	0	1	1	32	0	3	0	1	1	18	71	2	0	3	104	0	237		1	2	5	1
3:45 PM	0	2	2	37	0	1	0	1	4	23	74	3	1	2	139	2	291		0	1	4	0

Peak Rolling Hour Flow Rates

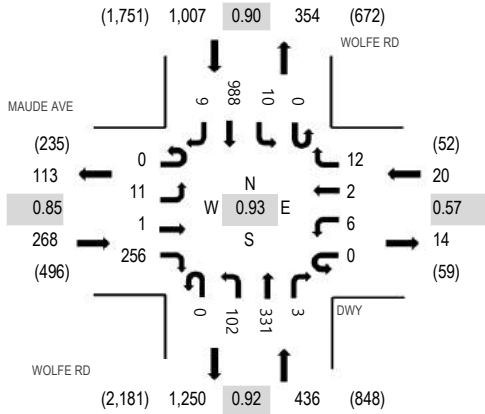
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Lights	0	5	7	135	0	6	0	2	8	85	276	8	1	8	452	9	1,002
Mediums	0	0	0	4	0	0	0	1	0	1	3	0	0	1	3	0	13
Total	0	5	7	139	0	6	0	3	8	86	279	8	1	9	457	9	1,017



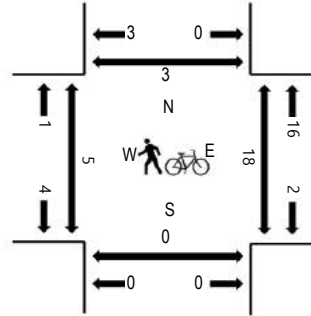
(303) 216-2439
www.alltrafficdata.net

Location: 15 WOLFE RD & DWY PM
Date and Start Time: Thursday, May 25, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAUDE AVE Eastbound				DWY Westbound				WOLFE RD Northbound				WOLFE RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	2	2	42	0	1	1	3	0	22	75	4	0	8	141	3	304	1,416	0	1	1	1
4:15 PM	0	6	4	44	0	4	5	6	0	26	62	6	0	10	175	1	349	1,557	1	4	1	0
4:30 PM	1	2	1	54	0	2	2	2	2	25	86	1	0	2	188	2	370	1,675	1	0	2	1
4:45 PM	0	2	3	65	0	3	0	3	1	32	69	1	0	3	209	2	393	1,700	3	3	2	1
5:00 PM	0	4	0	81	0	2	1	4	0	26	78	2	0	1	244	2	445	1,731	1	1	0	0
5:15 PM	0	3	0	73	0	1	0	3	0	35	71	0	0	6	273	2	467		1	6	0	2
5:30 PM	0	4	0	52	0	2	1	3	0	26	92	0	0	1	211	3	395		2	5	0	0
5:45 PM	0	0	1	50	0	1	0	2	0	15	90	1	0	2	260	2	424		0	5	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
Lights	0	11	1	250	0	6	2	12	0	102	328	3	0	10	986	9	1,720
Mediums	0	0	0	5	0	0	0	0	0	0	2	0	0	0	2	0	9
Total	0	11	1	256	0	6	2	12	0	102	331	3	0	10	988	9	1,731

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
info@ndsdata.com

File Name : 17-7255-009 Wolfe Rd & E. Arques Ave
 Date : 4/4/2017

Unshifted Count = All Vehicles & Uturns

START TIME	Wolfe Rd Southbound					E. Arques Ave Westbound					Wolfe Rd Northbound					E. Arques Ave Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	15	36	3	0	54	20	31	11	0	62	4	48	20	0	72	6	19	2	0	27	215	0
7:15	10	48	4	1	63	16	25	20	0	61	2	86	21	0	109	7	20	3	0	30	263	1
7:30	15	47	5	0	67	25	38	30	0	93	12	150	32	0	194	10	34	2	0	46	400	0
7:45	22	74	6	1	103	33	73	34	0	140	11	146	40	0	197	11	33	1	0	45	485	1
Total	62	205	18	2	287	94	167	95	0	356	29	430	113	0	572	34	106	8	0	148	1363	2
8:00	15	72	5	1	93	27	53	25	0	105	6	142	47	1	196	14	45	2	0	61	455	2
8:15	19	64	3	0	86	21	47	29	0	97	5	137	70	1	213	9	51	4	0	64	460	1
8:30	20	46	6	1	73	37	47	24	0	108	3	204	110	0	317	24	40	2	0	66	564	1
8:45	27	79	9	1	116	30	23	23	0	76	8	172	85	1	266	20	58	5	0	83	541	2
Total	81	261	23	3	368	115	170	101	0	386	22	655	312	3	992	67	194	13	0	274	2020	6
9:00	20	52	5	0	77	28	32	17	0	77	6	208	121	0	335	13	62	3	0	78	567	0
9:15	26	57	4	0	87	31	39	24	0	94	5	193	105	0	303	23	83	3	0	109	593	0
9:30	25	73	4	1	103	36	30	14	0	80	8	162	109	0	279	21	84	2	0	107	569	1
9:45	21	71	4	2	98	27	41	14	0	82	8	162	99	0	269	19	71	3	0	93	542	2
Total	92	253	17	3	365	122	142	69	0	333	27	725	434	0	1186	76	300	11	0	387	2271	3
16:00	27	115	10	0	152	66	41	22	0	129	4	64	30	0	98	17	38	10	0	65	444	0
16:15	36	133	5	2	176	51	47	19	0	117	1	72	47	1	121	12	45	7	0	64	478	3
16:30	24	141	8	3	176	42	48	24	0	114	3	81	44	0	128	11	50	7	0	68	486	3
16:45	29	187	6	1	223	62	50	27	0	139	4	80	42	0	126	15	49	4	0	68	556	1
Total	116	576	29	6	727	221	186	92	0	499	12	297	163	1	473	55	182	28	0	265	1964	7
17:00	24	246	9	2	281	78	84	26	0	188	2	72	36	0	110	15	56	8	0	79	658	2
17:15	30	271	12	0	313	92	81	24	0	197	6	84	33	1	124	7	46	11	0	64	698	1
17:30	40	240	13	3	296	80	83	29	0	192	10	89	43	1	143	17	36	8	0	61	692	4
17:45	35	289	15	3	342	78	87	23	0	188	12	125	24	2	163	14	58	11	0	83	776	5
Total	129	1046	49	8	1232	328	335	102	0	765	30	370	136	4	540	53	196	38	0	287	2824	12
18:00	29	259	22	3	313	84	90	28	0	202	10	90	35	1	136	26	54	7	0	87	738	4
18:15	22	190	12	1	225	81	83	27	0	191	8	95	34	1	138	17	60	7	0	84	638	2
18:30	36	214	7	0	257	66	71	28	0	165	4	99	31	1	135	12	54	8	0	74	631	1
18:45	17	195	19	0	231	61	58	28	0	147	9	95	25	5	134	16	37	3	0	56	568	5
Total	104	858	60	4	1026	292	302	111	0	705	31	379	125	8	543	71	205	25	0	301	2575	12
Grand Total	584	3199	196	26	4005	1172	1302	570	0	3044	151	2856	1283	16	4306	356	1183	123	0	1662	13017	42
Apprch %	14.6%	79.9%	4.9%	0.6%		38.5%	42.8%	18.7%	0.0%		3.5%	66.3%	29.8%	0.4%		21.4%	71.2%	7.4%	0.0%			
Total %	4.5%	24.6%	1.5%	0.2%	30.8%	9.0%	10.0%	4.4%	0.0%	23.4%	1.2%	21.9%	9.9%	0.1%	33.1%	2.7%	9.1%	0.9%	0.0%	12.8%	100.0%	

AM PEAK HOUR	Wolfe Rd Southbound					E. Arques Ave Westbound					Wolfe Rd Northbound					E. Arques Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 09:00 to 10:00																					
Peak Hour For Entire Intersection Begins at 09:00																					
9:00	20	52	5	0	77	28	32	17	0	77	6	208	121	0	335	13	62	3	0	78	567
9:15	26	57	4	0	87	31	39	24	0	94	5	193	105	0	303	23	83	3	0	109	593
9:30	25	73	4	1	103	36	30	14	0	80	8	162	109	0	279	21	84	2	0	107	569
9:45	21	71	4	2	98	27	41	14	0	82	8	162	99	0	269	19	71	3	0	93	542
Total Volume	92	253	17	3	365	122	142	69	0	333	27	725	434	0	1186	76	300	11	0	387	2271
% App Total	25.2%	69.3%	4.7%	0.8%		36.6%	42.6%	20.7%	0.0%		2.3%	61.1%	36.6%	0.0%		19.6%	77.5%	2.8%	0.0%		
PHF	.885	.866	.850	.375	.886	.847	.866	.719	.000	.886	.844	.871	.897	.000	.885	.826	.893	.917	.000	.888	.957

PM PEAK HOUR	Wolfe Rd Southbound					E. Arques Ave Westbound					Wolfe Rd Northbound					E. Arques Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	30	271	12	0	313	92	81	24	0	197	6	84	33	1	124	7	46	11	0	64	698
17:30	40	240	13	3	296	80	83	29	0	192	10	89	43	1	143	17	36	8	0	61	692
17:45	35	289	15	3	342	78	87	23	0	188	12	125	24	2	163	14	58	11	0	83	776
18:00	29	259	22	3	313	84	90	28	0	202	10	90	35	1	136	26	54	7	0	87	738
Total Volume	134	1059	62	9	1264	334	341	104	0	779	38	388	135	5	566	64	194	37	0	295	2904
% App Total	10.6%	83.8%	4.9%	0.7%		42.9%	43.8%	13.4%	0.0%		6.7%	68.6%	23.9%	0.9%		21.7%	65.8%	12.5%	0.0%		
PHF	.838	.916	.705	.750	.924	.908	.947	.897	.000	.964	.792	.776	.785	.625	.868	.615	.836	.841	.000	.848	.936

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-009 Wolfe Rd & E. Arques Ave
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Wolfe Rd Southbound					E. Arques Ave Westbound					Wolfe Rd Northbound					E. Arques Ave Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	1	0	2	1	1	2	0	9	3	0	1	1	0	2	0	2	0	0	2	8	11
7:15	0	0	0	0	0	0	0	0	3	2	0	4	0	4	0	0	0	0	0	0	6	3
7:30	1	0	0	2	1	0	0	0	1	0	0	1	2	1	3	0	0	0	0	0	4	4
7:45	0	0	0	1	0	0	0	1	4	1	0	0	0	2	0	1	0	0	0	1	2	7
Total	1	1	0	5	2	1	4	1	17	6	0	6	3	3	9	1	2	0	0	3	20	25
8:00	0	1	0	5	1	3	1	0	6	4	0	1	2	0	3	1	1	0	1	2	10	12
8:15	1	1	0	2	2	0	0	0	3	0	0	1	1	0	2	0	2	0	0	2	6	5
8:30	0	0	0	0	0	1	2	0	3	3	1	3	1	0	5	0	1	0	0	1	9	3
8:45	0	1	0	2	1	1	1	0	1	2	0	1	4	0	5	1	2	0	1	3	11	4
Total	1	3	0	9	4	5	4	0	13	9	1	6	8	0	15	2	6	0	2	8	36	24
9:00	0	2	1	2	3	0	3	0	3	3	0	1	1	1	2	0	2	0	0	2	10	6
9:15	0	0	0	1	0	1	3	1	4	5	0	2	2	3	4	0	1	0	2	1	10	10
9:30	0	1	1	2	2	0	1	0	3	1	0	1	0	1	1	0	1	0	0	1	5	6
9:45	0	1	0	2	1	0	3	0	7	3	0	0	0	0	0	0	1	0	2	1	5	11
Total	0	4	2	7	6	1	10	1	17	12	0	4	3	5	7	0	5	0	4	5	30	33
16:00	0	0	0	0	0	1	1	0	8	2	0	0	1	0	1	0	0	0	1	0	3	9
16:15	1	1	0	1	2	1	1	0	3	2	0	0	0	0	0	1	0	0	0	1	5	4
16:30	0	0	0	0	0	0	4	0	2	4	0	3	1	1	4	0	1	0	1	1	9	4
16:45	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	1	4	1
Total	2	1	0	1	3	2	7	0	13	9	0	3	3	1	6	1	2	0	3	3	21	18
17:00	1	1	0	1	2	4	2	0	0	6	0	1	0	0	1	0	0	0	3	0	9	4
17:15	0	1	0	1	1	0	6	0	0	6	0	0	1	0	1	1	2	0	2	3	11	3
17:30	0	1	0	6	1	0	4	0	0	4	0	1	0	0	1	0	2	0	0	2	8	6
17:45	0	1	1	3	2	0	2	0	0	2	0	1	1	2	2	1	2	0	1	3	9	6
Total	1	4	1	11	6	4	14	0	0	18	0	3	2	2	5	2	6	0	6	8	37	19
18:00	0	2	0	3	2	0	1	0	2	1	0	1	0	0	1	0	1	0	3	1	5	8
18:15	0	0	0	3	0	0	1	0	0	1	0	1	0	1	1	0	1	0	0	1	3	4
18:30	2	2	0	5	4	0	1	0	0	1	0	0	0	1	0	0	1	0	3	1	6	9
18:45	1	3	0	6	4	0	2	1	2	3	0	0	0	0	0	0	0	0	4	0	7	12
Total	3	7	0	17	10	0	5	1	4	6	0	2	0	2	2	0	3	0	10	3	21	33
Grand Total	8	20	3	50	31	13	44	3	64	60	1	24	19	13	44	6	24	0	25	30	165	152
Apprch %	25.8%	64.5%	9.7%			21.7%	73.3%	5.0%			2.3%	54.5%	43.2%			20.0%	80.0%	0.0%				
Total %	4.8%	12.1%	1.8%		18.8%	7.9%	26.7%	1.8%		36.4%	0.6%	14.5%	11.5%		26.7%	3.6%	14.5%	0.0%		18.2%	100.0%	

AM PEAK HOUR	Wolfe Rd Southbound					E. Arques Ave Westbound					Wolfe Rd Northbound					E. Arques Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 09:00 to 10:00																					
Peak Hour For Entire Intersection Begins at 09:00																					
9:00	0	2	1	2	3	0	3	0	3	3	0	1	1	1	2	0	2	0	0	2	10
9:15	0	0	0	1	0	1	3	1	4	5	0	2	2	3	4	0	1	0	2	1	10
9:30	0	1	1	2	2	0	1	0	3	1	0	1	0	1	1	0	1	0	0	1	5
9:45	0	1	0	2	1	0	3	0	7	3	0	0	0	0	0	0	1	0	2	1	5
Total Volume	0	4	2	7	6	1	10	1	17	12	0	4	3	5	7	0	5	0	4	5	30
% App Total	0.0%	66.7%	33.3%			8.3%	83.3%	8.3%			0.0%	57.1%	42.9%			0.0%	100.0%	0.0%			
PHF	.000	.500	.500		.500	.250	.833	.250		.600	.000	.500	.375		.438	.000	.625	.000		.625	.750

PM PEAK HOUR	Wolfe Rd Southbound					E. Arques Ave Westbound					Wolfe Rd Northbound					E. Arques Ave Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	0	1	0	1	1	0	6	0	0	6	0	0	1	0	1	1	2	0	2	3	11
17:30	0	1	0	6	1	0	4	0	0	4	0	1	0	0	1	0	2	0	0	2	8
17:45	0	1	1	3	2	0	2	0	0	2	0	1	1	2	2	1	2	0	1	3	9
18:00	0	2	0	3	2	0	1	0	2	1	0	1	0	0	1	0	1	0	3	1	5
Total Volume	0	5	1	13	6	0	13	0	2	13	0	3	2	2	5	2	7	0	6	9	33
% App Total	0.0%	83.3%	16.7%			0.0%	100.0%	0.0%			0.0%	60.0%	40.0%			22.2%	77.8%	0.0%			
PHF	.000	.625	.250		.750	.000	.542	.000		.542	.000	.750	.500		.625	.500	.875	.000		.750	.750

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Utturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-010 N Wolfe Road & E Arques Avenue
 Date : 12/2/2015

Unshifted Count = All Vehicles & Utturns

START TIME	N Wolfe Road Southbound					E Arques Avenue Westbound					N Wolfe Road Northbound					E Arques Avenue Eastbound					Total	Utturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	35	65	4	1	105	59	47	22	0	128	4	86	71	0	161	15	66	7	0	88	482	1
14:15	30	73	8	0	111	44	36	20	0	100	3	70	58	0	131	9	46	10	0	65	407	0
14:30	25	73	5	0	103	43	40	30	0	113	5	86	60	1	152	5	46	10	0	61	429	1
14:45	22	80	5	2	109	51	45	22	0	118	8	75	48	1	132	9	43	14	0	66	425	3
Total	112	291	22	3	428	197	168	94	0	459	20	317	237	2	576	38	201	41	0	280	1743	5
15:00	20	99	6	2	127	46	37	17	0	100	5	86	49	1	141	15	32	11	0	58	426	3
15:15	24	103	6	1	134	48	42	25	0	115	3	86	47	0	136	9	49	14	0	72	457	1
15:30	24	114	4	2	144	48	50	21	0	119	4	99	41	0	144	9	46	9	0	64	471	2
15:45	20	108	4	0	132	58	44	23	0	125	3	90	59	0	152	11	59	6	0	76	485	0
Total	88	424	20	5	537	200	173	86	0	459	15	361	196	1	573	44	186	40	0	270	1839	6
Grand Total	200	715	42	8	965	397	341	180	0	918	35	678	433	3	1149	82	387	81	0	550	3582	11
Apprch %	20.7%	74.1%	4.4%	0.8%		43.2%	37.1%	19.6%	0.0%		3.0%	59.0%	37.7%	0.3%		14.9%	70.4%	14.7%	0.0%			
Total %	5.6%	20.0%	1.2%	0.2%	26.9%	11.1%	9.5%	5.0%	0.0%	25.6%	1.0%	18.9%	12.1%	0.1%	32.1%	2.3%	10.8%	2.3%	0.0%	15.4%	100.0%	

PM PEAK HOUR	N Wolfe Road Southbound					E Arques Avenue Westbound					N Wolfe Road Northbound					E Arques Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	20	99	6	2	127	46	37	17	0	100	5	86	49	1	141	15	32	11	0	58	426
15:15	24	103	6	1	134	48	42	25	0	115	3	86	47	0	136	9	49	14	0	72	457
15:30	24	114	4	2	144	48	50	21	0	119	4	99	41	0	144	9	46	9	0	64	471
15:45	20	108	4	0	132	58	44	23	0	125	3	90	59	0	152	11	59	6	0	76	485
Total Volume	88	424	20	5	537	200	173	86	0	459	15	361	196	1	573	44	186	40	0	270	1839
% App Total	16.4%	79.0%	3.7%	0.9%		43.6%	37.7%	18.7%	0.0%		2.6%	63.0%	34.2%	0.2%		16.3%	68.9%	14.8%	0.0%		
PHF	.917	.930	.833	.625	.932	.862	.865	.860	.000	.918	.750	.912	.831	.250	.942	.733	.788	.714	.000	.888	.948

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-010 N Wolfe Road & E Arques Avenue
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Wolfe Road Southbound					E Arques Avenue Westbound					N Wolfe Road Northbound					E Arques Avenue Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	0	0	1	0	0	1	0	2	1	0	0	1	0	1	0	0	0	1	0	2	4
14:15	0	0	0	2	0	0	1	0	0	1	0	1	2	0	3	0	1	0	2	1	5	4
14:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	0
14:45	0	0	0	0	0	0	0	0	2	0	0	1	1	1	2	0	0	0	0	0	2	3
Total	0	0	0	3	0	0	3	0	4	3	0	2	4	1	6	0	2	0	3	2	11	11
15:00	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	1	3
15:15	0	2	0	2	2	1	1	0	0	2	0	0	0	0	0	0	1	0	3	1	5	5
15:30	0	0	0	4	0	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	3	4
15:45	2	0	0	4	2	2	0	0	0	2	0	1	2	0	3	0	1	0	4	1	8	8
Total	2	2	0	11	4	4	2	0	1	6	0	3	2	1	5	0	2	0	7	2	17	20
Grand Total	2	2	0	14	4	4	5	0	5	9	0	5	6	2	11	0	4	0	10	4	28	31
Apprch %	50.0%	50.0%	0.0%			44.4%	55.6%	0.0%			0.0%	45.5%	54.5%			0.0%	100.0%	0.0%				
Total %	7.1%	7.1%	0.0%		14.3%	14.3%	17.9%	0.0%		32.1%	0.0%	17.9%	21.4%		39.3%	0.0%	14.3%	0.0%		14.3%	100.0%	

PM PEAK HOUR	N Wolfe Road Southbound					E Arques Avenue Westbound					N Wolfe Road Northbound					E Arques Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 15:00 to 16:00																						
Peak Hour For Entire Intersection Begins at 15:00																						
15:00	0	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	1	
15:15	0	2	0	2	2	1	1	0	0	2	0	0	0	0	0	0	1	0	3	1	5	
15:30	0	0	0	4	0	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	3	
15:45	2	0	0	4	2	2	0	0	0	2	0	1	2	0	3	0	1	0	4	1	8	
Total Volume	2	2	0	11	4	4	2	0	1	6	0	3	2	1	5	0	2	0	7	2	17	
% App Total	50.0%	50.0%	0.0%			66.7%	33.3%	0.0%			0.0%	60.0%	40.0%			0.0%	100.0%	0.0%				
PHF	.250	.250	.000		.500	.500	.500	.000		.750	.000	.750	.250		.417	.000	.500	.000		.500	.531	

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Turns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-010 Wolfe Rd & Central Expy WB Ramps
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Wolfe Rd Southbound					Central Expy WB Ramps Westbound					Wolfe Rd Northbound					Central Expy WB Ramps Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0
7:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4	0
7:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4	0
7:45	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2	1
Total	0	1	1	0	2	1	0	0	0	1	0	10	0	0	10	0	0	0	1	0	13	1
8:00	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	2	0	7	2
8:15	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	4	1
8:30	0	1	0	0	1	0	0	0	2	0	0	4	0	0	4	0	0	0	1	0	5	3
8:45	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	0	0	0	1	0	9	1
Total	0	7	0	0	7	0	0	0	2	0	0	18	0	0	18	0	0	0	5	0	25	7
9:00	0	1	0	1	1	0	0	0	1	0	0	2	0	0	2	0	0	0	1	0	3	3
9:15	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	2	0	6	2
9:30	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	5	1
9:45	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	1	4
Total	0	6	0	1	6	0	0	0	2	0	0	9	0	0	9	0	0	0	7	0	15	10
16:00	0	1	0	0	1	0	0	0	0	0	1	2	0	0	3	0	0	0	1	0	4	1
16:15	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:30	0	1	0	0	1	0	0	0	1	0	0	3	0	0	3	0	0	0	0	0	4	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	4	0	0	4	0	0	0	1	0	1	5	0	0	6	0	0	0	2	0	10	3
17:00	0	5	0	0	5	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	6	2
17:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	2
17:30	0	1	0	0	1	1	0	0	2	1	0	1	0	0	1	0	0	0	0	0	3	2
17:45	0	0	0	0	0	2	0	0	1	2	0	4	0	0	4	0	0	0	3	0	6	4
Total	0	7	0	0	7	3	0	0	4	3	0	6	0	0	6	0	0	0	6	0	16	10
18:00	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	4	0	5	4
18:15	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	2	1
18:30	0	1	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	3	0	2	4
18:45	0	4	0	0	4	0	0	1	2	1	0	1	0	0	1	0	0	0	0	0	6	2
Total	0	8	0	0	8	1	0	2	4	3	0	4	0	0	4	0	0	0	7	0	15	11
Grand Total	0	33	1	1	34	5	0	2	13	7	1	52	0	0	53	0	0	0	28	0	94	42
Apprch %	0.0%	97.1%	2.9%			71.4%	0.0%	28.6%			1.9%	98.1%	0.0%			0.0%	0.0%	0.0%				
Total %	0.0%	35.1%	1.1%		36.2%	5.3%	0.0%	2.1%		7.4%	1.1%	55.3%	0.0%		56.4%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Wolfe Rd Southbound					Central Expy WB Ramps Westbound					Wolfe Rd Northbound					Central Expy WB Ramps Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 09:00 to 10:00																					
Peak Hour For Entire Intersection Begins at 09:00																					
9:00	0	1	0	1	1	0	0	0	1	0	0	2	0	0	2	0	0	0	1	0	3
9:15	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	2	0	6
9:30	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	5
9:45	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	1
Total Volume	0	6	0	1	6	0	0	0	2	0	0	9	0	0	9	0	0	0	7	0	15
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.750	.000		.750	.000	.000	.000		.000	.000	.563	.000		.563	.000	.000	.000		.000	.625

PM PEAK HOUR	Wolfe Rd Southbound					Central Expy WB Ramps Westbound					Wolfe Rd Northbound					Central Expy WB Ramps Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1
17:30	0	1	0	0	1	1	0	0	2	1	0	1	0	0	1	0	0	0	0	0	3
17:45	0	0	0	0	0	2	0	0	1	2	0	4	0	0	4	0	0	0	3	0	6
18:00	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	4	0	5
Total Volume	0	5	0	0	5	3	0	0	3	3	0	7	0	0	7	0	0	0	9	0	15
% App Total	0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.417	.000		.417	.375	.000	.000		.375	.000	.438	.000		.438	.000	.000	.000		.000	.625

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-011 N Wolfe Road & Central Expressway WB Ramps
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Wolfe Road Southbound					Central Expressway WB Ramps Westbound					N Wolfe Road Northbound					Central Expressway WB Ramps Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	1	0	0	1	0	0	0	2	0	0	3	0	0	3	0	0	0	5	0	4	7
14:15	0	2	0	0	2	0	0	0	1	0	0	2	0	0	2	0	0	0	1	0	4	2
14:30	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	8	0	3	8
14:45	0	0	0	1	0	0	0	0	2	0	0	2	0	0	2	0	0	0	12	0	2	15
Total	0	5	0	1	5	0	0	0	5	0	0	8	0	0	8	0	0	0	26	0	13	32
15:00	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	4	0	3	4
15:15	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	6	0	5	6
15:30	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	3	2
15:45	0	0	0	0	0	0	0	0	1	0	0	6	0	0	6	0	0	0	3	0	6	4
Total	0	7	0	0	7	0	0	0	1	0	0	10	0	0	10	0	0	0	15	0	17	16
Grand Total	0	12	0	1	12	0	0	0	6	0	0	18	0	0	18	0	0	0	41	0	30	48
Apprch %	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
Total %	0.0%	40.0%	0.0%		40.0%	0.0%	0.0%	0.0%		0.0%	0.0%	60.0%	0.0%		60.0%	0.0%	0.0%	0.0%		0.0%	100.0%	

PM PEAK HOUR	N Wolfe Road Southbound					Central Expressway WB Ramps Westbound					N Wolfe Road Northbound					Central Expressway WB Ramps Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	4	0	3
15:15	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	6	0	5
15:30	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	3
15:45	0	0	0	0	0	0	0	0	1	0	0	6	0	0	6	0	0	0	3	0	6
Total Volume	0	7	0	0	7	0	0	0	1	0	0	10	0	0	10	0	0	0	15	0	17
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.438	.000		.438	.000	.000	.000		.000	.000	.417	.000		.417	.000	.000	.000		.000	.708

National Data and Surveying Services

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Peds & Bikes On Bank 1
 Nothing On Bank 2

(323) 782-0090
 info@ndsdata.com

File Name : 17-7255-011 Wolfe Rd & Central Expy EB Ramps
 Date : 4/4/2017

Bank 1 Count = Peds & Bikes

START TIME	Wolfe Rd Southbound					Central Expy EB Ramps Westbound					Wolfe Rd Northbound					Central Expy EB Ramps Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0
7:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4	0
7:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	4	0
7:45	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	1
Total	0	2	0	0	2	0	0	0	0	0	0	9	0	0	9	1	0	0	1	1	12	1
8:00	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	1	0	0	2	1	7	2
8:15	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	4	1
8:30	0	1	0	0	1	0	0	0	3	0	0	4	0	0	4	0	0	0	1	0	5	4
8:45	0	2	0	0	2	0	0	0	0	0	0	6	0	1	6	1	0	0	2	1	9	3
Total	0	7	0	0	7	0	0	0	3	0	0	16	0	1	16	2	0	0	6	2	25	10
9:00	0	1	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	1	0	3	2
9:15	1	1	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	1	0	6	1
9:30	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	2	0	4	2
9:45	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	2	6
Total	3	3	0	0	6	0	0	0	2	0	0	9	0	0	9	0	0	0	9	0	15	11
16:00	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	1	1	1	5	1
16:15	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:30	0	1	0	0	1	0	0	0	1	0	0	2	0	0	2	1	0	0	0	1	4	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	4	0	0	4	0	0	0	1	0	0	5	0	0	5	1	0	1	2	2	11	3
17:00	0	5	0	0	5	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	6	2
17:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2	2
17:30	0	2	0	0	2	0	0	0	2	0	0	1	1	1	2	0	0	0	0	0	4	3
17:45	0	3	0	0	3	0	0	0	2	0	0	4	0	0	4	0	0	0	3	0	7	5
Total	0	11	0	0	11	0	0	0	5	0	0	6	1	1	7	0	0	1	6	1	19	12
18:00	0	3	0	0	3	0	0	0	0	0	0	2	0	1	2	0	0	0	2	0	5	3
18:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	1
18:30	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	1	4
18:45	0	3	0	0	3	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	4	2
Total	0	7	0	0	7	0	0	0	3	0	0	4	0	2	4	0	0	0	5	0	11	10
Grand Total	3	34	0	0	37	0	0	0	14	0	0	49	1	4	50	4	0	2	29	6	93	47
Apprch %	8.1%	91.9%	0.0%		39.8%	0.0%	0.0%	0.0%		0.0%	0.0%	98.0%	2.0%		66.7%	0.0%	33.3%					
Total %	3.2%	36.6%	0.0%			0.0%	0.0%	0.0%		0.0%	0.0%	52.7%	1.1%		53.8%	4.3%	0.0%	2.2%		6.5%	100.0%	

AM PEAK HOUR	Wolfe Rd Southbound					Central Expy EB Ramps Westbound					Wolfe Rd Northbound					Central Expy EB Ramps Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 08:30 to 09:30																					
Peak Hour For Entire Intersection Begins at 08:30																					
8:30	0	1	0	0	1	0	0	0	3	0	0	4	0	0	4	0	0	0	1	0	5
8:45	0	2	0	0	2	0	0	0	0	0	0	6	0	1	6	1	0	0	2	1	9
9:00	0	1	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	1	0	3
9:15	1	1	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	1	0	6
Total Volume	1	5	0	0	6	0	0	0	4	0	0	16	0	1	16	1	0	0	5	1	23
% App Total	16.7%	83.3%	0.0%			0.0%	0.0%	0.0%		0.0%	100.0%	0.0%			100.0%	0.0%	0.0%				
PHF	.250	.625	.000		.750	.000	.000	.000		.000	.667	.000		.667	.250	.000	.000		.250		.639

PM PEAK HOUR	Wolfe Rd Southbound					Central Expy EB Ramps Westbound					Wolfe Rd Northbound					Central Expy EB Ramps Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 17:15 to 18:15																					
Peak Hour For Entire Intersection Begins at 17:15																					
17:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2
17:30	0	2	0	0	2	0	0	0	2	0	0	1	1	1	2	0	0	0	0	0	4
17:45	0	3	0	0	3	0	0	0	2	0	0	4	0	0	4	0	0	0	3	0	7
18:00	0	3	0	0	3	0	0	0	0	0	0	2	0	1	2	0	0	0	2	0	5
Total Volume	0	9	0	0	9	0	0	0	4	0	0	7	1	2	8	0	0	1	7	1	18
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%		0.0%	87.5%	12.5%			0.0%	0.0%	100.0%				
PHF	.000	.750	.000		.750	.000	.000	.000		.000	.438	.250		.500	.000	.000	.250		.250		.643

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Utturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-012 N Wolfe Road & Central Expressway EB Ramps
 Date : 12/2/2015

Unshifted Count = All Vehicles & Utturns

START TIME	N Wolfe Road Southbound					Central Expressway EB Ramps Westbound					N Wolfe Road Northbound					Central Expressway EB Ramps Eastbound					Total	Utturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
14:00	14	138	0	1	153	0	0	0	0	0	0	156	39	0	195	22	0	48	0	70	418	1
14:15	12	154	0	0	166	0	0	0	0	0	0	154	32	0	186	17	0	30	0	47	399	0
14:30	16	146	0	0	162	0	0	0	0	0	0	134	40	0	174	17	1	59	0	77	413	0
14:45	25	139	0	0	164	0	0	0	0	0	0	131	31	0	162	18	1	45	0	64	390	0
Total	67	577	0	1	645	0	0	0	0	0	0	575	142	0	717	74	2	182	0	258	1620	1
15:00	25	148	0	0	173	0	0	0	0	0	0	137	36	0	173	16	1	57	0	74	420	0
15:15	22	186	0	0	208	0	0	0	0	0	0	140	28	0	168	20	0	50	0	70	446	0
15:30	19	184	0	0	203	0	0	0	0	0	0	148	34	0	182	21	0	58	0	79	464	0
15:45	29	187	0	1	217	0	0	0	0	0	0	145	19	0	164	21	0	51	0	72	453	1
Total	95	705	0	1	801	0	0	0	0	0	0	570	117	0	687	78	1	216	0	295	1783	1
Grand Total	162	1282	0	2	1446	0	0	0	0	0	0	1145	259	0	1404	152	3	398	0	553	3403	2
Apprch %	11.2%	88.7%	0.0%	0.1%		0.0%	0.0%	0.0%	0.0%		0.0%	81.6%	18.4%	0.0%		27.5%	0.5%	72.0%	0.0%			
Total %	4.8%	37.7%	0.0%	0.1%	42.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.6%	7.6%	0.0%	41.3%	4.5%	0.1%	11.7%	0.0%	16.3%	100.0%	

PM PEAK HOUR	N Wolfe Road Southbound					Central Expressway EB Ramps Westbound					N Wolfe Road Northbound					Central Expressway EB Ramps Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 15:00 to 16:00																					
Peak Hour For Entire Intersection Begins at 15:00																					
15:00	25	148	0	0	173	0	0	0	0	0	0	137	36	0	173	16	1	57	0	74	420
15:15	22	186	0	0	208	0	0	0	0	0	0	140	28	0	168	20	0	50	0	70	446
15:30	19	184	0	0	203	0	0	0	0	0	0	148	34	0	182	21	0	58	0	79	464
15:45	29	187	0	1	217	0	0	0	0	0	0	145	19	0	164	21	0	51	0	72	453
Total Volume	95	705	0	1	801	0	0	0	0	0	0	570	117	0	687	78	1	216	0	295	1783
% App Total	11.9%	88.0%	0.0%	0.1%		0.0%	0.0%	0.0%	0.0%		0.0%	83.0%	17.0%	0.0%		26.4%	0.3%	73.2%	0.0%		
PHF	.819	.943	.000	.250	.923	.000	.000	.000	.000	.000	.000	.963	.813	.000	.944	.929	.250	.931	.000	.934	.961

ALL TRAFFIC DATA

City of Sunnyvale
 All Vehicles & Uturns On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7936-012 N Wolfe Road & Central Expressway EB Ramps
 Date : 12/2/2015

Bank 1 Count = Bikes & Peds

START TIME	N Wolfe Road Southbound					Central Expressway EB Ramps Westbound					N Wolfe Road Northbound					Central Expressway EB Ramps Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
14:00	0	1	0	0	1	0	0	0	1	0	0	3	0	1	3	0	0	0	6	0	4	8
14:15	0	2	0	0	2	0	0	0	1	0	0	2	0	0	2	0	0	0	2	0	4	3
14:30	0	2	0	0	2	0	0	0	0	0	0	1	0	1	0	0	0	7	0	3	7	
14:45	0	0	0	0	0	0	0	0	1	0	0	3	0	0	3	0	0	0	11	0	3	12
Total	0	5	0	0	5	0	0	0	3	0	0	9	0	1	9	0	0	0	26	0	14	30
15:00	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	4	0	2	5
15:15	0	4	0	0	4	0	0	0	0	0	0	1	0	1	0	0	0	5	0	5	5	
15:30	0	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	2	0	2	2	
15:45	0	1	0	0	1	0	0	0	1	0	0	6	0	6	0	0	0	2	0	7	3	
Total	0	7	0	0	7	0	0	0	2	0	0	9	0	0	9	0	0	0	13	0	16	15
Grand Total	0	12	0	0	12	0	0	0	5	0	0	18	0	1	18	0	0	0	39	0	30	45
Apprch %	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
Total %	0.0%	40.0%	0.0%		40.0%	0.0%	0.0%	0.0%		0.0%	0.0%	60.0%	0.0%		60.0%	0.0%	0.0%	0.0%		0.0%	100.0%	

PM PEAK HOUR	N Wolfe Road Southbound					Central Expressway EB Ramps Westbound					N Wolfe Road Northbound					Central Expressway EB Ramps Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 15:00 to 16:00																						
Peak Hour For Entire Intersection Begins at 15:00																						
15:00	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	4	0	2	
15:15	0	4	0	0	4	0	0	0	0	0	0	1	0	1	0	0	0	5	0	5		
15:30	0	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	2	0	2		
15:45	0	1	0	0	1	0	0	0	1	0	0	6	0	6	0	0	0	2	0	7		
Total Volume	0	7	0	0	7	0	0	0	2	0	0	9	0	9	0	0	0	13	0	16		
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
PHF	.000	.438	.000		.438	.000	.000	.000		.000	.000	.375	.000	.375	.000	.000	.000		.000	.571		

Appendix B
Volume Summary Tables

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 1

Intersection Name: Mathilda Ave & SR 237 WB Ramps

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 11/00/15

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	99	254	0	273	36	531	0	2342	134	0	0	0	3669
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave	11	27		12				51					101
1235 Bordeaux Dr	14	27		13				43					97
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave		9				14		7	10				40
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way	3	6		113				638					760
1111 Lockheed Martin Way	12	40		42				156					250
1152 Bordeaux Dr	13	46		65				283					407
1184 N. Mathilda Ave	8	23		22				156					209
1212 Bordeaux Dr	6	9		21				97					133
1221 Crossman Ave	3	5						110					118
215 Moffett Park Dr	11	18		7				62					98
221 N. Mathilda Ave						21							21
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		3						66					69
520 Almanor Ave						28							28
589 W. Java Dr	21	14						170					205
615 N. Mathilda Ave						29							29
684 W. Maude Ave						39							39
1120 Kifer Rd													
2502 Town Center Ln		5				8		3					16
675 Almanor Avenue						15							15
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr		-3						8					5
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park						80							80
<i>Total Approved Trips</i>	102	229	0	295	0	234	0	1850	10	0	0	0	2720
Background Conditions	201	483	0	568	36	765	0	4192	144	0	0	0	6389
Project Trips	0	0	0	0	0	14	0	0	0	0	0	0	14
Existing + Project	99	254	0	273	36	545	0	2342	134	0	0	0	3683
Background + Project	201	483	0	568	36	779	0	4192	144	0	0	0	6403

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 2
 Intersection Name: Mathilda Ave & SR 237 EB Ramps
 Peak Hour: AM
 Count Date: 11/00/15
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	740	45	0	0	0	732	1631	0	72	0	845	4065
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave		19	8					26				25	78
1235 Bordeaux Dr		14	14					17				26	71
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave		23					10	17		14			64
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way		5	1					383				255	644
1111 Lockheed Martin Way		28	12					92				64	196
1152 Bordeaux Dr		33	13					156				127	329
1184 N. Mathilda Ave		18	5					84				72	179
1212 Bordeaux Dr		6	3					52				45	106
1221 Crossman Ave		5						27				83	115
215 Moffett Park Dr		15	3					35				27	80
221 N. Mathilda Ave		21					3						24
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		3						16				50	69
520 Almanor Ave		28					4						32
589 W. Java Dr		14						70				100	184
615 N. Mathilda Ave		29					-7						22
684 W. Maude Ave		39					6						45
1120 Kifer Rd													
2502 Town Center Ln		13					13	3					29
675 Almanor Avenue		15					3						18
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr		-3						8					5
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		80					14						94
Total Approved Trips	0	405	59	0	0	0	46	986	0	14	0	874	2384
Background Conditions	0	1145	104	0	0	0	778	2617	0	86	0	1719	6449
Project Trips	0	14	0	0	0	0	12	0	0	0	0	0	26
Existing + Project	0	754	45	0	0	0	744	1631	0	72	0	845	4091
Background + Project	0	1159	104	0	0	0	790	2617	0	86	0	1719	6475

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 3
 Intersection Name: Mathilda Ave & Ross Dr
 Peak Hour: AM
 Count Date: 11/00/15
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	96	689	27	185	31	185	79	2152	115	39	3	26	3627
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave		19						26					45
1235 Bordeaux Dr		14						17					31
696 N. Mathilda Ave						12	11						23
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave		37						27					64
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way		5						383					388
1111 Lockheed Martin Way		27	1	1				92					121
1152 Bordeaux Dr		31	2	8				148					189
1184 N. Mathilda Ave		18						84					102
1212 Bordeaux Dr		6						52					58
1221 Crossman Ave		5		1				25					31
215 Moffett Park Dr		14	1	2				33					50
221 N. Mathilda Ave		21						3					24
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		3						16					19
520 Almanor Ave		28						4					32
589 W. Java Dr		14						70					84
615 N. Mathilda Ave		29						-7					22
684 W. Maude Ave		39						6					45
1120 Kifer Rd													
2502 Town Center Ln		13						16					29
675 Almanor Avenue		15						3					18
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr			-3	8									5
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		80						14					94
<i>Total Approved Trips</i>	0	418	1	20	0	12	11	1012	0	0	0	0	1474
Background Conditions	96	1107	28	205	31	197	90	3164	115	39	3	26	5101
Project Trips	0	14	0	0	0	8	4	12	0	0	0	0	38
Existing + Project	96	703	27	185	31	193	83	2164	115	39	3	26	3665
Background + Project	96	1121	28	205	31	205	94	3176	115	39	3	26	5139

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 4
 Intersection Name: Mathilda Ave & Almanor Ave
 Peak Hour: AM
 Count Date: 11/00/15
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	417	1341	84	221	53	42	24	2384	78	20	9	96	4769
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		5						4					9
696 N. Mathilda Ave		12						11					23
725 S. Fair Oaks Ave		7						5					12
750 Lakeway Dr													
767 N. Mathilda Ave		68						35	17			15	135
830 E. El Camino Real		5						4					9
861 E. El Camino Real		6						5					11
1050 Kifer Rd													
1081 Innovation Way		2						135					137
1111 Lockheed Martin Way		15						49					64
1152 Bordeaux Dr		18						85					103
1184 N. Mathilda Ave	1	8						34				5	48
1212 Bordeaux Dr		2			1			24					27
1221 Crossman Ave		5			2			23					30
215 Moffett Park Dr		7	1		3			16					27
221 N. Mathilda Ave		45						7					52
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		3						16					19
520 Almanor Ave					2				93	8		15	212
589 W. Java Dr	2	5						30				11	48
615 N. Mathilda Ave	43	49										-20	72
684 W. Maude Ave		206						29					235
1120 Kifer Rd													
2502 Town Center Ln		47						61					108
675 Almanor Avenue	56								15	3		11	85
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		-54						17					-37
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park	259	173						14				60	506
<i>Total Approved Trips</i>	455	634	1	6	2	0	0	604	125	11	0	97	1935
Background Conditions	872	1975	85	227	55	42	24	2988	203	31	9	193	6704
Project Trips	0	105	0	86	0	59	0	0	0	0	0	0	250
Existing + Project	417	1446	84	307	53	101	24	2384	78	20	9	96	5019
Background + Project	872	2080	85	313	55	101	24	2988	203	31	9	193	6954

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 5
 Intersection Name: Mathilda Ave & San Aleso Ave
 Peak Hour: AM
 Count Date: 11/00/15
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	44	1227	63	19	2	41	56	2374	31	5	0	7	3869
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		5						4					9
696 N. Mathilda Ave		-18	30		6	33		6					57
725 S. Fair Oaks Ave		7						5					12
750 Lakeway Dr													
767 N. Mathilda Ave		12	35					17					64
830 E. El Camino Real		5						4					9
861 E. El Camino Real		6						5					11
1050 Kifer Rd													
1081 Innovation Way		2						135					137
1111 Lockheed Martin Way		15						49					64
1152 Bordeaux Dr		18						85					103
1184 N. Mathilda Ave		7	1		2			32					42
1212 Bordeaux Dr		2						24					26
1221 Crossman Ave		5						23					28
215 Moffett Park Dr		7						16					23
221 N. Mathilda Ave		45						7					52
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		3						16					19
520 Almanor Ave		8						93					101
589 W. Java Dr		5						30					35
615 N. Mathilda Ave		49											49
684 W. Maude Ave		206						29					235
1120 Kifer Rd													
2502 Town Center Ln		47						61					108
675 Almanor Avenue		2	1		3			12					18
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		-54						17					-37
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		173						14					187
<i>Total Approved Trips</i>	0	557	67	11	0	33	0	684	0	0	0	0	1352
Background Conditions	44	1784	130	30	2	74	56	3058	31	5	0	7	5221
Project Trips	0	59	105	0	0	0	168	0	0	0	0	0	332
Existing + Project	44	1286	168	19	2	41	224	2374	31	5	0	7	4201
Background + Project	44	1843	235	30	2	74	224	3058	31	5	0	7	5553

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 6
 Intersection Name: Mathilda Ave & Maude Ave
 Peak Hour: AM
 Count Date: 11/00/15
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	337	644	142	276	370	149	47	2050	421	69	99	98	4702
Approved Project Trips													
1080 Stewart Dr					6						8		14
1100 N. Mathilda Ave													
1235 Bordeaux Dr		5						4					9
696 N. Mathilda Ave		4	11	12				4					31
725 S. Fair Oaks Ave		7						5					12
750 Lakeway Dr					4						6		10
767 N. Mathilda Ave	1	9	2	3				14				2	31
830 E. El Camino Real		5						4					9
861 E. El Camino Real		6						5					11
1050 Kifer Rd													
1081 Innovation Way		2						135					137
1111 Lockheed Martin Way	2	12		1				41				6	62
1152 Bordeaux Dr	2	13	2	13				64				8	102
1184 N. Mathilda Ave	1	5	1	4				22				6	39
1212 Bordeaux Dr	1	1		3				17				4	26
1221 Crossman Ave		5		1				22					28
215 Moffett Park Dr		7						16					23
221 N. Mathilda Ave		45				3		7					55
280 Santa Ana Ct					1						7		8
495 E. Java Dr & 549 Baltic Way		3						16					19
520 Almanor Ave		14		1				92					107
589 W. Java Dr		5						30					35
615 N. Mathilda Ave		-22	-1	4				99					80
684 W. Maude Ave	206				13				203	35	2	29	488
1120 Kifer Rd													
2502 Town Center Ln		47						61	3	5			116
675 Almanor Avenue		2	1	4	1			12	1				21
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave					1						-1		
680-698 E. Taylor Ave					2						-3		-1
701-755 E. Evelyn Ave		-54						17					-37
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park	79				17				189	33	3	14	335
Total Approved Trips	292	121	16	46	45	3	0	687	396	73	22	69	1770
Background Conditions	629	765	158	322	415	152	47	2737	817	142	121	167	6472
Project Trips	0	59	0	86	0	0	0	82	0	0	0	0	227
Existing + Project	337	703	142	362	370	149	47	2132	421	69	99	98	4929
Background + Project	629	824	158	408	415	152	47	2819	817	142	121	167	6699

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 7

Intersection Name: Mathilda Ave & Indio Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 11/00/15

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	84	782	20	425	12	156	103	2050	97	197	1	10	3937
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		5						4					9
696 N. Mathilda Ave		4						4					8
725 S. Fair Oaks Ave		7						5					12
750 Lakeway Dr													
767 N. Mathilda Ave		9		14									23
830 E. El Camino Real		5						4					9
861 E. El Camino Real		6						5					11
1050 Kifer Rd													
1081 Innovation Way	1	1						135					137
1111 Lockheed Martin Way	2	10		4				37					53
1152 Bordeaux Dr		11	2	8				55					76
1184 N. Mathilda Ave		5		9				13					27
1212 Bordeaux Dr		1		5				12					18
1221 Crossman Ave	3	2						22					27
215 Moffett Park Dr	2	5		2				14					23
221 N. Mathilda Ave		47				57	5	7		1			117
280 Santa Ana Ct										15			15
495 E. Java Dr & 549 Baltic Way		3						16					19
520 Almanor Ave	1	14		39				53					107
589 W. Java Dr	2	3		12				18					35
615 N. Mathilda Ave		-22		49				49					76
684 W. Maude Ave		35		64				139					238
1120 Kifer Rd													
2502 Town Center Ln		52						64	13				129
675 Almanor Avenue		2		13									15
1111, 1139 Karlstad Dr										3			3
423 E. Maude Ave													
460 Persian Dr										1			1
520-550, 610 Weddell Dr										7			7
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		-54					6	17					-31
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		33						189					222
<i>Total Approved Trips</i>	11	184	2	219	0	57	11	862	13	27	0	0	1386
Background Conditions	95	966	22	644	12	213	114	2912	110	224	1	10	5323
Project Trips	0	59	0	41	0	0	0	41	0	0	0	0	141
Existing + Project	84	841	20	466	12	156	103	2091	97	197	1	10	4078
Background + Project	95	1025	22	685	12	213	114	2953	110	224	1	10	5464

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 8
 Intersection Name: Mathilda Ave & California Ave
 Peak Hour: AM
 Count Date: 11/00/15
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	234	872	34	146	138	82	115	2009	139	109	5	56	3939
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		5						4					9
696 N. Mathilda Ave		4						4					8
725 S. Fair Oaks Ave		7						5					12
750 Lakeway Dr													
767 N. Mathilda Ave	9												9
830 E. El Camino Real		5						4					9
861 E. El Camino Real		6						5					11
1050 Kifer Rd													
1081 Innovation Way		1		60				75					136
1111 Lockheed Martin Way	1	9		6				31					47
1152 Bordeaux Dr		10	2					46				8	66
1184 N. Mathilda Ave	2	3						13					18
1212 Bordeaux Dr	1			3				9					13
1221 Crossman Ave		2		11				11					24
215 Moffett Park Dr	1	4		5				9					19
221 N. Mathilda Ave	106								36	7		11	160
280 Santa Ana Ct		15					1						16
495 E. Java Dr & 549 Baltic Way		3						16					19
520 Almanor Ave	6	7						48				5	66
589 W. Java Dr	2	1		12				6					21
615 N. Mathilda Ave		-10	-12	3				47					28
684 W. Maude Ave	18	17						115				25	175
1120 Kifer Rd													
2502 Town Center Ln		52						77		8			137
675 Almanor Avenue	2												2
1111, 1139 Karlstad Dr		3					-2						1
423 E. Maude Ave													
460 Persian Dr		1					-1						
520-550, 610 Weddell Dr		7					-2						5
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		-54						23		-18			-49
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		33						189					222
<i>Total Approved Trips</i>	148	131	-10	100	0	0	-4	737	36	-3	0	49	1184
Background Conditions	382	1003	24	246	138	82	111	2746	175	106	5	105	5123
Project Trips	24	36	0	0	0	0	0	41	0	0	0	0	101
Existing + Project	258	908	34	146	138	82	115	2050	139	109	5	56	4040
Background + Project	406	1039	24	246	138	82	111	2787	175	106	5	105	5224

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 9
 Intersection Name: San Aleso Ave & Ahwanee Ave
 Peak Hour: AM
 Count Date: 05/16/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	293	47	47	0	15	6	69	0	477
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave						12		11					23
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr						1							1
1221 Crossman Ave						2							2
215 Moffett Park Dr						3					1		4
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave						2							2
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	0	0	0	8	12	11	0	0	0	1	0	32
Background Conditions	0	0	0	0	301	59	58	0	15	6	70	0	509
Project Trips	0	0	0	0	0	0	92	0	145	0	0	0	237
Existing + Project	0	0	0	0	293	47	139	0	160	6	69	0	714
Background + Project	0	0	0	0	301	59	150	0	160	6	70	0	746

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 10
 Intersection Name: Borregas Ave & Ahwanee Ave
 Peak Hour: AM
 Count Date: 05/16/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	167	41	52	0	165	47	69	0	541
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave					12						11		23
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr									1				1
1221 Crossman Ave													
215 Moffett Park Dr									3	1			4
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave					2								2
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	0	0	0	14	0	0	0	4	1	11	0	30
Background Conditions	0	0	0	0	181	41	52	0	169	48	80	0	571
Project Trips	0	0	0	0	0	0	0	0	0	17	75	0	92
Existing + Project	0	0	0	0	167	41	52	0	165	64	144	0	633
Background + Project	0	0	0	0	181	41	52	0	169	65	155	0	663

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 11
 Intersection Name: Borregas Ave & Duane Ave
 Peak Hour: AM
 Count Date: 05/16/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	2	171	5	31	4	99	11	105	6	12	6	7	459
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave													
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave													
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln		3						2					5
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	3	0	0	0	0	0	2	0	0	0	0	5
Background Conditions	2	174	5	31	4	99	11	107	6	12	6	7	464
Project Trips	0	7	10	0	0	0	0	0	0	0	0	0	17
Existing + Project	2	178	15	31	4	99	11	105	6	12	6	7	476
Background + Project	2	181	15	31	4	99	11	107	6	12	6	7	481

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 12
 Intersection Name: Sunnyvale Ave/Borre & Maude Ave
 Peak Hour: AM
 Count Date: 05/16/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	227	0	118	0	387	54	166	0	178	0	224	65	1419
Approved Project Trips													
1080 Stewart Dr					6						8		14
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave					12						11		23
725 S. Fair Oaks Ave													
750 Lakeway Dr					4						6		10
767 N. Mathilda Ave					3						2		5
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way										1			1
1152 Bordeaux Dr	13											2	15
1184 N. Mathilda Ave					4						1		5
1212 Bordeaux Dr					3								3
1221 Crossman Ave			2				2		1				5
215 Moffett Park Dr													
221 N. Mathilda Ave					3								3
280 Santa Ana Ct					1						7		8
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave					1								1
589 W. Java Dr													
615 N. Mathilda Ave					4						-1		3
684 W. Maude Ave					13						2		15
1120 Kifer Rd													
2502 Town Center Ln			3		2								5
675 Almanor Avenue					5						1		6
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave					1						-1		-1
680-698 E. Taylor Ave					2						-3		-1
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park					17						3		20
<i>Total Approved Trips</i>	13	0	5	0	81	0	2	0	2	0	36	2	141
Background Conditions	240	0	123	0	468	54	168	0	180	0	260	67	1560
Project Trips	0	0	7	0	78	0	0	0	8	0	0	0	93
Existing + Project	227	0	125	0	465	54	166	0	186	0	224	65	1512
Background + Project	240	0	130	0	546	54	168	0	188	0	260	67	1653

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 13
 Intersection Name: Morse Ave & Ahwanee Ave
 Peak Hour: AM
 Count Date: 05/16/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	117	309	185	0	85	60	76	0	832
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave					12						11		23
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave													
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave					2								2
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	0	0	0	14	0	0	0	0	0	11	0	25
Background Conditions	0	0	0	0	131	309	185	0	85	60	87	0	857
Project Trips	0	0	0	0	0	0	0	0	0	2	73	0	75
Existing + Project	0	0	0	0	117	309	185	0	85	62	149	0	907
Background + Project	0	0	0	0	131	309	185	0	85	62	160	0	932

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 14
 Intersection Name: Morse Ave & Duane Ave
 Peak Hour: AM
 Count Date: 05/16/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	32	156	120	60	93	28	19	204	6	3	55	14	790
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way					2						7		9
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave					1						3		4
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave													
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln		3						2					5
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	3	0	0	3	0	0	2	0	0	10	0	18
Background Conditions	32	159	120	60	96	28	19	206	6	3	65	14	808
Project Trips	0	2	0	0	0	3	0	0	0	0	10	0	15
Existing + Project	32	158	120	60	93	31	19	204	6	3	65	14	805
Background + Project	32	161	120	60	96	31	19	206	6	3	75	14	823

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 15

Intersection Name: Morse Ave & Maude Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 05/16/17

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	132	19	33	112	349	4	16	32	9	4	227	99	1036
Approved Project Trips													
1080 Stewart Dr					6						8		14
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave					12						11		23
725 S. Fair Oaks Ave													
750 Lakeway Dr					4						6		10
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave					1						4		5
215 Moffett Park Dr													
221 N. Mathilda Ave					3								3
280 Santa Ana Ct					1						7		8
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave					1								1
589 W. Java Dr													
615 N. Mathilda Ave					4						-1		3
684 W. Maude Ave					13						2		15
1120 Kifer Rd													
2502 Town Center Ln	3											2	5
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave					1						-1		-1
680-698 E. Taylor Ave					2						-3		-1
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park					17						3		20
<i>Total Approved Trips</i>	3	0	0	0	65	0	0	0	0	0	36	2	106
Background Conditions	135	19	33	112	414	4	16	32	9	4	263	101	1142
Project Trips	5	0	0	0	73	0	0	0	0	0	0	0	78
Existing + Project	137	19	33	112	422	4	16	32	9	4	227	99	1114
Background + Project	140	19	33	112	487	4	16	32	9	4	263	101	1220

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 16

Intersection Name: Fair Oaks Ave & Weddell Dr

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	47	724	19	20	7	83	31	742	268	410	0	37	2388
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		14						9					23
696 N. Mathilda Ave		12						11					23
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way		6						21					27
1152 Bordeaux Dr		4						21					25
1184 N. Mathilda Ave													
1212 Bordeaux Dr		1						7					8
1221 Crossman Ave		21		1				100			1		123
215 Moffett Park Dr		2						5					7
221 N. Mathilda Ave													
280 Santa Ana Ct		7						1					8
495 E. Java Dr & 549 Baltic Way		19						96					115
520 Almanor Ave													
589 W. Java Dr		7						34					41
615 N. Mathilda Ave		3											3
684 W. Maude Ave		7						1					8
1120 Kifer Rd		6						20					26
2502 Town Center Ln		10						7					17
675 Almanor Avenue													
1111, 1139 Karlstad Dr		74						-49					25
423 E. Maude Ave													
460 Persian Dr		17						-20					-3
520-550, 610 Weddell Dr	-11		-5	18		56	-18		-43	131		33	161
625 E. Taylor Ave		-2						2					
680-698 E. Taylor Ave		-7						5					-2
701-755 E. Evelyn Ave													
915 De Guigne Dr		-15						13					-2
City Place (Phase 1-3)	2	1	9	9	3	9	9	15	5	2	9	4	77
840 E. El Camino Real													
Irvine Company - Pathline Park		13						2					15
<i>Total Approved Trips</i>	-9	200	4	28	3	65	-9	301	-38	133	9	38	725
Background Conditions	38	924	23	48	10	148	22	1043	230	543	9	75	3113
Project Trips	0	16	0	0	0	0	0	14	4	0	0	0	34
Existing + Project	47	740	19	20	7	83	31	756	272	410	0	37	2422
Background + Project	38	940	23	48	10	148	22	1057	234	543	9	75	3147

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 17

Intersection Name: Fair Oaks Ave & US 101 NB Ramps

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	494	729	0	269	0	256	0	785	539	0	0	0	3072
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		14		9									23
696 N. Mathilda Ave		12						11					23
725 S. Fair Oaks Ave						5			4				9
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real						4			3				7
861 E. El Camino Real						5			3				8
1050 Kifer Rd									11				11
1081 Innovation Way									53				53
1111 Lockheed Martin Way		6						21					27
1152 Bordeaux Dr		4						21					25
1184 N. Mathilda Ave													
1212 Bordeaux Dr		1						7					8
1221 Crossman Ave		21		67				33					121
215 Moffett Park Dr		2						5					7
221 N. Mathilda Ave						2							2
280 Santa Ana Ct		7				5		1	6				19
495 E. Java Dr & 549 Baltic Way		19		60				36					115
520 Almanor Ave													
589 W. Java Dr		7		17				16					40
615 N. Mathilda Ave		3											3
684 W. Maude Ave		7						1					8
1120 Kifer Rd		6						20	12				38
2502 Town Center Ln		10				8		7					25
675 Almanor Avenue													
1111, 1139 Karlstad Dr	27	47		-20				-29					25
423 E. Maude Ave													
460 Persian Dr	6	11		-8				-12					-3
520-550, 610 Weddell Dr	69	118		-25				-36					126
625 E. Taylor Ave		-2				-1		2	1				
680-698 E. Taylor Ave		-7				-4		5	4				-2
701-755 E. Evelyn Ave						-18							-18
915 De Guigne Dr		-15						13	20				18
City Place (Phase 1-3)	4	8		3	8	8		17	5				53
840 E. El Camino Real													
Irvine Company - Pathline Park	10	4						2					16
<i>Total Approved Trips</i>	116	283	0	103	8	14	0	141	122	0	0	0	787
Background Conditions	610	1012	0	372	8	270	0	926	661	0	0	0	3859
Project Trips	0	16	0	0	0	0	0	18	0	0	0	0	34
Existing + Project	494	745	0	269	0	256	0	803	539	0	0	0	3106
Background + Project	610	1028	0	372	8	270	0	944	661	0	0	0	3893

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 18
 Intersection Name: Fair Oaks Ave & Ahwanee Ave
 Peak Hour: AM
 Count Date: 04/04/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	294	801	32	229	69	35	24	1311	60	55	26	229	3165
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave	12											11	23
725 S. Fair Oaks Ave		11						8					19
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real		7							5				12
861 E. El Camino Real		9							7				16
1050 Kifer Rd		69							11				80
1081 Innovation Way		1							53				54
1111 Lockheed Martin Way		6							21				27
1152 Bordeaux Dr		4							21				25
1184 N. Mathilda Ave													
1212 Bordeaux Dr		1							7				8
1221 Crossman Ave		6							30				36
215 Moffett Park Dr		2							5				7
221 N. Mathilda Ave		3											3
280 Santa Ana Ct		41							9				50
495 E. Java Dr & 549 Baltic Way		7							36				43
520 Almanor Ave										2			2
589 W. Java Dr		3							16				19
615 N. Mathilda Ave		3											3
684 W. Maude Ave		7							1				8
1120 Kifer Rd		8							31				39
2502 Town Center Ln		18							20				38
675 Almanor Avenue													
1111, 1139 Karlstad Dr		17							-11				6
423 E. Maude Ave													
460 Persian Dr		4							-5				-1
520-550, 610 Weddell Dr		41							-13				28
625 E. Taylor Ave		-4							4				
680-698 E. Taylor Ave		-16							12				-4
701-755 E. Evelyn Ave		-18						6					-12
915 De Guigne Dr		-37							33				-4
City Place (Phase 1-3)		1	3		2	3	2	2		5	5		23
840 E. El Camino Real													
Irvine Company - Pathline Park		4							1				5
Total Approved Trips	12	198	3	0	2	3	8	304	2	5	5	11	553
Background Conditions	306	999	35	229	71	38	32	1615	62	60	31	240	3718
Project Trips	0	16	0	0	0	8	0	0	0	48	7	18	97
Existing + Project	294	817	32	229	69	43	24	1311	60	103	33	247	3262
Background + Project	306	1015	35	229	71	46	32	1615	62	108	38	258	3815

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 19

Intersection Name: Fair Oaks Ave & Duane Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	46	642	113	210	121	202	201	965	8	20	117	120	2765
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave		11						8					19
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real		7						5					12
861 E. El Camino Real		9						7					16
1050 Kifer Rd		69						11					80
1081 Innovation Way		1						53					54
1111 Lockheed Martin Way	2	4						14			7		27
1152 Bordeaux Dr		4						21					25
1184 N. Mathilda Ave													
1212 Bordeaux Dr		1						7					8
1221 Crossman Ave	1	5		1				26			3		36
215 Moffett Park Dr													
221 N. Mathilda Ave		3											3
280 Santa Ana Ct		41						9					50
495 E. Java Dr & 549 Baltic Way		7						36					43
520 Almanor Ave				1				1					2
589 W. Java Dr		3						16					19
615 N. Mathilda Ave		3											3
684 W. Maude Ave		7						1					8
1120 Kifer Rd		8						31					39
2502 Town Center Ln		18			5		3	20					46
675 Almanor Avenue													
1111, 1139 Karlstad Dr		17						-11					6
423 E. Maude Ave													
460 Persian Dr		4						-5					-1
520-550, 610 Weddell Dr		41						-13					28
625 E. Taylor Ave		-4						4					
680-698 E. Taylor Ave		-16						12					-4
701-755 E. Evelyn Ave		-18						6					-12
915 De Guigne Dr		-16	-21	22				11					-4
City Place (Phase 1-3)	6	4	6	1	7	2	9	7	7	7	3	4	63
840 E. El Camino Real													
Irvine Company - Pathline Park		4						1					5
<i>Total Approved Trips</i>	9	217	-15	25	7	7	12	278	7	7	3	14	571
Background Conditions	55	859	98	235	128	209	213	1243	15	27	120	134	3336
Project Trips	0	72	0	0	0	8	0	0	0	0	7	0	87
Existing + Project	46	714	113	210	121	210	201	965	8	20	124	120	2852
Background + Project	55	931	98	235	128	217	213	1243	15	27	127	134	3423

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 20

Intersection Name: Fair Oaks Ave & Wolfe Rd

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

Scenario:	Movements												Total	
	North Approach			East Approach			South Approach			West Approach				
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	622	311	0	0	0	0	0	483	0	7	0	757	2180	
Approved Project Trips														
1080 Stewart Dr														
1100 N. Mathilda Ave														
1235 Bordeaux Dr														
696 N. Mathilda Ave														
725 S. Fair Oaks Ave	11										8		19	
750 Lakeway Dr														
767 N. Mathilda Ave														
830 E. El Camino Real	7											5	12	
861 E. El Camino Real	9											7	16	
1050 Kifer Rd		69						11					80	
1081 Innovation Way		1						53					54	
1111 Lockheed Martin Way		4						14					18	
1152 Bordeaux Dr	2	2						11				11	26	
1184 N. Mathilda Ave														
1212 Bordeaux Dr		1						7					8	
1221 Crossman Ave	3	2						11				15	31	
215 Moffett Park Dr														
221 N. Mathilda Ave	3												3	
280 Santa Ana Ct		41						9					50	
495 E. Java Dr & 549 Baltic Way		7						36					43	
520 Almanor Ave								1					1	
589 W. Java Dr	3											16	19	
615 N. Mathilda Ave	3												3	
684 W. Maude Ave	7											1	8	
1120 Kifer Rd		8						31					39	
2502 Town Center Ln	24											23	47	
675 Almanor Avenue														
1111, 1139 Karlstad Dr	11	6						-4				-7	6	
423 E. Maude Ave														
460 Persian Dr	3	1						-2				-3	-1	
520-550, 610 Weddell Dr	26	15						-5				-8	28	
625 E. Taylor Ave	-4												4	
680-698 E. Taylor Ave	-16											12	-4	
701-755 E. Evelyn Ave	-18											6	-12	
915 De Guigne Dr		-16						11					-5	
City Place (Phase 1-3)		2						5				5	12	
840 E. El Camino Real														
Irvine Company - Pathline Park	4												1	5
<i>Total Approved Trips</i>	78	143	0	0	0	0	0	189	0	0	0	96	506	
Background Conditions	700	454	0	0	0	0	0	672	0	7	0	853	2686	
Project Trips	56	24	0	0	0	0	0	0	0	0	0	0	80	
Existing + Project	678	335	0	0	0	0	0	483	0	7	0	757	2260	
Background + Project	756	478	0	0	0	0	0	672	0	7	0	853	2766	

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 21

Intersection Name: Fair Oaks Ave & Maude Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 05/16/17

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	93	537	0	2	147	11	14	631	122	108	86	86	1837
Approved Project Trips													
1080 Stewart Dr					6						8		14
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave		11						8					19
750 Lakeway Dr					4						6		10
767 N. Mathilda Ave													
830 E. El Camino Real		7						5					12
861 E. El Camino Real		9						7					16
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr		2						11					13
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave	1	2						11				4	18
215 Moffett Park Dr													
221 N. Mathilda Ave	3												3
280 Santa Ana Ct					1						7		8
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave					1								1
589 W. Java Dr		3						16					19
615 N. Mathilda Ave	3				1						-1		3
684 W. Maude Ave	7				7						1	1	16
1120 Kifer Rd											-2		-2
2502 Town Center Ln		24						23					47
675 Almanor Avenue													
1111, 1139 Karlstad Dr		11						-7					4
423 E. Maude Ave													
460 Persian Dr		3						-3					
520-550, 610 Weddell Dr		26						-8					18
625 E. Taylor Ave		-4						4	1	-1			
680-698 E. Taylor Ave		-16						12	2	-3			-5
701-755 E. Evelyn Ave		-18						6					-12
915 De Guigne Dr					20						-22		-2
City Place (Phase 1-3)	4	8	9	7	3	1	1	5	7	2	7	1	55
840 E. El Camino Real													
Irvine Company - Pathline Park	4				13						2	1	20
<i>Total Approved Trips</i>	22	68	9	7	56	1	1	90	10	-2	6	7	275
Background Conditions	115	605	9	9	203	12	15	721	132	106	92	93	2112
Project Trips	32	24	0	0	14	0	0	0	27	0	0	0	97
Existing + Project	125	561	0	2	161	11	14	631	149	108	86	86	1934
Background + Project	147	629	9	9	217	12	15	721	159	106	92	93	2209

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 22

Intersection Name: Wolfe Rd & Maude Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 05/25/17

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	3	324	3	6	4	3	3	517	168	92	6	9	1138
Approved Project Trips													
1080 Stewart Dr									6	8			14
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr									4	6			10
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd		69						11					80
1081 Innovation Way		1						53					54
1111 Lockheed Martin Way		4						14					18
1152 Bordeaux Dr		2						11					13
1184 N. Mathilda Ave													
1212 Bordeaux Dr		1						7					8
1221 Crossman Ave		2						11					13
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct		41						9	1	7			58
495 E. Java Dr & 549 Baltic Way		7						36					43
520 Almanor Ave								1	1				2
589 W. Java Dr													
615 N. Mathilda Ave									1	-1			
684 W. Maude Ave									7	1			8
1120 Kifer Rd		8						31		-2			37
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr		6						-4					2
423 E. Maude Ave													
460 Persian Dr		1						-2					-1
520-550, 610 Weddell Dr		15						-5					10
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr		-16						11	20	-22			-7
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park									13	2			15
<i>Total Approved Trips</i>	0	141	0	0	0	0	0	184	53	-1	0	0	377
Background Conditions	3	465	3	6	4	3	3	701	221	91	6	9	1515
Project Trips	0	24	0	0	0	0	0	0	14	0	0	0	38
Existing + Project	3	348	3	6	4	3	3	517	182	92	6	9	1176
Background + Project	3	489	3	6	4	3	3	701	235	91	6	9	1553

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 23

Intersection Name: Wolfe Rd & Arques Ave

Peak Hour: AM

Date of Analysis: 01/05/18

Count Date: 04/04/17

Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	17	253	95	69	142	122	434	725	27	11	300	76	2271
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd		83							13				96
1081 Innovation Way		1							53				54
1111 Lockheed Martin Way		4							14				18
1152 Bordeaux Dr		2							11				13
1184 N. Mathilda Ave													
1212 Bordeaux Dr		1							7				8
1221 Crossman Ave		2							11				13
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct		13	36		5	3	19	26	5	14	4	44	169
495 E. Java Dr & 549 Baltic Way		7							36				43
520 Almanor Ave									2				2
589 W. Java Dr													
615 N. Mathilda Ave		-1							1				
684 W. Maude Ave		1							7				8
1120 Kifer Rd		6							31				37
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr		6								-4			2
423 E. Maude Ave													
460 Persian Dr		1								-2			-1
520-550, 610 Weddell Dr		15								-5			10
625 E. Taylor Ave												1	
680-698 E. Taylor Ave												2	-1
701-755 E. Evelyn Ave													
915 De Guigne Dr		6										3	-3
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		2								13			15
<i>Total Approved Trips</i>	0	149	36	5	-1	22	23	193	14	4	47	0	492
Background Conditions	17	402	131	74	141	144	457	918	41	15	347	76	2763
Project Trips	0	24	0	0	0	0	0	14	0	0	0	0	38
Existing + Project	17	277	95	69	142	122	434	739	27	11	300	76	2309
Background + Project	17	426	131	74	141	144	457	932	41	15	347	76	2801

Summit School TIA Volume Spreadsheet - AM Peak Hour

Traffic Node Number: 24
 Intersection Name: Wolfe Rd & Central Expwy Ramps
 Peak Hour: AM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	127	342	30	92	0	131	540	1057	393	159	1	119	2991
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd		83						13	4	23			123
1081 Innovation Way		1						53					54
1111 Lockheed Martin Way		4						14					18
1152 Bordeaux Dr		2						11					13
1184 N. Mathilda Ave													
1212 Bordeaux Dr		1						7					8
1221 Crossman Ave		2						11					13
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct	1	5	38	37		7		58				35	181
495 E. Java Dr & 549 Baltic Way		7						36					43
520 Almanor Ave								2					2
589 W. Java Dr													
615 N. Mathilda Ave		-1						1					
684 W. Maude Ave		1						7					8
1120 Kifer Rd		6						31	29	6			72
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr		6						-4					2
423 E. Maude Ave													
460 Persian Dr		1						-2					-1
520-550, 610 Weddell Dr		15						-5					10
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr	3	5						-6				-7	-5
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		2						13					15
<i>Total Approved Trips</i>	4	140	38	37	0	7	0	240	33	29	0	28	556
Background Conditions	131	482	68	129	0	138	540	1297	426	188	1	147	3547
Project Trips	0	12	12	0	0	0	0	14	14	12	0	0	64
Existing + Project	127	354	42	92	0	131	540	1071	407	171	1	119	3055
Background + Project	131	494	80	129	0	138	540	1311	440	200	1	147	3611

Summit School TIA Volume Spreadsheet - School PM Peak Hour

Traffic Node Number:	1												
Intersection Name:	Mathilda Ave & SR 237 WB Ramps												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	312	1362	0	62	26	402	0	435	94	0	0	0	2693
Approved Project Trips													
<i>Total Approved Trips</i>	423	863	0	60	0	41	0	351	9	0	0	0	1747
Background Conditions	735	2225	0	122	26	443	0	786	103	0	0	0	4440
Project Trips	0	0	0	0	0	8	0	0	0	0	0	0	8
Existing + Project	312	1362	0	62	26	410	0	435	94	0	0	0	2701
Background + Project	735	2225	0	122	26	451	0	786	103	0	0	0	4448

Traffic Node Number:	2												
Intersection Name:	Mathilda Ave & SR 237 EB Ramps												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	1385	373	0	0	0	512	369	0	105	0	167	2911
Approved Project Trips													
<i>Total Approved Trips</i>	0	736	200	0	0	0	172	207	0	8	0	165	1488
Background Conditions	0	2121	573	0	0	0	684	576	0	113	0	332	4399
Project Trips	0	8	0	0	0	0	7	0	0	0	0	0	15
Existing + Project	0	1393	373	0	0	0	519	369	0	105	0	167	2926
Background + Project	0	2129	573	0	0	0	691	576	0	113	0	332	4414

Traffic Node Number:	3												
Intersection Name:	Mathilda Ave & Ross Dr												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	19	1300	104	85	2	105	141	719	29	60	4	51	2619
Approved Project Trips													
<i>Total Approved Trips</i>	0	618	15	1	0	6	6	322	0	0	0	0	968
Background Conditions	19	1918	119	86	2	111	147	1041	29	60	4	51	3587
Project Trips	0	8	0	0	0	5	3	7	0	0	0	0	23
Existing + Project	19	1308	104	85	2	110	144	726	29	60	4	51	2642
Background + Project	19	1926	119	86	2	116	150	1048	29	60	4	51	3610

Traffic Node Number:	4												
Intersection Name:	Mathilda Ave & Almanor Ave												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	74	1505	158	107	5	23	25	1044	28	37	21	189	3216
Approved Project Trips													
<i>Total Approved Trips</i>	60	468	7	1	0	0	0	359	19	41	1	414	1370
Background Conditions	134	1973	165	108	5	23	25	1403	47	78	22	603	4586
Project Trips	0	58	0	54	0	41	0	0	0	0	0	0	153
Existing + Project	74	1563	158	161	5	64	25	1044	28	37	21	189	3369
Background + Project	134	2031	165	162	5	64	25	1403	47	78	22	603	4739

Traffic Node Number:	5												
Intersection Name:	Mathilda Ave & San Aleso Ave												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	6	1476	74	28	0	34	41	971	12	22	5	23	2692
Approved Project Trips													
<i>Total Approved Trips</i>	0	425	56	3	0	27	0	322	0	0	0	0	833
Background Conditions	6	1901	130	31	0	61	41	1293	12	22	5	23	3525
Project Trips	0	41	58	0	0	0	96	0	0	0	0	0	195
Existing + Project	6	1517	132	28	0	34	137	971	12	22	5	23	2887
Background + Project	6	1942	188	31	0	61	137	1293	12	22	5	23	3720

Summit School TIA Volume Spreadsheet - School PM Peak Hour

Traffic Node Number:	6												
Intersection Name:	Mathilda Ave & Maude Ave												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	103	1305	197	177	81	137	83	724	137	275	188	129	3536
Approved Project Trips													
<i>Total Approved Trips</i>	46	479	27	11	17	0	0	162	61	269	29	162	1263
Background Conditions	149	1784	224	188	98	137	83	886	198	544	217	291	4799
Project Trips	0	41	0	50	0	0	0	46	0	0	0	0	137
Existing + Project	103	1346	197	227	81	137	83	770	137	275	188	129	3673
Background + Project	149	1825	224	238	98	137	83	932	198	544	217	291	4936

Traffic Node Number:	7												
Intersection Name:	Mathilda Ave & Indio Ave												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	55	1707	34	99	0	31	99	791	31	152	0	23	3022
Approved Project Trips													
<i>Total Approved Trips</i>	57	664	5	24	0	7	7	193	7	1	0	0	965
Background Conditions	112	2371	39	123	0	38	106	984	38	153	0	23	3987
Project Trips	-1	41	0	23	0	0	0	23	0	0	0	0	86
Existing + Project	54	1748	34	122	0	31	99	814	31	152	0	23	3108
Background + Project	111	2412	39	146	0	38	106	1007	38	153	0	23	4073

Traffic Node Number:	8												
Intersection Name:	Mathilda Ave & California Ave												
Peak Hour:	School PM												
Count Date:	11/00/15												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	296	1520	114	125	23	29	191	703	68	133	25	60	3287
Approved Project Trips													
<i>Total Approved Trips</i>	133	454	38	11	0	0	11	136	4	36	0	44	867
Background Conditions	429	1974	152	136	23	29	202	839	72	169	25	104	4154
Project Trips	16	25	0	0	0	0	0	23	0	0	0	0	64
Existing + Project	312	1545	114	125	23	29	191	726	68	133	25	60	3351
Background + Project	445	1999	152	136	23	29	202	862	72	169	25	104	4218

Traffic Node Number:	9												
Intersection Name:	San Aleso Ave & Ahwanee Ave												
Peak Hour:	School PM												
Count Date:	05/16/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	0	0	0	87	29	45	0	8	12	121	0	302
Approved Project Trips													
<i>Total Approved Trips</i>	0	0	0	0	1	5	5	0	0	0	7	0	18
Background Conditions	0	0	0	0	88	34	50	0	8	12	128	0	320
Project Trips	0	0	0	0	0	0	66	0	95	0	0	0	161
Existing + Project	0	0	0	0	87	29	111	0	103	12	121	0	463
Background + Project	0	0	0	0	88	34	116	0	103	12	128	0	481

Traffic Node Number:	10												
Intersection Name:	Borregas Ave & Ahwanee Ave												
Peak Hour:	School PM												
Count Date:	05/16/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	0	0	0	67	50	54	0	56	76	74	0	377
Approved Project Trips													
<i>Total Approved Trips</i>	0	0	0	0	5	0	0	0	1	5	6	0	17
Background Conditions	0	0	0	0	72	50	54	0	57	81	80	0	394
Project Trips	0	0	0	0	0	0	0	0	0	12	54	0	66
Existing + Project	0	0	0	0	67	50	54	0	56	88	128	0	443
Background + Project	0	0	0	0	72	50	54	0	57	93	134	0	460

Summit School TIA Volume Spreadsheet - School PM Peak Hour

Traffic Node Number:	11												
Intersection Name:	Borregas Ave & Duane Ave												
Peak Hour:	School PM												
Count Date:	05/16/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	7	105	7	11	11	32	14	137	12	7	1	0	344
Approved Project Trips													
<i>Total Approved Trips</i>	0	8	0	0	0	0	0	8	0	0	0	0	16
Background Conditions	7	113	7	11	11	32	14	145	12	7	1	0	360
Project Trips	0	5	7	0	0	0	0	0	0	0	0	0	12
Existing + Project	7	110	14	11	11	32	14	137	12	7	1	0	356
Background + Project	7	118	14	11	11	32	14	145	12	7	1	0	372

Traffic Node Number:	12												
Intersection Name:	Sunnyvale Ave/Borregas & Maude Ave												
Peak Hour:	School PM												
Count Date:	05/16/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	126	0	88	0	211	80	138	0	145	0	312	87	1187
Approved Project Trips													
<i>Total Approved Trips</i>	1	0	8	0	39	1	0	0	0	0	50	10	109
Background Conditions	127	0	96	0	250	81	138	0	145	0	362	97	1296
Project Trips	0	0	5	0	45	0	0	0	5	0	0	0	55
Existing + Project	126	0	93	0	256	80	138	0	150	0	312	87	1242
Background + Project	127	0	101	0	295	81	138	0	150	0	362	97	1351

Traffic Node Number:	13												
Intersection Name:	Morse Ave & Ahwanee Ave												
Peak Hour:	School PM												
Count Date:	05/16/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	0	0	0	90	178	139	0	43	48	81	0	579
Approved Project Trips													
<i>Total Approved Trips</i>	0	0	0	0	8	0	0	0	0	0	9	0	17
Background Conditions	0	0	0	0	98	178	139	0	43	48	90	0	596
Project Trips	0	0	0	0	0	0	0	0	0	2	52	0	54
Existing + Project	0	0	0	0	90	178	139	0	43	50	133	0	633
Background + Project	0	0	0	0	98	178	139	0	43	50	142	0	650

Traffic Node Number:	14												
Intersection Name:	Morse Ave & Duane Ave												
Peak Hour:	School PM												
Count Date:	05/16/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	17	135	76	45	57	25	22	124	6	4	39	7	557
Approved Project Trips													
<i>Total Approved Trips</i>	0	12	0	0	9	0	0	13	0	0	2	0	36
Background Conditions	17	147	76	45	66	25	22	137	6	4	41	7	593
Project Trips	0	2	0	0	0	2	0	0	0	0	7	0	11
Existing + Project	17	137	76	45	57	27	22	124	6	4	46	7	568
Background + Project	17	149	76	45	66	27	22	137	6	4	48	7	604

Traffic Node Number:	15												
Intersection Name:	Morse Ave & Maude Ave												
Peak Hour:	School PM												
Count Date:	05/16/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	108	13	70	55	170	8	12	5	12	8	302	84	847
Approved Project Trips													
<i>Total Approved Trips</i>	9	0	0	0	30	0	0	0	0	0	44	10	93
Background Conditions	117	13	70	55	200	8	12	5	12	8	346	94	940
Project Trips	3	0	0	0	42	0	0	0	0	0	0	0	45
Existing + Project	111	13	70	55	212	8	12	5	12	8	302	84	892
Background + Project	120	13	70	55	242	8	12	5	12	8	346	94	985

Summit School TIA Volume Spreadsheet - School PM Peak Hour

Traffic Node Number:	16												
Intersection Name:	Fair Oaks Ave & Weddell Dr												
Peak Hour:	School PM												
Count Date:	04/04/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	12	581	19	13	2	49	60	526	150	187	2	24	1625
Approved Project Trips													
	<i>Total Approved Trips</i>												
	21	218	15	3	4	2	34	149	79	-2	2	4	529
Background Conditions	33	799	34	16	6	51	94	675	229	185	4	28	2154
Project Trips	0	9	0	0	0	0	0	10	3	0	0	0	22
Existing + Project	12	590	19	13	2	49	60	536	153	187	2	24	1647
Background + Project	33	808	34	16	6	51	94	685	232	185	4	28	2176

Traffic Node Number:	17												
Intersection Name:	Fair Oaks Ave & US 101 NB Ramps												
Peak Hour:	School PM												
Count Date:	04/04/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	126	699	0	153	0	429	0	557	337	0	0	0	2301
Approved Project Trips													
	<i>Total Approved Trips</i>												
	-11	239	0	95	6	27	0	187	62	0	0	0	605
Background Conditions	115	938	0	248	6	456	0	744	399	0	0	0	2906
Project Trips	0	9	0	0	0	0	0	12	0	0	0	0	21
Existing + Project	126	708	0	153	0	429	0	569	337	0	0	0	2322
Background + Project	115	947	0	248	6	456	0	756	399	0	0	0	2927

Traffic Node Number:	18												
Intersection Name:	Fair Oaks Ave & Ahwanee Ave												
Peak Hour:	School PM												
Count Date:	04/04/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	210	1088	50	34	12	10	20	826	49	76	21	150	2546
Approved Project Trips													
	<i>Total Approved Trips</i>												
	8	235	3	4	5	1	-3	179	2	4	5	10	453
Background Conditions	218	1323	53	38	17	11	17	1005	51	80	26	160	2999
Project Trips	0	9	0	0	0	5	0	0	0	34	5	12	65
Existing + Project	210	1097	50	34	12	15	20	826	49	110	26	162	2611
Background + Project	218	1332	53	38	17	16	17	1005	51	114	31	172	3064

Traffic Node Number:	19												
Intersection Name:	Fair Oaks Ave & Duane Ave												
Peak Hour:	School PM												
Count Date:	04/04/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	64	840	131	114	59	206	155	718	15	32	87	47	2468
Approved Project Trips													
	<i>Total Approved Trips</i>												
	14	223	19	-9	5	17	18	178	6	3	3	2	479
Background Conditions	78	1063	150	105	64	223	173	896	21	35	90	49	2947
Project Trips	0	48	0	0	0	5	0	0	0	0	5	0	58
Existing + Project	64	888	131	114	59	211	155	718	15	32	92	47	2526
Background + Project	78	1111	150	105	64	228	173	896	21	35	95	49	3005

Traffic Node Number:	20												
Intersection Name:	Fair Oaks Ave & Wolfe Rd												
Peak Hour:	School PM												
Count Date:	04/04/17												
Scenario:	Summit School TIA												
	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	710	426	0	0	0	0	0	355	0	7	0	544	2042
Approved Project Trips													
	<i>Total Approved Trips</i>												
	111	130	0	0	0	0	0	104	0	3	0	91	439
Background Conditions	821	556	0	0	0	0	0	459	0	10	0	635	2481
Project Trips	36	16	0	0	0	0	0	0	0	0	0	0	52
Existing + Project	746	442	0	0	0	0	0	355	0	7	0	544	2094
Background + Project	857	572	0	0	0	0	0	459	0	10	0	635	2533

Summit School TIA Volume Spreadsheet - School PM Peak Hour

Traffix Node Number: 21 Intersection Name: Fair Oaks Ave & Maude Ave Peak Hour: School PM Count Date: 05/16/17 Scenario: Summit School TIA Date of Analysis: 01/05/18													
Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	75	639	3	5	76	12	11	493	68	112	127	70	1691
Approved Project Trips													
<i>Total Approved Trips</i>	5	122	7	6	5	0	4	99	-1	5	39	16	307
Background Conditions	80	761	10	11	81	12	15	592	67	117	166	86	1998
Project Trips	19	18	0	0	8	0	0	0	16	0	0	0	61
Existing + Project	94	657	3	5	84	12	11	493	84	112	127	70	1752
Background + Project	99	779	10	11	89	12	15	592	83	117	166	86	2059

Traffix Node Number: 22 Intersection Name: Wolfe Rd & Maude Ave Peak Hour: School PM Count Date: 05/25/17 Scenario: Summit School TIA Date of Analysis: 01/05/18													
Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	9	457	10	3	0	6	8	279	94	139	7	5	1017
Approved Project Trips													
<i>Total Approved Trips</i>	0	98	0	0	0	0	0	92	1	29	0	0	220
Background Conditions	9	555	10	3	0	6	8	371	95	168	7	5	1237
Project Trips	0	16	0	0	0	0	0	0	8	0	0	0	24
Existing + Project	9	473	10	3	0	6	8	279	102	139	7	5	1041
Background + Project	9	571	10	3	0	6	8	371	103	168	7	5	1261

Traffix Node Number: 23 Intersection Name: Wolfe Rd & Arques Ave Peak Hour: School PM Count Date: 04/04/17 Scenario: Summit School TIA Date of Analysis: 01/05/18													
Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	20	424	93	86	173	200	196	361	16	40	186	44	1839
Approved Project Trips													
<i>Total Approved Trips</i>	0	101	4	15	9	23	12	101	41	1	3	0	310
Background Conditions	20	525	97	101	182	223	208	462	57	41	189	44	2149
Project Trips	0	16	0	0	0	0	0	8	0	0	0	0	24
Existing + Project	20	440	93	86	173	200	196	369	16	40	186	44	1863
Background + Project	20	541	97	101	182	223	208	470	57	41	189	44	2173

Traffix Node Number: 24 Intersection Name: Wolfe Rd & Central Expy Ramps Peak Hour: School PM Count Date: 04/04/17 Scenario: Summit School TIA Date of Analysis: 01/05/18													
Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	106	565	96	40	0	140	117	487	82	216	1	78	1928
Approved Project Trips													
<i>Total Approved Trips</i>	7	103	32	3	0	18	0	85	20	18	0	9	295
Background Conditions	113	668	128	43	0	158	117	572	102	234	1	87	2223
Project Trips	0	8	8	0	0	0	0	8	8	8	0	0	40
Existing + Project	106	573	104	40	0	140	117	495	90	224	1	78	1968
Background + Project	113	676	136	43	0	158	117	580	110	242	1	87	2263

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 1
 Intersection Name: Mathilda Ave & SR 237 WB Ramps
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	558	1610	0	39	31	541	0	524	86	0	0	0	3389
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave	14	34		11			44						103
1235 Bordeaux Dr	12	24		17			56						109
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave		7				10	7	11					35
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way	161	312		16			91						580
1111 Lockheed Martin Way	30	94		11			40						175
1152 Bordeaux Dr	62	214		8			35						319
1184 N. Mathilda Ave	33	97		3			24						157
1212 Bordeaux Dr	41	64		4			20						129
1221 Crossman Ave	12	25					18						55
215 Moffett Park Dr	70	104		5			44						223
221 N. Mathilda Ave						3							3
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		15					11						26
520 Almanor Ave						3							3
589 W. Java Dr	97	65					28						190
615 N. Mathilda Ave													
684 W. Maude Ave						6							6
1120 Kifer Rd													
2502 Town Center Ln		23				14	25						62
675 Almanor Avenue						3							3
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr		8					-1						7
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park						13							13
<i>Total Approved Trips</i>	532	1086	0	75	0	52	0	442	11	0	0	0	2198
Background Conditions	1090	2696	0	114	31	593	0	966	97	0	0	0	5587
Project Trips	0	0	0	0	0	2	0	0	0	0	0	0	2
Existing + Project	558	1610	0	39	31	543	0	524	86	0	0	0	3391
Background + Project	1090	2696	0	114	31	595	0	966	97	0	0	0	5589

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 2
 Intersection Name: Mathilda Ave & SR 237 EB Ramps
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	1804	347	0	0	0	641	480	0	135	0	130	3537
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave		23	11					21				23	78
1235 Bordeaux Dr		12	12					22				34	80
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave		16					11	18		10			55
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way		241	71					55				36	403
1111 Lockheed Martin Way		64	30					25				15	134
1152 Bordeaux Dr		152	62					19				16	249
1184 N. Mathilda Ave		76	21					14				10	121
1212 Bordeaux Dr		45	19					12				8	84
1221 Crossman Ave		25						4				14	43
215 Moffett Park Dr		87	17					24				20	148
221 N. Mathilda Ave		3					18						21
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		15						3				8	26
520 Almanor Ave		3					24						27
589 W. Java Dr		65						11				17	93
615 N. Mathilda Ave							31						31
684 W. Maude Ave		6					32						38
1120 Kifer Rd													
2502 Town Center Ln		37					10	25					72
675 Almanor Avenue		3					14						17
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr		8						-1					7
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		13					69						82
<i>Total Approved Trips</i>	0	894	243	0	0	0	209	252	0	10	0	201	1809
Background Conditions	0	2698	590	0	0	0	850	732	0	145	0	331	5346
Project Trips	0	2	0	0	0	0	4	0	0	0	0	0	6
Existing + Project	0	1806	347	0	0	0	645	480	0	135	0	130	3543
Background + Project	0	2700	590	0	0	0	854	732	0	145	0	331	5352

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 3
 Intersection Name: Mathilda Ave & Ross Dr
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	54	1695	190	71	4	125	323	980	59	129	39	70	3739
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave		23						21					44
1235 Bordeaux Dr		12						22					34
696 N. Mathilda Ave						9	8						17
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave		26						29					55
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way		241						55					296
1111 Lockheed Martin Way		64		1				24					89
1152 Bordeaux Dr		144	8	1				18					171
1184 N. Mathilda Ave		76						14					90
1212 Bordeaux Dr		45						12					57
1221 Crossman Ave		24	1					4					29
215 Moffett Park Dr		82	5	1				23					111
221 N. Mathilda Ave		3						18					21
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		15						3					18
520 Almanor Ave		3						24					27
589 W. Java Dr		65						11					76
615 N. Mathilda Ave								31					31
684 W. Maude Ave		6						32					38
1120 Kifer Rd													
2502 Town Center Ln		37						35					72
675 Almanor Avenue		3						14					17
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr			8	-1									7
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		13						69					82
<i>Total Approved Trips</i>	0	882	22	2	0	9	8	459	0	0	0	0	1382
Background Conditions	54	2577	212	73	4	134	331	1439	59	129	39	70	5121
Project Trips	0	2	0	0	0	2	1	4	0	0	0	0	9
Existing + Project	54	1697	190	71	4	127	324	984	59	129	39	70	3748
Background + Project	54	2579	212	73	4	136	332	1443	59	129	39	70	5130

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 4
 Intersection Name: Mathilda Ave & Almanor Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	76	2170	155	94	10	31	71	1262	31	50	94	317	4361
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		4						6					10
696 N. Mathilda Ave		9						8					17
725 S. Fair Oaks Ave		4						5					9
750 Lakeway Dr													
767 N. Mathilda Ave		40						38	12			16	106
830 E. El Camino Real		4						5					9
861 E. El Camino Real		6						6					12
1050 Kifer Rd													
1081 Innovation Way		85						20					105
1111 Lockheed Martin Way		34						13					47
1152 Bordeaux Dr		82						10					92
1184 N. Mathilda Ave	5	31						6				1	43
1212 Bordeaux Dr		19	1					7					27
1221 Crossman Ave		22	2					4					28
215 Moffett Park Dr		40	7	2				11					60
221 N. Mathilda Ave		8						40					48
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		15						3					18
520 Almanor Ave	12								12	43	2	82	151
589 W. Java Dr	11	27						4				2	44
615 N. Mathilda Ave	2	1										98	101
684 W. Maude Ave		32						168					200
1120 Kifer Rd													
2502 Town Center Ln		124						114					238
675 Almanor Avenue	9								2	13		50	74
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		17						-42					-25
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real		1						1					2
Irvine Company - Pathline Park	43	29						60				313	445
<i>Total Approved Trips</i>	82	634	10	2	0	0	0	487	26	56	2	562	1861
Background Conditions	158	2804	165	96	10	31	71	1749	57	106	96	879	6222
Project Trips	0	18	0	24	0	16	0	0	0	0	0	0	58
Existing + Project	76	2188	155	118	10	47	71	1262	31	50	94	317	4419
Background + Project	158	2822	165	120	10	47	71	1749	57	106	96	879	6280

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 5
 Intersection Name: Mathilda Ave & San Aleso Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	13	2213	111	51	2	42	107	1293	22	23	7	42	3926
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		4						6					10
696 N. Mathilda Ave		-30	39	4		40		4					57
725 S. Fair Oaks Ave		4						5					9
750 Lakeway Dr													
767 N. Mathilda Ave		13	38					12					63
830 E. El Camino Real		4						5					9
861 E. El Camino Real		6						6					12
1050 Kifer Rd													
1081 Innovation Way		85						20					105
1111 Lockheed Martin Way		34						13					47
1152 Bordeaux Dr		82						10					92
1184 N. Mathilda Ave		29	2	1				5					37
1212 Bordeaux Dr		19						7					26
1221 Crossman Ave		22						4					26
215 Moffett Park Dr		40						11					51
221 N. Mathilda Ave		8						40					48
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way		15						3					18
520 Almanor Ave		43						12					55
589 W. Java Dr		27						4					31
615 N. Mathilda Ave		1											1
684 W. Maude Ave		32						168					200
1120 Kifer Rd													
2502 Town Center Ln		124						114					238
675 Almanor Avenue		11	2					2					15
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		17						-42					-25
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real		1						1					2
Irvine Company - Pathline Park		29						60					89
<i>Total Approved Trips</i>	0	620	81	5	0	40	0	470	0	0	0	0	1216
Background Conditions	13	2833	192	56	2	82	107	1763	22	23	7	42	5142
Project Trips	0	16	18	0	0	0	32	0	0	0	0	0	66
Existing + Project	13	2229	129	51	2	42	139	1293	22	23	7	42	3992
Background + Project	13	2849	210	56	2	82	139	1763	22	23	7	42	5208

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 6
 Intersection Name: Mathilda Ave & Maude Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	196	1808	302	113	165	117	124	898	102	540	436	296	5097
Approved Project Trips													
1080 Stewart Dr					8						7		15
1100 N. Mathilda Ave													
1235 Bordeaux Dr		4						6					10
696 N. Mathilda Ave		3	8	9				3					23
725 S. Fair Oaks Ave		4						5					9
750 Lakeway Dr					6						5		11
767 N. Mathilda Ave	1	12	2	2				10				1	28
830 E. El Camino Real		4						5					9
861 E. El Camino Real		6						6					12
1050 Kifer Rd													
1081 Innovation Way		85						20					105
1111 Lockheed Martin Way	4	29	1					11				1	46
1152 Bordeaux Dr	8	62	13	2				8				1	94
1184 N. Mathilda Ave	5	20	4	1				3				1	34
1212 Bordeaux Dr	4	13	2	1				5				1	26
1221 Crossman Ave		21	1					4					26
215 Moffett Park Dr		40						11					51
221 N. Mathilda Ave		8						40					48
280 Santa Ana Ct					7						1		8
495 E. Java Dr & 549 Baltic Way		15						3					18
520 Almanor Ave		80	1					12					93
589 W. Java Dr		27						4					31
615 N. Mathilda Ave		104	4					2					110
684 W. Maude Ave	32				2				31	202	10	168	445
1120 Kifer Rd													
2502 Town Center Ln		124						114	25	23			286
675 Almanor Avenue		11	3	1				2		1	1		19
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave											1		1
680-698 E. Taylor Ave					-2						2		
701-755 E. Evelyn Ave		17						-42					-25
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real		1						1					2
Irvine Company - Pathline Park	13				3				32	162	15	60	285
<i>Total Approved Trips</i>	67	690	39	16	24	0	0	233	88	388	42	233	1820
Background Conditions	263	2498	341	129	189	117	124	1131	190	928	478	529	6917
Project Trips	0	16	0	17	0	0	0	15	0	0	0	0	48
Existing + Project	196	1824	302	130	165	117	124	913	102	540	436	296	5145
Background + Project	263	2514	341	146	189	117	124	1146	190	928	478	529	6965

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 7
 Intersection Name: Mathilda Ave & Indio Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	77	2582	52	85	0	77	111	1008	27	407	0	46	4472
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		4						6					10
696 N. Mathilda Ave		3						3					6
725 S. Fair Oaks Ave		4						5					9
750 Lakeway Dr													
767 N. Mathilda Ave		12		10									22
830 E. El Camino Real		4						5					9
861 E. El Camino Real		6						6					12
1050 Kifer Rd													
1081 Innovation Way	38	47						20					105
1111 Lockheed Martin Way	4	25		1				10					40
1152 Bordeaux Dr		53	8	1				7					69
1184 N. Mathilda Ave		20		1				2					23
1212 Bordeaux Dr	2	11		1				4					18
1221 Crossman Ave	11	10						4					25
215 Moffett Park Dr	12	28		1				10					51
221 N. Mathilda Ave		8				10	24	40					82
280 Santa Ana Ct										3			3
495 E. Java Dr & 549 Baltic Way		15						3					18
520 Almanor Ave	4	76		5				7					92
589 W. Java Dr	11	16		2				2					31
615 N. Mathilda Ave	3	100		1				1					105
684 W. Maude Ave		202		10				22					234
1120 Kifer Rd													
2502 Town Center Ln		147						138	10				295
675 Almanor Avenue		12		2									14
1111, 1139 Karlstad Dr										-1			-1
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		17					-14	-42					-39
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real		1						1					2
Irvine Company - Pathline Park		162						32					194
<i>Total Approved Trips</i>	85	983	8	35	0	10	10	286	10	2	0	0	1429
Background Conditions	162	3565	60	120	0	87	121	1294	37	409	0	46	5901
Project Trips	0	15	0	8	0	0	0	8	0	0	0	0	31
Existing + Project	77	2597	52	93	0	77	111	1016	27	407	0	46	4503
Background + Project	162	3580	60	128	0	87	121	1302	37	409	0	46	5932

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 8
 Intersection Name: Mathilda Ave & California Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 11/00/15
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	338	2732	139	107	48	63	263	857	87	313	161	122	5230
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		4						6					10
696 N. Mathilda Ave		3						3					6
725 S. Fair Oaks Ave		4						5					9
750 Lakeway Dr													
767 N. Mathilda Ave	12												12
830 E. El Camino Real		4						5					9
861 E. El Camino Real		6						6					12
1050 Kifer Rd													
1081 Innovation Way		47		9				11					67
1111 Lockheed Martin Way	3	22		1				8					34
1152 Bordeaux Dr		46	8					5				1	60
1184 N. Mathilda Ave	8	12						2					22
1212 Bordeaux Dr	5	6		1				3					15
1221 Crossman Ave		10		2				2					14
215 Moffett Park Dr	5	23		3				7					38
221 N. Mathilda Ave	18									6		38	64
280 Santa Ana Ct		3					6						9
495 E. Java Dr & 549 Baltic Way		15						3					18
520 Almanor Ave	34	41						6				1	82
589 W. Java Dr	11	5		2									18
615 N. Mathilda Ave		48	52					1					101
684 W. Maude Ave	104	98						18				4	224
1120 Kifer Rd													
2502 Town Center Ln		147						149		14			310
675 Almanor Avenue	12												12
1111, 1139 Karlstad Dr		-1					3						2
423 E. Maude Ave													
460 Persian Dr							1						1
520-550, 610 Weddell Dr							7						7
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave		17						-56		6			-33
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real		1						1					2
Irvine Company - Pathline Park		162						32					194
<i>Total Approved Trips</i>	212	723	60	18	0	0	17	217	6	58	0	70	1381
Background Conditions	550	3455	199	125	48	63	280	1074	93	371	161	192	6611
Project Trips	6	9	0	0	0	0	0	8	0	0	0	0	23
Existing + Project	344	2741	139	107	48	63	263	865	87	313	161	122	5253
Background + Project	556	3464	199	125	48	63	280	1082	93	371	161	192	6634

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 9
 Intersection Name: San Aleso Ave & Ahwanee Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/16/17
 Scenario: Summit School TIA

Scenario:	Movements												Total	
	North Approach			East Approach			South Approach			West Approach				
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	0	0	0	0	94	30	98	0	8	10	264	0	504	
Approved Project Trips														
1080 Stewart Dr														
1100 N. Mathilda Ave														
1235 Bordeaux Dr														
696 N. Mathilda Ave						9		8					17	
725 S. Fair Oaks Ave														
750 Lakeway Dr														
767 N. Mathilda Ave														
830 E. El Camino Real														
861 E. El Camino Real														
1050 Kifer Rd														
1081 Innovation Way														
1111 Lockheed Martin Way														
1152 Bordeaux Dr														
1184 N. Mathilda Ave														
1212 Bordeaux Dr											1		1	
1221 Crossman Ave											2		2	
215 Moffett Park Dr					2						7		9	
221 N. Mathilda Ave														
280 Santa Ana Ct														
495 E. Java Dr & 549 Baltic Way														
520 Almanor Ave											2		2	
589 W. Java Dr														
615 N. Mathilda Ave														
684 W. Maude Ave														
1120 Kifer Rd														
2502 Town Center Ln														
675 Almanor Avenue														
1111, 1139 Karlstad Dr														
423 E. Maude Ave														
460 Persian Dr														
520-550, 610 Weddell Dr														
625 E. Taylor Ave														
680-698 E. Taylor Ave														
701-755 E. Evelyn Ave														
915 De Guigne Dr														
City Place (Phase 1-3)														
840 E. El Camino Real														
Irvine Company - Pathline Park														
<i>Total Approved Trips</i>	0	0	0	0	2	9	8	0	0	0	12	0	31	
Background Conditions	0	0	0	0	96	39	106	0	8	10	276	0	535	
Project Trips	0	0	0	0	0	0	23	0	40	0	0	0	63	
Existing + Project	0	0	0	0	94	30	121	0	48	10	264	0	567	
Background + Project	0	0	0	0	96	39	129	0	48	10	276	0	598	

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 10
 Intersection Name: Borregas Ave & Ahwanee Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/16/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	0	69	90	59	0	61	175	167	0	621
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave					9						8		17
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr										1			1
1221 Crossman Ave													
215 Moffett Park Dr									2	7			9
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave											2		2
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	0	0	0	9	0	0	0	2	8	10	0	29
Background Conditions	0	0	0	0	78	90	59	0	63	183	177	0	650
Project Trips	0	0	0	0	0	0	0	0	0	4	19	0	23
Existing + Project	0	0	0	0	69	90	59	0	61	179	186	0	644
Background + Project	0	0	0	0	78	90	59	0	63	187	196	0	673

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 11
 Intersection Name: Borregas Ave & Duane Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/16/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	7	198	17	19	7	45	31	135	15	10	9	3	496

Approved Project Trips

1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave													
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave													
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln		11						12					23
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	11	0	0	0	0	0	12	0	0	0	0	23
Background Conditions	7	209	17	19	7	45	31	147	15	10	9	3	519
Project Trips	0	2	2	0	0	0	0	0	0	0	0	0	4
Existing + Project	7	200	19	19	7	45	31	135	15	10	9	3	500
Background + Project	7	211	19	19	7	45	31	147	15	10	9	3	523

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 12
 Intersection Name: Sunnyside Ave/Borre & Maude Ave
 Peak Hour: Commute PM
 Count Date: 05/16/17
 Scenario: Summit School TIA
 Date of Analysis: 01/05/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	130	0	148	0	219	100	138	0	109	0	618	121	1583
Approved Project Trips													
1080 Stewart Dr					8						7		15
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave					9						8		17
725 S. Fair Oaks Ave													
750 Lakeway Dr					6						5		11
767 N. Mathilda Ave					2						2		4
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way											1		1
1152 Bordeaux Dr	2											13	15
1184 N. Mathilda Ave					1						4		5
1212 Bordeaux Dr					1						2		3
1221 Crossman Ave					2	2							4
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct					7						1		8
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave											1		1
589 W. Java Dr													
615 N. Mathilda Ave											4		4
684 W. Maude Ave					2						10		12
1120 Kifer Rd													
2502 Town Center Ln			11		12								23
675 Almanor Avenue					1						4		5
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave											1		1
680-698 E. Taylor Ave					-2						2		
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park					3						15		18
<i>Total Approved Trips</i>	2	0	11	0	52	2	0	0	0	0	67	13	147
Background Conditions	132	0	159	0	271	102	138	0	109	0	685	134	1730
Project Trips	0	0	2	0	15	0	0	0	2	0	0	0	19
Existing + Project	130	0	150	0	234	100	138	0	111	0	618	121	1602
Background + Project	132	0	161	0	286	102	138	0	111	0	685	134	1749

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 13
 Intersection Name: Morse Ave & Ahwanee Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/16/17
 Scenario: Summit School TIA

Scenario:	Movements												Total	
	North Approach			East Approach			South Approach			West Approach				
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	0	0	0	0	141	159	64	0	27	61	168	0	620	
Approved Project Trips														
1080 Stewart Dr														
1100 N. Mathilda Ave														
1235 Bordeaux Dr														
696 N. Mathilda Ave					9						8		17	
725 S. Fair Oaks Ave														
750 Lakeway Dr														
767 N. Mathilda Ave														
830 E. El Camino Real														
861 E. El Camino Real														
1050 Kifer Rd														
1081 Innovation Way														
1111 Lockheed Martin Way														
1152 Bordeaux Dr														
1184 N. Mathilda Ave														
1212 Bordeaux Dr														
1221 Crossman Ave														
215 Moffett Park Dr														
221 N. Mathilda Ave														
280 Santa Ana Ct														
495 E. Java Dr & 549 Baltic Way														
520 Almanor Ave											2		2	
589 W. Java Dr														
615 N. Mathilda Ave														
684 W. Maude Ave														
1120 Kifer Rd														
2502 Town Center Ln														
675 Almanor Avenue														
1111, 1139 Karlstad Dr														
423 E. Maude Ave														
460 Persian Dr														
520-550, 610 Weddell Dr														
625 E. Taylor Ave														
680-698 E. Taylor Ave														
701-755 E. Evelyn Ave														
915 De Guigne Dr														
City Place (Phase 1-3)														
840 E. El Camino Real														
Irvine Company - Pathline Park														
<i>Total Approved Trips</i>	0	0	0	0	9	0	0	0	0	0	10	0	19	
Background Conditions	0	0	0	0	150	159	64	0	27	61	178	0	639	
Project Trips	0	0	0	0	0	0	0	0	0	1	18	0	19	
Existing + Project	0	0	0	0	141	159	64	0	27	62	186	0	639	
Background + Project	0	0	0	0	150	159	64	0	27	62	196	0	658	

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 14
 Intersection Name: Morse Ave & Duane Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/16/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	8	96	45	31	99	34	37	106	1	7	58	10	532

Approved Project Trips

1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way					6						1		7
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave					3						1		4
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct													
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave													
589 W. Java Dr													
615 N. Mathilda Ave													
684 W. Maude Ave													
1120 Kifer Rd													
2502 Town Center Ln		11								12			23
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park													
<i>Total Approved Trips</i>	0	11	0	0	9	0	0	12	0	0	2	0	34
Background Conditions	8	107	45	31	108	34	37	118	1	7	60	10	566
Project Trips	0	1	0	0	0	1	0	0	0	0	2	0	4
Existing + Project	8	97	45	31	99	35	37	106	1	7	60	10	536
Background + Project	8	108	45	31	108	35	37	118	1	7	62	10	570

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 15
 Intersection Name: Morse Ave & Maude Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/16/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	85	11	31	39	241	11	1	11	12	16	502	101	1061
Approved Project Trips													
1080 Stewart Dr					8						7		15
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave					9						8		17
725 S. Fair Oaks Ave													
750 Lakeway Dr					6						5		11
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr													
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave					4						1		5
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct					7						1		8
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave											1		1
589 W. Java Dr													
615 N. Mathilda Ave											4		4
684 W. Maude Ave					2						10		12
1120 Kifer Rd													
2502 Town Center Ln	11											12	23
675 Almanor Avenue													
1111, 1139 Karlstad Dr													
423 E. Maude Ave													
460 Persian Dr													
520-550, 610 Weddell Dr													
625 E. Taylor Ave											1		1
680-698 E. Taylor Ave					-2						2		
701-755 E. Evelyn Ave													
915 De Guigne Dr													
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park					3						15		18
<i>Total Approved Trips</i>	11	0	0	0	37	0	0	0	0	0	55	12	115
Background Conditions	96	11	31	39	278	11	1	11	12	16	557	113	1176
Project Trips	1	0	0	0	14	0	0	0	0	0	0	0	15
Existing + Project	86	11	31	39	255	11	1	11	12	16	502	101	1076
Background + Project	97	11	31	39	292	11	1	11	12	16	557	113	1191

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 16
 Intersection Name: Fair Oaks Ave & Weddell Dr
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	28	1178	26	22	5	31	83	921	275	177	7	18	2771
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		12						11					23
696 N. Mathilda Ave		9						8					17
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way		16						5					21
1152 Bordeaux Dr		20						2					22
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6						1					7
1221 Crossman Ave	1	95	1					17					114
215 Moffett Park Dr		12						3					15
221 N. Mathilda Ave													
280 Santa Ana Ct		1						7					8
495 E. Java Dr & 549 Baltic Way		88						16					104
520 Almanor Ave													
589 W. Java Dr		34						7					41
615 N. Mathilda Ave								3					3
684 W. Maude Ave		1						6					7
1120 Kifer Rd		21						12					33
2502 Town Center Ln		45						49					94
675 Almanor Avenue													
1111, 1139 Karlstad Dr		-30						73					43
423 E. Maude Ave													
460 Persian Dr		-11						16					5
520-550, 610 Weddell Dr	32		18	-1		-2	54	130	-8			-2	221
625 E. Taylor Ave		2						-1					1
680-698 E. Taylor Ave		5						-5					
701-755 E. Evelyn Ave													
915 De Guigne Dr		14						-11					3
City Place (Phase 1-3)	3	30	6	6	6	5	4	23	4	5	4	8	104
840 E. El Camino Real													
Irvine Company - Pathline Park		2						12					14
<i>Total Approved Trips</i>	36	372	25	5	6	3	58	254	134	-3	4	6	900
Background Conditions	64	1550	51	27	11	34	141	1175	409	174	11	24	3671
Project Trips	0	3	0	0	0	0	0	4	1	0	0	0	8
Existing + Project	28	1181	26	22	5	31	83	925	276	177	7	18	2779
Background + Project	64	1553	51	27	11	34	141	1179	410	174	11	24	3679

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 17
 Intersection Name: Fair Oaks Ave & US 101 NB Ramps
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	161	1219	0	299	1	712	0	992	244	0	0	0	3628
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr		12		11									23
696 N. Mathilda Ave		9					8						17
725 S. Fair Oaks Ave					3			4					7
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real						3			3				6
861 E. El Camino Real						4			4				8
1050 Kifer Rd									62				62
1081 Innovation Way									7				7
1111 Lockheed Martin Way		16						5					21
1152 Bordeaux Dr		20						2					22
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6						1					7
1221 Crossman Ave		95		11				5					111
215 Moffett Park Dr		12						3					15
221 N. Mathilda Ave													
280 Santa Ana Ct		1				1		7	27				36
495 E. Java Dr & 549 Baltic Way		88		10				6					104
520 Almanor Ave													
589 W. Java Dr		34		3				3					40
615 N. Mathilda Ave								3					3
684 W. Maude Ave		1						6					7
1120 Kifer Rd		21						12	6				39
2502 Town Center Ln		45			14			49					108
675 Almanor Avenue													
1111, 1139 Karlstad Dr	-11	-19		29				44					43
423 E. Maude Ave													
460 Persian Dr	-4	-7		6				10					5
520-550, 610 Weddell Dr	-4	-6		75				109					174
625 E. Taylor Ave		2				1		-1	-1				1
680-698 E. Taylor Ave		5				3		-5	-4				-1
701-755 E. Evelyn Ave						6							6
915 De Guigne Dr		14						-11	-16				-13
City Place (Phase 1-3)		27		5	9	7		27	5				80
840 E. El Camino Real						1			1				2
Irvine Company - Pathline Park	2	1						12					15
<i>Total Approved Trips</i>	-17	377	0	150	9	43	0	295	98	0	0	0	955
Background Conditions	144	1596	0	449	10	755	0	1287	342	0	0	0	4583
Project Trips	0	3	0	0	0	0	0	5	0	0	0	0	8
Existing + Project	161	1222	0	299	1	712	0	997	244	0	0	0	3636
Background + Project	144	1599	0	449	10	755	0	1292	342	0	0	0	4591

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 18
 Intersection Name: Fair Oaks Ave & Ahwanee Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	244	2359	78	47	26	25	38	862	54	87	44	103	3967
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave	9											8	17
725 S. Fair Oaks Ave		5						8					13
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real		7						7					14
861 E. El Camino Real		8						9					17
1050 Kifer Rd		12						62					74
1081 Innovation Way		33						7					40
1111 Lockheed Martin Way		16						5					21
1152 Bordeaux Dr		20						2					22
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6						1					7
1221 Crossman Ave		29						5					34
215 Moffett Park Dr		12						3					15
221 N. Mathilda Ave								2					2
280 Santa Ana Ct		7						41					48
495 E. Java Dr & 549 Baltic Way		33						6					39
520 Almanor Ave										2			2
589 W. Java Dr		17						3					20
615 N. Mathilda Ave								3					3
684 W. Maude Ave		1						6					7
1120 Kifer Rd		32						18					50
2502 Town Center Ln		59						59					118
675 Almanor Avenue													
1111, 1139 Karlstad Dr		-6						17					11
423 E. Maude Ave													
460 Persian Dr		-2						4					2
520-550, 610 Weddell Dr		-2						41					39
625 E. Taylor Ave		4						-3					1
680-698 E. Taylor Ave		12						-12					
701-755 E. Evelyn Ave		6						-14					-8
915 De Guigne Dr		34						-26					8
City Place (Phase 1-3)	3	20	5	6	8	1	9	6	3	4	8	7	80
840 E. El Camino Real		2						2					4
Irvine Company - Pathline Park		1						3					4
<i>Total Approved Trips</i>	12	366	5	6	8	1	-5	279	3	6	8	15	704
Background Conditions	256	2725	83	53	34	26	33	1141	57	93	52	118	4671
Project Trips	0	3	0	0	0	2	0	0	0	12	2	5	24
Existing + Project	244	2362	78	47	26	27	38	862	54	99	46	108	3991
Background + Project	256	2728	83	53	34	28	33	1141	57	105	54	123	4695

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 19
 Intersection Name: Fair Oaks Ave & Duane Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	111	1884	215	130	117	243	212	726	11	23	94	56	3822
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave		5						8					13
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real		7						7					14
861 E. El Camino Real		8						9					17
1050 Kifer Rd		12						62					74
1081 Innovation Way		33						7					40
1111 Lockheed Martin Way	6	10						4				1	21
1152 Bordeaux Dr		20						2					22
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6						1					7
1221 Crossman Ave	3	25	1					4				1	34
215 Moffett Park Dr													
221 N. Mathilda Ave								2					2
280 Santa Ana Ct		7						41					48
495 E. Java Dr & 549 Baltic Way		33						6					39
520 Almanor Ave		1	1										2
589 W. Java Dr		17						3					20
615 N. Mathilda Ave								3					3
684 W. Maude Ave		1						6					7
1120 Kifer Rd		32						18					50
2502 Town Center Ln		59			23		25	59					166
675 Almanor Avenue													
1111, 1139 Karlstad Dr		-6						17					11
423 E. Maude Ave													
460 Persian Dr		-2						4					2
520-550, 610 Weddell Dr		-2						41					39
625 E. Taylor Ave		4						-3					1
680-698 E. Taylor Ave		12						-12					
701-755 E. Evelyn Ave		6						-14					-8
915 De Guigne Dr		15	19		-17			-9					8
City Place (Phase 1-3)	13	39	8	3	8	4	3	5	9	5	4	1	102
840 E. El Camino Real		2						2					4
Irvine Company - Pathline Park		1						3					4
<i>Total Approved Trips</i>	22	345	29	-14	8	27	28	276	9	5	4	3	742
Background Conditions	133	2229	244	116	125	270	240	1002	20	28	98	59	4564
Project Trips	0	17	0	0	0	2	0	0	0	0	2	0	21
Existing + Project	111	1901	215	130	117	245	212	726	11	23	96	56	3843
Background + Project	133	2246	244	116	125	272	240	1002	20	28	100	59	4585

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 20
 Intersection Name: Fair Oaks Ave & Wolfe Rd
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	1096	1056	0	0	0	0	0	399	0	9	0	615	3175
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave	5											8	13
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real	7											7	14
861 E. El Camino Real	8											9	17
1050 Kifer Rd		12						62					74
1081 Innovation Way		33						7					40
1111 Lockheed Martin Way		10						4					14
1152 Bordeaux Dr	10	10						1				1	22
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6						1					7
1221 Crossman Ave	14	11						2				2	29
215 Moffett Park Dr													
221 N. Mathilda Ave								2					2
280 Santa Ana Ct		7						41					48
495 E. Java Dr & 549 Baltic Way		33						6					39
520 Almanor Ave		1											1
589 W. Java Dr	17											3	20
615 N. Mathilda Ave												3	3
684 W. Maude Ave	1											6	7
1120 Kifer Rd		32						18					50
2502 Town Center Ln	82											84	166
675 Almanor Avenue													
1111, 1139 Karlstad Dr	-4	-2						6				11	11
423 E. Maude Ave													
460 Persian Dr	-1	-1						1				3	2
520-550, 610 Weddell Dr	-1	-1						15				26	39
625 E. Taylor Ave	4											-3	1
680-698 E. Taylor Ave	12											-12	
701-755 E. Evelyn Ave	6											-14	-8
915 De Guigne Dr		15						-9					6
City Place (Phase 1-3)	9	36						5		4		2	56
840 E. El Camino Real	2											2	4
Irvine Company - Pathline Park	1											3	4
<i>Total Approved Trips</i>	172	202	0	0	0	0	0	162	0	4	0	141	681
Background Conditions	1268	1258	0	0	0	0	0	561	0	13	0	756	3856
Project Trips	12	6	0	0	0	0	0	0	0	0	0	0	18
Existing + Project	1108	1062	0	0	0	0	0	399	0	9	0	615	3193
Background + Project	1280	1264	0	0	0	0	0	561	0	13	0	756	3874

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 21
 Intersection Name: Fair Oaks Ave & Maude Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/16/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	87	1041	6	13	94	30	14	500	82	128	173	101	2269
Approved Project Trips													
1080 Stewart Dr					8						7		15
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave		5						8					13
750 Lakeway Dr					6						5		11
767 N. Mathilda Ave													
830 E. El Camino Real		7						7					14
861 E. El Camino Real		8						9					17
1050 Kifer Rd													
1081 Innovation Way													
1111 Lockheed Martin Way													
1152 Bordeaux Dr		10						1					11
1184 N. Mathilda Ave													
1212 Bordeaux Dr													
1221 Crossman Ave	4	11						2				1	18
215 Moffett Park Dr													
221 N. Mathilda Ave													
280 Santa Ana Ct					7						1		8
495 E. Java Dr & 549 Baltic Way													
520 Almanor Ave											1		1
589 W. Java Dr		17						3					20
615 N. Mathilda Ave											1	3	4
684 W. Maude Ave	1				1					6	6		14
1120 Kifer Rd					-6					-4			-10
2502 Town Center Ln		82						84					166
675 Almanor Avenue													
1111, 1139 Karlstad Dr		-4						11					7
423 E. Maude Ave													
460 Persian Dr		-1						3					2
520-550, 610 Weddell Dr		-1						26					25
625 E. Taylor Ave		4						-3		1			2
680-698 E. Taylor Ave		12						-12	-2	2			
701-755 E. Evelyn Ave		6						-14					-8
915 De Guigne Dr					-16						21		5
City Place (Phase 1-3)	1	6	9	8	5		6	6		4	2	9	56
840 E. El Camino Real		2						2					4
Irvine Company - Pathline Park	1				2						12	3	18
<i>Total Approved Trips</i>	7	164	9	8	7	0	6	133	-2	7	52	22	413
Background Conditions	94	1205	15	21	101	30	20	633	80	135	225	123	2682
Project Trips	6	6	0	0	3	0	0	0	5	0	0	0	20
Existing + Project	93	1047	6	13	97	30	14	500	87	128	173	101	2289
Background + Project	100	1211	15	21	104	30	20	633	85	135	225	123	2702

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 22
 Intersection Name: Wolfe Rd & Maude Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 05/25/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	9	988	10	12	2	6	3	331	102	256	1	11	1731
Approved Project Trips													
1080 Stewart Dr									8	7			15
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr									6	5			11
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd		12						62					74
1081 Innovation Way		33						7					40
1111 Lockheed Martin Way		10						4					14
1152 Bordeaux Dr		10						1					11
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6						1					7
1221 Crossman Ave		11						2					13
215 Moffett Park Dr													
221 N. Mathilda Ave								2					2
280 Santa Ana Ct		7						41	7	1			56
495 E. Java Dr & 549 Baltic Way		33						6					39
520 Almanor Ave		1								1			2
589 W. Java Dr													
615 N. Mathilda Ave										1			1
684 W. Maude Ave									1	6			7
1120 Kifer Rd		32						18	-6	-4			40
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr		-2						6					4
423 E. Maude Ave													
460 Persian Dr		-1						1					
520-550, 610 Weddell Dr		-1						15					14
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr		15						-9	-16	21			11
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park									2	12			14
<i>Total Approved Trips</i>	0	166	0	0	0	0	0	157	2	50	0	0	375
Background Conditions	9	1154	10	12	2	6	3	488	104	306	1	11	2106
Project Trips	0	6	0	0	0	0	0	0	3	0	0	0	9
Existing + Project	9	994	10	12	2	6	3	331	105	256	1	11	1740
Background + Project	9	1160	10	12	2	6	3	488	107	306	1	11	2115

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 23
 Intersection Name: Wolfe Rd & Arques Ave
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	62	1059	143	104	341	334	135	388	43	37	194	64	2904
Approved Project Trips													
1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd		14						75					89
1081 Innovation Way		33						7					40
1111 Lockheed Martin Way		10						4					14
1152 Bordeaux Dr		10						1					11
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6						1					7
1221 Crossman Ave		11						2					13
215 Moffett Park Dr													
221 N. Mathilda Ave								2					2
280 Santa Ana Ct		2	6	23	12	38	16	25	64	1	7		194
495 E. Java Dr & 549 Baltic Way		33						6					39
520 Almanor Ave		2											2
589 W. Java Dr													
615 N. Mathilda Ave		1											1
684 W. Maude Ave		6						1					7
1120 Kifer Rd		28						12					40
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr		-2						6					4
423 E. Maude Ave													
460 Persian Dr		-1						1					
520-550, 610 Weddell Dr		-1						15					14
625 E. Taylor Ave					1								1
680-698 E. Taylor Ave					2						-2		
701-755 E. Evelyn Ave													
915 De Guigne Dr		-5				-2	3						-4
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		12						2					14
<i>Total Approved Trips</i>	0	159	6	23	15	36	19	160	64	1	5	0	488
Background Conditions	62	1218	149	127	356	370	154	548	107	38	199	64	3392
Project Trips	0	6	0	0	0	0	0	3	0	0	0	0	9
Existing + Project	62	1065	143	104	341	334	135	391	43	37	194	64	2913
Background + Project	62	1224	149	127	356	370	154	551	107	38	199	64	3401

Summit School TIA Volume Spreadsheet - PM Peak Hour

Traffic Node Number: 24
 Intersection Name: Wolfe Rd & Central Expwy Ramps
 Peak Hour: Commute PM Date of Analysis: 01/05/18
 Count Date: 04/04/17
 Scenario: Summit School TIA

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	77	1385	47	50	0	452	94	502	103	565	1	78	3354

Approved Project Trips

1080 Stewart Dr													
1100 N. Mathilda Ave													
1235 Bordeaux Dr													
696 N. Mathilda Ave													
725 S. Fair Oaks Ave													
750 Lakeway Dr													
767 N. Mathilda Ave													
830 E. El Camino Real													
861 E. El Camino Real													
1050 Kifer Rd		14					75	21		4			114
1081 Innovation Way		33					7						40
1111 Lockheed Martin Way		10					4						14
1152 Bordeaux Dr		10					1						11
1184 N. Mathilda Ave													
1212 Bordeaux Dr		6					1						7
1221 Crossman Ave		11					2						13
215 Moffett Park Dr													
221 N. Mathilda Ave												2	2
280 Santa Ana Ct	15	22	56	6		32	10					6	147
495 E. Java Dr & 549 Baltic Way		33					6						39
520 Almanor Ave		2											2
589 W. Java Dr													
615 N. Mathilda Ave		1											1
684 W. Maude Ave		6					1						7
1120 Kifer Rd		28					12	13		27			80
2502 Town Center Ln													
675 Almanor Avenue													
1111, 1139 Karlstad Dr		-2					6						4
423 E. Maude Ave													
460 Persian Dr		-1					1						
520-550, 610 Weddell Dr		-1					15						14
625 E. Taylor Ave													
680-698 E. Taylor Ave													
701-755 E. Evelyn Ave													
915 De Guigne Dr	-3	-4					5					7	5
City Place (Phase 1-3)													
840 E. El Camino Real													
Irvine Company - Pathline Park		12					2						14
<i>Total Approved Trips</i>	12	180	56	6	0	32	0	148	34	31	0	15	514
Background Conditions	89	1565	103	56	0	484	94	650	137	596	1	93	3868
Project Trips	0	3	3	0	0	0	0	3	3	3	0	0	15
Existing + Project	77	1388	50	50	0	452	94	505	106	568	1	78	3369
Background + Project	89	1568	106	56	0	484	94	653	140	599	1	93	3883

Appendix C
Intersection Level of Service Calculations

HCM Signalized Intersection Capacity Analysis
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp




























12/19/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations				↖	↖	↖	↖	↑↑↑			↑↑↑	↗	
Traffic Volume (vph)	0	0	0	531	36	273	134	2342	0	0	254	99	
Future Volume (vph)	0	0	0	531	36	273	134	2342	0	0	254	99	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3			5.3		
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86			0.86		
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00		
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00		
Frt				1.00	1.00	0.85	1.00	1.00			0.96		
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00		
Satd. Flow (prot)				1681	1696	1583	1770	6408			6138		
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00		
Satd. Flow (perm)				1681	1696	1583	1770	6408			6138		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	531	36	273	134	2342	0	0	254	99	
RTOR Reduction (vph)	0	0	0	0	0	55	0	0	0	0	90	0	
Lane Group Flow (vph)	0	0	0	281	286	218	134	2342	0	0	263	0	
Confl. Peds. (#/hr)									12				
Turn Type				Split	NA	Perm	Prot	NA			NA		
Protected Phases				8	8		5	2			6		
Permitted Phases						8							
Actuated Green, G (s)				25.1	25.1	25.1	68.9	84.7			10.5		
Effective Green, g (s)				25.1	25.1	25.1	68.9	84.7			10.5		
Actuated g/C Ratio				0.21	0.21	0.21	0.57	0.71			0.09		
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3			5.3		
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0		
Lane Grp Cap (vph)				351	354	331	1016	4522			537		
v/s Ratio Prot				0.17	c0.17		0.08	c0.37			0.04		
v/s Ratio Perm						0.14							
v/c Ratio				0.80	0.81	0.66	0.13	0.52			0.49		
Uniform Delay, d1				45.1	45.2	43.5	11.8	8.2			52.2		
Progression Factor				1.00	1.00	1.00	1.17	0.72			1.12		
Incremental Delay, d2				17.3	17.7	9.9	0.1	0.4			0.7		
Delay (s)				62.3	62.9	53.4	13.8	6.2			58.9		
Level of Service				E	E	D	B	A			E		
Approach Delay (s)		0.0			59.6			6.7			58.9		
Approach LOS		A			E			A			E		
Intersection Summary													
HCM 2000 Control Delay			23.8		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.61										
Actuated Cycle Length (s)			120.0		Sum of lost time (s)				15.5				
Intersection Capacity Utilization			97.1%		ICU Level of Service				F				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























12/19/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 						   		 	   		
Traffic Volume (vph)	845	0	72	0	0	0	0	1631	732	45	740	0	
Future Volume (vph)	845	0	72	0	0	0	0	1631	732	45	740	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.96						1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1574						7544	1561	1770	5085		
Flt Permitted	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1574						7544	1561	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	845	0	72	0	0	0	0	1631	732	45	740	0	
RTOR Reduction (vph)	0	65	0	0	0	0	0	0	338	0	0	0	
Lane Group Flow (vph)	617	235	0	0	0	0	0	1631	394	45	740	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	30.3	30.3						64.6	64.6	6.6	77.5		
Effective Green, g (s)	30.3	30.3						64.6	64.6	6.6	77.5		
Actuated g/C Ratio	0.25	0.25						0.54	0.54	0.05	0.65		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	813	397						4061	840	97	3284		
v/s Ratio Prot	c0.19	0.15						0.22		c0.03	0.15		
v/s Ratio Perm									c0.25				
v/c Ratio	0.76	0.59						0.40	0.47	0.46	0.23		
Uniform Delay, d1	41.5	39.4						16.3	17.1	55.0	8.8		
Progression Factor	1.00	1.00						0.34	2.76	0.48	0.25		
Incremental Delay, d2	4.1	2.4						0.3	1.7	3.5	0.0		
Delay (s)	45.6	41.8						5.8	49.0	30.1	2.2		
Level of Service	D	D						A	D	C	A		
Approach Delay (s)		44.3			0.0			19.2			3.8		
Approach LOS		D			A			B			A		
Intersection Summary													
HCM 2000 Control Delay			21.9									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.55										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	18.5
Intersection Capacity Utilization			97.1%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

12/19/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	3	39	185	31	185	115	2152	79	27	689	96
Future Volume (vph)	26	3	39	185	31	185	115	2152	79	27	689	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1557	1761	1863	1583	1770	7496		1770	4992	
Flt Permitted	0.74	1.00	1.00	0.76	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1373	1863	1557	1401	1863	1583	1770	7496		1770	4992	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	3	39	185	31	185	115	2152	79	27	689	96
RTOR Reduction (vph)	0	0	32	0	0	152	0	3	0	0	11	0
Lane Group Flow (vph)	26	3	7	185	31	33	115	2228	0	27	774	0
Confl. Peds. (#/hr)			5	5					5			
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1		6
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	21.7	21.7	21.7	21.7	21.7	21.7	12.7	80.0		5.0	72.3	
Effective Green, g (s)	21.7	21.7	21.7	21.7	21.7	21.7	12.7	80.0		5.0	72.3	
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.67		0.04	0.60	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	248	336	281	253	336	286	187	4997		73	3007	
v/s Ratio Prot		0.00			0.02		c0.06	c0.30		c0.02	0.16	
v/s Ratio Perm	0.02		0.00	c0.13		0.02						
v/c Ratio	0.10	0.01	0.03	0.73	0.09	0.12	0.61	0.45		0.37	0.26	
Uniform Delay, d1	41.0	40.3	40.4	46.4	40.9	41.1	51.3	9.5		56.0	11.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.24	0.42		0.47	0.33	
Incremental Delay, d2	0.2	0.0	0.0	10.4	0.1	0.2	4.8	0.3		3.1	0.0	
Delay (s)	41.2	40.3	40.5	56.8	41.1	41.3	68.5	4.2		29.5	3.8	
Level of Service	D	D	D	E	D	D	E	A		C	A	
Approach Delay (s)		40.8			48.4			7.4			4.6	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.9									B
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			120.0							13.3		
Intersection Capacity Utilization			57.4%									B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp




























04/16/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations				↙	↖	↗	↘	↑↑↑			↑↑↑	↘	
Traffic Volume (vph)	0	0	0	545	36	273	134	2342	0	0	254	99	
Future Volume (vph)	0	0	0	545	36	273	134	2342	0	0	254	99	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3			5.3		
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86			0.86		
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00		
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00		
Frt				1.00	1.00	0.85	1.00	1.00			0.96		
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00		
Satd. Flow (prot)				1681	1695	1583	1770	6408			6138		
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00		
Satd. Flow (perm)				1681	1695	1583	1770	6408			6138		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	545	36	273	134	2342	0	0	254	99	
RTOR Reduction (vph)	0	0	0	0	0	55	0	0	0	0	90	0	
Lane Group Flow (vph)	0	0	0	289	292	218	134	2342	0	0	263	0	
Confl. Peds. (#/hr)									12				
Turn Type				Split	NA	Perm	Prot	NA			NA		
Protected Phases				8	8		5	2			6		
Permitted Phases						8							
Actuated Green, G (s)				25.1	25.1	25.1	68.9	84.7			10.5		
Effective Green, g (s)				25.1	25.1	25.1	68.9	84.7			10.5		
Actuated g/C Ratio				0.21	0.21	0.21	0.57	0.71			0.09		
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3			5.3		
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0		
Lane Grp Cap (vph)				351	354	331	1016	4522			537		
v/s Ratio Prot				0.17	c0.17		0.08	c0.37			0.04		
v/s Ratio Perm						0.14							
v/c Ratio				0.82	0.82	0.66	0.13	0.52			0.49		
Uniform Delay, d1				45.3	45.3	43.5	11.8	8.2			52.2		
Progression Factor				1.00	1.00	1.00	1.17	0.71			1.12		
Incremental Delay, d2				19.2	19.2	9.9	0.1	0.4			0.7		
Delay (s)				64.6	64.6	53.4	13.8	6.2			58.9		
Level of Service				E	E	D	B	A			E		
Approach Delay (s)		0.0			61.0			6.6			58.9		
Approach LOS		A			E			A			E		
Intersection Summary													
HCM 2000 Control Delay			24.3		HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.62										
Actuated Cycle Length (s)			120.0		Sum of lost time (s)				15.5				
Intersection Capacity Utilization			97.9%		ICU Level of Service				F				
Analysis Period (min)			15										
c Critical Lane Group													

























HCM Signalized Intersection Capacity Analysis
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

04/16/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 						   		 	   		
Traffic Volume (vph)	845	0	72	0	0	0	0	1631	744	45	754	0	
Future Volume (vph)	845	0	72	0	0	0	0	1631	744	45	754	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.96						1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1574						7544	1561	1770	5085		
Flt Permitted	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1574						7544	1561	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	845	0	72	0	0	0	0	1631	744	45	754	0	
RTOR Reduction (vph)	0	65	0	0	0	0	0	0	343	0	0	0	
Lane Group Flow (vph)	617	235	0	0	0	0	0	1631	401	45	754	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	30.3	30.3						64.6	64.6	6.6	77.5		
Effective Green, g (s)	30.3	30.3						64.6	64.6	6.6	77.5		
Actuated g/C Ratio	0.25	0.25						0.54	0.54	0.05	0.65		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	813	397						4061	840	97	3284		
v/s Ratio Prot	c0.19	0.15						0.22		c0.03	0.15		
v/s Ratio Perm									c0.26				
v/c Ratio	0.76	0.59						0.40	0.48	0.46	0.23		
Uniform Delay, d1	41.5	39.4						16.3	17.2	55.0	8.8		
Progression Factor	1.00	1.00						0.32	2.87	0.48	0.24		
Incremental Delay, d2	4.1	2.4						0.3	1.8	3.5	0.0		
Delay (s)	45.6	41.8						5.6	51.1	30.1	2.1		
Level of Service	D	D						A	D	C	A		
Approach Delay (s)		44.3			0.0			19.8			3.7		
Approach LOS		D			A			B			A		
Intersection Summary													
HCM 2000 Control Delay			22.2									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.56										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	18.5
Intersection Capacity Utilization			97.9%									ICU Level of Service	F
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 3: Mathilda Ave & Ross Dr

04/16/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	3	39	193	31	185	115	2164	83	27	703	96
Future Volume (vph)	26	3	39	193	31	185	115	2164	83	27	703	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1557	1761	1863	1583	1770	7494		1770	4994	
Flt Permitted	0.74	1.00	1.00	0.76	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1373	1863	1557	1401	1863	1583	1770	7494		1770	4994	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	3	39	193	31	185	115	2164	83	27	703	96
RTOR Reduction (vph)	0	0	32	0	0	150	0	3	0	0	11	0
Lane Group Flow (vph)	26	3	7	193	31	35	115	2244	0	27	788	0
Confl. Peds. (#/hr)			5	5					5			
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1		6
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	22.4	22.4	22.4	22.4	22.4	22.4	12.7	79.3		5.0	71.6	
Effective Green, g (s)	22.4	22.4	22.4	22.4	22.4	22.4	12.7	79.3		5.0	71.6	
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.11	0.66		0.04	0.60	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	256	347	290	261	347	295	187	4952		73	2979	
v/s Ratio Prot		0.00			0.02		c0.06	c0.30		c0.02	0.16	
v/s Ratio Perm	0.02		0.00	c0.14		0.02						
v/c Ratio	0.10	0.01	0.03	0.74	0.09	0.12	0.61	0.45		0.37	0.26	
Uniform Delay, d1	40.5	39.8	39.9	46.0	40.4	40.6	51.3	9.9		56.0	11.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.22	0.43		0.47	0.33	
Incremental Delay, d2	0.2	0.0	0.0	10.5	0.1	0.2	4.8	0.3		3.1	0.0	
Delay (s)	40.6	39.8	39.9	56.5	40.5	40.8	67.4	4.5		29.3	3.8	
Level of Service	D	D	D	E	D	D	E	A		C	A	
Approach Delay (s)		40.2			48.2			7.5			4.7	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			12.0				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			13.3		
Intersection Capacity Utilization			58.0%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp




























12/19/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations				↙	↖	↗	↘	↑↑↑			↑↑↑	↘	
Traffic Volume (vph)	0	0	0	765	36	568	144	4192	0	0	483	201	
Future Volume (vph)	0	0	0	765	36	568	144	4192	0	0	483	201	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3				5.3	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86				0.86	
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00				1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00				1.00	
Frt				1.00	1.00	0.85	1.00	1.00				0.96	
Flt Protected				0.95	0.96	1.00	0.95	1.00				1.00	
Satd. Flow (prot)				1681	1693	1583	1770	6408				6125	
Flt Permitted				0.95	0.96	1.00	0.95	1.00				1.00	
Satd. Flow (perm)				1681	1693	1583	1770	6408				6125	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	765	36	568	144	4192	0	0	483	201	
RTOR Reduction (vph)	0	0	0	0	0	55	0	0	0	0	106	0	
Lane Group Flow (vph)	0	0	0	398	403	513	144	4192	0	0	578	0	
Confl. Peds. (#/hr)									12				
Turn Type				Split	NA	Perm	Prot	NA				NA	
Protected Phases				8	8		5	2				6	
Permitted Phases						8							
Actuated Green, G (s)				25.1	25.1	25.1	61.5	84.7				17.9	
Effective Green, g (s)				25.1	25.1	25.1	61.5	84.7				17.9	
Actuated g/C Ratio				0.21	0.21	0.21	0.51	0.71				0.15	
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3				5.3	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				3.0	
Lane Grp Cap (vph)				351	354	331	907	4522				913	
v/s Ratio Prot				0.24	0.24		0.08	c0.65				0.09	
v/s Ratio Perm						c0.32							
v/c Ratio				1.13	1.14	1.55	0.16	0.93				0.63	
Uniform Delay, d1				47.5	47.5	47.5	15.5	15.0				48.0	
Progression Factor				1.00	1.00	1.00	1.67	1.00				0.93	
Incremental Delay, d2				89.5	90.9	262.5	0.1	1.9				1.4	
Delay (s)				136.9	138.4	309.9	25.9	16.9				46.1	
Level of Service				F	F	F	C	B				D	
Approach Delay (s)		0.0			209.1			17.2				46.1	
Approach LOS		A			F			B				D	
Intersection Summary													
HCM 2000 Control Delay			61.4		HCM 2000 Level of Service						E		
HCM 2000 Volume to Capacity ratio			1.12										
Actuated Cycle Length (s)			120.0		Sum of lost time (s)					15.5			
Intersection Capacity Utilization			139.7%		ICU Level of Service					H			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























12/19/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 						   		 	   		
Traffic Volume (vph)	1719	0	86	0	0	0	0	2617	778	104	1145	0	
Future Volume (vph)	1719	0	86	0	0	0	0	2617	778	104	1145	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.98						1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1591						7544	1560	1770	5085		
Flt Permitted	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1591						7544	1560	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1719	0	86	0	0	0	0	2617	778	104	1145	0	
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	397	0	0	0	
Lane Group Flow (vph)	1203	543	0	0	0	0	0	2617	381	104	1145	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	39.1	39.1						53.7	53.7	8.7	68.7		
Effective Green, g (s)	39.1	39.1						53.7	53.7	8.7	68.7		
Actuated g/C Ratio	0.33	0.33						0.45	0.45	0.07	0.57		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	1049	518						3375	698	128	2911		
v/s Ratio Prot	c0.37	0.34						c0.35		c0.06	0.23		
v/s Ratio Perm									0.24				
v/c Ratio	1.15	1.05						0.78	0.55	0.81	0.39		
Uniform Delay, d1	40.5	40.5						28.0	24.2	54.8	14.2		
Progression Factor	1.00	1.00						0.56	2.89	0.55	0.24		
Incremental Delay, d2	77.5	53.0						1.4	2.4	30.7	0.0		
Delay (s)	117.9	93.4						17.1	72.4	60.7	3.4		
Level of Service	F	F						B	E	E	A		
Approach Delay (s)		109.8			0.0			29.8			8.2		
Approach LOS		F			A			C			A		
Intersection Summary													
HCM 2000 Control Delay			48.0									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.92										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	18.5
Intersection Capacity Utilization			139.7%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

12/19/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	3	39	197	31	205	115	3164	90	28	1107	96
Future Volume (vph)	26	3	39	197	31	205	115	3164	90	28	1107	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1557	1761	1863	1583	1770	7506		1770	5024	
Flt Permitted	0.74	1.00	1.00	0.76	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1373	1863	1557	1401	1863	1583	1770	7506		1770	5024	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	3	39	197	31	205	115	3164	90	28	1107	96
RTOR Reduction (vph)	0	0	32	0	0	166	0	2	0	0	6	0
Lane Group Flow (vph)	26	3	7	197	31	39	115	3252	0	28	1197	0
Confl. Peds. (#/hr)			5	5					5			
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	22.7	22.7	22.7	22.7	22.7	22.7	12.7	78.9		5.1	71.3	
Effective Green, g (s)	22.7	22.7	22.7	22.7	22.7	22.7	12.7	78.9		5.1	71.3	
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.11	0.66		0.04	0.59	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	259	352	294	265	352	299	187	4935		75	2985	
v/s Ratio Prot		0.00			0.02		0.06	c0.43		0.02	c0.24	
v/s Ratio Perm	0.02		0.00	c0.14		0.02						
v/c Ratio	0.10	0.01	0.03	0.74	0.09	0.13	0.61	0.66		0.37	0.40	
Uniform Delay, d1	40.2	39.5	39.6	45.9	40.1	40.4	51.3	12.4		55.9	13.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.17	0.47		0.47	0.43	
Incremental Delay, d2	0.2	0.0	0.0	10.7	0.1	0.2	5.6	0.7		2.8	0.1	
Delay (s)	40.4	39.5	39.7	56.6	40.2	40.6	65.4	6.5		29.0	5.6	
Level of Service	D	D	D	E	D	D	E	A		C	A	
Approach Delay (s)		39.9			47.9			8.6			6.2	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.7				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			13.3		
Intersection Capacity Utilization			69.9%				ICU Level of Service			C		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

04/16/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations				↙	↖	↗	↘	↑↑↑			↑↑↑	↘		
Traffic Volume (vph)	0	0	0	779	36	568	144	4192	0	0	483	201		
Future Volume (vph)	0	0	0	779	36	568	144	4192	0	0	483	201		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3			5.3			
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86			0.86			
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00			
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00			
Frt				1.00	1.00	0.85	1.00	1.00			0.96			
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00			
Satd. Flow (prot)				1681	1692	1583	1770	6408			6125			
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00			
Satd. Flow (perm)				1681	1692	1583	1770	6408			6125			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	0	0	779	36	568	144	4192	0	0	483	201		
RTOR Reduction (vph)	0	0	0	0	0	55	0	0	0	0	106	0		
Lane Group Flow (vph)	0	0	0	405	410	513	144	4192	0	0	578	0		
Confl. Peds. (#/hr)									12					
Turn Type				Split	NA	Perm	Prot	NA			NA			
Protected Phases				8	8		5	2			6			
Permitted Phases						8								
Actuated Green, G (s)				25.1	25.1	25.1	61.5	84.7			17.9			
Effective Green, g (s)				25.1	25.1	25.1	61.5	84.7			17.9			
Actuated g/C Ratio				0.21	0.21	0.21	0.51	0.71			0.15			
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3			5.3			
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0			
Lane Grp Cap (vph)				351	353	331	907	4522			913			
v/s Ratio Prot				0.24	0.24		0.08	c0.65			0.09			
v/s Ratio Perm						c0.32								
v/c Ratio				1.15	1.16	1.55	0.16	0.93			0.63			
Uniform Delay, d1				47.5	47.5	47.5	15.5	15.0			48.0			
Progression Factor				1.00	1.00	1.00	1.67	1.00			0.93			
Incremental Delay, d2				96.8	99.5	262.5	0.1	1.9			1.4			
Delay (s)				144.2	146.9	309.9	25.9	16.9			46.1			
Level of Service				F	F	F	C	B			D			
Approach Delay (s)		0.0			213.1			17.2			46.1			
Approach LOS		A			F			B			D			
Intersection Summary														
HCM 2000 Control Delay			62.6									HCM 2000 Level of Service	E	
HCM 2000 Volume to Capacity ratio			1.12											
Actuated Cycle Length (s)			120.0								15.5			
Intersection Capacity Utilization			140.4%										ICU Level of Service	H
Analysis Period (min)			15											
c Critical Lane Group														

HCM Signalized Intersection Capacity Analysis
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

04/16/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	1719	0	86	0	0	0	0	2617	790	104	1159	0	
Future Volume (vph)	1719	0	86	0	0	0	0	2617	790	104	1159	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.98						1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1591						7544	1560	1770	5085		
Flt Permitted	0.95	0.96						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1591						7544	1560	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1719	0	86	0	0	0	0	2617	790	104	1159	0	
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	403	0	0	0	
Lane Group Flow (vph)	1203	543	0	0	0	0	0	2617	387	104	1159	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	39.1	39.1						53.7	53.7	8.7	68.7		
Effective Green, g (s)	39.1	39.1						53.7	53.7	8.7	68.7		
Actuated g/C Ratio	0.33	0.33						0.45	0.45	0.07	0.57		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	1049	518						3375	698	128	2911		
v/s Ratio Prot	c0.37	0.34						c0.35		c0.06	0.23		
v/s Ratio Perm									0.25				
v/c Ratio	1.15	1.05						0.78	0.55	0.81	0.40		
Uniform Delay, d1	40.5	40.5						28.0	24.4	54.8	14.2		
Progression Factor	1.00	1.00						0.55	3.07	0.55	0.23		
Incremental Delay, d2	77.5	53.0						1.4	2.4	30.7	0.0		
Delay (s)	117.9	93.4						16.7	77.1	60.7	3.3		
Level of Service	F	F						B	E	E	A		
Approach Delay (s)		109.8			0.0			30.7			8.1		
Approach LOS		F			A			C			A		
Intersection Summary													
HCM 2000 Control Delay			48.3		HCM 2000 Level of Service						D		
HCM 2000 Volume to Capacity ratio			0.92										
Actuated Cycle Length (s)			120.0		Sum of lost time (s)						18.5		
Intersection Capacity Utilization			140.4%		ICU Level of Service						H		
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

04/16/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	3	39	205	31	205	115	3176	94	28	1121	96
Future Volume (vph)	26	3	39	205	31	205	115	3176	94	28	1121	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1557	1761	1863	1583	1770	7505		1770	5025	
Flt Permitted	0.74	1.00	1.00	0.76	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1373	1863	1557	1401	1863	1583	1770	7505		1770	5025	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	26	3	39	205	31	205	115	3176	94	28	1121	96
RTOR Reduction (vph)	0	0	31	0	0	165	0	2	0	0	6	0
Lane Group Flow (vph)	26	3	8	205	31	40	115	3268	0	28	1211	0
Confl. Peds. (#/hr)			5	5					5			
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	23.5	23.5	23.5	23.5	23.5	23.5	12.7	78.1		5.1	70.5	
Effective Green, g (s)	23.5	23.5	23.5	23.5	23.5	23.5	12.7	78.1		5.1	70.5	
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.11	0.65		0.04	0.59	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	268	364	304	274	364	310	187	4884		75	2952	
v/s Ratio Prot		0.00			0.02		0.06	c0.44		0.02	c0.24	
v/s Ratio Perm	0.02		0.00	c0.15		0.03						
v/c Ratio	0.10	0.01	0.03	0.75	0.09	0.13	0.61	0.67		0.37	0.41	
Uniform Delay, d1	39.6	38.9	39.0	45.5	39.5	39.8	51.3	13.0		55.9	13.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.15	0.48		0.46	0.43	
Incremental Delay, d2	0.2	0.0	0.0	10.6	0.1	0.2	5.6	0.7		2.8	0.1	
Delay (s)	39.7	38.9	39.0	56.1	39.6	40.0	64.8	7.0		28.7	5.8	
Level of Service	D	D	D	E	D	D	E	A		C	A	
Approach Delay (s)		39.3			47.5			8.9			6.3	
Approach LOS		D			D			A			A	

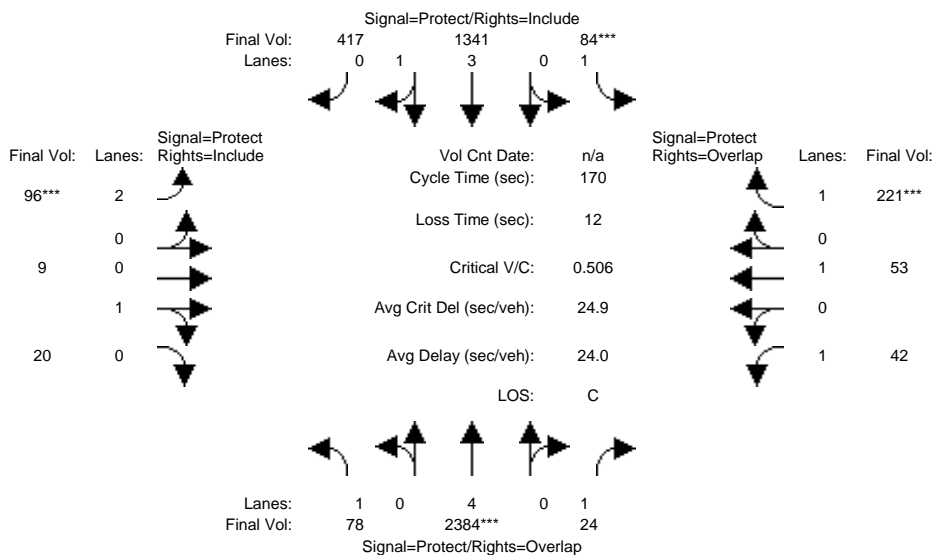
Intersection Summary		
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.68	B
Actuated Cycle Length (s)	120.0	Sum of lost time (s)
Intersection Capacity Utilization	70.5%	13.3
Analysis Period (min)	15	ICU Level of Service
		C
c Critical Lane Group		

Summary Scenario Comparison Report (With Average Critical Delay)
Future Volume Alternative

Intersection	Existing AM				Existing+P AM				Bkgd AM					Bkgd+P AM				
	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)	LOS	Avg Del (sec)	Crit V/C	Crit Change	Avg Crit Del (sec)	Avg Crit Del Change	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)
#4 Mathilda Ave & Almanor Ave	C	24.0	0.506	24.9	C	29.4	0.559	30.4	C	26.6	0.814	+ 0.255	37.5	+ 7.2	C	31.9	0.867	44.0
#5 Mathilda Ave & San Aleso Ave	A	9.6	0.515	9.2	B	14.2	0.579	17.0	B	14.0	0.709	+ 0.130	16.9	- 0.2	B-	18.6	0.772	24.8
#6 Mathilda Ave & Maude Ave	D	41.6	0.673	38.9	D	43.2	0.717	41.1	D	50.1	0.880	+ 0.163	70.3	+ 29.1	D-	54.0	0.910	74.4
#7 Mathilda Ave & Indio Ave	C	29.6	0.636	28.3	C	31.2	0.669	30.4	D	41.6	0.928	+ 0.259	45.6	+ 15.1	D	45.6	0.960	51.3
#8 Mathilda Ave & California Ave	C	25.4	0.542	19.0	C	25.2	0.549	18.8	C	30.4	0.765	+ 0.215	26.9	+ 8.1	C	30.3	0.773	27.0
#9 San Aleso Ave & Ahwanee Ave	A	2.0	0.047	2.0	B	6.4	0.291	6.4	A	2.3	0.058	- 0.232	2.3	- 4.1	B	6.7	0.306	6.7
#10 Borregas Ave & Ahwanee Ave	A	9.0	0.291	9.0	A	9.4	0.306	9.4	A	9.2	0.301	- 0.005	9.2	- 0.2	A	9.6	0.317	9.6
#11 Borregas Ave & Duane Ave	B	4.1	0.158	4.1	B	4.2	0.166	4.2	B	4.1	0.159	- 0.006	4.1	- 0.1	B	4.2	0.167	4.2
#12 Borregas Ave/Sunnyvale Ave & Maude Ave	D	41.1	0.474	41.9	D	40.8	0.524	41.4	D	40.7	0.530	+ 0.006	41.5	+ 0.1	D	40.7	0.580	41.5
#13 Morse Ave & Ahwanee Ave	C	9.0	0.314	9.0	C	9.4	0.352	9.4	C	9.0	0.325	- 0.027	9.0	- 0.4	C	9.5	0.366	9.5
#14 Morse Ave & Duane Ave	B	10.4	0.432	10.4	B	10.5	0.439	10.5	B	10.5	0.441	+ 0.002	10.5	+ 0.0	B	10.7	0.448	10.7
#15 Morse Ave & Maude Ave	B	4.2	0.203	4.2	C	4.3	0.232	4.3	C	4.2	0.226	- 0.006	4.2	- 0.1	C	4.3	0.258	4.3
#16 Fair Oaks Ave & Weddell Ave	B	17.2	0.381	20.9	B	17.2	0.387	20.9	C+	20.4	0.539	+ 0.152	20.9	+ 0.0	C+	20.3	0.542	21.0
#17 Fair Oaks Ave & US 101 NB	C	23.4	0.765	33.7	C	23.3	0.765	33.7	D+	37.8	1.016	+ 0.251	71.4	+ 37.7	D+	37.7	1.016	71.4
#18 Fair Oaks Ave & Ahwanee Ave	C+	22.3	0.543	20.1	C	23.3	0.557	21.3	C+	21.7	0.640	+ 0.082	20.4	- 0.9	C+	22.8	0.655	21.8
#19 Fair Oaks Ave & Duane Ave	C-	34.6	0.627	34.7	C-	34.7	0.636	35.5	C-	33.6	0.714	+ 0.078	34.0	- 1.5	C-	33.9	0.723	34.9
#20 Fair Oaks Ave & Wolfe Rd	B	16.0	0.364	20.3	B	15.8	0.364	20.3	B	17.3	0.445	+ 0.081	22.3	+ 2.0	B	17.1	0.445	22.3
#21 Fair Oaks Ave & Maude Ave	C	27.1	0.392	31.6	C	27.6	0.425	32.2	C-	32.6	0.488	+ 0.062	35.3	+ 3.1	C-	33.1	0.530	36.2
#22 Wolfe Rd & Maude Ave	C	2.6	0.135	2.6	C	2.7	0.149	2.7	E	2.8	0.200	+ 0.051	2.8	+ 0.1	E	2.9	0.217	2.9
#23 Wolfe Rd & Arques Ave	D	40.5	0.430	36.8	D	40.3	0.430	36.7	D	41.7	0.470	+ 0.041	39.6	+ 2.9	D	41.8	0.461	39.8
#24 Wolfe Rd & Central Expwy Ramps	D+	37.9	0.485	38.3	D+	36.7	0.556	55.0	D	39.6	0.636	+ 0.080	61.4	+ 6.4	D	40.4	0.654	62.4

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	78	2384	24	84	1341	417	96	9	20	42	53	221
Growth 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
Initial Bse:	78	2384	24	84	1341	417	96	9	20	42	53	221
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	2384	24	84	1341	417	96	9	20	42	53	221
User 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
PHF 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
PHF Volume:	78	2384	24	84	1341	417	96	9	20	42	53	221
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	2384	24	84	1341	417	96	9	20	42	53	221
PCE 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
MLF 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
Final Volume:	78	2384	24	84	1341	417	96	9	20	42	53	221

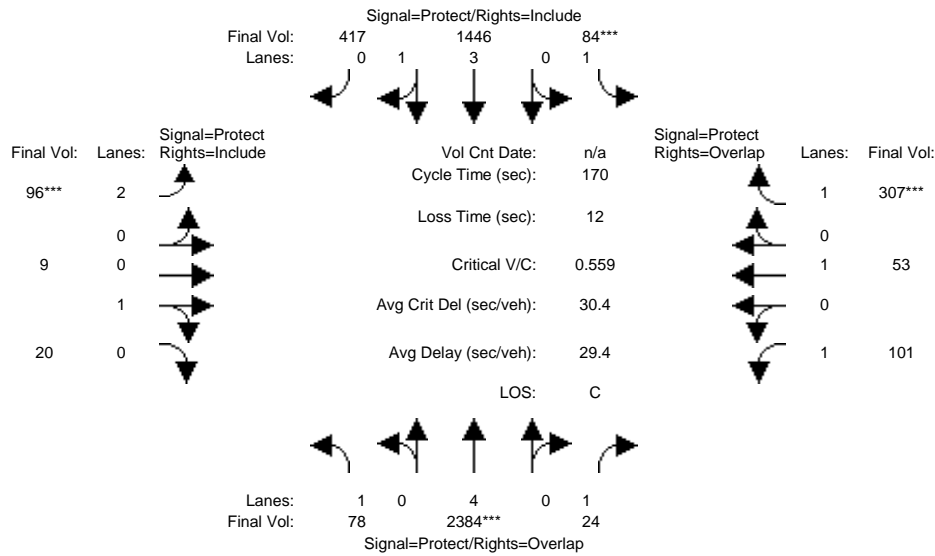
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.01	0.99	2.00	0.31	0.69	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	5718	1778	3150	559	1241	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.31	0.01	0.05	0.23	0.23	0.03	0.02	0.02	0.02	0.03	0.13
Crit Moves:	****			****			****			****		
Green Time:	19.4	105	120.4	16.1	102	102.1	10.2	21.5	21.5	15.0	26.3	42.4
Volume/Cap:	0.39	0.51	0.02	0.51	0.39	0.39	0.51	0.13	0.13	0.27	0.18	0.51
Uniform Del:	69.8	17.9	7.3	73.2	17.7	17.7	77.4	65.9	65.9	72.4	62.5	54.8
IncrcmntDel:	1.3	0.1	0.0	2.5	0.1	0.1	2.2	0.3	0.3	0.9	0.3	1.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	71.1	18.0	7.3	75.7	17.8	17.8	79.6	66.2	66.2	73.3	62.8	55.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.1	18.0	7.3	75.7	17.8	17.8	79.6	66.2	66.2	73.3	62.8	55.8
LOS by Move:	E	B-	A	E-	B	B	E-	E	E	E	E	E+
HCM2kAvgQ:	4	17	0	5	12	12	4	1	1	2	2	11

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	78	2384	24	84	1341	417	96	9	20	42	53	221
Growth 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
Initial Bse:	78	2384	24	84	1341	417	96	9	20	42	53	221
Added Vol:	0	0	0	0	105	0	0	0	0	59	0	86
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	2384	24	84	1446	417	96	9	20	101	53	307
User 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
PHF 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
PHF Volume:	78	2384	24	84	1446	417	96	9	20	101	53	307
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	2384	24	84	1446	417	96	9	20	101	53	307
PCE 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
MLF 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
Final Volume:	78	2384	24	84	1446	417	96	9	20	101	53	307

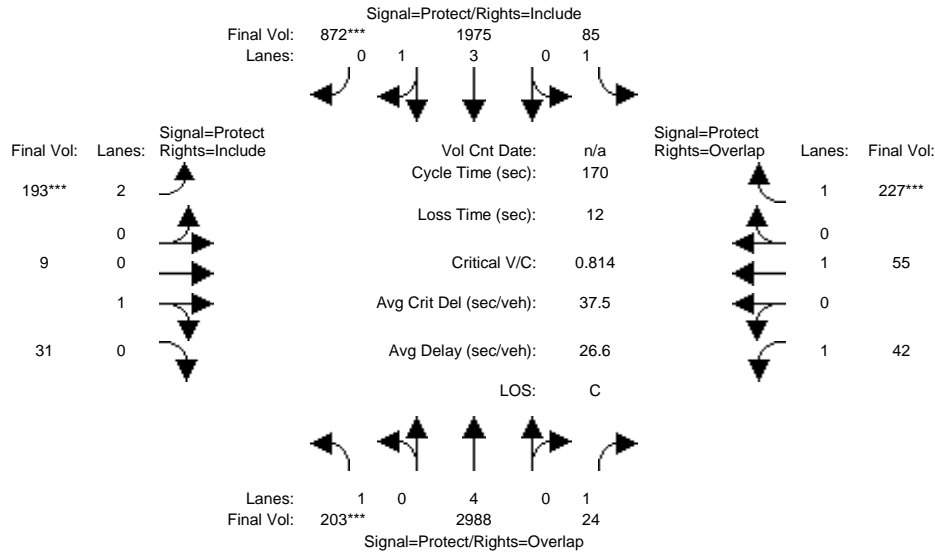
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.07	0.93	2.00	0.31	0.69	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	5818	1678	3150	559	1241	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.31	0.01	0.05	0.25	0.25	0.03	0.02	0.02	0.06	0.03	0.18
Crit Moves:	****			****			****			****		
Green Time:	16.7	95.4	119.2	14.6	93.3	93.3	9.3	24.2	24.2	23.8	38.7	53.3
Volume/Cap:	0.45	0.56	0.02	0.56	0.45	0.45	0.56	0.11	0.11	0.41	0.12	0.56
Uniform Del:	72.3	23.9	7.7	74.6	23.1	23.1	78.4	63.5	63.5	66.7	52.1	48.5
IncrcmntDel:	1.9	0.2	0.0	4.7	0.1	0.1	4.1	0.2	0.2	1.1	0.1	1.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	74.2	24.0	7.7	79.3	23.1	23.1	82.5	63.7	63.7	67.9	52.2	49.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	74.2	24.0	7.7	79.3	23.1	23.1	82.5	63.7	63.7	67.9	52.2	49.8
LOS by Move:	E	C	A	E-	C	C	F	E	E	E	D-	D
HCM2kAvgQ:	4	19	0	5	14	14	4	1	1	5	2	14

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd AM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	203	2988	24	85	1975	872	193	9	31	42	55	227
Growth 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
Initial Bse:	203	2988	24	85	1975	872	193	9	31	42	55	227
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	203	2988	24	85	1975	872	193	9	31	42	55	227
User 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
PHF 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
PHF Volume:	203	2988	24	85	1975	872	193	9	31	42	55	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	2988	24	85	1975	872	193	9	31	42	55	227
PCE 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
MLF 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
Final Volume:	203	2988	24	85	1975	872	193	9	31	42	55	227

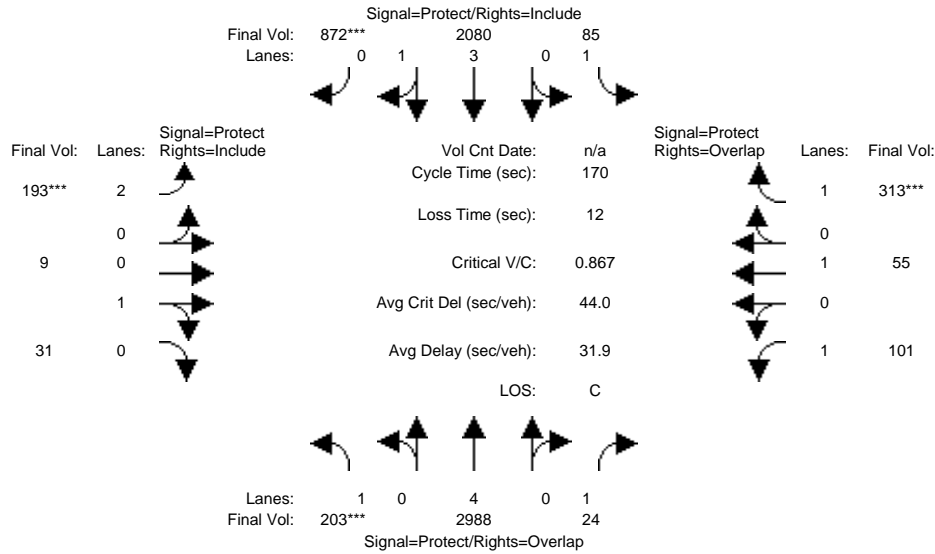
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.00	1.00	2.00	0.23	0.77	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	5700	1750	3150	405	1395	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.12	0.39	0.01	0.05	0.35	0.50	0.06	0.02	0.02	0.02	0.03	0.13
Crit Moves:	***					***	***					***
Green Time:	24.2	114	126.4	14.1	104	104.0	12.8	17.5	17.5	12.2	16.9	31.0
Volume/Cap:	0.81	0.59	0.02	0.59	0.57	0.81	0.81	0.22	0.22	0.33	0.29	0.71
Uniform Del:	70.7	15.1	5.7	75.1	19.6	25.5	77.4	70.0	70.0	75.0	71.0	65.3
IncrcmntDel:	18.2	0.2	0.0	6.1	0.2	1.6	19.0	0.6	0.6	1.6	0.9	7.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	89.0	15.3	5.7	81.2	19.7	27.1	96.5	70.6	70.6	76.6	71.8	72.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	89.0	15.3	5.7	81.2	19.7	27.1	96.5	70.6	70.6	76.6	71.8	72.5
LOS by Move:	F	B	A	F	B-	C	F	E	E	E-	E	E
HCM2kAvgQ:	11	20	0	5	20	38	8	2	2	3	3	13

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P AM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	203	2988	24	85	1975	872	193	9	31	42	55	227
Growth 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
Initial Bse:	203	2988	24	85	1975	872	193	9	31	42	55	227
Added Vol:	0	0	0	0	105	0	0	0	0	59	0	86
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	203	2988	24	85	2080	872	193	9	31	101	55	313
User 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
PHF 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
PHF Volume:	203	2988	24	85	2080	872	193	9	31	101	55	313
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	203	2988	24	85	2080	872	193	9	31	101	55	313
PCE 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
MLF 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
Final Volume:	203	2988	24	85	2080	872	193	9	31	101	55	313

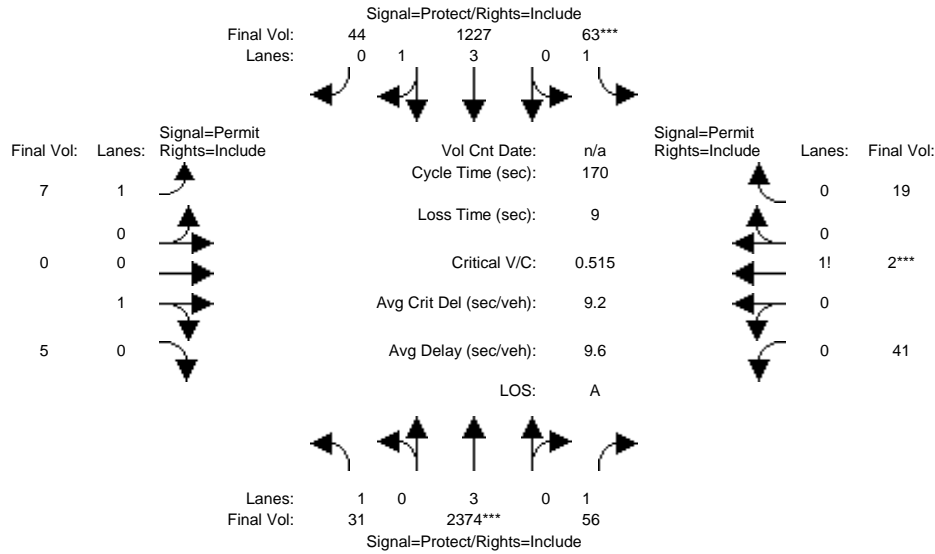
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.00	1.00	2.00	0.23	0.77	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	5700	1750	3150	405	1395	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.12	0.39	0.01	0.05	0.36	0.50	0.06	0.02	0.02	0.06	0.03	0.18
Crit Moves:	***					****	****					****
Green Time:	22.7	107	125.8	13.2	97.7	97.7	12.0	19.0	19.0	18.6	25.5	38.8
Volume/Cap:	0.87	0.62	0.02	0.62	0.63	0.87	0.87	0.20	0.20	0.53	0.19	0.78
Uniform Del:	72.1	19.1	5.8	76.0	24.2	30.6	78.2	68.6	68.6	71.5	63.2	61.7
IncrcmntDel:	27.2	0.3	0.0	8.7	0.3	2.6	28.2	0.5	0.5	2.7	0.3	9.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	99.3	19.4	5.8	84.6	24.5	33.2	106.4	69.1	69.1	74.3	63.5	71.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	99.3	19.4	5.8	84.6	24.5	33.2	106.4	69.1	69.1	74.3	63.5	71.4
LOS by Move:	F	B-	A	F	C	C-	F	E	E	E	E	E
HCM2kAvgQ:	11	22	0	6	24	43	8	2	2	6	3	18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	31	2374	56	63	1227	44	7	0	5	41	2	19
Growth 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
Initial Bse:	31	2374	56	63	1227	44	7	0	5	41	2	19
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	2374	56	63	1227	44	7	0	5	41	2	19
User 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
PHF 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
PHF Volume:	31	2374	56	63	1227	44	7	0	5	41	2	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	2374	56	63	1227	44	7	0	5	41	2	19
PCE 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
MLF 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
Final Volume:	31	2374	56	63	1227	44	7	0	5	41	2	19

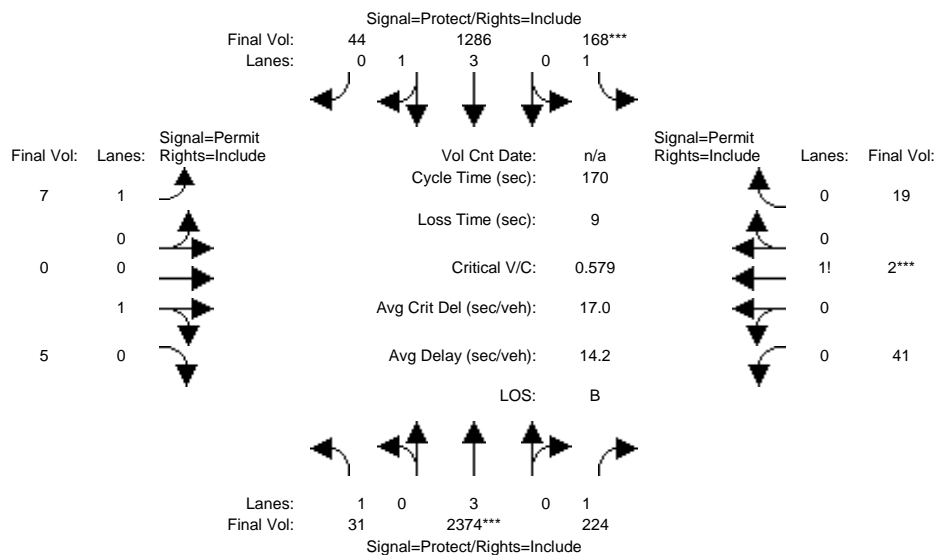
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.86	0.14	1.00	0.00	1.00	0.66	0.03	0.31
Final Sat.:	1750	5700	1750	1750	7240	260	1750	0	1800	1157	56	536

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.42	0.03	0.04	0.17	0.17	0.00	0.00	0.00	0.04	0.04	0.04
Crit Moves:	****			****						****		
Green Time:	29.2	137	137.4	11.9	120	120.1	11.7	0.0	11.7	11.7	11.7	11.7
Volume/Cap:	0.10	0.52	0.04	0.52	0.24	0.24	0.06	0.00	0.04	0.52	0.52	0.52
Uniform Del:	59.4	5.3	3.2	76.3	8.8	8.8	74.0	0.0	73.9	76.4	76.4	76.4
IncrcmntDel:	0.2	0.1	0.0	3.8	0.0	0.0	0.2	0.0	0.1	3.8	3.8	3.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	59.5	5.4	3.2	80.0	8.8	8.8	74.2	0.0	74.1	80.2	80.2	80.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.5	5.4	3.2	80.0	8.8	8.8	74.2	0.0	74.1	80.2	80.2	80.2
LOS by Move:	E+	A	A	F	A	A	E	A	E	F	F	F
HCM2kAvgQ:	1	13	1	3	6	6	0	0	0	4	4	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	31	2374	56	63	1227	44	7	0	5	41	2	19
Growth 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
Initial Bse:	31	2374	56	63	1227	44	7	0	5	41	2	19
Added Vol:	0	0	168	105	59	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	2374	224	168	1286	44	7	0	5	41	2	19
User 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
PHF 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
PHF Volume:	31	2374	224	168	1286	44	7	0	5	41	2	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	2374	224	168	1286	44	7	0	5	41	2	19
PCE 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
MLF 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
Final Volume:	31	2374	224	168	1286	44	7	0	5	41	2	19

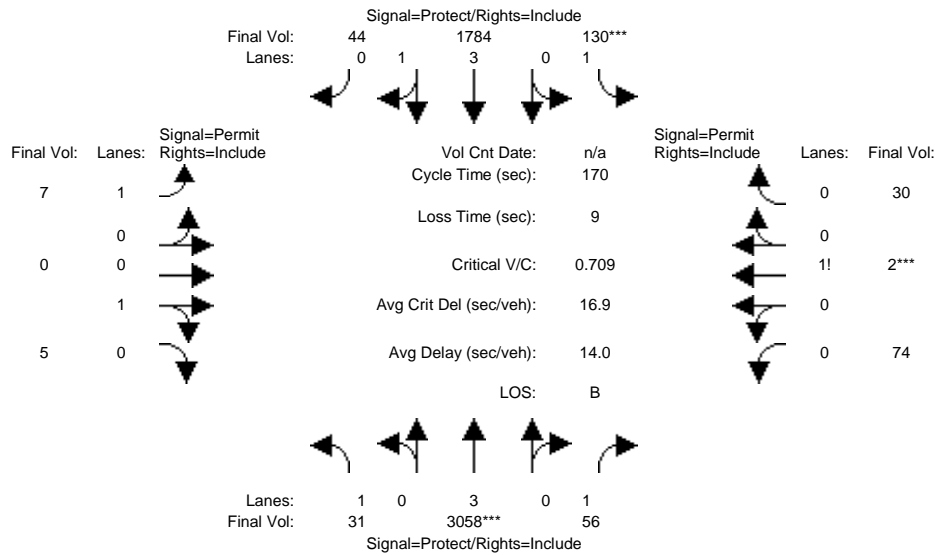
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.86	0.14	1.00	0.00	1.00	0.66	0.03	0.31
Final Sat.:	1750	5700	1750	1750	7251	248	1750	0	1800	1157	56	536

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.42	0.13	0.10	0.18	0.18	0.00	0.00	0.00	0.04	0.04	0.04
Crit Moves:	****			****						****		
Green Time:	28.4	122	122.4	28.2	122	122.2	10.4	0.0	10.4	10.4	10.4	10.4
Volume/Cap:	0.11	0.58	0.18	0.58	0.25	0.25	0.07	0.00	0.05	0.58	0.58	0.58
Uniform Del:	60.1	11.4	7.6	65.4	8.2	8.2	75.2	0.0	75.1	77.7	77.7	77.7
IncrcmntDel:	0.2	0.2	0.1	2.9	0.0	0.0	0.3	0.0	0.2	7.7	7.7	7.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	60.2	11.6	7.7	68.3	8.2	8.2	75.5	0.0	75.3	85.3	85.3	85.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.2	11.6	7.7	68.3	8.2	8.2	75.5	0.0	75.3	85.3	85.3	85.3
LOS by Move:	E	B+	A	E	A	A	E-	A	E-	F	F	F
HCM2kAvgQ:	1	19	4	9	6	6	0	0	0	4	4	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd AM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	31	3058	56	130	1784	44	7	0	5	74	2	30
Growth 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
Initial Bse:	31	3058	56	130	1784	44	7	0	5	74	2	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	3058	56	130	1784	44	7	0	5	74	2	30
User 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
PHF 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
PHF Volume:	31	3058	56	130	1784	44	7	0	5	74	2	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	3058	56	130	1784	44	7	0	5	74	2	30
PCE 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
MLF 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
Final Volume:	31	3058	56	130	1784	44	7	0	5	74	2	30

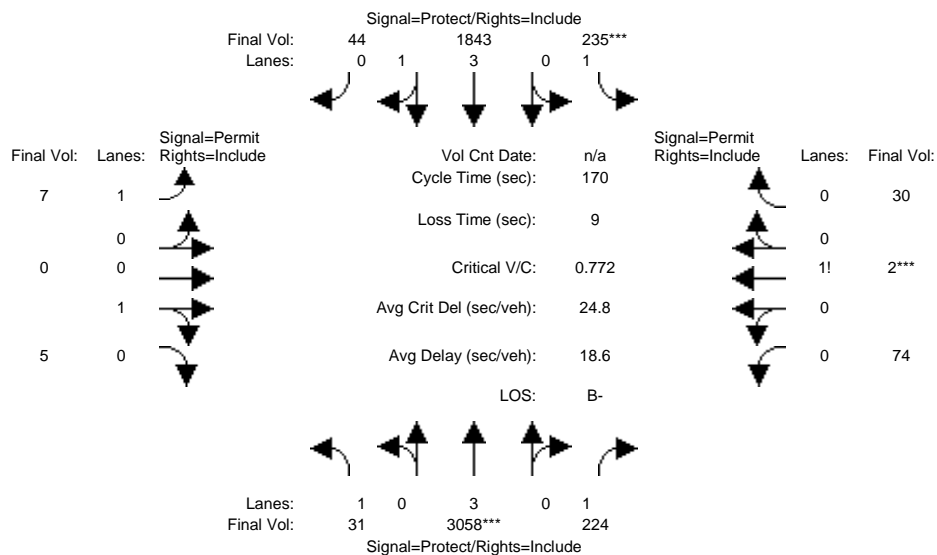
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.90	0.10	1.00	0.00	1.00	0.70	0.02	0.28
Final Sat.:	1750	5700	1750	1750	7319	181	1750	0	1800	1222	33	495

Capacity Analysis Module:												
Vol/Sat:	0.02	0.54	0.03	0.07	0.24	0.24	0.00	0.00	0.00	0.06	0.06	0.06
Crit Moves:	****			****						****		
Green Time:	21.2	129	128.7	17.8	125	125.3	14.5	0.0	14.5	14.5	14.5	14.5
Volume/Cap:	0.14	0.71	0.04	0.71	0.33	0.33	0.05	0.00	0.03	0.71	0.71	0.71
Uniform Del:	66.3	10.8	5.2	73.6	7.8	7.8	71.4	0.0	71.3	75.7	75.7	75.7
IncrcmntDel:	0.3	0.6	0.0	12.1	0.0	0.0	0.1	0.0	0.1	14.6	14.6	14.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	66.6	11.4	5.2	85.7	7.8	7.8	71.5	0.0	71.4	90.3	90.3	90.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.6	11.4	5.2	85.7	7.8	7.8	71.5	0.0	71.4	90.3	90.3	90.3
LOS by Move:	E	B+	A	F	A	A	E	A	E	F	F	F
HCM2kAvgQ:	1	26	1	7	8	8	0	0	0	7	7	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P AM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	31	3058	56	130	1784	44	7	0	5	74	2	30
Growth 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
Initial Bse:	31	3058	56	130	1784	44	7	0	5	74	2	30
Added Vol:	0	0	168	105	59	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	3058	224	235	1843	44	7	0	5	74	2	30
User 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
PHF 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
PHF Volume:	31	3058	224	235	1843	44	7	0	5	74	2	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	3058	224	235	1843	44	7	0	5	74	2	30
PCE 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
MLF 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
Final Volume:	31	3058	224	235	1843	44	7	0	5	74	2	30

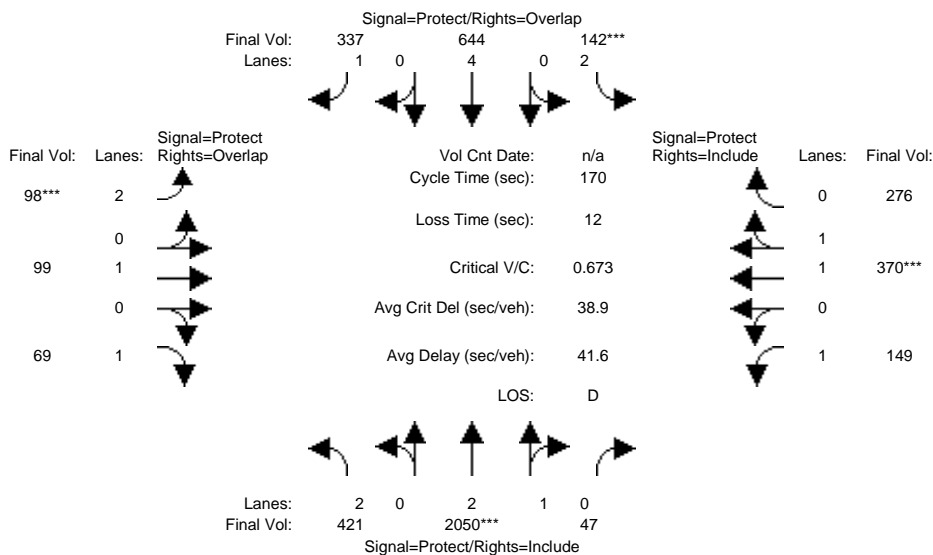
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.90	0.10	1.00	0.00	1.00	0.70	0.02	0.28
Final Sat.:	1750	5700	1750	1750	7325	175	1750	0	1800	1222	33	495

Capacity Analysis Module:												
Vol/Sat:	0.02	0.54	0.13	0.13	0.25	0.25	0.00	0.00	0.00	0.06	0.06	0.06
Crit Moves:	****			****						****		
Green Time:	20.8	118	118.1	29.6	127	126.9	13.3	0.0	13.3	13.3	13.3	13.3
Volume/Cap:	0.15	0.77	0.18	0.77	0.34	0.34	0.05	0.00	0.04	0.77	0.77	0.77
Uniform Del:	66.7	17.1	9.1	67.0	7.3	7.3	72.5	0.0	72.4	76.8	76.8	76.8
IncrcmntDel:	0.3	1.0	0.1	11.6	0.0	0.0	0.2	0.0	0.1	23.2	23.2	23.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	67.0	18.1	9.2	78.6	7.3	7.3	72.6	0.0	72.5	100.1	100	100.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.0	18.1	9.2	78.6	7.3	7.3	72.6	0.0	72.5	100.1	100	100.1
LOS by Move:	E	B-	A	E-	A	A	E	A	E	F	F	F
HCM2kAvgQ:	1	33	4	13	8	8	0	0	0	8	8	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	421	2050	47	142	644	337	98	99	69	149	370	276
Growth 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
Initial Bse:	421	2050	47	142	644	337	98	99	69	149	370	276
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	421	2050	47	142	644	337	98	99	69	149	370	276
User 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
PHF 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
PHF Volume:	421	2050	47	142	644	337	98	99	69	149	370	276
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	421	2050	47	142	644	337	98	99	69	149	370	276
PCE 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
MLF 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
Final Volume:	421	2050	47	142	644	337	98	99	69	149	370	276

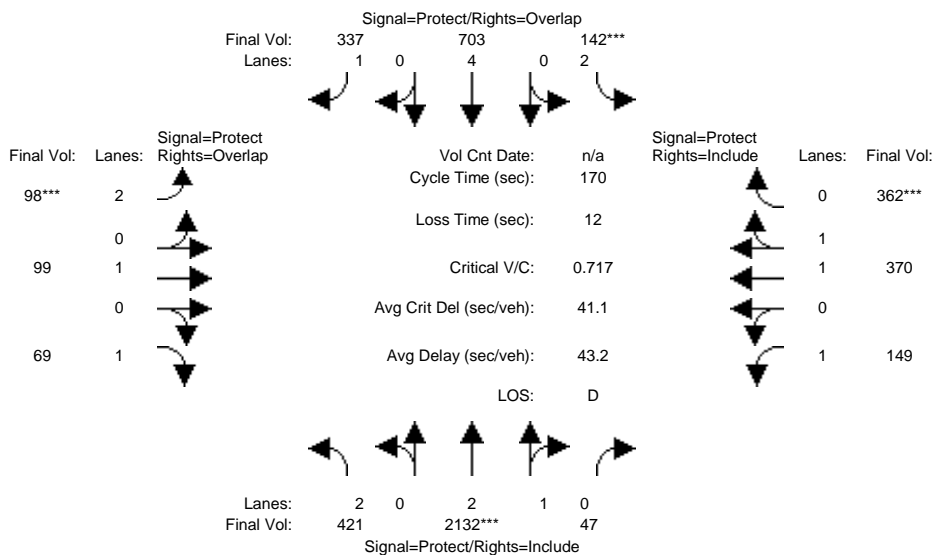
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95
Lanes:	2.00	2.93	0.07	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.12	0.88
Final Sat.:	3150	5474	126	3150	7600	1750	3150	1900	1750	1750	2118	1580

Capacity Analysis Module:												
Vol/Sat:	0.13	0.37	0.37	0.05	0.08	0.19	0.03	0.05	0.04	0.09	0.17	0.17
Crit Moves:	****			****			****			****		
Green Time:	48.0	94.6	94.6	11.4	58.0	65.9	7.9	21.2	69.3	30.8	44.1	44.1
Volume/Cap:	0.47	0.67	0.67	0.67	0.25	0.50	0.67	0.42	0.10	0.47	0.67	0.67
Uniform Del:	50.5	26.7	26.7	77.5	40.3	39.5	79.8	68.7	31.1	62.3	56.5	56.5
IncrcmntDel:	0.4	0.6	0.6	8.2	0.1	0.6	11.7	1.2	0.1	1.1	1.9	1.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	50.9	27.3	27.3	85.7	40.4	40.1	91.5	69.8	31.1	63.4	58.3	58.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.9	27.3	27.3	85.7	40.4	40.1	91.5	69.8	31.1	63.4	58.3	58.3
LOS by Move:	D	C	C	F	D	D	F	E	C	E	E+	E+
HCM2kAvgQ:	10	25	25	4	6	14	4	5	2	8	16	16

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	421	2050	47	142	644	337	98	99	69	149	370	276
Growth 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
Initial Bse:	421	2050	47	142	644	337	98	99	69	149	370	276
Added Vol:	0	82	0	0	59	0	0	0	0	0	0	86
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	421	2132	47	142	703	337	98	99	69	149	370	362
User 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
PHF 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
PHF Volume:	421	2132	47	142	703	337	98	99	69	149	370	362
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	421	2132	47	142	703	337	98	99	69	149	370	362
PCE 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
MLF 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
Final Volume:	421	2132	47	142	703	337	98	99	69	149	370	362

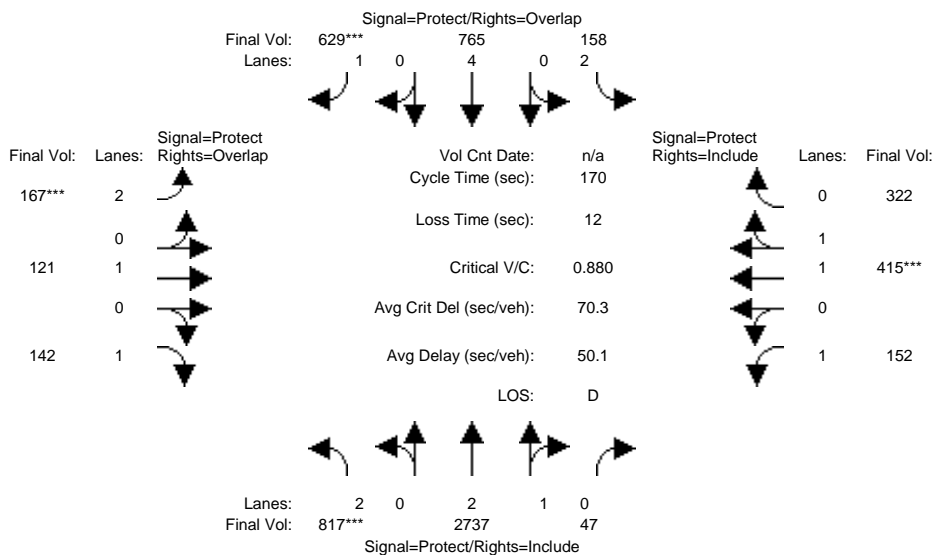
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.95
Lanes:	2.00	2.93	0.07	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3150	5479	121	3150	7600	1750	3150	1900	1750	1750	1899	1800

Capacity Analysis Module:												
Vol/Sat:	0.13	0.39	0.39	0.05	0.09	0.19	0.03	0.05	0.04	0.09	0.19	0.20
Crit Moves:	****			****			****			****		
Green Time:	46.6	92.3	92.3	10.7	56.3	63.7	7.4	22.5	69.1	32.6	47.7	47.7
Volume/Cap:	0.49	0.72	0.72	0.72	0.28	0.51	0.72	0.39	0.10	0.44	0.69	0.72
Uniform Del:	51.7	29.1	29.1	78.2	41.9	41.2	80.3	67.5	31.2	60.7	54.7	55.1
IncramntDel:	0.4	0.8	0.8	11.9	0.1	0.7	16.6	1.0	0.1	0.9	2.0	2.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	52.1	29.9	29.9	90.1	41.9	41.9	96.9	68.5	31.2	61.7	56.7	57.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.1	29.9	29.9	90.1	41.9	41.9	96.9	68.5	31.2	61.7	56.7	57.6
LOS by Move:	D-	C	C	F	D	D	F	E	C	E	E+	E+
HCM2kAvgQ:	10	28	28	5	6	14	4	5	2	8	18	19

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	817	2737	47	158	765	629	167	121	142	152	415	322
Growth 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
Initial Bse:	817	2737	47	158	765	629	167	121	142	152	415	322
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	817	2737	47	158	765	629	167	121	142	152	415	322
User 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
PHF 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
PHF Volume:	817	2737	47	158	765	629	167	121	142	152	415	322
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	817	2737	47	158	765	629	167	121	142	152	415	322
PCE 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
MLF 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
Final Volume:	817	2737	47	158	765	629	167	121	142	152	415	322

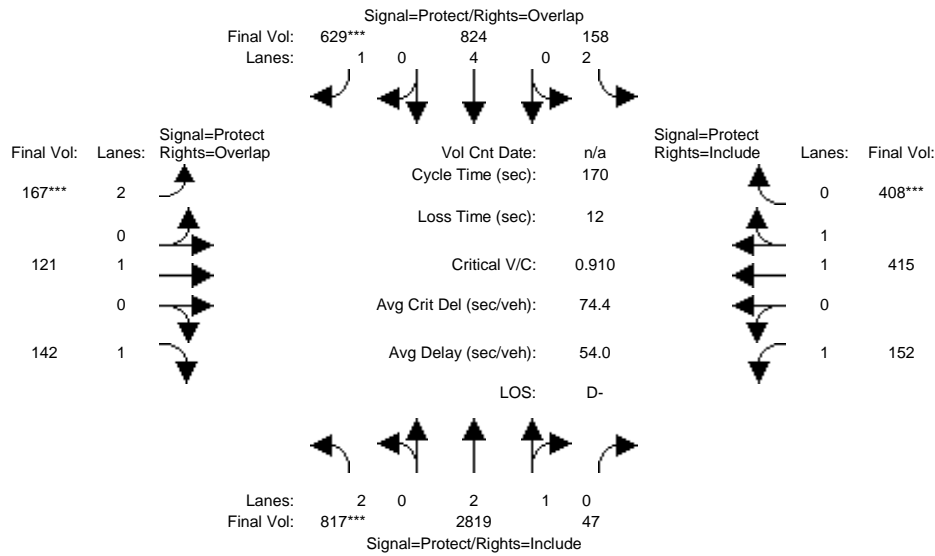
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95
Lanes:	2.00	2.95	0.05	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.10	0.90
Final Sat.:	3150	5505	95	3150	7600	1750	3150	1900	1750	1750	2082	1616

Capacity Analysis Module:												
Vol/Sat:	0.26	0.50	0.50	0.05	0.10	0.36	0.05	0.06	0.08	0.09	0.20	0.20
Crit Moves:	***					***	***				***	
Green Time:	50.1	99.3	99.3	10.0	59.2	69.4	10.2	20.6	70.7	28.1	38.5	38.5
Volume/Cap:	0.88	0.85	0.85	0.85	0.29	0.88	0.88	0.53	0.20	0.53	0.88	0.88
Uniform Del:	57.1	29.3	29.3	79.3	40.2	46.5	79.3	70.1	31.6	64.8	63.5	63.5
IncrcmntDel:	9.8	2.3	2.3	29.4	0.1	12.2	34.4	2.2	0.1	1.8	10.7	10.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	66.9	31.6	31.6	108.7	40.2	58.7	113.7	72.3	31.7	66.6	74.2	74.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.9	31.6	31.6	108.7	40.2	58.7	113.7	72.3	31.7	66.6	74.2	74.2
LOS by Move:	E	C	C	F	D	E+	F	E	C	E	E	E
HCM2kAvgQ:	23	38	38	5	7	34	8	6	5	8	22	22

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P AM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	817	2737	47	158	765	629	167	121	142	152	415	322
Growth 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
Initial Bse:	817	2737	47	158	765	629	167	121	142	152	415	322
Added Vol:	0	82	0	0	59	0	0	0	0	0	0	86
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	817	2819	47	158	824	629	167	121	142	152	415	408
User 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
PHF 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
PHF Volume:	817	2819	47	158	824	629	167	121	142	152	415	408
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	817	2819	47	158	824	629	167	121	142	152	415	408
PCE 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
MLF 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
Final Volume:	817	2819	47	158	824	629	167	121	142	152	415	408

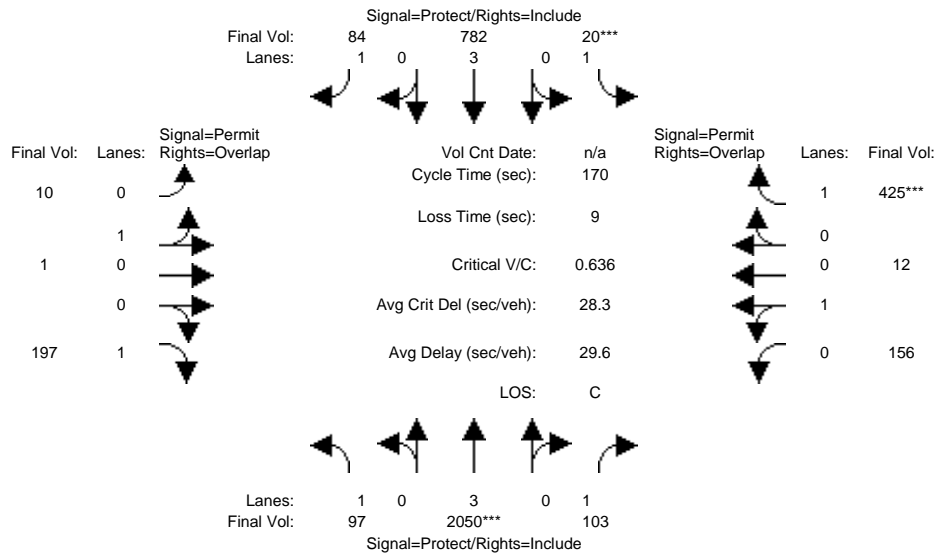
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.95
Lanes:	2.00	2.95	0.05	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3150	5508	92	3150	7600	1750	3150	1900	1750	1750	1899	1800

Capacity Analysis Module:												
Vol/Sat:	0.26	0.51	0.51	0.05	0.11	0.36	0.05	0.06	0.08	0.09	0.22	0.23
Crit Moves:	***					****	****					****
Green Time:	48.5	96.3	96.3	9.4	57.3	67.2	9.9	22.1	70.6	30.2	42.4	42.4
Volume/Cap:	0.91	0.90	0.90	0.90	0.32	0.91	0.91	0.49	0.20	0.49	0.88	0.91
Uniform Del:	58.7	32.7	32.7	79.8	41.9	48.6	79.6	68.7	31.6	63.0	61.3	62.0
IncrcmntDel:	13.1	4.1	4.1	41.6	0.1	16.1	41.7	1.5	0.1	1.2	9.4	13.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	71.7	36.8	36.8	121.4	42.0	64.6	121.3	70.2	31.8	64.2	70.7	75.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.7	36.8	36.8	121.4	42.0	64.6	121.3	70.2	31.8	64.2	70.7	75.0
LOS by Move:	E	D+	D+	F	D	E	F	E	C	E	E	E
HCM2kAvgQ:	24	42	42	6	8	36	8	6	5	8	23	25

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Mathilda Ave NB			Mathilda Ave SB			Indio Ave EB			Indio Ave WB		
Base Vol:	97	2050	103	20	782	84	10	1	197	156	12	425
Growth 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
Initial Bse:	97	2050	103	20	782	84	10	1	197	156	12	425
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	2050	103	20	782	84	10	1	197	156	12	425
User 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
PHF 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
PHF Volume:	97	2050	103	20	782	84	10	1	197	156	12	425
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	2050	103	20	782	84	10	1	197	156	12	425
PCE 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
MLF 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
Final Volume:	97	2050	103	20	782	84	10	1	197	156	12	425

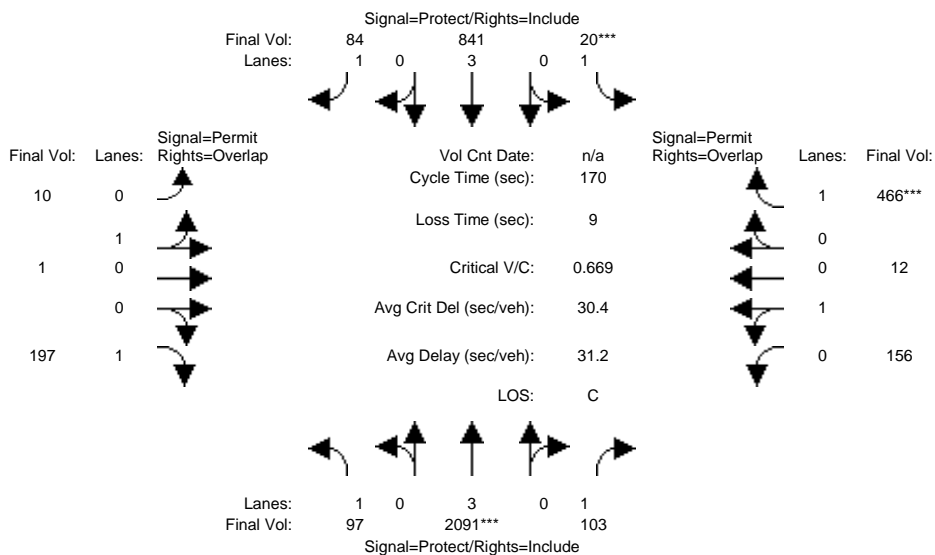
Saturation Flow Module:	Mathilda Ave NB			Mathilda Ave SB			Indio Ave EB			Indio Ave WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	0.91	0.09	1.00	0.93	0.07	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1636	164	1750	1671	129	1750

Capacity Analysis Module:	Mathilda Ave NB			Mathilda Ave SB			Indio Ave EB			Indio Ave WB		
Vol/Sat:	0.06	0.36	0.06	0.01	0.14	0.05	0.01	0.01	0.11	0.09	0.09	0.24
Crit Moves:	****			****						****		
Green Time:	30.4	98.7	98.7	7.0	75.3	75.3	55.3	55.3	85.7	55.3	55.3	62.3
Volume/Cap:	0.31	0.62	0.10	0.28	0.31	0.11	0.02	0.02	0.22	0.29	0.29	0.66
Uniform Del:	60.7	23.4	15.9	79.0	30.6	27.7	38.9	38.9	23.5	42.7	42.7	45.0
IncrcmntDel:	0.6	0.4	0.0	2.1	0.1	0.1	0.0	0.0	0.1	0.3	0.3	2.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	61.2	23.7	15.9	81.1	30.7	27.8	38.9	38.9	23.7	42.9	42.9	47.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.2	23.7	15.9	81.1	30.7	27.8	38.9	38.9	23.7	42.9	42.9	47.6
LOS by Move:	E	C	B	F	C	C	D+	D+	C	D	D	D
HCM2kAvgQ:	5	23	2	1	8	3	0	0	6	7	7	20

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	97	2050	103	20	782	84	10	1	197	156	12	425
Growth 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
Initial Bse:	97	2050	103	20	782	84	10	1	197	156	12	425
Added Vol:	0	41	0	0	59	0	0	0	0	0	0	41
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	2091	103	20	841	84	10	1	197	156	12	466
User 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
PHF 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
PHF Volume:	97	2091	103	20	841	84	10	1	197	156	12	466
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	2091	103	20	841	84	10	1	197	156	12	466
PCE 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
MLF 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
Final Volume:	97	2091	103	20	841	84	10	1	197	156	12	466

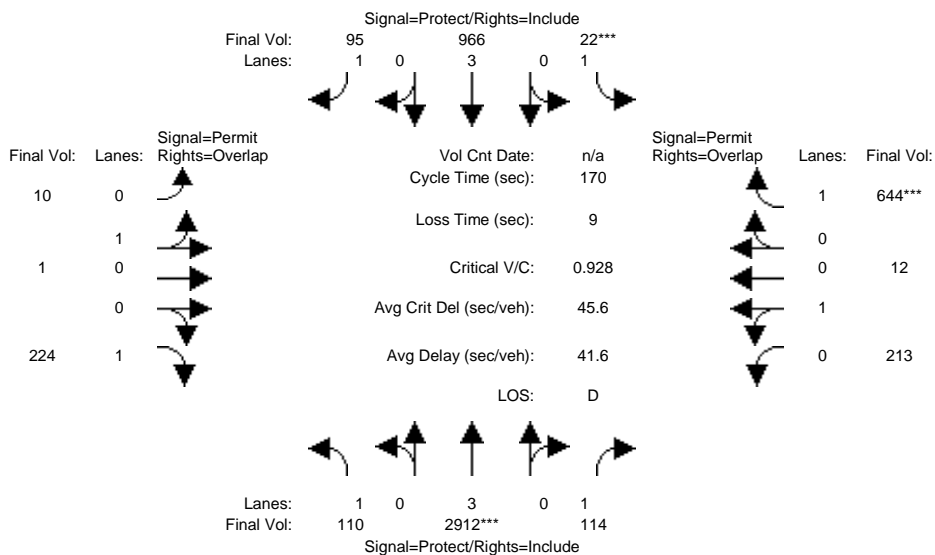
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	0.91	0.09	1.00	0.93	0.07	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1636	164	1750	1671	129	1750

Capacity Analysis Module:												
Vol/Sat:	0.06	0.37	0.06	0.01	0.15	0.05	0.01	0.01	0.11	0.09	0.09	0.27
Crit Moves:	****		****				****					
Green Time:	28.0	95.4	95.4	7.0	74.5	74.5	58.6	58.6	86.5	58.6	58.6	65.6
Volume/Cap:	0.34	0.65	0.10	0.28	0.34	0.11	0.02	0.02	0.22	0.27	0.27	0.69
Uniform Del:	62.8	25.8	17.4	79.0	31.5	28.2	36.7	36.7	23.1	40.3	40.3	43.7
IncrcmntDel:	0.7	0.5	0.0	2.1	0.1	0.1	0.0	0.0	0.1	0.2	0.2	3.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	63.5	26.3	17.4	81.1	31.6	28.3	36.8	36.8	23.2	40.5	40.5	46.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.5	26.3	17.4	81.1	31.6	28.3	36.8	36.8	23.2	40.5	40.5	46.8
LOS by Move:	E	C	B	F	C	C	D+	D+	C	D	D	D
HCM2kAvgQ:	5	24	3	1	9	3	0	0	6	6	6	22

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	110	2912	114	22	966	95	10	1	224	213	12	644
Growth 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
Initial Bse:	110	2912	114	22	966	95	10	1	224	213	12	644
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	2912	114	22	966	95	10	1	224	213	12	644
User 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
PHF 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
PHF Volume:	110	2912	114	22	966	95	10	1	224	213	12	644
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	2912	114	22	966	95	10	1	224	213	12	644
PCE 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
MLF 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
Final Volume:	110	2912	114	22	966	95	10	1	224	213	12	644

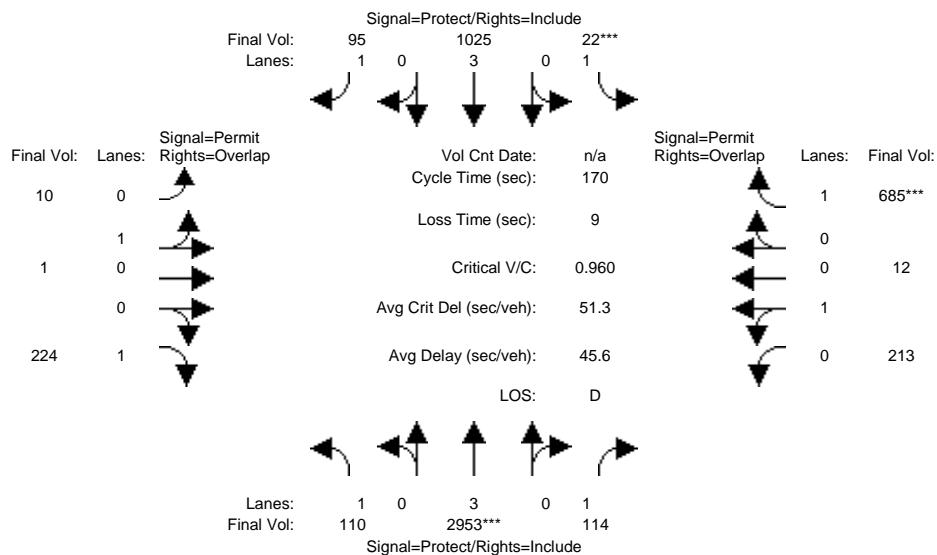
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	0.91	0.09	1.00	0.95	0.05	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1636	164	1750	1704	96	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.51	0.07	0.01	0.17	0.05	0.01	0.01	0.13	0.13	0.13	0.37
Crit Moves:	****			****						****		
Green Time:	27.3	93.9	93.9	7.0	73.6	73.6	60.1	60.1	87.4	60.1	60.1	67.1
Volume/Cap:	0.39	0.92	0.12	0.31	0.39	0.13	0.02	0.02	0.25	0.35	0.35	0.93
Uniform Del:	63.9	34.8	18.2	79.1	32.9	28.9	35.8	35.8	23.0	40.6	40.6	49.3
IncrcmntDel:	0.9	5.3	0.1	2.4	0.1	0.1	0.0	0.0	0.1	0.3	0.3	19.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	64.8	40.1	18.3	81.5	33.0	29.0	35.8	35.8	23.2	41.0	41.0	68.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.8	40.1	18.3	81.5	33.0	29.0	35.8	35.8	23.2	41.0	41.0	68.9
LOS by Move:	E	D	B-	F	C-	C	D+	D+	C	D	D	E
HCM2kAvgQ:	5	47	3	1	11	3	0	0	7	9	9	38

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P AM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	110	2912	114	22	966	95	10	1	224	213	12	644
Growth 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
Initial Bse:	110	2912	114	22	966	95	10	1	224	213	12	644
Added Vol:	0	41	0	0	59	0	0	0	0	0	0	41
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	2953	114	22	1025	95	10	1	224	213	12	685
User 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
PHF 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
PHF Volume:	110	2953	114	22	1025	95	10	1	224	213	12	685
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	2953	114	22	1025	95	10	1	224	213	12	685
PCE 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
MLF 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
Final Volume:	110	2953	114	22	1025	95	10	1	224	213	12	685

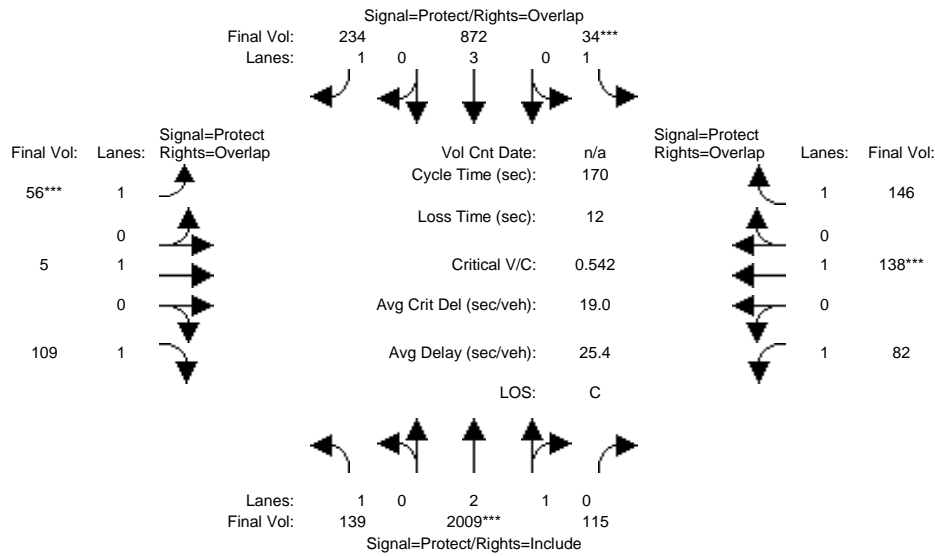
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	0.91	0.09	1.00	0.95	0.05	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1636	164	1750	1704	96	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.52	0.07	0.01	0.18	0.05	0.01	0.01	0.13	0.13	0.13	0.39
Crit Moves:	****			****						****		
Green Time:	25.6	91.9	91.9	7.0	73.3	73.3	62.1	62.1	87.7	62.1	62.1	69.1
Volume/Cap:	0.42	0.96	0.12	0.31	0.42	0.13	0.02	0.02	0.25	0.34	0.34	0.96
Uniform Del:	65.4	37.2	19.2	79.1	33.6	29.1	34.4	34.4	22.8	39.1	39.1	49.2
IncrcmntDel:	1.1	8.6	0.1	2.4	0.1	0.1	0.0	0.0	0.1	0.3	0.3	24.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	66.5	45.9	19.3	81.5	33.7	29.2	34.5	34.5	23.0	39.4	39.4	74.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.5	45.9	19.3	81.5	33.7	29.2	34.5	34.5	23.0	39.4	39.4	74.0
LOS by Move:	E	D	B-	F	C-	C	C-	C-	C+	D	D	E
HCM2kAvgQ:	5	50	3	1	12	3	0	0	7	9	9	42

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	139	2009	115	34	872	234	56	5	109	82	138	146
Growth 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
Initial Bse:	139	2009	115	34	872	234	56	5	109	82	138	146
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	139	2009	115	34	872	234	56	5	109	82	138	146
User 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
PHF 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
PHF Volume:	139	2009	115	34	872	234	56	5	109	82	138	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	2009	115	34	872	234	56	5	109	82	138	146
PCE 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
MLF 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
Final Volume:	139	2009	115	34	872	234	56	5	109	82	138	146

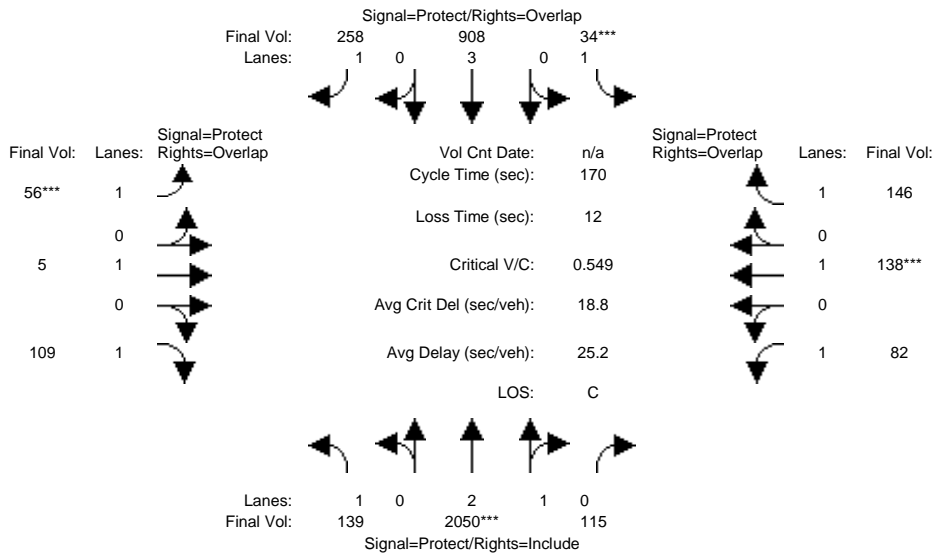
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.83	0.17	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	5296	303	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.08	0.38	0.38	0.02	0.15	0.13	0.03	0.00	0.06	0.05	0.07	0.08
Crit Moves:	****			****			****			****		
Green Time:	42.8	118	118.4	7.0	82.5	92.5	10.0	18.2	61.0	14.5	22.7	29.7
Volume/Cap:	0.32	0.54	0.54	0.47	0.32	0.25	0.54	0.02	0.17	0.55	0.54	0.48
Uniform Del:	51.7	12.6	12.6	79.7	26.6	20.4	77.8	68.0	37.3	74.6	68.8	63.2
IncrcmntDel:	0.4	0.2	0.2	4.8	0.1	0.1	5.9	0.0	0.1	4.3	2.5	1.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	52.1	12.8	12.8	84.5	26.6	20.5	83.7	68.0	37.4	79.0	71.3	64.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.1	12.8	12.8	84.5	26.6	20.5	83.7	68.0	37.4	79.0	71.3	64.4
LOS by Move:	D-	B	B	F	C	C+	F	E	D+	E-	E	E
HCM2kAvgQ:	6	18	18	2	9	7	4	0	4	5	7	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	139	2009	115	34	872	234	56	5	109	82	138	146
Growth 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
Initial Bse:	139	2009	115	34	872	234	56	5	109	82	138	146
Added Vol:	0	41	0	0	36	24	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	139	2050	115	34	908	258	56	5	109	82	138	146
User 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
PHF 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
PHF Volume:	139	2050	115	34	908	258	56	5	109	82	138	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	2050	115	34	908	258	56	5	109	82	138	146
PCE 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
MLF 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
Final Volume:	139	2050	115	34	908	258	56	5	109	82	138	146

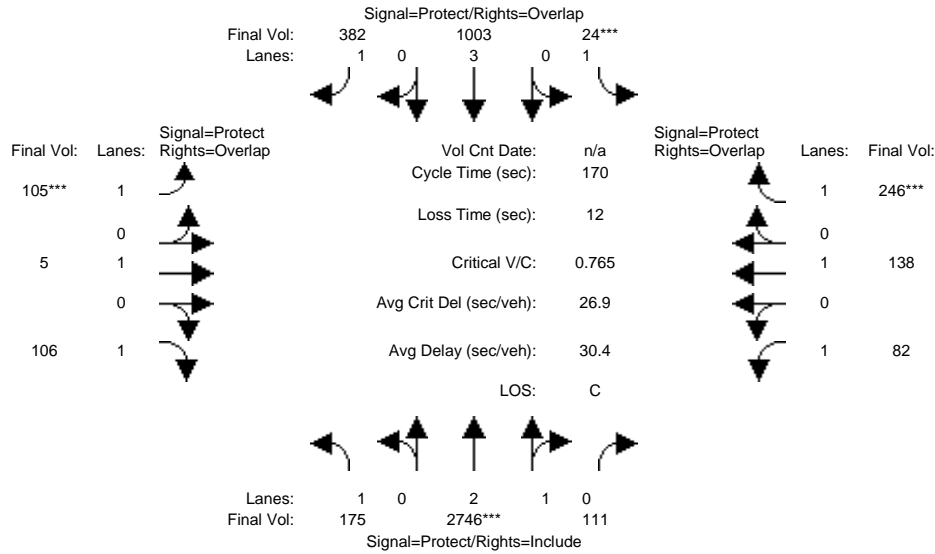
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.83	0.17	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	5302	297	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.08	0.39	0.39	0.02	0.16	0.15	0.03	0.00	0.06	0.05	0.07	0.08
Crit Moves:	****			****			****			****		
Green Time:	41.9	119	118.8	7.0	84.0	93.8	9.8	17.9	59.8	14.3	22.3	29.3
Volume/Cap:	0.32	0.55	0.55	0.47	0.32	0.27	0.55	0.02	0.18	0.56	0.55	0.48
Uniform Del:	52.5	12.6	12.6	79.7	25.9	20.0	77.9	68.2	38.1	74.8	69.2	63.5
IncrcmntDel:	0.4	0.2	0.2	4.8	0.1	0.1	6.5	0.1	0.1	4.8	2.7	1.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	52.9	12.7	12.7	84.5	26.0	20.2	84.4	68.3	38.2	79.6	71.9	64.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.9	12.7	12.7	84.5	26.0	20.2	84.4	68.3	38.2	79.6	71.9	64.7
LOS by Move:	D-	B	B	F	C	C+	F	E	D+	E-	E	E
HCM2kAvgQ:	6	18	18	2	9	7	4	0	4	5	7	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	175	2746	111	24	1003	382	105	5	106	82	138	246
Growth 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
Initial Bse:	175	2746	111	24	1003	382	105	5	106	82	138	246
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	175	2746	111	24	1003	382	105	5	106	82	138	246
User 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
PHF 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
PHF Volume:	175	2746	111	24	1003	382	105	5	106	82	138	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	2746	111	24	1003	382	105	5	106	82	138	246
PCE 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
MLF 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
Final Volume:	175	2746	111	24	1003	382	105	5	106	82	138	246

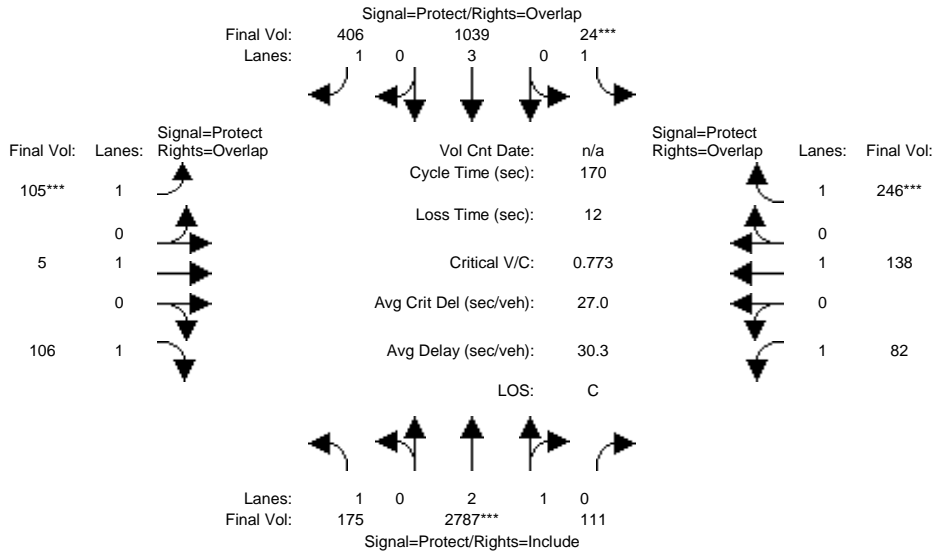
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.88	0.12	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	5382	218	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.10	0.51	0.51	0.01	0.18	0.22	0.06	0.00	0.06	0.05	0.07	0.14
Crit Moves:	****			****			****			****		
Green Time:	44.2	115	115.1	7.0	77.8	91.4	13.5	20.0	64.2	15.9	22.4	29.4
Volume/Cap:	0.38	0.75	0.75	0.33	0.38	0.41	0.75	0.02	0.16	0.50	0.55	0.81
Uniform Del:	51.7	18.1	18.1	79.2	30.3	23.3	76.6	66.3	35.0	73.2	69.1	67.6
IncrcmntDel:	0.5	0.9	0.9	2.7	0.1	0.3	20.5	0.0	0.1	2.4	2.6	15.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	52.2	19.0	19.0	82.0	30.4	23.6	97.2	66.4	35.1	75.6	71.7	82.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.2	19.0	19.0	82.0	30.4	23.6	97.2	66.4	35.1	75.6	71.7	82.9
LOS by Move:	D-	B-	B-	F	C	C	F	E	D+	E-	E	F
HCM2kAvgQ:	8	33	33	1	11	12	7	0	4	5	7	15

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P AM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	175	2746	111	24	1003	382	105	5	106	82	138	246
Growth 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
Initial Bse:	175	2746	111	24	1003	382	105	5	106	82	138	246
Added Vol:	0	41	0	0	36	24	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	175	2787	111	24	1039	406	105	5	106	82	138	246
User 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
PHF 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
PHF Volume:	175	2787	111	24	1039	406	105	5	106	82	138	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	2787	111	24	1039	406	105	5	106	82	138	246
PCE 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
MLF 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
Final Volume:	175	2787	111	24	1039	406	105	5	106	82	138	246

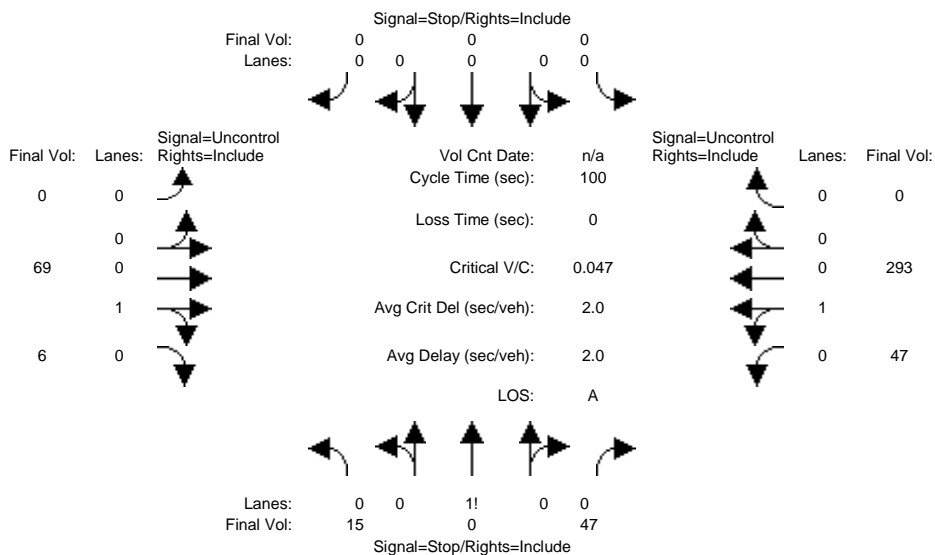
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.88	0.12	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	5385	214	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.10	0.52	0.52	0.01	0.18	0.23	0.06	0.00	0.06	0.05	0.07	0.14
Crit Moves:	****			****			****			****		
Green Time:	43.4	115	115.4	7.0	79.1	92.5	13.4	19.8	63.2	15.8	22.2	29.2
Volume/Cap:	0.39	0.76	0.76	0.33	0.39	0.43	0.76	0.02	0.16	0.51	0.56	0.82
Uniform Del:	52.4	18.1	18.1	79.2	29.7	23.0	76.7	66.5	35.7	73.4	69.3	67.9
IncrcmntDel:	0.6	0.9	0.9	2.7	0.1	0.3	21.8	0.0	0.1	2.6	2.8	16.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.0	19.1	19.1	82.0	29.8	23.3	98.5	66.6	35.9	76.0	72.1	84.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	19.1	19.1	82.0	29.8	23.3	98.5	66.6	35.9	76.0	72.1	84.0
LOS by Move:	D-	B-	B-	F	C	C	F	E	D+	E-	E	F
HCM2kAvgQ:	8	34	34	1	11	13	7	0	4	5	7	15

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 13 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 13 columns representing movements and 13 rows representing critical gap and follow-up time metrics: Critical Gap, FollowUpTim.

Table with 13 columns representing movements and 13 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 13 columns representing movements and 13 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	15 0 47	0 0 0	0 69 6	47 293 0
ApproachDel:	9.7	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=62]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=3][total volume=477]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	15 0 47	0 0 0	0 69 6	47 293 0

Major Street Volume: 415
 Minor Approach Volume: 62
 Minor Approach Volume Threshold: 454

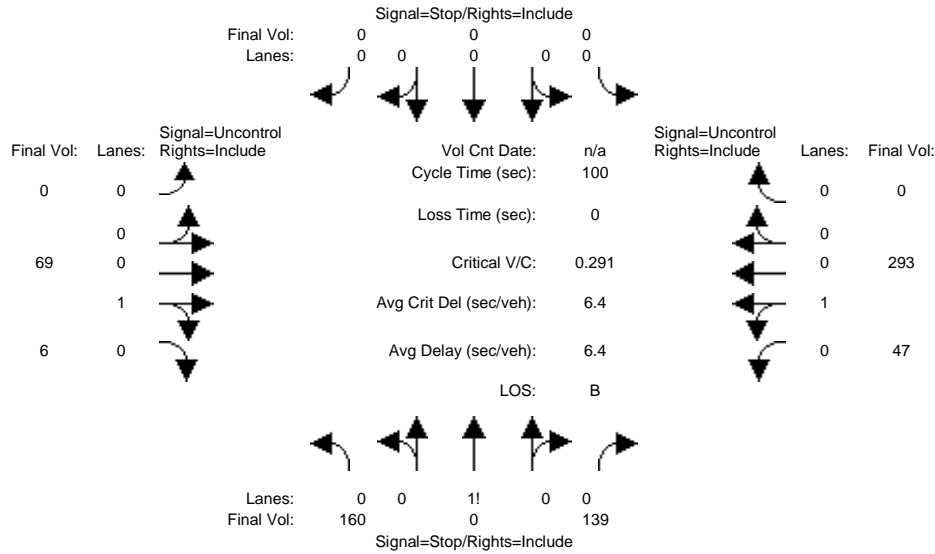
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap and follow-up time data.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	160 0 139	0 0 0 0	0 69 6	47 293 0
ApproachDel:	14.0	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.2]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=299]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=714]
    SUCCEED - Total volume greater than or equal to 650 for intersection
    with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	160 0 139	0 0 0 0	0 69 6	47 293 0

```

Major Street Volume:          415
Minor Approach Volume:       299
Minor Approach Volume Threshold: 454
    
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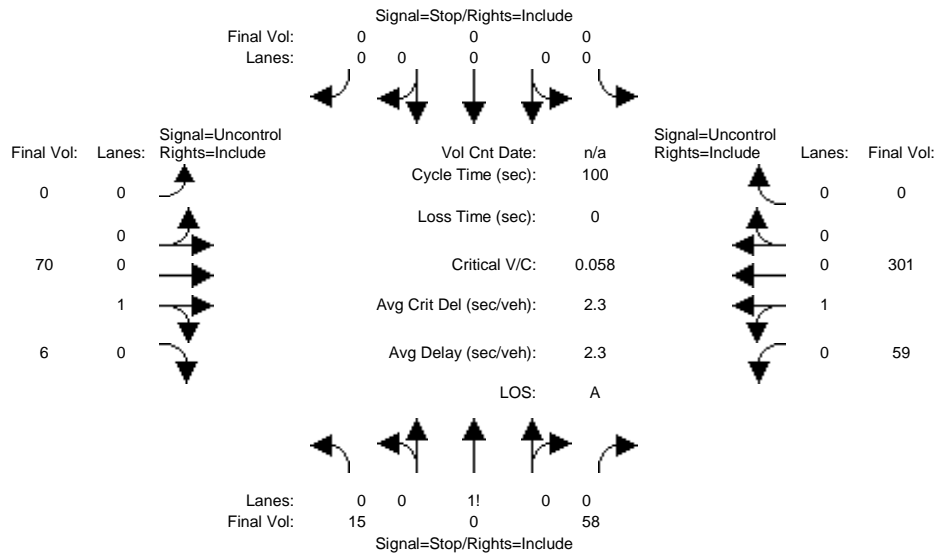
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume) and rows for each approach (North, South, East, West).

Table for Critical Gap Module showing Critical Gp and FollowUpTim values for each approach.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for each approach.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	15	0	58	0	0	0	0	70	6	59	301	0
ApproachDel:	9.7			xxxxxxx			xxxxxxx			xxxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=73]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=3][total volume=509]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	15	0	58	0	0	0	0	70	6	59	301	0

Major Street Volume: 436
 Minor Approach Volume: 73
 Minor Approach Volume Threshold: 441

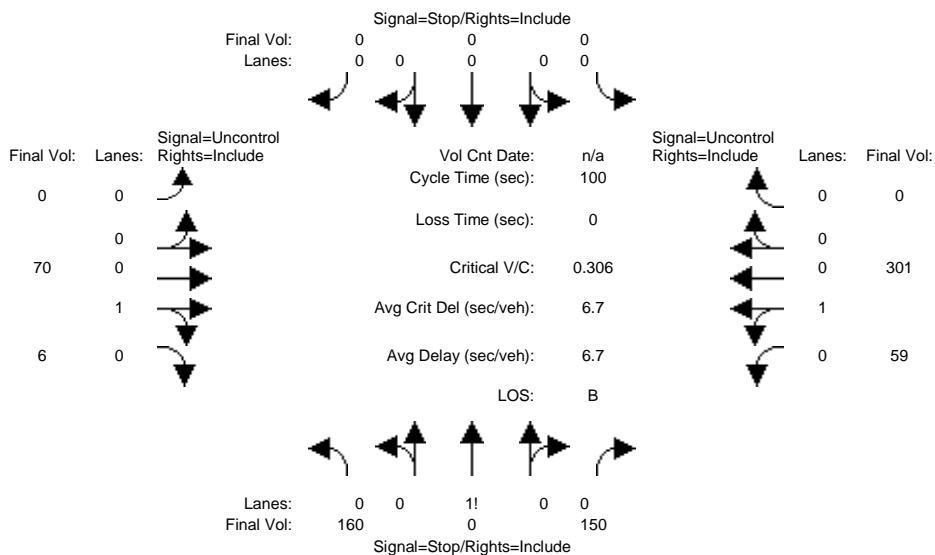
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap and follow-up time data.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	160	0	150	0	0	0	0	70	6	59	301	0
ApproachDel:	14.7			xxxxxxx			xxxxxxx			xxxxxxx		

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.3]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=310]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=746]
    SUCCEED - Total volume greater than or equal to 650 for intersection
                with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	160	0	150	0	0	0	0	70	6	59	301	0

```

Major Street Volume:          436
Minor Approach Volume:       310
Minor Approach Volume Threshold: 441
    
```

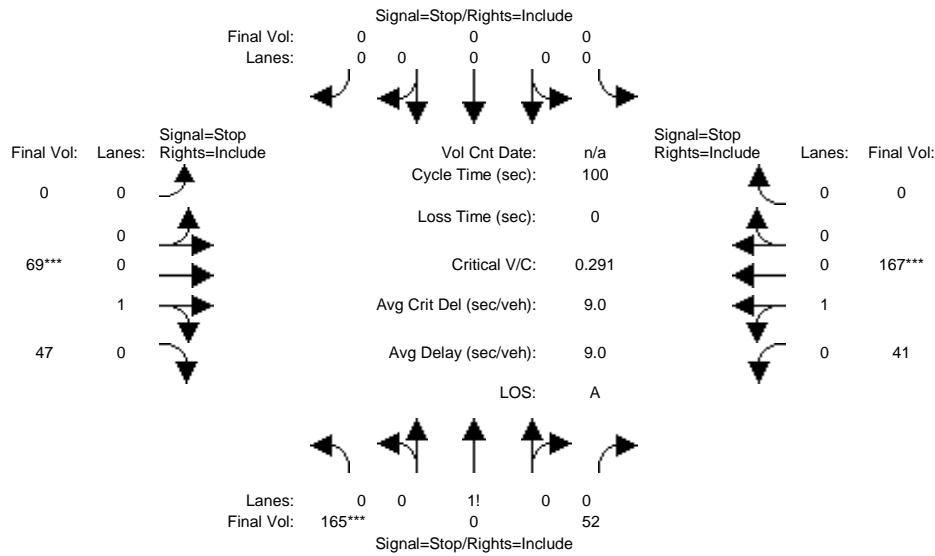
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Existing AM

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	165	0	52	0	0	0	0	69	47	41	167	0
Growth 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
Initial Bse:	165	0	52	0	0	0	0	69	47	41	167	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	0	52	0	0	0	0	69	47	41	167	0
User 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
PHF 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
PHF Volume:	165	0	52	0	0	0	0	69	47	41	167	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	0	52	0	0	0	0	69	47	41	167	0
PCE 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
MLF 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
FinalVolume:	165	0	52	0	0	0	0	69	47	41	167	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.76	0.00	0.24	0.00	0.00	0.00	0.00	0.59	0.41	0.20	0.80	0.00
Final Sat.:	568	0	179	0	0	0	0	464	316	149	609	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.29	xxxx	0.29	xxxx	xxxx	xxxx	xxxx	0.15	0.15	0.27	0.27	xxxx
Crit Moves:	****							****			****	
Delay/Veh:	9.4	0.0	9.4	0.0	0.0	0.0	0.0	8.1	8.1	9.2	9.2	0.0
Delay 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
AdjDel/Veh:	9.4	0.0	9.4	0.0	0.0	0.0	0.0	8.1	8.1	9.2	9.2	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:	9.4			xxxxxx				8.1			9.2	
Delay Adj:	1.00			xxxxxx				1.00			1.00	
ApprAdjDel:	9.4			xxxxxx				8.1			9.2	
LOS by Appr:	A			*				A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.0	0.0	0.0	0.2	0.2	0.2	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #10 Borregas Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound				
Movement:	L	T	R		L	T	R		L	T	R		L	T	R		
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign				
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	165		0	52	0	0	0	0	0	69	47		41	167		0	
Major Street Volume:					324												
Minor Approach Volume:					217												
Minor Approach Volume Threshold:					520												

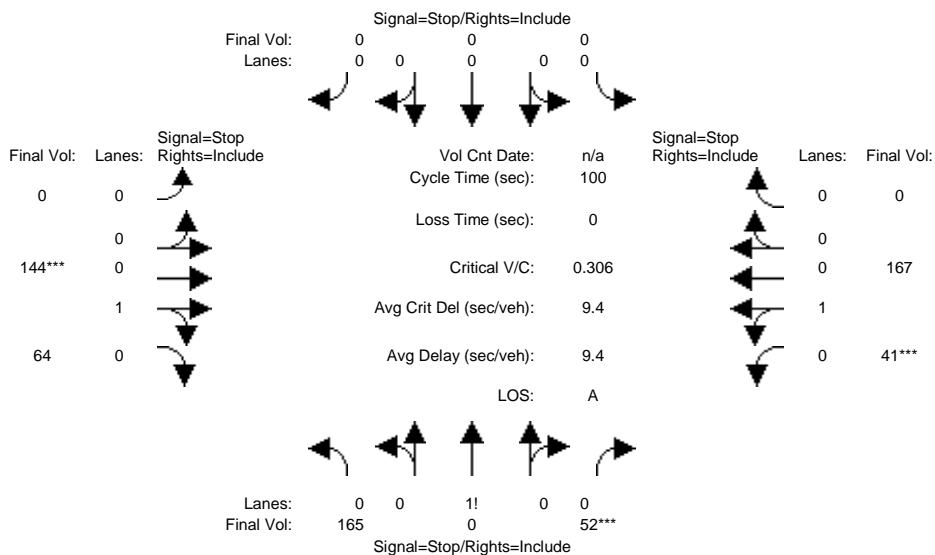
SIGNAL WARRANT DISCLAIMER

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The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Existing+P AM

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:	Borregas Ave						Ahwanee Ave					
Base Vol:	165	0	52	0	0	0	0	69	47	41	167	0
Growth 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
Initial Bse:	165	0	52	0	0	0	0	69	47	41	167	0
Added Vol:	0	0	0	0	0	0	0	75	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	165	0	52	0	0	0	0	144	64	41	167	0
User 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
PHF 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
PHF Volume:	165	0	52	0	0	0	0	144	64	41	167	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	0	52	0	0	0	0	144	64	41	167	0
PCE 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
MLF 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
FinalVolume:	165	0	52	0	0	0	0	144	64	41	167	0

Saturation Flow Module:	Borregas Ave						Ahwanee Ave					
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.76	0.00	0.24	0.00	0.00	0.00	0.00	0.69	0.31	0.20	0.80	0.00
Final Sat.:	539	0	170	0	0	0	0	533	237	145	592	0

Capacity Analysis Module:	Borregas Ave						Ahwanee Ave					
Vol/Sat:	0.31	xxxx	0.31	xxxx	xxxx	xxxx	xxxx	0.27	0.27	0.28	0.28	xxxx
Crit Moves:			****					****		****		
Delay/Veh:	9.8	0.0	9.8	0.0	0.0	0.0	0.0	9.1	9.1	9.4	9.4	0.0
Delay 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
AdjDel/Veh:	9.8	0.0	9.8	0.0	0.0	0.0	0.0	9.1	9.1	9.4	9.4	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:		9.8		xxxxxx				9.1			9.4	
Delay Adj:		1.00		xxxxxx				1.00			1.00	
ApprAdjDel:		9.8		xxxxxx				9.1			9.4	
LOS by Appr:		A			*			A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.0	0.0	0.0	0.3	0.3	0.3	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Initial Vol:	165		0		52	0	0	0	0	0	0	144		64		41	167		0	
Major Street Volume:					416															
Minor Approach Volume:					217															
Minor Approach Volume Threshold:					453															

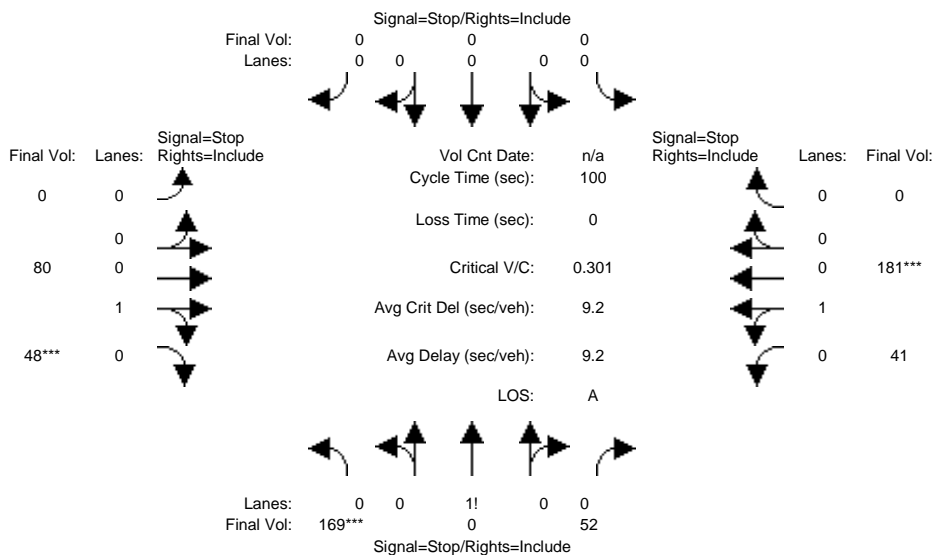
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Bkgd AM

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	169	0	52	0	0	0	0	80	48	41	181	0
Growth 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
Initial Bse:	169	0	52	0	0	0	0	80	48	41	181	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	0	52	0	0	0	0	80	48	41	181	0
User 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
PHF 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
PHF Volume:	169	0	52	0	0	0	0	80	48	41	181	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	0	52	0	0	0	0	80	48	41	181	0
PCE 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
MLF 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
FinalVolume:	169	0	52	0	0	0	0	80	48	41	181	0

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.76	0.00	0.24	0.00	0.00	0.00	0.00	0.62	0.38	0.18	0.82	0.00
Final Sat.:	562	0	173	0	0	0	0	482	289	139	615	0

Capacity Analysis Module:												
Vol/Sat:	0.30	xxxx	0.30	xxxx	xxxx	xxxx	xxxx	0.17	0.17	0.29	0.29	xxxx
Crit Moves:	****								****		****	
Delay/Veh:	9.5	0.0	9.5	0.0	0.0	0.0	0.0	8.3	8.3	9.4	9.4	0.0
Delay 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
AdjDel/Veh:	9.5	0.0	9.5	0.0	0.0	0.0	0.0	8.3	8.3	9.4	9.4	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:		9.5		xxxxxx				8.3			9.4	
Delay Adj:		1.00		xxxxxx				1.00			1.00	
ApprAdjDel:		9.5		xxxxxx				8.3			9.4	
LOS by Appr:		A		*				A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.0	0.0	0.0	0.2	0.2	0.2	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0
Initial Vol:	169		0	52	0	0	0	0	0	80		48	41	181		0				
Major Street Volume:					350															
Minor Approach Volume:					221															
Minor Approach Volume Threshold:					499															

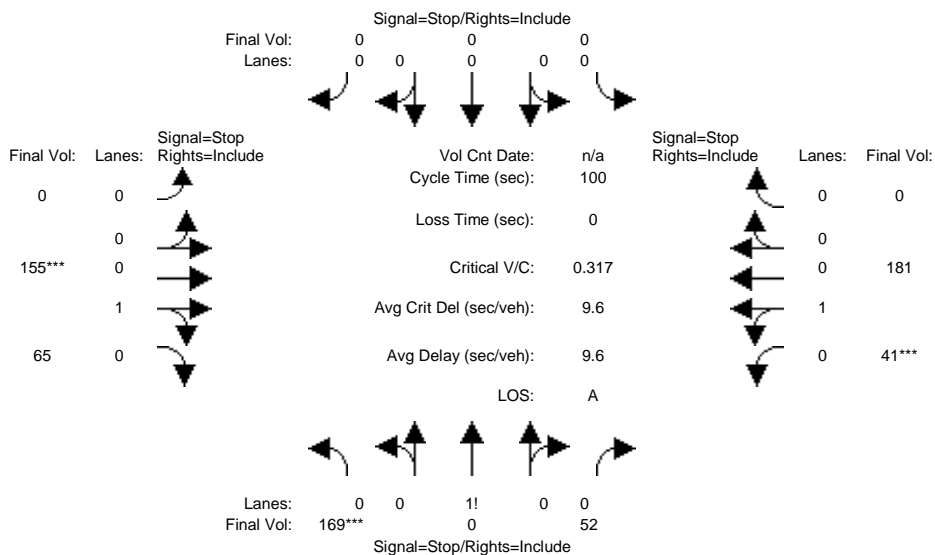
SIGNAL WARRANT DISCLAIMER

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The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Bkgd+P AM

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	169	0	52	0	0	0	0	80	48	41	181	0
Growth 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
Initial Bse:	169	0	52	0	0	0	0	80	48	41	181	0
Added Vol:	0	0	0	0	0	0	0	75	17	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	0	52	0	0	0	0	155	65	41	181	0
User 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
PHF 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
PHF Volume:	169	0	52	0	0	0	0	155	65	41	181	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	0	52	0	0	0	0	155	65	41	181	0
PCE 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
MLF 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
FinalVolume:	169	0	52	0	0	0	0	155	65	41	181	0

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.76	0.00	0.24	0.00	0.00	0.00	0.00	0.70	0.30	0.18	0.82	0.00
Final Sat.:	534	0	164	0	0	0	0	537	225	135	597	0

Capacity Analysis Module:												
Vol/Sat:	0.32	xxxx	0.32	xxxx	xxxx	xxxx	xxxx	0.29	0.29	0.30	0.30	xxxx
Crit Moves:	****							****		****		
Delay/Veh:	9.9	0.0	9.9	0.0	0.0	0.0	0.0	9.3	9.3	9.7	9.7	0.0
Delay 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
AdjDel/Veh:	9.9	0.0	9.9	0.0	0.0	0.0	0.0	9.3	9.3	9.7	9.7	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:		9.9		xxxxxx				9.3			9.7	
Delay Adj:		1.00		xxxxxx				1.00			1.00	
ApprAdjDel:		9.9		xxxxxx				9.3			9.7	
LOS by Appr:		A			*			A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	169 0 52	0 0 0	0 155 65	41 181 0
Major Street Volume:	442			
Minor Approach Volume:	221			
Minor Approach Volume Threshold:	437			

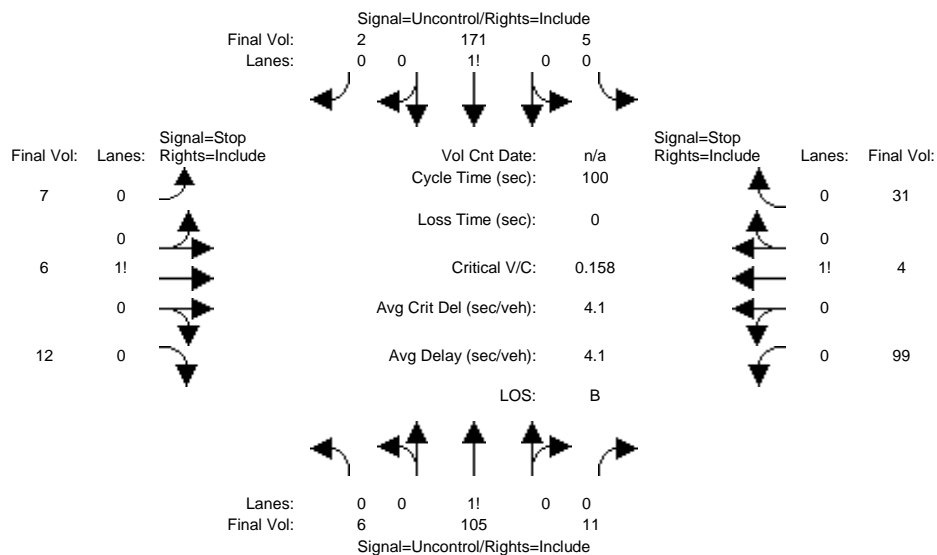
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	6	105	11	5	171	2	7	6	12	99	4	31
Growth 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
Initial Bse:	6	105	11	5	171	2	7	6	12	99	4	31
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	105	11	5	171	2	7	6	12	99	4	31
User 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
PHF 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
PHF Volume:	6	105	11	5	171	2	7	6	12	99	4	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	105	11	5	171	2	7	6	12	99	4	31

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	173	xxxx	xxxxxx	116	xxxx	xxxxxx	322	310	172	314	306	111
Potent Cap.:	1416	xxxx	xxxxxx	1485	xxxx	xxxxxx	635	608	877	643	611	948
Move Cap.:	1416	xxxx	xxxxxx	1485	xxxx	xxxxxx	607	603	877	626	607	948
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.01	0.01	0.16	0.01	0.03

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.6	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	711	xxxxxx	xxxx	679	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.1	xxxxxx	xxxxxx	0.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.2	xxxxxx	xxxxxx	11.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxxx			xxxxxxx				10.2			11.6	
ApproachLOS:	*			*				B			B	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 105 11	5 171 2	7 6 12	99 4 31
ApproachDel:	xxxxxx	xxxxxx	10.2	11.6

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=25]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=459]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.4]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=134]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=459]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 105 11	5 171 2	7 6 12	99 4 31

Major Street Volume: 300
 Minor Approach Volume: 134
 Minor Approach Volume Threshold: 541

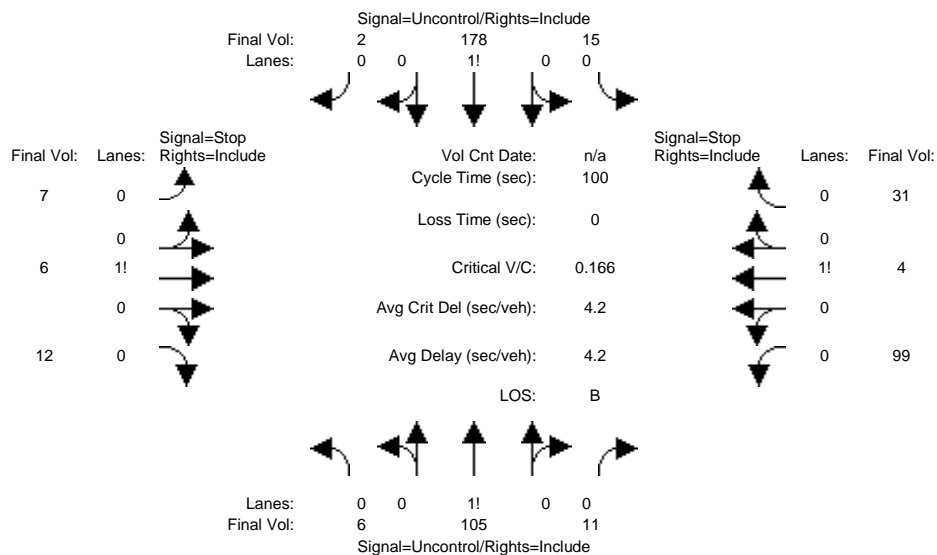
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 2 rows representing critical gap and follow-up time metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 10 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 105 11	15 178 2	7 6 12	99 4 31
ApproachDel:	xxxxxx	xxxxxx	10.4	11.9

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=25]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=476]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.4]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=134]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=476]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 105 11	15 178 2	7 6 12	99 4 31

Major Street Volume: 317
 Minor Approach Volume: 134
 Minor Approach Volume Threshold: 526

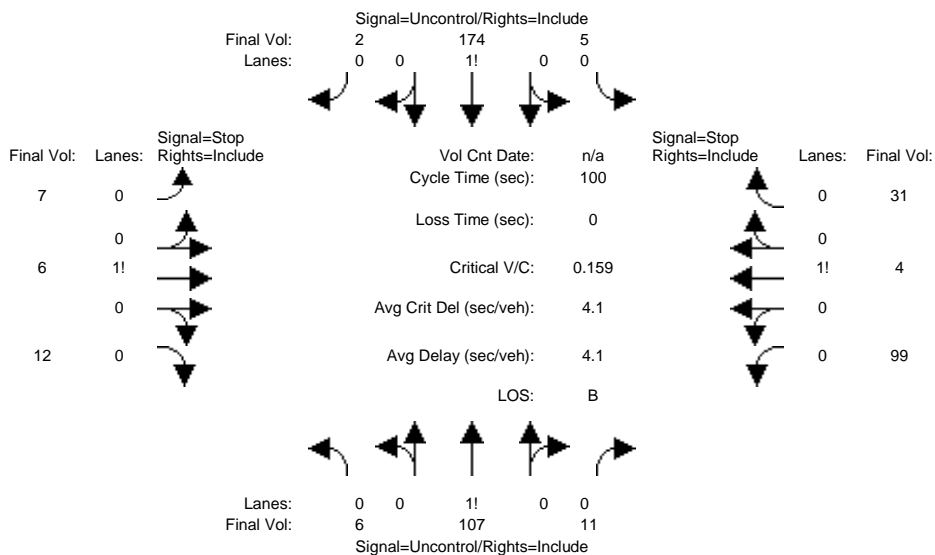
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 11 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTime.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 107 11	5 174 2	7 6 12	99 4 31
ApproachDel:	xxxxxx	xxxxxx	10.3	11.7

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=25]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=464]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.4]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=134]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=464]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 107 11	5 174 2	7 6 12	99 4 31

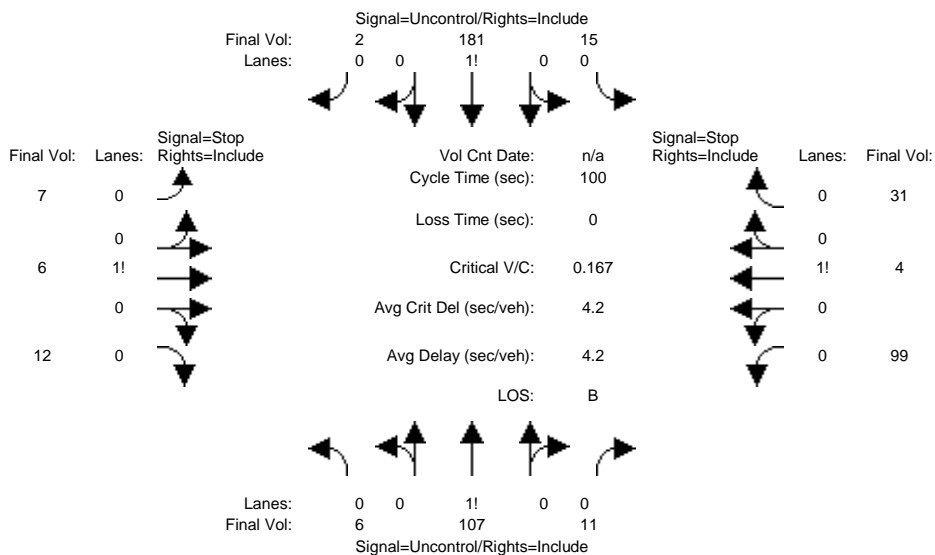
Major Street Volume: 305
 Minor Approach Volume: 134
 Minor Approach Volume Threshold: 536

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 2 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 10 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 107 11	15 181 2	7 6 12	99 4 31
ApproachDel:	xxxxxx	xxxxxx	10.4	12.0

-----|-----|-----|-----|-----|
 Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=25]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=481]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

-----|-----|-----|-----|-----|
 Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.4]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=134]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=481]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

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 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 107 11	15 181 2	7 6 12	99 4 31

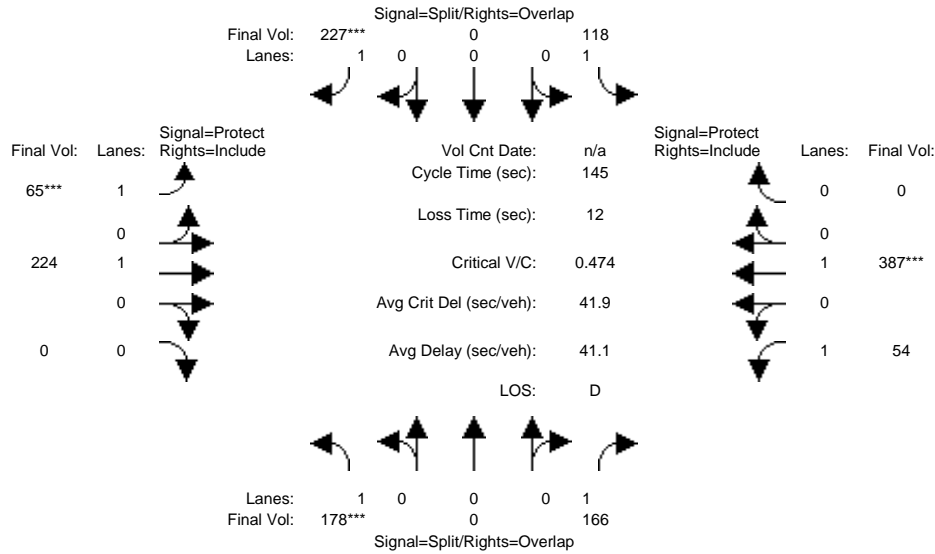
-----|-----|-----|-----|-----|
 Major Street Volume: 322
 Minor Approach Volume: 134
 Minor Approach Volume Threshold: 522

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	178	0	166	118	0	227	65	224	0	54	387	0
Growth 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
Initial Bse:	178	0	166	118	0	227	65	224	0	54	387	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	178	0	166	118	0	227	65	224	0	54	387	0
User 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
PHF 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
PHF Volume:	178	0	166	118	0	227	65	224	0	54	387	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	0	166	118	0	227	65	224	0	54	387	0
PCE 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
MLF 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
Final Volume:	178	0	166	118	0	227	65	224	0	54	387	0

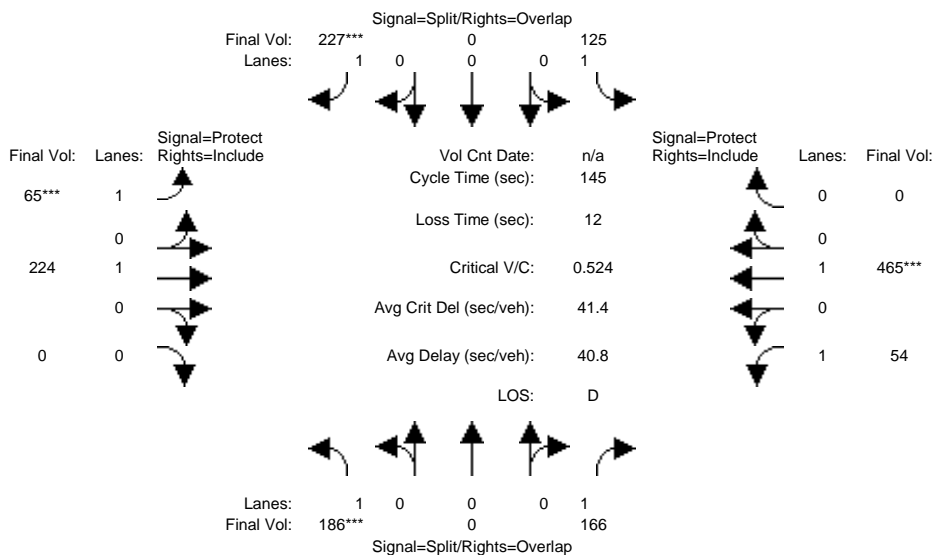
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.09	0.07	0.00	0.13	0.04	0.12	0.00	0.03	0.20	0.00
Crit Moves:	****					****	****				****	
Green Time:	31.1	0.0	52.5	24.9	0.0	36.2	11.4	52.2	0.0	21.4	62.3	0.0
Volume/Cap:	0.47	0.00	0.26	0.39	0.00	0.52	0.47	0.33	0.00	0.21	0.47	0.00
Uniform Del:	49.8	0.0	32.6	53.3	0.0	46.9	64.0	33.6	0.0	54.4	29.6	0.0
IncrcmntDel:	0.9	0.0	0.2	0.8	0.0	1.1	2.6	0.3	0.0	0.4	0.4	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	50.8	0.0	32.8	54.2	0.0	48.0	66.5	33.9	0.0	54.8	30.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.8	0.0	32.8	54.2	0.0	48.0	66.5	33.9	0.0	54.8	30.1	0.0
LOS by Move:	D	A	C-	D-	A	D	E	C-	A	D-	C	A
HCM2kAvgQ:	8	0	5	5	0	10	4	7	0	2	12	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	178	0	166	118	0	227	65	224	0	54	387	0
Growth 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
Initial Bse:	178	0	166	118	0	227	65	224	0	54	387	0
Added Vol:	8	0	0	7	0	0	0	0	0	0	78	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	186	0	166	125	0	227	65	224	0	54	465	0
User 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
PHF 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
PHF Volume:	186	0	166	125	0	227	65	224	0	54	465	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	0	166	125	0	227	65	224	0	54	465	0
PCE 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
MLF 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
Final Volume:	186	0	166	125	0	227	65	224	0	54	465	0

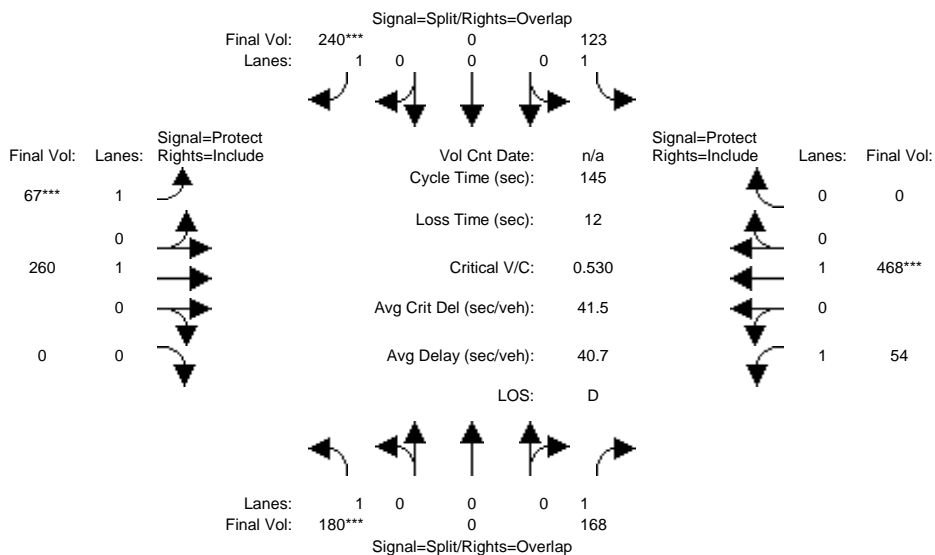
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.09	0.07	0.00	0.13	0.04	0.12	0.00	0.03	0.24	0.00
Crit Moves:	***					***	***				***	
Green Time:	29.4	0.0	52.1	22.5	0.0	32.8	10.3	55.3	0.0	22.7	67.7	0.0
Volume/Cap:	0.52	0.00	0.26	0.46	0.00	0.57	0.52	0.31	0.00	0.20	0.52	0.00
Uniform Del:	51.6	0.0	32.9	55.7	0.0	49.9	65.0	31.4	0.0	53.3	27.3	0.0
IncrcmntDel:	1.4	0.0	0.2	1.2	0.0	2.0	4.1	0.2	0.0	0.4	0.6	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	53.0	0.0	33.1	56.9	0.0	51.9	69.1	31.7	0.0	53.6	27.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	0.0	33.1	56.9	0.0	51.9	69.1	31.7	0.0	53.6	27.9	0.0
LOS by Move:	D-	A	C-	E+	A	D-	E	C	A	D-	C	A
HCM2kAvgQ:	8	0	5	6	0	10	4	7	0	2	14	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	180	0	168	123	0	240	67	260	0	54	468	0
Growth 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
Initial Bse:	180	0	168	123	0	240	67	260	0	54	468	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	0	168	123	0	240	67	260	0	54	468	0
User 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
PHF 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
PHF Volume:	180	0	168	123	0	240	67	260	0	54	468	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	0	168	123	0	240	67	260	0	54	468	0
PCE 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
MLF 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
FinalVolume:	180	0	168	123	0	240	67	260	0	54	468	0

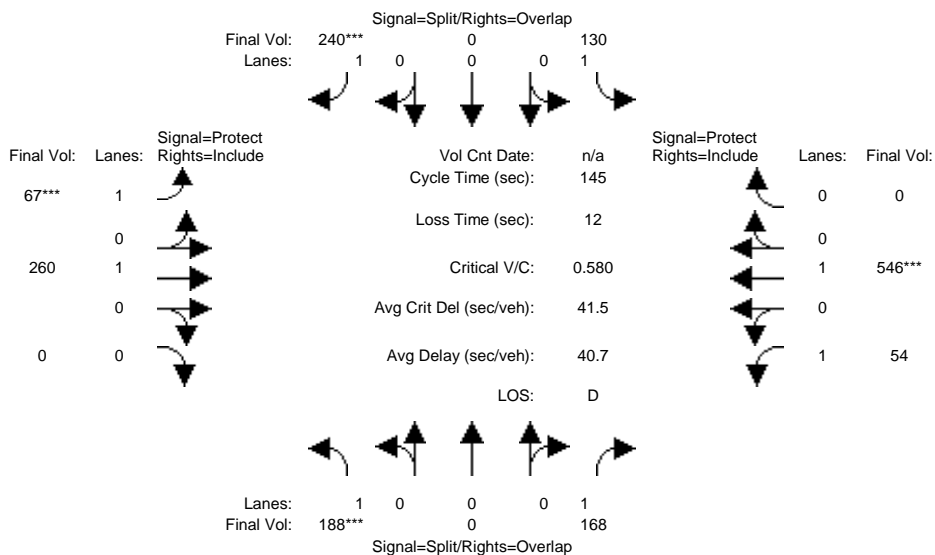
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.10	0.07	0.00	0.14	0.04	0.14	0.00	0.03	0.25	0.00
Crit Moves:	***					***	***				***	
Green Time:	28.1	0.0	48.4	24.3	0.0	34.8	10.5	57.5	0.0	20.3	67.4	0.0
Volume/Cap:	0.53	0.00	0.29	0.42	0.00	0.57	0.53	0.34	0.00	0.22	0.53	0.00
Uniform Del:	52.5	0.0	35.6	54.0	0.0	48.6	64.9	30.6	0.0	55.3	27.6	0.0
IncrcmntDel:	1.6	0.0	0.3	1.0	0.0	1.9	4.2	0.3	0.0	0.5	0.6	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	54.1	0.0	35.8	55.0	0.0	50.5	69.1	30.8	0.0	55.8	28.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.1	0.0	35.8	55.0	0.0	50.5	69.1	30.8	0.0	55.8	28.2	0.0
LOS by Move:	D-	A	D+	E+	A	D	E	C	A	E+	C	A
HCM2kAvgQ:	8	0	6	6	0	11	4	8	0	2	14	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P AM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	180	0	168	123	0	240	67	260	0	54	468	0
Growth 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
Initial Bse:	180	0	168	123	0	240	67	260	0	54	468	0
Added Vol:	8	0	0	7	0	0	0	0	0	0	78	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	188	0	168	130	0	240	67	260	0	54	546	0
User 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
PHF 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
PHF Volume:	188	0	168	130	0	240	67	260	0	54	546	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	188	0	168	130	0	240	67	260	0	54	546	0
PCE 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
MLF 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
FinalVolume:	188	0	168	130	0	240	67	260	0	54	546	0

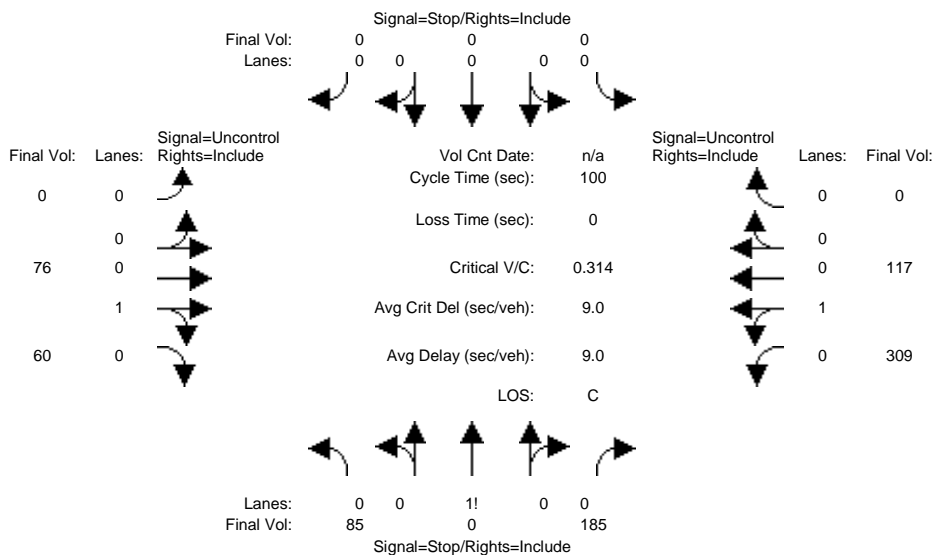
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.10	0.07	0.00	0.14	0.04	0.14	0.00	0.03	0.29	0.00
Crit Moves:	***					***	***				***	
Green Time:	26.9	0.0	48.1	22.2	0.0	31.8	9.6	60.2	0.0	21.2	71.9	0.0
Volume/Cap:	0.58	0.00	0.29	0.48	0.00	0.63	0.58	0.33	0.00	0.21	0.58	0.00
Uniform Del:	53.9	0.0	35.8	56.2	0.0	51.2	65.8	28.7	0.0	54.5	25.9	0.0
IncrcmntDel:	2.6	0.0	0.3	1.4	0.0	3.2	7.2	0.2	0.0	0.4	0.9	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	56.6	0.0	36.1	57.5	0.0	54.5	73.0	29.0	0.0	54.9	26.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.6	0.0	36.1	57.5	0.0	54.5	73.0	29.0	0.0	54.9	26.8	0.0
LOS by Move:	E+	A	D+	E+	A	D-	E	C	A	D-	C	A
HCM2kAvgQ:	9	0	6	6	0	11	4	8	0	2	17	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0 0	0 76 60	309 117 0
ApproachDel:	18.5	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.4]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=832]
    SUCCEED - Total volume greater than or equal to 650 for intersection
    with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0 0	0 76 60	309 117 0
Major Street Volume:		562		
Minor Approach Volume:		270		
Minor Approach Volume Threshold:		373		

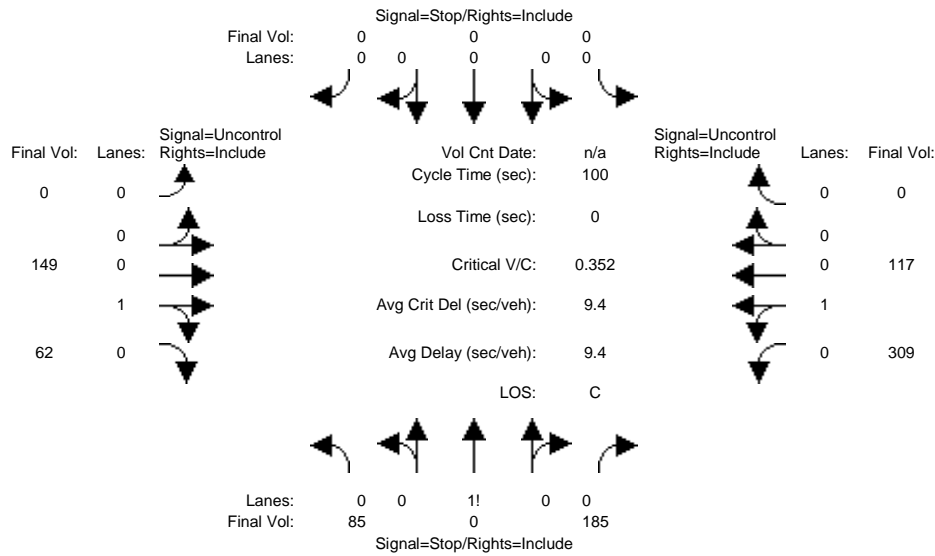
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume) and rows for each approach (North Bound, South Bound, East Bound, West Bound).

Table for Critical Gap Module showing Critical Gp and FollowUpTim for each approach.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for each approach.

Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0	0 149 62	309 117 0
ApproachDel:	21.9	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.6]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=907]
    SUCCEED - Total volume greater than or equal to 650 for intersection
    with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0	0 149 62	309 117 0

```

Major Street Volume:      637
Minor Approach Volume:    270
Minor Approach Volume Threshold: 340
    
```

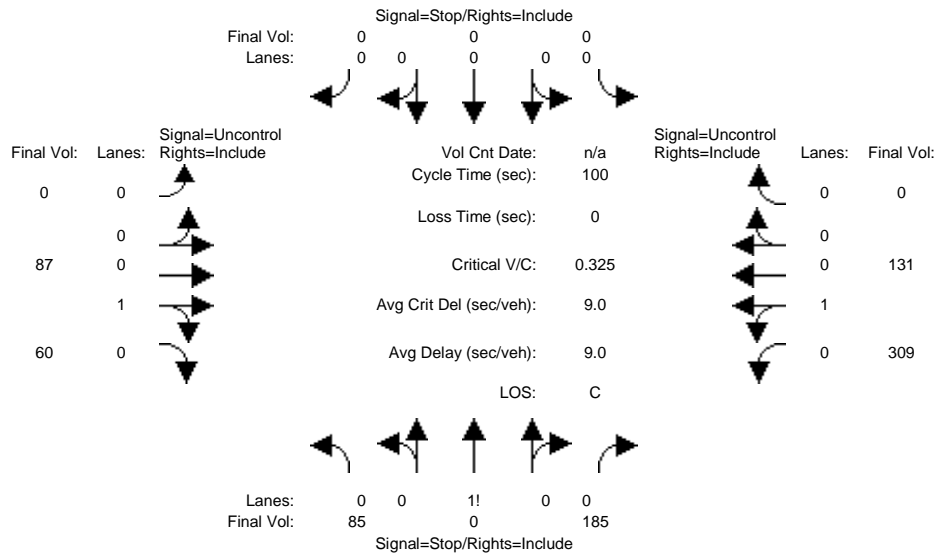
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume modules for different movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 12 columns representing critical gap modules. Rows include Critical Gap and FollowUpTim.

Table with 12 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0 0	0 87 60	309 131 0
ApproachDel:	19.3	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.4]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=857]
    SUCCEED - Total volume greater than or equal to 650 for intersection
    with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0 0	0 87 60	309 131 0

```

Major Street Volume:          587
Minor Approach Volume:       270
Minor Approach Volume Threshold: 361
    
```

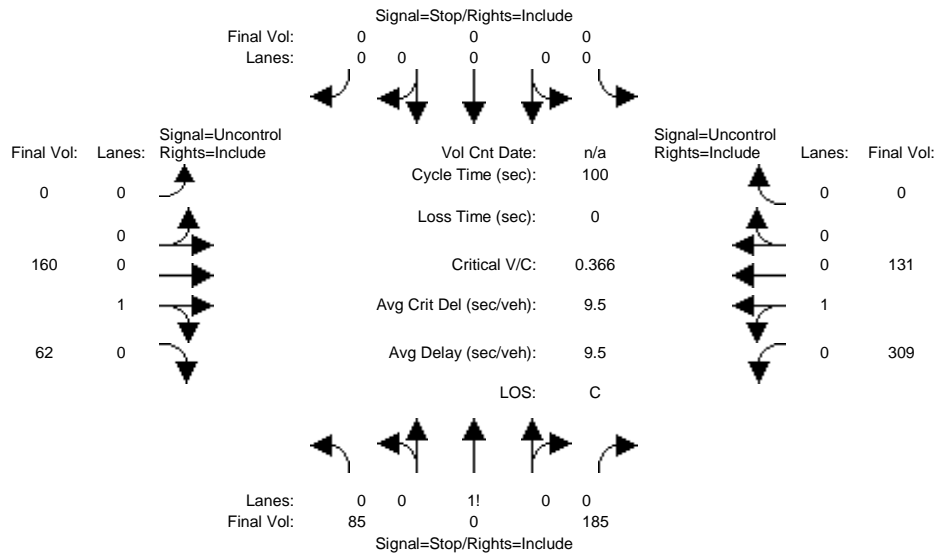
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTim.

Table with 13 columns representing movements and 4 rows of capacity data including Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0 0	0 160 62	309 131 0
ApproachDel:	23.0	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.7]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=270]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=932]
    SUCCEED - Total volume greater than or equal to 650 for intersection
    with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	85 0 185	0 0 0 0	0 160 62	309 131 0

```

Major Street Volume:          662
Minor Approach Volume:        270
Minor Approach Volume Threshold: 329
    
```

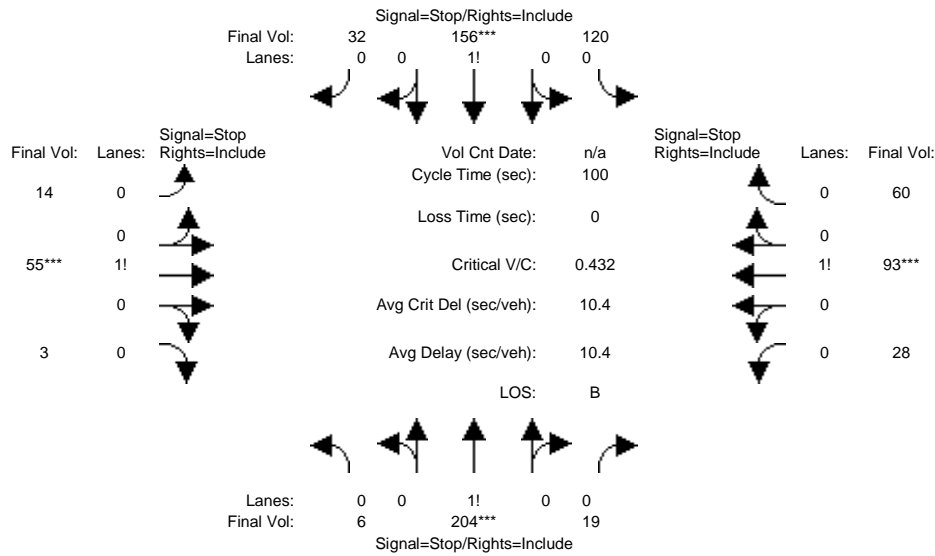
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing AM

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	6	204	19	120	156	32	14	55	3	28	93	60
Growth 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
Initial Bse:	6	204	19	120	156	32	14	55	3	28	93	60
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	204	19	120	156	32	14	55	3	28	93	60
User 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
PHF 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
PHF Volume:	6	204	19	120	156	32	14	55	3	28	93	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	204	19	120	156	32	14	55	3	28	93	60
PCE 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
MLF 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
FinalVolume:	6	204	19	120	156	32	14	55	3	28	93	60

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.89	0.08	0.39	0.51	0.10	0.19	0.77	0.04	0.15	0.52	0.33
Final Sat.:	18	624	58	278	362	74	115	454	25	101	335	216

Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.43	0.43	0.43	0.12	0.12	0.12	0.28	0.28	0.28
Crit Moves:	****			****			****			****		
Delay/Veh:	10.1	10.1	10.1	11.3	11.3	11.3	9.1	9.1	9.1	9.9	9.9	9.9
Delay 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
AdjDel/Veh:	10.1	10.1	10.1	11.3	11.3	11.3	9.1	9.1	9.1	9.9	9.9	9.9
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:		10.1			11.3			9.1			9.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.1			11.3			9.1			9.9	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.7	0.7	0.7	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 Morse Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 204 19	120 156 32	14 55 3	28 93 60
Major Street Volume:	537			
Minor Approach Volume:	181			
Minor Approach Volume Threshold:	385			

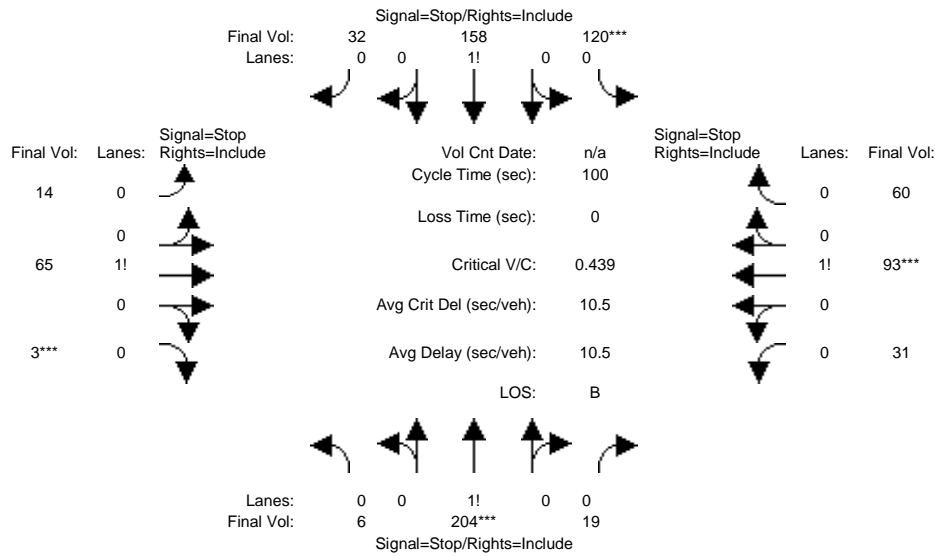
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing+P AM

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:	Morse Ave NB			Morse Ave SB			Duane Ave EB			Duane Ave WB		
Base Vol:	6	204	19	120	156	32	14	55	3	28	93	60
Growth 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
Initial Bse:	6	204	19	120	156	32	14	55	3	28	93	60
Added Vol:	0	0	0	0	2	0	0	10	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	204	19	120	158	32	14	65	3	31	93	60
User 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
PHF 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
PHF Volume:	6	204	19	120	158	32	14	65	3	31	93	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	204	19	120	158	32	14	65	3	31	93	60
PCE 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
MLF 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
FinalVolume:	6	204	19	120	158	32	14	65	3	31	93	60

Saturation Flow Module:	Morse Ave NB			Morse Ave SB			Duane Ave EB			Duane Ave WB		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.89	0.08	0.39	0.51	0.10	0.17	0.79	0.04	0.17	0.50	0.33
Final Sat.:	18	617	58	273	360	73	101	469	22	109	327	211

Capacity Analysis Module:	Morse Ave NB			Morse Ave SB			Duane Ave EB			Duane Ave WB		
Vol/Sat:	0.33	0.33	0.33	0.44	0.44	0.44	0.14	0.14	0.14	0.28	0.28	0.28
Crit Moves:	****			****			****			****		
Delay/Veh:	10.2	10.2	10.2	11.4	11.4	11.4	9.2	9.2	9.2	10.0	10.0	10.0
Delay 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
AdjDel/Veh:	10.2	10.2	10.2	11.4	11.4	11.4	9.2	9.2	9.2	10.0	10.0	10.0
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:		10.2			11.4			9.2			10.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.2			11.4			9.2			10.0	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.7	0.7	0.7	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #14 Morse Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Stop Sign					Stop Sign				
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	6	204		19		120	158		32		14	65		3		31	93		60	
Major Street Volume:											539									
Minor Approach Volume:											184									
Minor Approach Volume Threshold:											384									

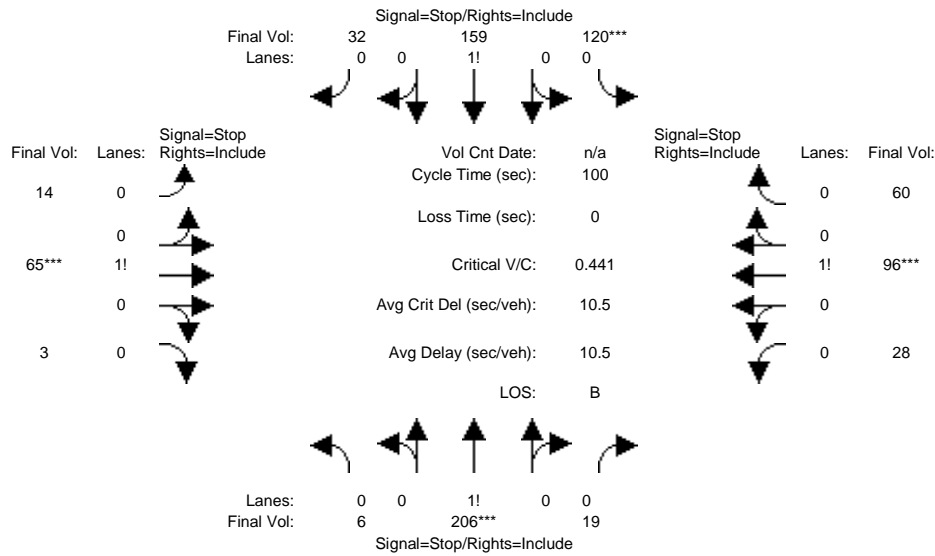
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Bkgd AM

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	6	206	19	120	159	32	14	65	3	28	96	60
Growth 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
Initial Bse:	6	206	19	120	159	32	14	65	3	28	96	60
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	206	19	120	159	32	14	65	3	28	96	60
User 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
PHF 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
PHF Volume:	6	206	19	120	159	32	14	65	3	28	96	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	206	19	120	159	32	14	65	3	28	96	60
PCE 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
MLF 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
FinalVolume:	6	206	19	120	159	32	14	65	3	28	96	60

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.89	0.08	0.39	0.51	0.10	0.17	0.79	0.04	0.15	0.52	0.33
Final Sat.:	18	618	57	272	361	73	101	468	22	98	337	210

Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.44	0.44	0.44	0.14	0.14	0.14	0.29	0.29	0.29
Crit Moves:	****			****			****			****		
Delay/Veh:	10.2	10.2	10.2	11.5	11.5	11.5	9.3	9.3	9.3	10.0	10.0	10.0
Delay 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
AdjDel/Veh:	10.2	10.2	10.2	11.5	11.5	11.5	9.3	9.3	9.3	10.0	10.0	10.0
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:		10.2			11.5			9.3			10.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.2			11.5			9.3			10.0	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	0.4	0.4	0.4	0.7	0.7	0.7	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 Morse Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign										
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	6	206	19	120	159	32	14	65	3	28	96	60								
Major Street Volume:	542																			
Minor Approach Volume:	184																			
Minor Approach Volume Threshold:	383																			

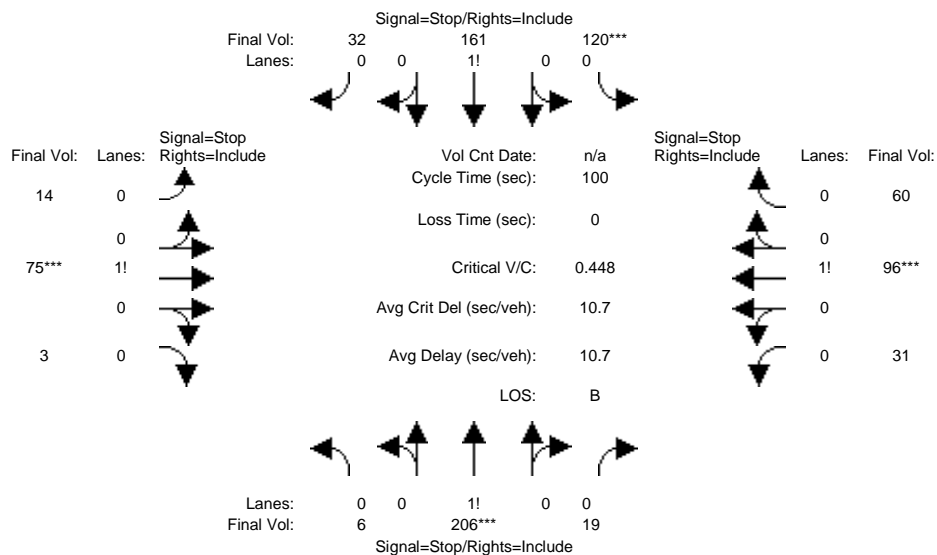
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Bkgd+P AM

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	6	206	19	120	159	32	14	65	3	28	96	60
Growth 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
Initial Bse:	6	206	19	120	159	32	14	65	3	28	96	60
Added Vol:	0	0	0	0	2	0	0	10	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	206	19	120	161	32	14	75	3	31	96	60
User 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
PHF 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
PHF Volume:	6	206	19	120	161	32	14	75	3	31	96	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	206	19	120	161	32	14	75	3	31	96	60
PCE 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
MLF 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
FinalVolume:	6	206	19	120	161	32	14	75	3	31	96	60

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.89	0.08	0.38	0.52	0.10	0.15	0.82	0.03	0.17	0.51	0.32
Final Sat.:	18	610	56	268	359	71	90	480	19	106	329	206

Capacity Analysis Module:												
Vol/Sat:	0.34	0.34	0.34	0.45	0.45	0.45	0.16	0.16	0.16	0.29	0.29	0.29
Crit Moves:	****			****			****			****		
Delay/Veh:	10.3	10.3	10.3	11.6	11.6	11.6	9.4	9.4	9.4	10.1	10.1	10.1
Delay 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
AdjDel/Veh:	10.3	10.3	10.3	11.6	11.6	11.6	9.4	9.4	9.4	10.1	10.1	10.1
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
ApproachDel:		10.3			11.6			9.4			10.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.3			11.6			9.4			10.1	
LOS by Appr:		B			B			A			B	
AllWayAvgQ:	0.4	0.4	0.4	0.7	0.7	0.7	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 Morse Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 206 19	120 161 32	14 75 3	31 96 60
Major Street Volume:	544			
Minor Approach Volume:	187			
Minor Approach Volume Threshold:	382			

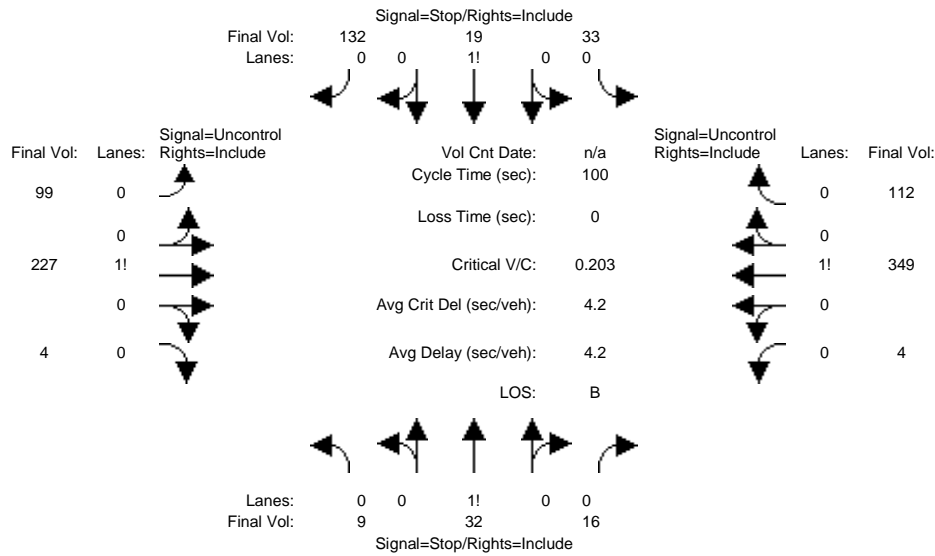
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing traffic movements and 12 rows representing volume modules (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume).

Table with 12 columns representing traffic movements and 2 rows representing critical gap modules (Critical Gp, FollowUpTim).

Table with 12 columns representing traffic movements and 5 rows representing capacity modules (Cnflct Vol, Potent Cap., Move Cap., Total Cap, Volume/Cap).

Table with 12 columns representing traffic movements and 7 rows representing level of service modules (2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 132	99 227 4	4 349 112
ApproachDel:	14.5	14.5	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=57]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1036]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.7]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=184]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1036]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 132	99 227 4	4 349 112

Major Street Volume: 795
 Minor Approach Volume: 184
 Minor Approach Volume Threshold: 281

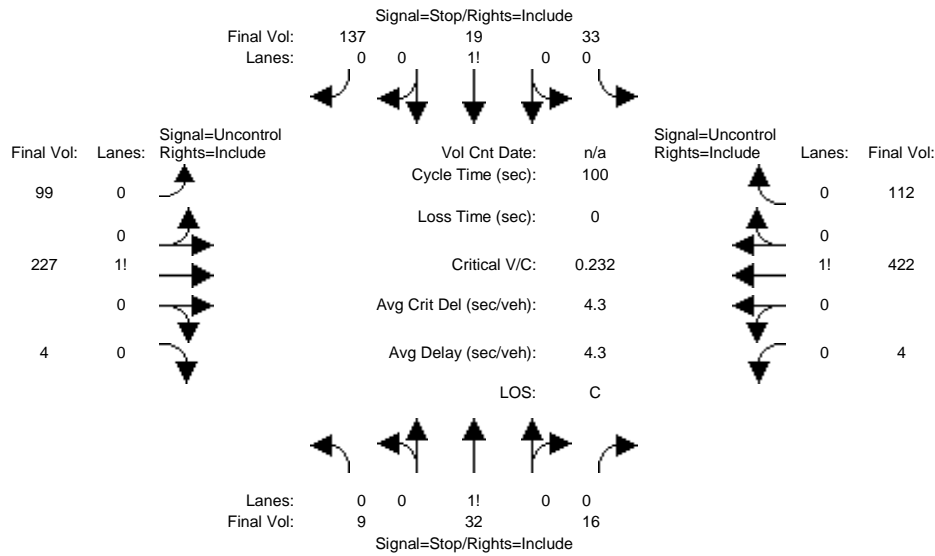
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume modules for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing critical gap modules. Rows include Critical Gap and FollowUpTime.

Table with 12 columns representing capacity modules. Rows include Conflict Vol, Potent Cap., Move Cap., Total Cap, and Volume/Cap.

Table with 12 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 137	99 227 4	4 422 112
ApproachDel:	15.5	15.7	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=57]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1114]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.8]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=189]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1114]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 137	99 227 4	4 422 112

Major Street Volume: 868
 Minor Approach Volume: 189
 Minor Approach Volume Threshold: 257

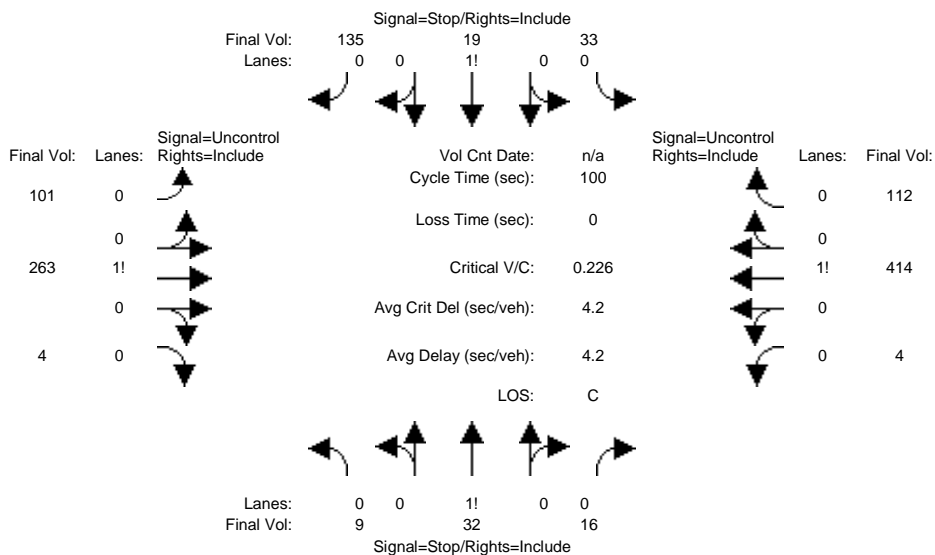
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	9	32	16	33	19	135	101	263	4	4	414	112
Growth 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
Initial Bse:	9	32	16	33	19	135	101	263	4	4	414	112
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	32	16	33	19	135	101	263	4	4	414	112
User 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
PHF 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
PHF Volume:	9	32	16	33	19	135	101	263	4	4	414	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	32	16	33	19	135	101	263	4	4	414	112

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1022	1001	265	969	947	470	526	xxxx	xxxxxx	267	xxxx	xxxxxx
Potent Cap.:	216	245	779	235	263	598	1051	xxxx	xxxxxx	1308	xxxx	xxxxxx
Move Cap.:	145	219	779	188	236	598	1051	xxxx	xxxxxx	1308	xxxx	xxxxxx
Total Cap:	259	359	xxxxxx	378	408	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.03	0.09	0.02	0.09	0.05	0.23	0.10	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	8.8	xxxx	xxxxxx	7.8	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	394	xxxxxx	xxxx	520	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.5	xxxxxx	xxxxxx	1.6	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	15.7	xxxxxx	xxxxxx	15.8	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:		15.7			15.8		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:		C			C		*		*		*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 135	101 263 4	4 414 112
ApproachDel:	15.7	15.8	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=57]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1142]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.8]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=187]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1142]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 135	101 263 4	4 414 112

Major Street Volume: 898
 Minor Approach Volume: 187
 Minor Approach Volume Threshold: 248

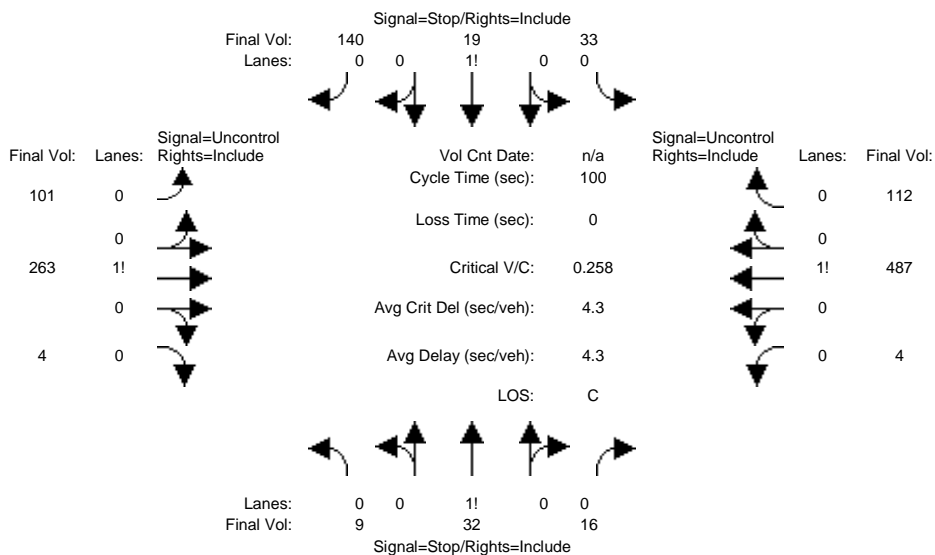
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	9	32	16	33	19	135	101	263	4	4	414	112
Growth 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
Initial Bse:	9	32	16	33	19	135	101	263	4	4	414	112
Added Vol:	0	0	0	0	0	5	0	0	0	0	73	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	32	16	33	19	140	101	263	4	4	487	112
User 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
PHF 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
PHF Volume:	9	32	16	33	19	140	101	263	4	4	487	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	32	16	33	19	140	101	263	4	4	487	112

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1098	1074	265	1042	1020	543	599	xxxx	xxxxx	267	xxxx	xxxxx
Potent Cap.:	192	222	779	210	239	544	988	xxxx	xxxxx	1308	xxxx	xxxxx
Move Cap.:	122	197	779	165	212	544	988	xxxx	xxxxx	1308	xxxx	xxxxx
Total Cap:	217	333	xxxxx	359	388	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	0.10	0.02	0.09	0.05	0.26	0.10	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	361	xxxxx	xxxx	482	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	1.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	16.9	xxxxx	xxxxx	17.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	C	*	*	*	*	*	*	*
ApproachDel:		16.9			17.3		xxxxxxx			xxxxxxx		
ApproachLOS:		C			C		*			*		*

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 140	101 263 4	4 487 112
ApproachDel:	16.9	17.3	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.3]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=57]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1220]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.9]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=192]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1220]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	9 32 16	33 19 140	101 263 4	4 487 112

Major Street Volume: 971
 Minor Approach Volume: 192
 Minor Approach Volume Threshold: 227

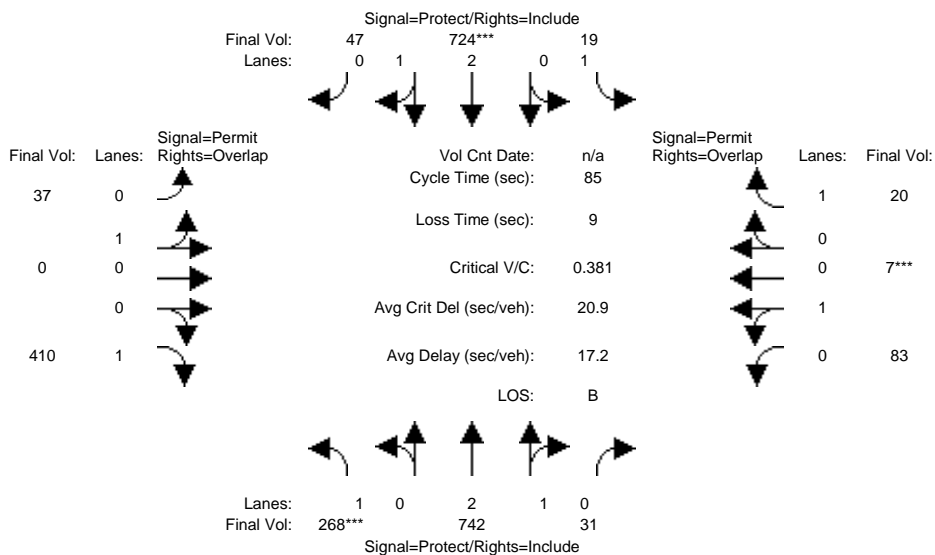
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	268	742	31	19	724	47	37	0	410	83	7	20
Growth 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
Initial Bse:	268	742	31	19	724	47	37	0	410	83	7	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	268	742	31	19	724	47	37	0	410	83	7	20
User 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
PHF 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
PHF Volume:	268	742	31	19	724	47	37	0	410	83	7	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	268	742	31	19	724	47	37	0	410	83	7	20
PCE 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
MLF 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
Final Volume:	268	742	31	19	724	47	37	0	410	83	7	20

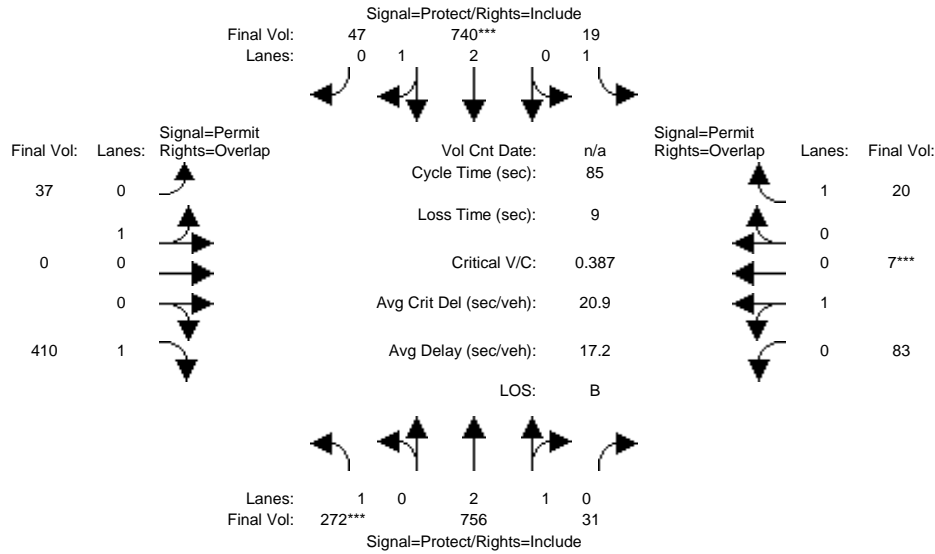
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.88	0.12	1.00	2.81	0.19	1.00	0.00	1.00	0.92	0.08	1.00
Final Sat.:	1750	5375	225	1750	5258	341	1800	0	1750	1660	140	1750

Capacity Analysis Module:												
Vol/Sat:	0.15	0.14	0.14	0.01	0.14	0.14	0.02	0.00	0.23	0.05	0.05	0.01
Crit Moves:	****				****					****		
Green Time:	34.1	40.6	40.6	24.2	30.7	30.7	11.1	0.0	45.3	11.1	11.1	35.4
Volume/Cap:	0.38	0.29	0.29	0.04	0.38	0.38	0.16	0.00	0.44	0.38	0.38	0.03
Uniform Del:	18.0	13.4	13.4	22.0	20.1	20.1	32.8	0.0	12.1	33.8	33.8	14.6
IncrcmntDel:	0.3	0.1	0.1	0.0	0.1	0.1	0.3	0.0	0.3	1.0	1.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	18.3	13.5	13.5	22.0	20.2	20.2	33.1	0.0	12.4	34.8	34.8	14.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.3	13.5	13.5	22.0	20.2	20.2	33.1	0.0	12.4	34.8	34.8	14.7
LOS by Move:	B-	B	B	C+	C+	C+	C-	A	B	C-	C-	B
HCM2kAvgQ:	5	4	4	0	5	5	1	0	7	3	3	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	268	742	31	19	724	47	37	0	410	83	7	20
Growth 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
Initial Bse:	268	742	31	19	724	47	37	0	410	83	7	20
Added Vol:	4	14	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	272	756	31	19	740	47	37	0	410	83	7	20
User 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
PHF 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
PHF Volume:	272	756	31	19	740	47	37	0	410	83	7	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	272	756	31	19	740	47	37	0	410	83	7	20
PCE 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
MLF 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
Final Volume:	272	756	31	19	740	47	37	0	410	83	7	20

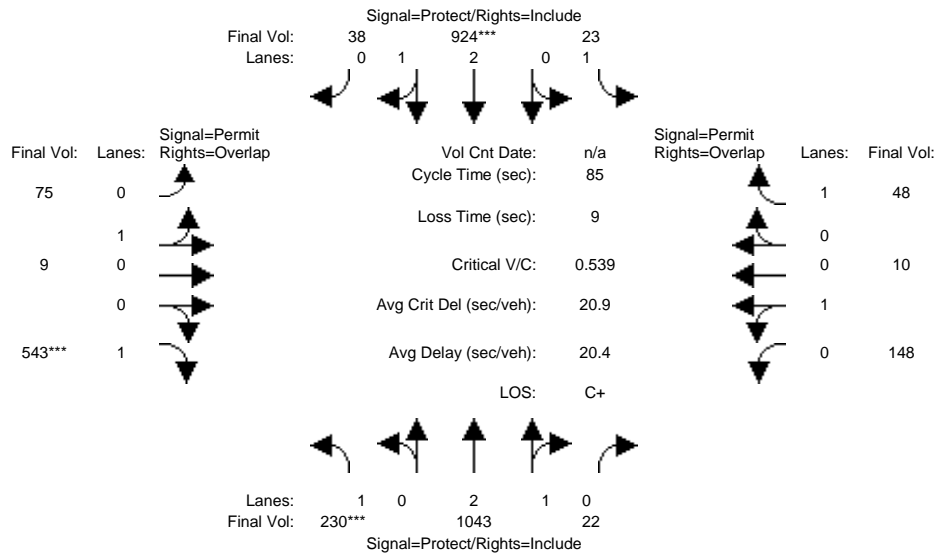
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.88	0.12	1.00	2.81	0.19	1.00	0.00	1.00	0.92	0.08	1.00
Final Sat.:	1750	5379	221	1750	5265	334	1800	0	1750	1660	140	1750

Capacity Analysis Module:												
Vol/Sat:	0.16	0.14	0.14	0.01	0.14	0.14	0.02	0.00	0.23	0.05	0.05	0.01
Crit Moves:	****				****					****		
Green Time:	34.1	41.0	41.0	24.0	30.9	30.9	11.0	0.0	45.1	11.0	11.0	35.0
Volume/Cap:	0.39	0.29	0.29	0.04	0.39	0.39	0.16	0.00	0.44	0.39	0.39	0.03
Uniform Del:	18.0	13.3	13.3	22.1	20.1	20.1	32.9	0.0	12.2	33.9	33.9	14.9
IncrcmntDel:	0.4	0.1	0.1	0.0	0.1	0.1	0.3	0.0	0.3	1.1	1.1	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	18.4	13.3	13.3	22.1	20.2	20.2	33.2	0.0	12.6	35.0	35.0	14.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.4	13.3	13.3	22.1	20.2	20.2	33.2	0.0	12.6	35.0	35.0	14.9
LOS by Move:	B-	B	B	C+	C+	C+	C-	A	B	C-	C-	B
HCM2kAvgQ:	5	4	4	0	5	5	1	0	7	3	3	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Weddell Ave EB			Weddell Ave WB		
Base Vol:	230	1043	22	23	924	38	75	9	543	148	10	48
Growth 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
Initial Bse:	230	1043	22	23	924	38	75	9	543	148	10	48
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	230	1043	22	23	924	38	75	9	543	148	10	48
User 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
PHF 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
PHF Volume:	230	1043	22	23	924	38	75	9	543	148	10	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	230	1043	22	23	924	38	75	9	543	148	10	48
PCE 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
MLF 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
Final Volume:	230	1043	22	23	924	38	75	9	543	148	10	48

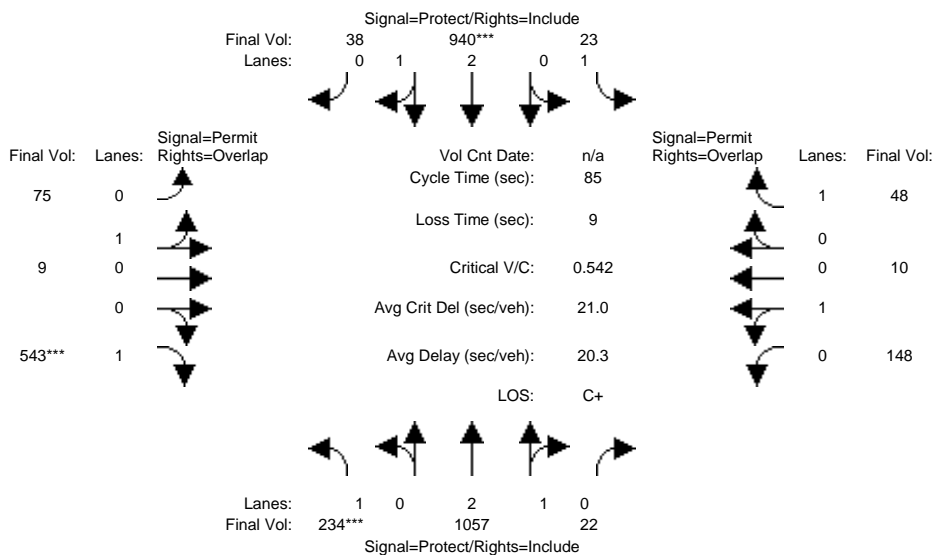
Saturation Flow Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Weddell Ave EB			Weddell Ave WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.94	0.06	1.00	2.88	0.12	0.89	0.11	1.00	0.94	0.06	1.00
Final Sat.:	1750	5484	116	1750	5379	221	1607	193	1750	1686	114	1750

Capacity Analysis Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Weddell Ave EB			Weddell Ave WB		
Vol/Sat:	0.13	0.19	0.19	0.01	0.17	0.17	0.05	0.05	0.31	0.09	0.09	0.03
Crit Moves:	****				****				****			
Green Time:	20.7	33.4	33.4	14.4	27.1	27.1	28.2	28.2	48.9	28.2	28.2	42.6
Volume/Cap:	0.54	0.48	0.48	0.08	0.54	0.54	0.14	0.14	0.54	0.26	0.26	0.05
Uniform Del:	28.0	19.4	19.4	29.7	23.8	23.8	19.9	19.9	11.1	20.8	20.8	10.9
IncrcmntDel:	1.4	0.2	0.2	0.1	0.3	0.3	0.1	0.1	0.6	0.2	0.2	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	29.4	19.5	19.5	29.8	24.2	24.2	20.0	20.0	11.7	21.0	21.0	10.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.4	19.5	19.5	29.8	24.2	24.2	20.0	20.0	11.7	21.0	21.0	10.9
LOS by Move:	C	B-	B-	C	C	C	C+	C+	B+	C+	C+	B+
HCM2kAvgQ:	6	7	7	1	7	7	2	2	10	3	3	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P AM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	230	1043	22	23	924	38	75	9	543	148	10	48
Growth 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
Initial Bse:	230	1043	22	23	924	38	75	9	543	148	10	48
Added Vol:	4	14	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	234	1057	22	23	940	38	75	9	543	148	10	48
User 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
PHF 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
PHF Volume:	234	1057	22	23	940	38	75	9	543	148	10	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	234	1057	22	23	940	38	75	9	543	148	10	48
PCE 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
MLF 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
Final Volume:	234	1057	22	23	940	38	75	9	543	148	10	48

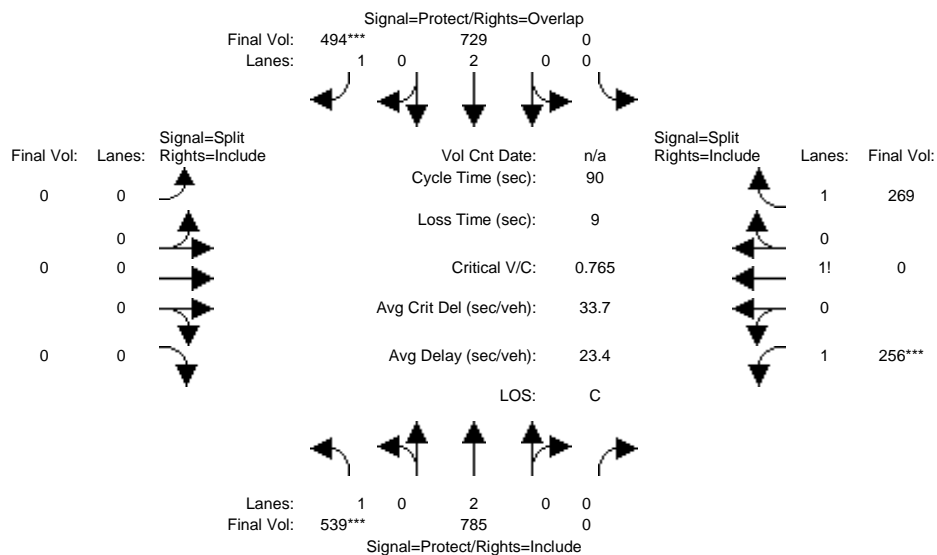
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.94	0.06	1.00	2.88	0.12	0.89	0.11	1.00	0.94	0.06	1.00
Final Sat.:	1750	5486	114	1750	5382	218	1607	193	1750	1686	114	1750

Capacity Analysis Module:												
Vol/Sat:	0.13	0.19	0.19	0.01	0.17	0.17	0.05	0.05	0.31	0.09	0.09	0.03
Crit Moves:	****				****				****			
Green Time:	21.0	33.9	33.9	14.5	27.4	27.4	27.7	27.7	48.6	27.7	27.7	42.1
Volume/Cap:	0.54	0.48	0.48	0.08	0.54	0.54	0.14	0.14	0.54	0.27	0.27	0.06
Uniform Del:	27.9	19.1	19.1	29.7	23.7	23.7	20.3	20.3	11.3	21.2	21.2	11.1
IncrcmntDel:	1.4	0.2	0.2	0.1	0.3	0.3	0.1	0.1	0.6	0.2	0.2	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	29.3	19.2	19.2	29.8	24.0	24.0	20.4	20.4	11.9	21.4	21.4	11.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.3	19.2	19.2	29.8	24.0	24.0	20.4	20.4	11.9	21.4	21.4	11.1
LOS by Move:	C	B-	B-	C	C	C	C+	C+	B+	C+	C+	B+
HCM2kAvgQ:	6	7	7	1	8	8	2	2	10	3	3	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	539	785	0	0	729	494	0	0	0	256	0	269
Growth 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
Initial Bse:	539	785	0	0	729	494	0	0	0	256	0	269
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	539	785	0	0	729	494	0	0	0	256	0	269
User 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
PHF 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
PHF Volume:	539	785	0	0	729	494	0	0	0	256	0	269
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	539	785	0	0	729	494	0	0	0	256	0	269
PCE 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
MLF 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
Final Volume:	539	785	0	0	729	494	0	0	0	256	0	269

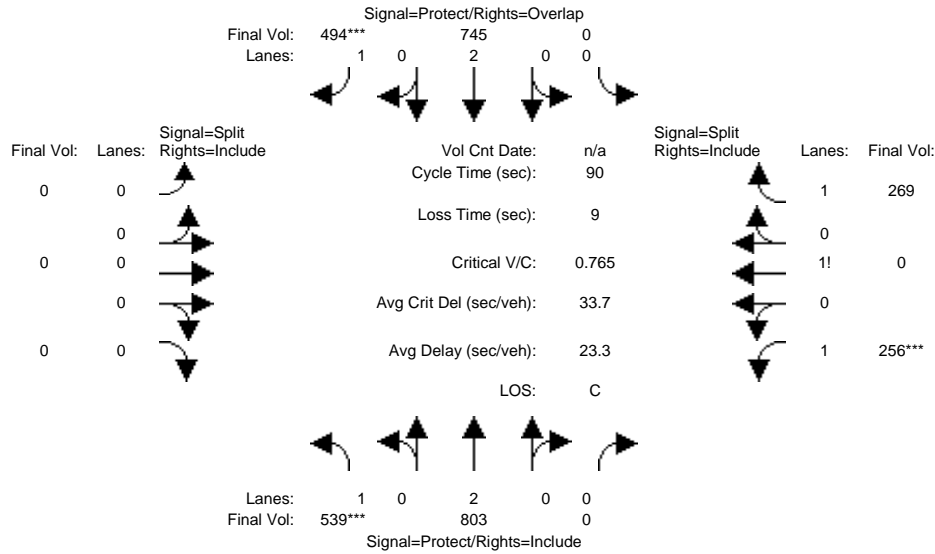
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.49	0.00	1.51
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2603	0	2647

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.31	0.21	0.00	0.00	0.19	0.28	0.00	0.00	0.00	0.10	0.00	0.10
Crit Moves:	****					****				****		
Green Time:	36.1	69.1	0.0	0.0	33.0	33.0	0.0	0.0	0.0	11.9	0.0	11.9
Volume/Cap:	0.77	0.27	0.00	0.00	0.52	0.77	0.00	0.00	0.00	0.74	0.00	0.77
Uniform Del:	23.4	3.1	0.0	0.0	22.3	25.1	0.0	0.0	0.0	37.6	0.0	37.7
IncrcmntDel:	5.2	0.0	0.0	0.0	0.4	5.6	0.0	0.0	0.0	4.3	0.0	5.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	28.5	3.1	0.0	0.0	22.7	30.7	0.0	0.0	0.0	41.9	0.0	43.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.5	3.1	0.0	0.0	22.7	30.7	0.0	0.0	0.0	41.9	0.0	43.0
LOS by Move:	C	A	A	A	C+	C	A	A	A	D	A	D
HCM2kAvgQ:	16	3	0	0	8	13	0	0	0	7	0	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P AM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	539	785	0	0	729	494	0	0	0	256	0	269
Growth 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
Initial Bse:	539	785	0	0	729	494	0	0	0	256	0	269
Added Vol:	0	18	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	539	803	0	0	745	494	0	0	0	256	0	269
User 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
PHF 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
PHF Volume:	539	803	0	0	745	494	0	0	0	256	0	269
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	539	803	0	0	745	494	0	0	0	256	0	269
PCE 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
MLF 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
Final Volume:	539	803	0	0	745	494	0	0	0	256	0	269

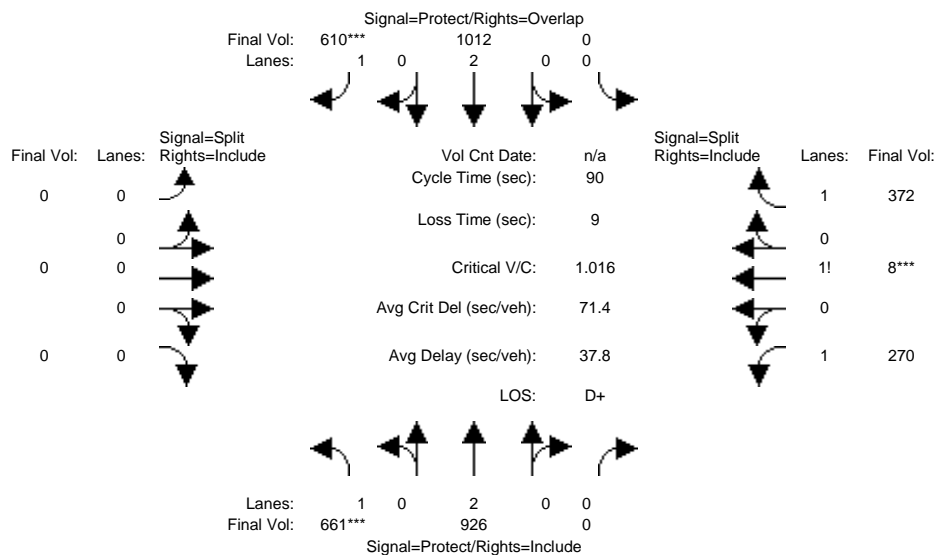
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.49	0.00	1.51
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2603	0	2647

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.31	0.21	0.00	0.00	0.20	0.28	0.00	0.00	0.00	0.10	0.00	0.10
Crit Moves:	****				****					****		
Green Time:	36.1	69.1	0.0	0.0	33.0	33.0	0.0	0.0	0.0	11.9	0.0	11.9
Volume/Cap:	0.77	0.28	0.00	0.00	0.53	0.77	0.00	0.00	0.00	0.74	0.00	0.77
Uniform Del:	23.4	3.1	0.0	0.0	22.4	25.1	0.0	0.0	0.0	37.6	0.0	37.7
IncrementDel:	5.2	0.1	0.0	0.0	0.4	5.6	0.0	0.0	0.0	4.3	0.0	5.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	28.5	3.1	0.0	0.0	22.8	30.7	0.0	0.0	0.0	41.9	0.0	43.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.5	3.1	0.0	0.0	22.8	30.7	0.0	0.0	0.0	41.9	0.0	43.0
LOS by Move:	C	A	A	A	C+	C	A	A	A	D	A	D
HCM2kAvgQ:	16	3	0	0	8	13	0	0	0	7	0	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	661	926	0	0	1012	610	0	0	0	270	8	372
Growth 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
Initial Bse:	661	926	0	0	1012	610	0	0	0	270	8	372
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	661	926	0	0	1012	610	0	0	0	270	8	372
User 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
PHF 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
PHF Volume:	661	926	0	0	1012	610	0	0	0	270	8	372
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	661	926	0	0	1012	610	0	0	0	270	8	372
PCE 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
MLF 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
Final Volume:	661	926	0	0	1012	610	0	0	0	270	8	372

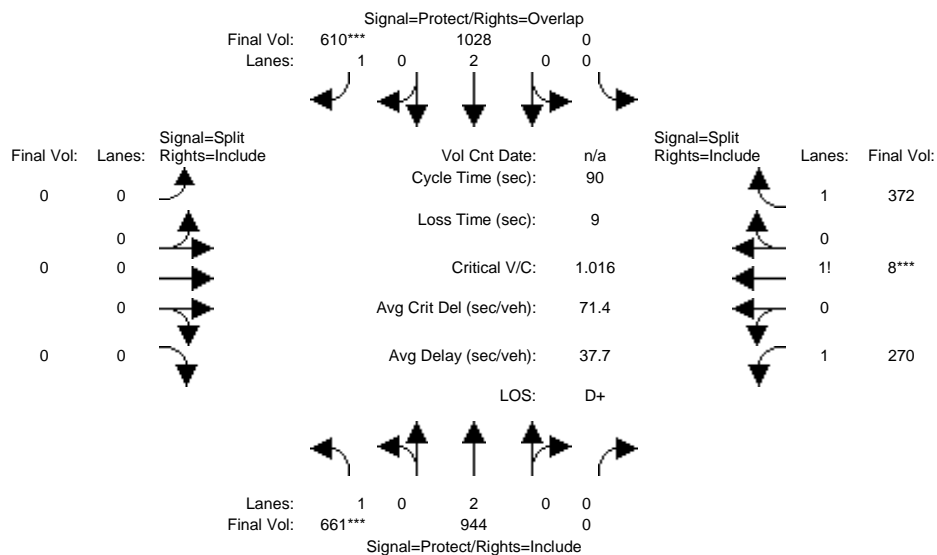
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.41	0.02	1.57
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2468	43	2739

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.38	0.24	0.00	0.00	0.27	0.35	0.00	0.00	0.00	0.11	0.19	0.14
Crit Moves:	****					****					****	
Green Time:	33.5	64.3	0.0	0.0	30.9	30.9	0.0	0.0	0.0	16.7	16.7	16.7
Volume/Cap:	1.02	0.34	0.00	0.00	0.78	1.02	0.00	0.00	0.00	0.59	1.02	0.73
Uniform Del:	28.3	4.8	0.0	0.0	26.5	29.6	0.0	0.0	0.0	33.6	36.7	34.6
IncrcmntDel:	39.3	0.1	0.0	0.0	3.0	40.8	0.0	0.0	0.0	0.9	39.6	3.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	67.6	4.9	0.0	0.0	29.5	70.3	0.0	0.0	0.0	34.4	76.3	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.6	4.9	0.0	0.0	29.5	70.3	0.0	0.0	0.0	34.4	76.3	37.8
LOS by Move:	E	A	A	A	C	E	A	A	A	C-	E-	D+
HCM2kAvgQ:	28	5	0	0	13	23	0	0	0	6	16	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P AM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	661	926	0	0	1012	610	0	0	0	270	8	372
Growth 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
Initial Bse:	661	926	0	0	1012	610	0	0	0	270	8	372
Added Vol:	0	18	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	661	944	0	0	1028	610	0	0	0	270	8	372
User 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
PHF 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
PHF Volume:	661	944	0	0	1028	610	0	0	0	270	8	372
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	661	944	0	0	1028	610	0	0	0	270	8	372
PCE 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
MLF 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
Final Volume:	661	944	0	0	1028	610	0	0	0	270	8	372

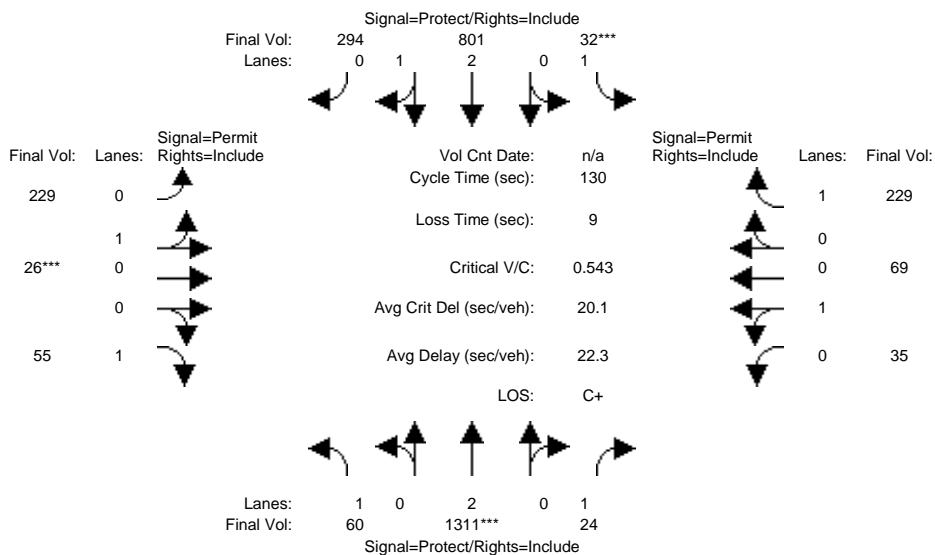
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.41	0.02	1.57
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2468	43	2739

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.38	0.25	0.00	0.00	0.27	0.35	0.00	0.00	0.00	0.11	0.19	0.14
Crit Moves:	****					****					****	
Green Time:	33.5	64.3	0.0	0.0	30.9	30.9	0.0	0.0	0.0	16.7	16.7	16.7
Volume/Cap:	1.02	0.35	0.00	0.00	0.79	1.02	0.00	0.00	0.00	0.59	1.02	0.73
Uniform Del:	28.3	4.9	0.0	0.0	26.6	29.6	0.0	0.0	0.0	33.6	36.7	34.6
IncrcmntDel:	39.3	0.1	0.0	0.0	3.3	40.8	0.0	0.0	0.0	0.9	39.6	3.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	67.6	4.9	0.0	0.0	29.9	70.3	0.0	0.0	0.0	34.4	76.3	37.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.6	4.9	0.0	0.0	29.9	70.3	0.0	0.0	0.0	34.4	76.3	37.8
LOS by Move:	E	A	A	A	C	E	A	A	A	C-	E-	D+
HCM2kAvgQ:	28	5	0	0	13	23	0	0	0	6	16	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	60	1311	24	32	801	294	229	26	55	35	69	229
Growth 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
Initial Bse:	60	1311	24	32	801	294	229	26	55	35	69	229
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1311	24	32	801	294	229	26	55	35	69	229
User 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
PHF 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
PHF Volume:	60	1311	24	32	801	294	229	26	55	35	69	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1311	24	32	801	294	229	26	55	35	69	229
PCE 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
MLF 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
Final Volume:	60	1311	24	32	801	294	229	26	55	35	69	229

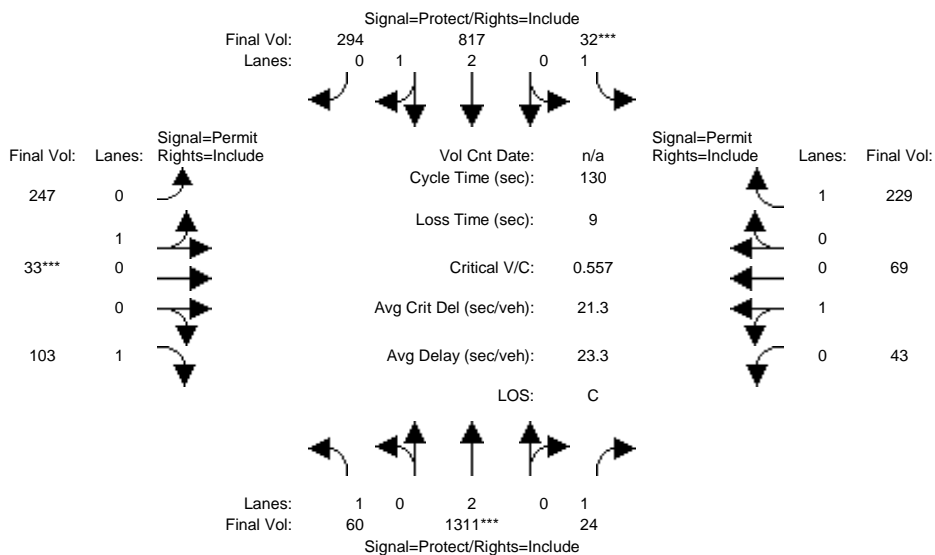
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.17	0.83	0.90	0.10	1.00	0.34	0.66	1.00
Final Sat.:	1750	3800	1750	1750	4094	1503	1616	184	1750	606	1194	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.01	0.02	0.20	0.20	0.14	0.14	0.03	0.06	0.06	0.13
Crit Moves:	****			****			****			****		
Green Time:	19.0	80.8	80.8	7.0	68.9	68.9	33.2	33.2	33.2	33.2	33.2	33.2
Volume/Cap:	0.24	0.55	0.02	0.34	0.37	0.37	0.55	0.55	0.12	0.23	0.23	0.51
Uniform Del:	49.1	14.2	9.4	59.3	17.9	17.9	42.0	42.0	37.2	38.3	38.3	41.5
IncrcmntDel:	0.5	0.3	0.0	2.1	0.1	0.1	1.5	1.5	0.1	0.3	0.3	1.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	49.6	14.5	9.4	61.4	18.0	18.0	43.5	43.5	37.3	38.5	38.5	42.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.6	14.5	9.4	61.4	18.0	18.0	43.5	43.5	37.3	38.5	38.5	42.5
LOS by Move:	D	B	A	E	B	B	D	D	D+	D+	D+	D
HCM2kAvgQ:	2	15	0	2	8	8	10	10	2	3	3	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	60	1311	24	32	801	294	229	26	55	35	69	229
Growth 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
Initial Bse:	60	1311	24	32	801	294	229	26	55	35	69	229
Added Vol:	0	0	0	0	16	0	18	7	48	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	1311	24	32	817	294	247	33	103	43	69	229
User 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
PHF 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
PHF Volume:	60	1311	24	32	817	294	247	33	103	43	69	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	1311	24	32	817	294	247	33	103	43	69	229
PCE 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
MLF 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
Final Volume:	60	1311	24	32	817	294	247	33	103	43	69	229

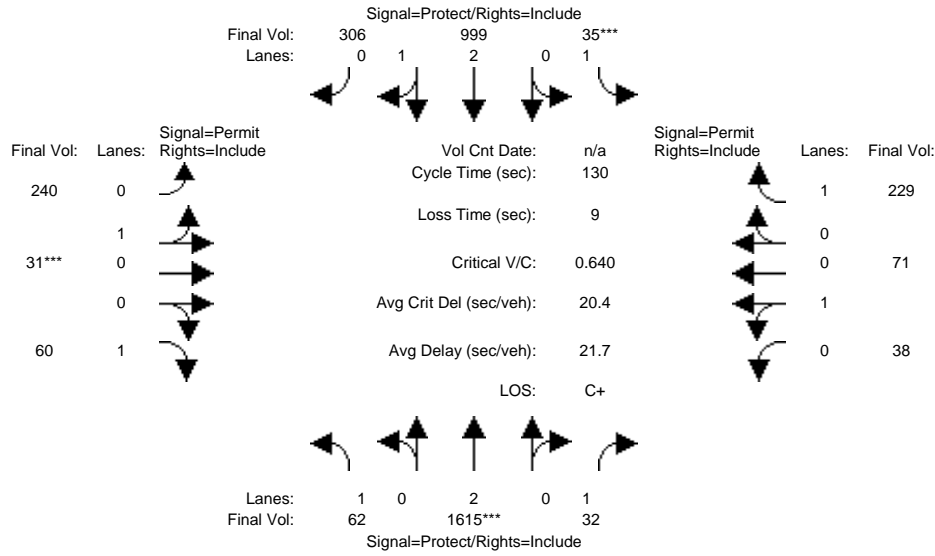
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.18	0.82	0.88	0.12	1.00	0.38	0.62	1.00
Final Sat.:	1750	3800	1750	1750	4116	1481	1588	212	1750	691	1109	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.01	0.02	0.20	0.20	0.16	0.16	0.06	0.06	0.06	0.13
Crit Moves:	****			****			****			****		
Green Time:	18.3	78.6	78.6	7.0	67.3	67.3	35.4	35.4	35.4	35.4	35.4	35.4
Volume/Cap:	0.24	0.57	0.02	0.34	0.38	0.38	0.57	0.57	0.22	0.23	0.23	0.48
Uniform Del:	49.7	15.5	10.3	59.3	18.9	18.9	40.7	40.7	36.6	36.7	36.7	39.6
IncrcmntDel:	0.5	0.3	0.0	2.1	0.1	0.1	1.6	1.6	0.2	0.2	0.2	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	50.2	15.9	10.3	61.4	18.9	18.9	42.3	42.3	36.8	36.9	36.9	40.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.2	15.9	10.3	61.4	18.9	18.9	42.3	42.3	36.8	36.9	36.9	40.3
LOS by Move:	D	B	B+	E	B-	B-	D	D	D+	D+	D+	D
HCM2kAvgQ:	2	15	0	2	9	9	10	10	3	4	4	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	62	1615	32	35	999	306	240	31	60	38	71	229
Growth 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
Initial Bse:	62	1615	32	35	999	306	240	31	60	38	71	229
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	1615	32	35	999	306	240	31	60	38	71	229
User 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
PHF 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
PHF Volume:	62	1615	32	35	999	306	240	31	60	38	71	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1615	32	35	999	306	240	31	60	38	71	229
PCE 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
MLF 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
Final Volume:	62	1615	32	35	999	306	240	31	60	38	71	229

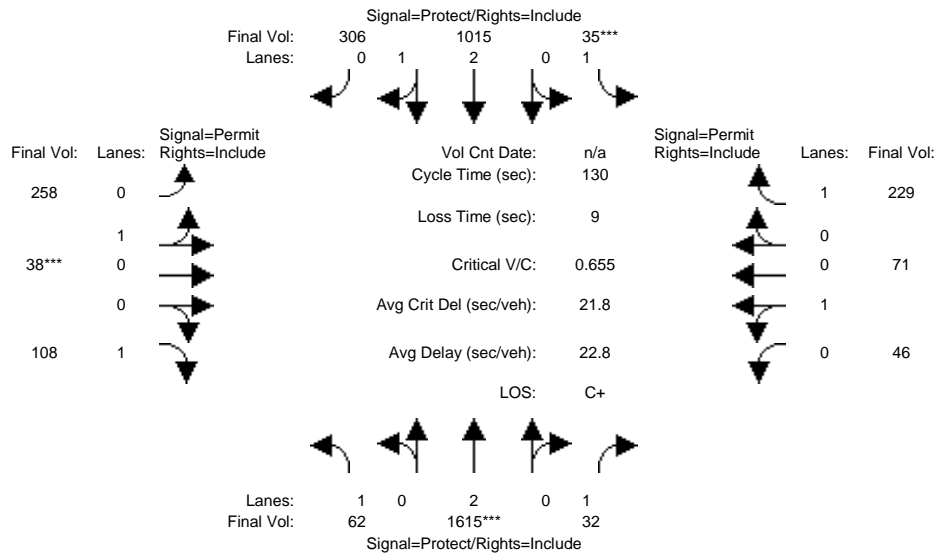
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.27	0.73	0.89	0.11	1.00	0.35	0.65	1.00
Final Sat.:	1750	3800	1750	1750	4285	1313	1594	206	1750	628	1172	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.43	0.02	0.02	0.23	0.23	0.15	0.15	0.03	0.06	0.06	0.13
Crit Moves:	****			****			****			****		
Green Time:	17.1	84.2	84.2	7.0	74.1	74.1	29.8	29.8	29.8	29.8	29.8	29.8
Volume/Cap:	0.27	0.66	0.03	0.37	0.41	0.41	0.66	0.66	0.15	0.26	0.26	0.57
Uniform Del:	50.8	14.0	8.2	59.4	15.7	15.7	45.4	45.4	40.0	41.1	41.1	44.4
IncrcmntDel:	0.6	0.7	0.0	2.5	0.1	0.1	3.8	3.8	0.2	0.3	0.3	2.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	51.5	14.7	8.2	61.8	15.8	15.8	49.3	49.3	40.1	41.4	41.4	46.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.5	14.7	8.2	61.8	15.8	15.8	49.3	49.3	40.1	41.4	41.4	46.4
LOS by Move:	D-	B	A	E	B	B	D	D	D	D	D	D
HCM2kAvgQ:	2	19	0	2	10	10	11	11	2	4	4	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P AM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	62	1615	32	35	999	306	240	31	60	38	71	229
Growth 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
Initial Bse:	62	1615	32	35	999	306	240	31	60	38	71	229
Added Vol:	0	0	0	0	16	0	18	7	48	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	1615	32	35	1015	306	258	38	108	46	71	229
User 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
PHF 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
PHF Volume:	62	1615	32	35	1015	306	258	38	108	46	71	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1615	32	35	1015	306	258	38	108	46	71	229
PCE 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
MLF 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
Final Volume:	62	1615	32	35	1015	306	258	38	108	46	71	229

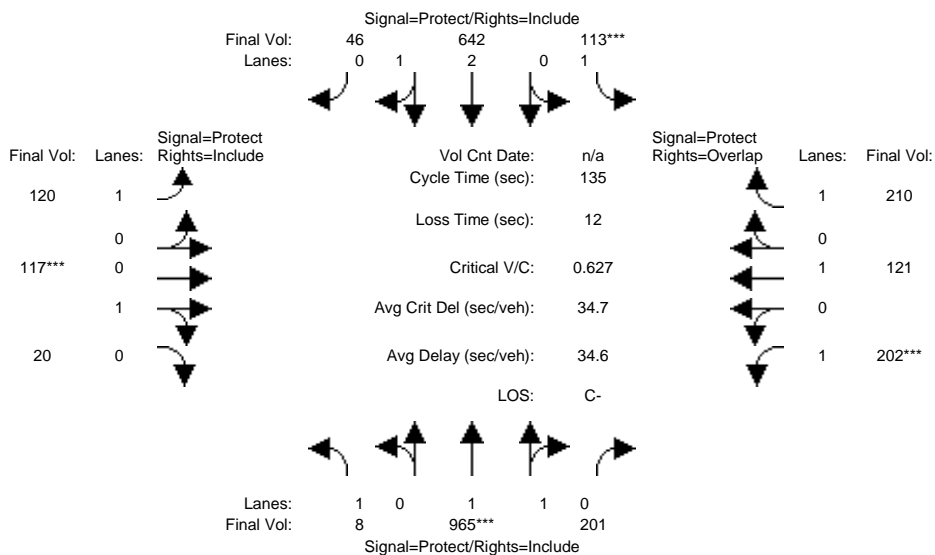
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.28	0.72	0.87	0.13	1.00	0.39	0.61	1.00
Final Sat.:	1750	3800	1750	1750	4301	1297	1569	231	1750	708	1092	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.43	0.02	0.02	0.24	0.24	0.16	0.16	0.06	0.07	0.07	0.13
Crit Moves:	****			****			****			****		
Green Time:	16.6	82.2	82.2	7.0	72.6	72.6	31.8	31.8	31.8	31.8	31.8	31.8
Volume/Cap:	0.28	0.67	0.03	0.37	0.42	0.42	0.67	0.67	0.25	0.27	0.27	0.53
Uniform Del:	51.3	15.3	9.0	59.4	16.6	16.6	44.4	44.4	39.5	39.7	39.7	42.7
IncrcmntDel:	0.7	0.8	0.0	2.5	0.1	0.1	4.0	4.0	0.3	0.3	0.3	1.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	52.0	16.0	9.0	61.8	16.7	16.7	48.4	48.4	39.8	40.0	40.0	44.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.0	16.0	9.0	61.8	16.7	16.7	48.4	48.4	39.8	40.0	40.0	44.0
LOS by Move:	D-	B	A	E	B	B	D	D	D	D	D	D
HCM2kAvgQ:	2	20	0	2	10	10	12	12	4	4	4	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
	8	965	201	113	642	46	120	117	20	202	121	210
Base Vol:	8	965	201	113	642	46	120	117	20	202	121	210
Growth 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
Initial Bse:	8	965	201	113	642	46	120	117	20	202	121	210
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	965	201	113	642	46	120	117	20	202	121	210
User 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
PHF 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
PHF Volume:	8	965	201	113	642	46	120	117	20	202	121	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	965	201	113	642	46	120	117	20	202	121	210
PCE 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
MLF 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
Final Volume:	8	965	201	113	642	46	120	117	20	202	121	210

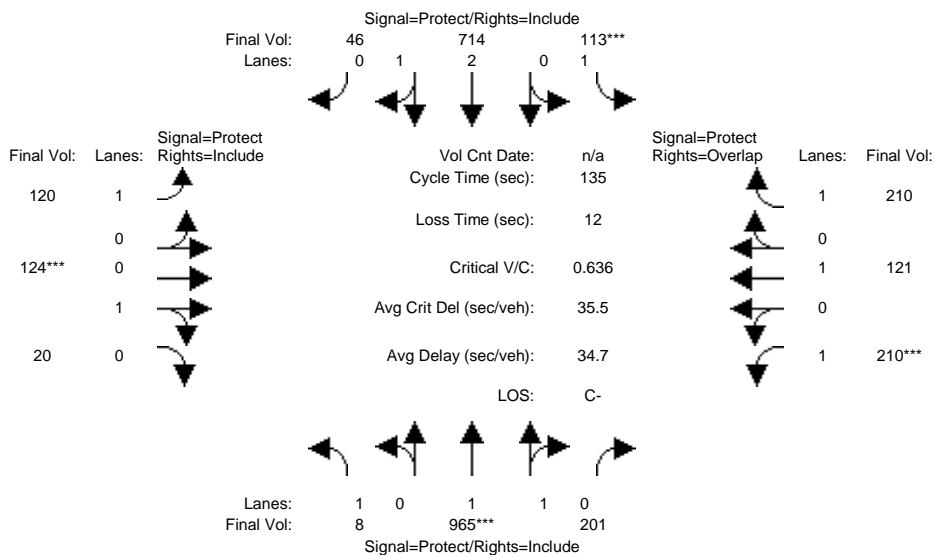
Saturation Flow Module:												
	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.65	0.35	1.00	2.79	0.21	1.00	0.85	0.15	1.00	1.00	1.00
Final Sat.:	1750	3062	638	1750	5225	374	1750	1537	263	1750	1900	1750

Capacity Analysis Module:												
	0.00	0.32	0.32	0.06	0.12	0.12	0.07	0.08	0.08	0.12	0.06	0.12
Vol/Sat:	0.00	0.32	0.32	0.06	0.12	0.12	0.07	0.08	0.08	0.12	0.06	0.12
Crit Moves:	****			****			****			****		
Green Time:	24.3	67.9	67.9	13.9	57.5	57.5	19.8	16.4	16.4	24.9	21.4	35.3
Volume/Cap:	0.03	0.63	0.63	0.63	0.29	0.29	0.47	0.63	0.63	0.63	0.40	0.46
Uniform Del:	45.6	24.4	24.4	58.1	25.4	25.4	52.7	56.4	56.4	50.8	51.0	41.8
IncrcmntDel:	0.0	0.7	0.7	6.8	0.1	0.1	1.3	5.7	5.7	3.9	0.9	0.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	45.7	25.1	25.1	64.9	25.4	25.4	54.1	62.1	62.1	54.7	51.9	42.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.7	25.1	25.1	64.9	25.4	25.4	54.1	62.1	62.1	54.7	51.9	42.6
LOS by Move:	D	C	C	E	C	C	D-	E	E	D-	D-	D
HCM2kAvgQ:	0	18	18	5	6	6	5	7	7	9	5	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	8	965	201	113	642	46	120	117	20	202	121	210
Growth 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
Initial Bse:	8	965	201	113	642	46	120	117	20	202	121	210
Added Vol:	0	0	0	0	72	0	0	7	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	965	201	113	714	46	120	124	20	210	121	210
User 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
PHF 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
PHF Volume:	8	965	201	113	714	46	120	124	20	210	121	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	965	201	113	714	46	120	124	20	210	121	210
PCE 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
MLF 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
Final Volume:	8	965	201	113	714	46	120	124	20	210	121	210

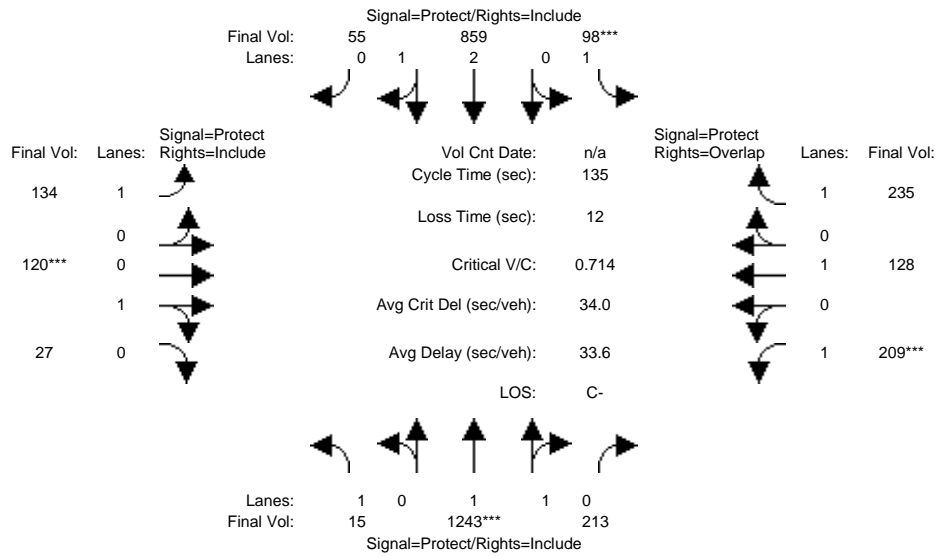
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.65	0.35	1.00	2.81	0.19	1.00	0.86	0.14	1.00	1.00	1.00
Final Sat.:	1750	3062	638	1750	5261	339	1750	1550	250	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.32	0.06	0.14	0.14	0.07	0.08	0.08	0.12	0.06	0.12
Crit Moves:	****			****			****			****		
Green Time:	22.3	66.9	66.9	13.7	58.3	58.3	20.4	17.0	17.0	25.5	22.0	35.7
Volume/Cap:	0.03	0.64	0.64	0.64	0.31	0.31	0.45	0.64	0.64	0.64	0.39	0.45
Uniform Del:	47.3	25.1	25.1	58.3	25.2	25.2	52.2	56.1	56.1	50.5	50.5	41.5
IncrcmntDel:	0.0	0.7	0.7	7.4	0.1	0.1	1.2	5.9	5.9	4.1	0.8	0.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	47.3	25.9	25.9	65.7	25.3	25.3	53.5	62.0	62.0	54.6	51.3	42.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.3	25.9	25.9	65.7	25.3	25.3	53.5	62.0	62.0	54.6	51.3	42.2
LOS by Move:	D	C	C	E	C	C	D-	E	E	D-	D-	D
HCM2kAvgQ:	0	18	18	5	7	7	5	7	7	9	5	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	15	1243	213	98	859	55	134	120	27	209	128	235
Growth 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
Initial Bse:	15	1243	213	98	859	55	134	120	27	209	128	235
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	1243	213	98	859	55	134	120	27	209	128	235
User 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
PHF 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
PHF Volume:	15	1243	213	98	859	55	134	120	27	209	128	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	1243	213	98	859	55	134	120	27	209	128	235
PCE 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
MLF 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
Final Volume:	15	1243	213	98	859	55	134	120	27	209	128	235

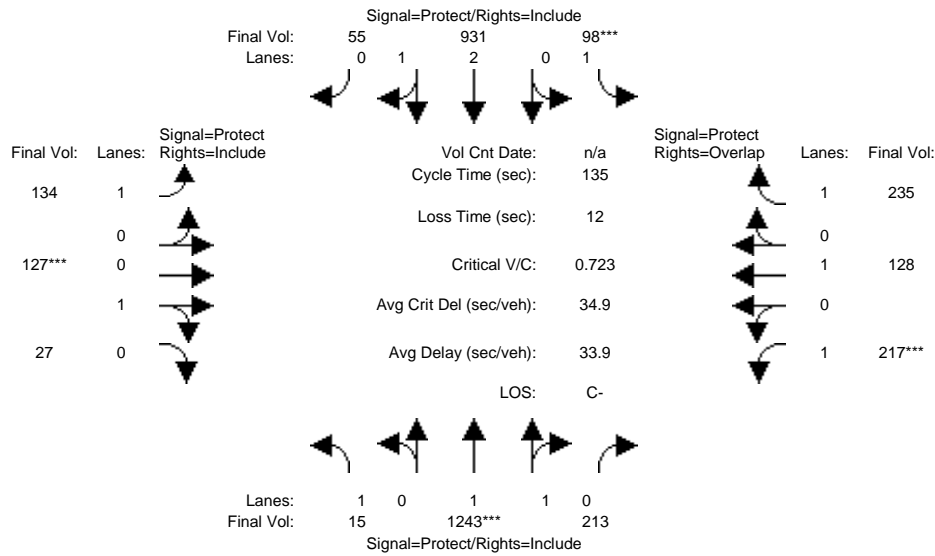
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.70	0.30	1.00	2.81	0.19	1.00	0.82	0.18	1.00	1.00	1.00
Final Sat.:	1750	3158	541	1750	5263	337	1750	1469	331	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.39	0.39	0.06	0.16	0.16	0.08	0.08	0.08	0.12	0.07	0.13
Crit Moves:	****			****			****			****		
Green Time:	20.5	74.4	74.4	10.6	64.5	64.5	18.8	15.4	15.4	22.6	19.2	29.8
Volume/Cap:	0.06	0.71	0.71	0.71	0.34	0.34	0.55	0.71	0.71	0.71	0.47	0.61
Uniform Del:	49.0	22.4	22.4	60.7	22.0	22.0	54.2	57.7	57.7	53.2	53.2	47.3
IncrcmntDel:	0.1	1.2	1.2	16.3	0.1	0.1	2.7	11.2	11.2	8.1	1.3	2.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	49.1	23.7	23.7	77.0	22.1	22.1	56.8	68.9	68.9	61.3	54.5	50.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.1	23.7	23.7	77.0	22.1	22.1	56.8	68.9	68.9	61.3	54.5	50.1
LOS by Move:	D	C	C	E-	C+	C+	E+	E	E	E	D-	D
HCM2kAvgQ:	1	23	23	4	8	8	6	8	8	10	5	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P AM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	15	1243	213	98	859	55	134	120	27	209	128	235
Growth 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
Initial Bse:	15	1243	213	98	859	55	134	120	27	209	128	235
Added Vol:	0	0	0	0	72	0	0	7	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	1243	213	98	931	55	134	127	27	217	128	235
User 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
PHF 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
PHF Volume:	15	1243	213	98	931	55	134	127	27	217	128	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	1243	213	98	931	55	134	127	27	217	128	235
PCE 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
MLF 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
Final Volume:	15	1243	213	98	931	55	134	127	27	217	128	235

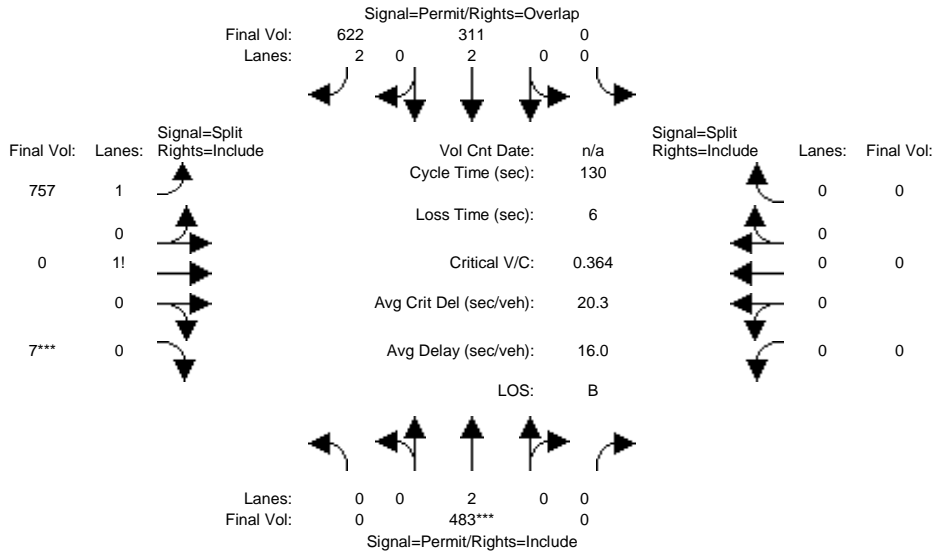
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.70	0.30	1.00	2.83	0.17	1.00	0.82	0.18	1.00	1.00	1.00
Final Sat.:	1750	3158	541	1750	5287	312	1750	1484	316	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.39	0.39	0.06	0.18	0.18	0.08	0.09	0.09	0.12	0.07	0.13
Crit Moves:	****			****			****			****		
Green Time:	19.1	73.4	73.4	10.5	64.8	64.8	19.3	16.0	16.0	23.1	19.8	30.2
Volume/Cap:	0.06	0.72	0.72	0.72	0.37	0.37	0.53	0.72	0.72	0.72	0.46	0.60
Uniform Del:	50.2	23.1	23.1	60.9	22.1	22.1	53.7	57.4	57.4	52.9	52.7	47.0
IncrcmntDel:	0.1	1.3	1.3	17.5	0.1	0.1	2.2	11.6	11.6	8.4	1.2	2.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	50.3	24.5	24.5	78.3	22.2	22.2	55.9	69.0	69.0	61.3	53.9	49.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.3	24.5	24.5	78.3	22.2	22.2	55.9	69.0	69.0	61.3	53.9	49.5
LOS by Move:	D	C	C	E-	C+	C+	E+	E	E	E	D-	D
HCM2kAvgQ:	1	23	23	4	8	8	6	8	8	11	5	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Base Vol:	0	483	0	0	311	622	757	0	7	0	0	0
Growth 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
Initial Bse:	0	483	0	0	311	622	757	0	7	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	483	0	0	311	622	757	0	7	0	0	0
User 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
PHF 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
PHF Volume:	0	483	0	0	311	622	757	0	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	483	0	0	311	622	757	0	7	0	0	0
PCE 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
MLF 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
Final Volume:	0	483	0	0	311	622	757	0	7	0	0	0

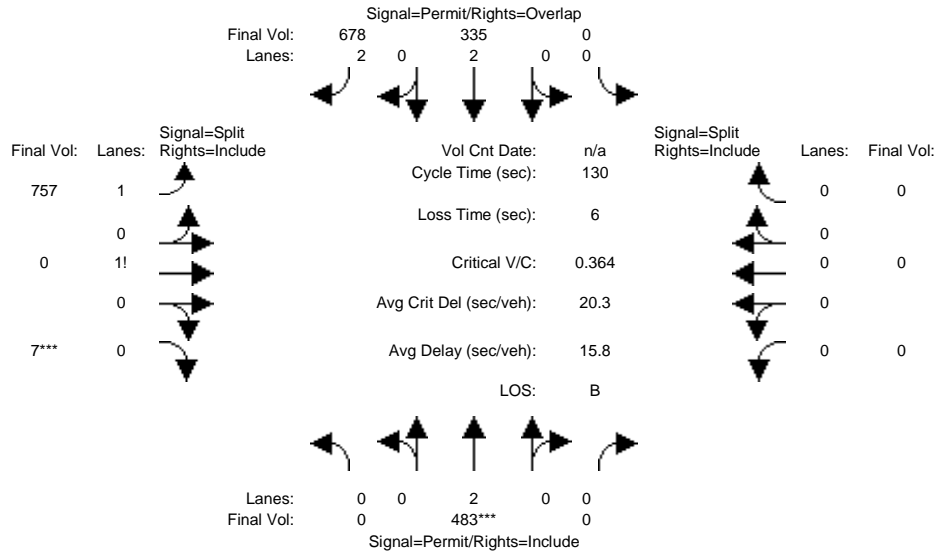
Saturation Flow Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.98	0.00	0.02	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3468	0	32	0	0	0

Capacity Analysis Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Vol/Sat:	0.00	0.13	0.00	0.00	0.08	0.20	0.22	0.00	0.22	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green Time:	0.0	45.4	0.0	0.0	45.4	124.0	78.6	0.0	78.6	0.0	0.0	0.0
Volume/Cap:	0.00	0.36	0.00	0.00	0.23	0.21	0.36	0.00	0.36	0.00	0.00	0.00
Uniform Del:	0.0	31.6	0.0	0.0	30.0	0.2	13.0	0.0	13.0	0.0	0.0	0.0
IncrcmntDel:	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	31.7	0.0	0.0	30.1	0.2	13.1	0.0	13.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	31.7	0.0	0.0	30.1	0.2	13.1	0.0	13.1	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	7	0	0	4	1	8	0	8	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	483	0	0	311	622	757	0	7	0	0	0
Growth 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
Initial Bse:	0	483	0	0	311	622	757	0	7	0	0	0
Added Vol:	0	0	0	0	24	56	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	483	0	0	335	678	757	0	7	0	0	0
User 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
PHF 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
PHF Volume:	0	483	0	0	335	678	757	0	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	483	0	0	335	678	757	0	7	0	0	0
PCE 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
MLF 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
Final Volume:	0	483	0	0	335	678	757	0	7	0	0	0

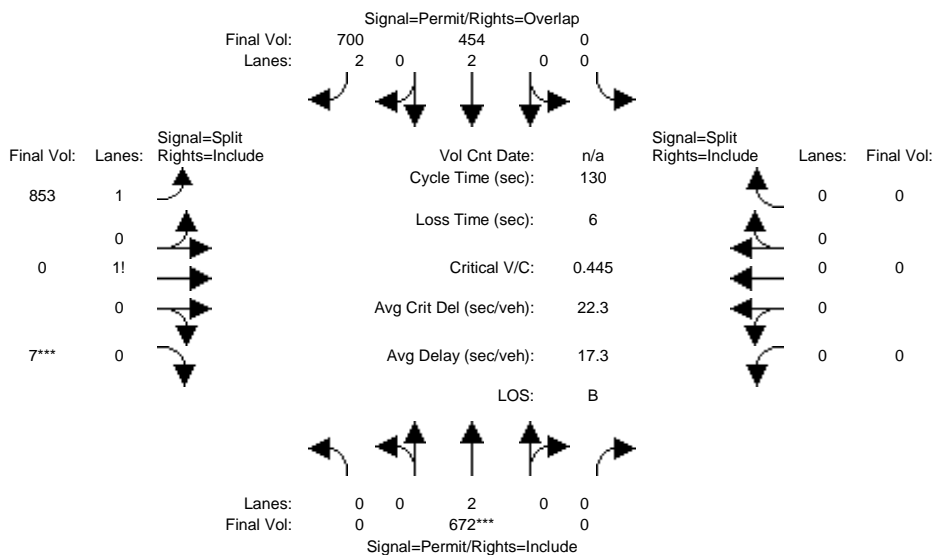
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.98	0.00	0.02	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3468	0	32	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.00	0.00	0.09	0.22	0.22	0.00	0.22	0.00	0.00	0.00
Crit Moves:	****						****					
Green Time:	0.0	45.4	0.0	0.0	45.4	124.0	78.6	0.0	78.6	0.0	0.0	0.0
Volume/Cap:	0.00	0.36	0.00	0.00	0.25	0.23	0.36	0.00	0.36	0.00	0.00	0.00
Uniform Del:	0.0	31.6	0.0	0.0	30.2	0.2	13.0	0.0	13.0	0.0	0.0	0.0
IncrcmntDel:	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	31.7	0.0	0.0	30.3	0.2	13.1	0.0	13.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	31.7	0.0	0.0	30.3	0.2	13.1	0.0	13.1	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	7	0	0	5	1	8	0	8	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	672	0	0	454	700	853	0	7	0	0	0
Growth 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
Initial Bse:	0	672	0	0	454	700	853	0	7	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	672	0	0	454	700	853	0	7	0	0	0
User 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
PHF 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
PHF Volume:	0	672	0	0	454	700	853	0	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	672	0	0	454	700	853	0	7	0	0	0
PCE 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
MLF 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
Final Volume:	0	672	0	0	454	700	853	0	7	0	0	0

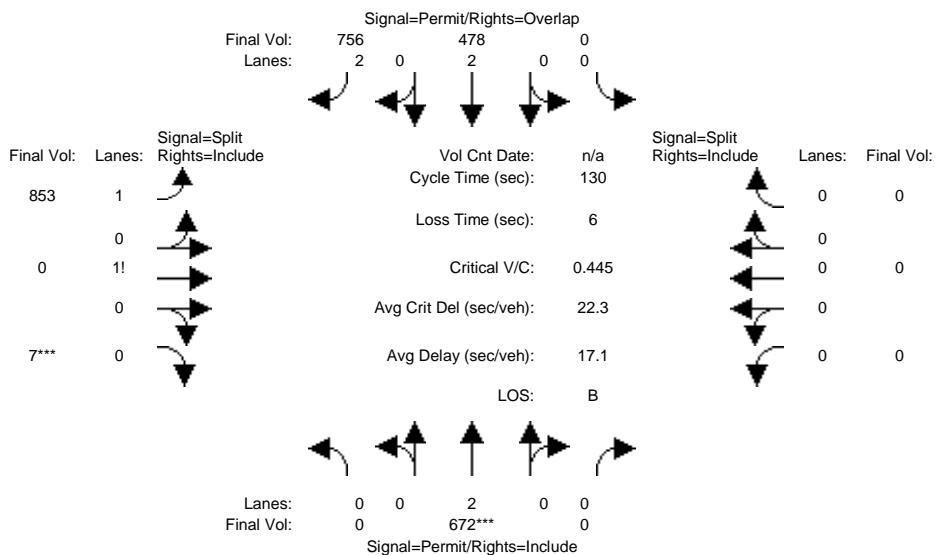
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.98	0.00	0.02	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3472	0	28	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.00	0.00	0.12	0.22	0.25	0.00	0.25	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green Time:	0.0	51.7	0.0	0.0	51.7	124.0	72.3	0.0	72.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.45	0.00	0.00	0.30	0.23	0.44	0.00	0.45	0.00	0.00	0.00
Uniform Del:	0.0	28.7	0.0	0.0	26.8	0.2	16.9	0.0	17.0	0.0	0.0	0.0
IncrcmntDel:	0.0	0.2	0.0	0.0	0.1	0.0	0.2	0.0	0.2	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	28.9	0.0	0.0	26.9	0.2	17.1	0.0	17.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	28.9	0.0	0.0	26.9	0.2	17.1	0.0	17.2	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	9	0	0	6	1	11	0	11	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P AM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	672	0	0	454	700	853	0	7	0	0	0
Growth 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
Initial Bse:	0	672	0	0	454	700	853	0	7	0	0	0
Added Vol:	0	0	0	0	24	56	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	672	0	0	478	756	853	0	7	0	0	0
User 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
PHF 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
PHF Volume:	0	672	0	0	478	756	853	0	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	672	0	0	478	756	853	0	7	0	0	0
PCE 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
MLF 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
Final Volume:	0	672	0	0	478	756	853	0	7	0	0	0

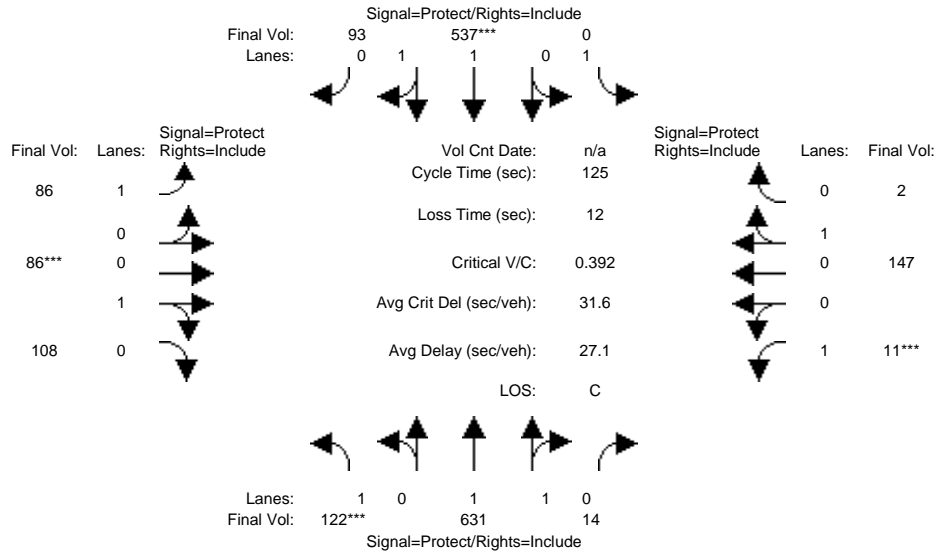
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.98	0.00	0.02	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3472	0	28	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.00	0.00	0.13	0.24	0.25	0.00	0.25	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green Time:	0.0	51.7	0.0	0.0	51.7	124.0	72.3	0.0	72.3	0.0	0.0	0.0
Volume/Cap:	0.00	0.45	0.00	0.00	0.32	0.25	0.44	0.00	0.45	0.00	0.00	0.00
Uniform Del:	0.0	28.7	0.0	0.0	27.0	0.2	16.9	0.0	17.0	0.0	0.0	0.0
IncrcmntDel:	0.0	0.2	0.0	0.0	0.1	0.0	0.2	0.0	0.2	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	28.9	0.0	0.0	27.1	0.2	17.1	0.0	17.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	28.9	0.0	0.0	27.1	0.2	17.1	0.0	17.2	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	9	0	0	6	1	11	0	11	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	122	631	14	0	537	93	86	86	108	11	147	2
Growth 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
Initial Bse:	122	631	14	0	537	93	86	86	108	11	147	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	122	631	14	0	537	93	86	86	108	11	147	2
User 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
PHF 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
PHF Volume:	122	631	14	0	537	93	86	86	108	11	147	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	122	631	14	0	537	93	86	86	108	11	147	2
PCE 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
MLF 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
Final Volume:	122	631	14	0	537	93	86	86	108	11	147	2

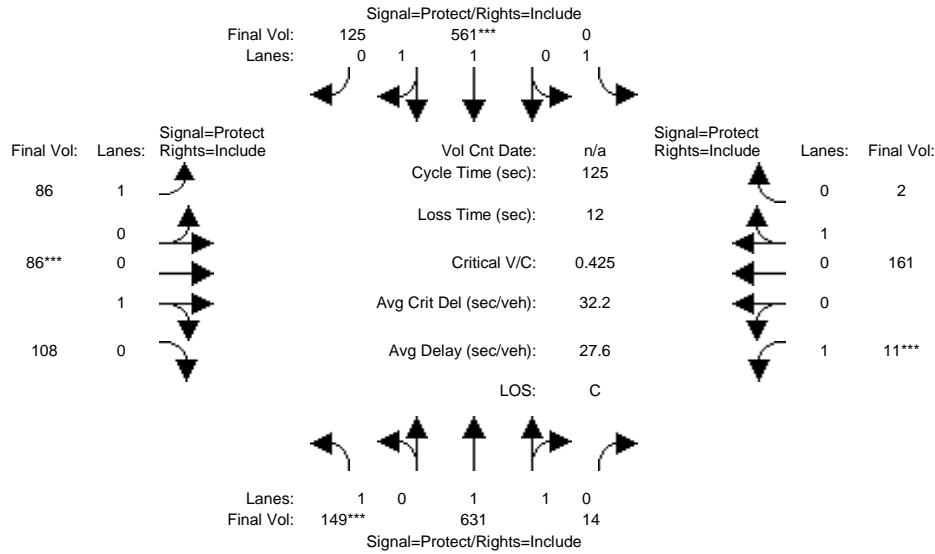
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.96	0.04	1.00	1.70	0.30	1.00	0.44	0.56	1.00	0.99	0.01
Final Sat.:	1750	3620	80	1750	3153	546	1750	798	1002	1750	1776	24

Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.17	0.00	0.17	0.17	0.05	0.11	0.11	0.01	0.08	0.08
Crit Moves:	***				***			***			***	
Green Time:	21.2	73.2	73.2	0.0	51.9	51.9	16.1	32.8	32.8	7.0	23.8	23.8
Volume/Cap:	0.41	0.30	0.30	0.00	0.41	0.41	0.38	0.41	0.41	0.11	0.44	0.44
Uniform Del:	46.3	13.0	13.0	0.0	25.8	25.8	49.9	38.1	38.1	56.0	44.7	44.7
IncrcmntDel:	0.9	0.1	0.1	0.0	0.2	0.2	1.1	0.6	0.6	0.5	0.9	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	47.2	13.1	13.1	0.0	25.9	25.9	51.0	38.7	38.7	56.6	45.6	45.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	13.1	13.1	0.0	25.9	25.9	51.0	38.7	38.7	56.6	45.6	45.6
LOS by Move:	D	B	B	A	C	C	D	D+	D+	E+	D	D
HCM2kAvgQ:	5	6	6	0	8	8	4	7	7	1	6	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	122	631	14	0	537	93	86	86	108	11	147	2
Growth 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
Initial Bse:	122	631	14	0	537	93	86	86	108	11	147	2
Added Vol:	27	0	0	0	24	32	0	0	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	149	631	14	0	561	125	86	86	108	11	161	2
User 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
PHF 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
PHF Volume:	149	631	14	0	561	125	86	86	108	11	161	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	149	631	14	0	561	125	86	86	108	11	161	2
PCE 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
MLF 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
Final Volume:	149	631	14	0	561	125	86	86	108	11	161	2

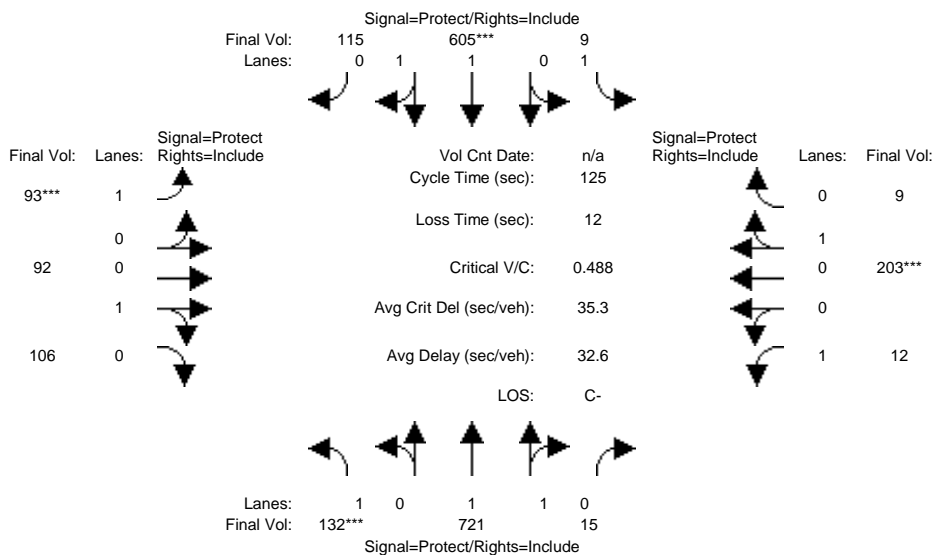
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.96	0.04	1.00	1.63	0.37	1.00	0.44	0.56	1.00	0.99	0.01
Final Sat.:	1750	3620	80	1750	3025	674	1750	798	1002	1750	1778	22

Capacity Analysis Module:												
Vol/Sat:	0.09	0.17	0.17	0.00	0.19	0.19	0.05	0.11	0.11	0.01	0.09	0.09
Crit Moves:	***				***			***			***	
Green Time:	23.9	75.8	75.8	0.0	52.0	52.0	14.2	30.2	30.2	7.0	23.0	23.0
Volume/Cap:	0.45	0.29	0.29	0.00	0.45	0.45	0.43	0.45	0.45	0.11	0.49	0.49
Uniform Del:	44.7	11.7	11.7	0.0	26.2	26.2	51.6	40.3	40.3	56.0	45.8	45.8
IncrcmntDel:	1.0	0.1	0.1	0.0	0.2	0.2	1.5	0.7	0.7	0.5	1.2	1.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.7	11.8	11.8	0.0	26.4	26.4	53.1	41.0	41.0	56.6	46.9	46.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.7	11.8	11.8	0.0	26.4	26.4	53.1	41.0	41.0	56.6	46.9	46.9
LOS by Move:	D	B+	B+	A	C	C	D-	D	D	E+	D	D
HCM2kAvgQ:	6	6	6	0	9	9	4	7	7	1	6	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	132	721	15	9	605	115	93	92	106	12	203	9
Growth 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
Initial Bse:	132	721	15	9	605	115	93	92	106	12	203	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	132	721	15	9	605	115	93	92	106	12	203	9
User 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
PHF 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
PHF Volume:	132	721	15	9	605	115	93	92	106	12	203	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	721	15	9	605	115	93	92	106	12	203	9
PCE 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
MLF 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
Final Volume:	132	721	15	9	605	115	93	92	106	12	203	9

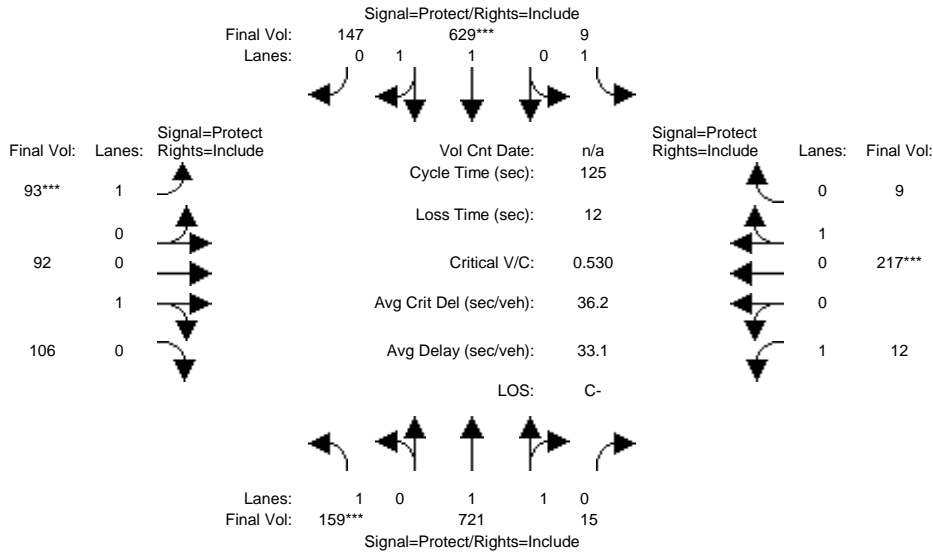
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.96	0.04	1.00	1.67	0.33	1.00	0.46	0.54	1.00	0.96	0.04
Final Sat.:	1750	3625	75	1750	3109	591	1750	836	964	1750	1724	76

Capacity Analysis Module:												
Vol/Sat:	0.08	0.20	0.20	0.01	0.19	0.19	0.05	0.11	0.11	0.01	0.12	0.12
Crit Moves:	***				***		***				***	
Green Time:	19.3	54.0	54.0	15.2	49.9	49.9	13.6	29.0	29.0	14.8	30.2	30.2
Volume/Cap:	0.49	0.46	0.46	0.04	0.49	0.49	0.49	0.47	0.47	0.06	0.49	0.49
Uniform Del:	48.3	25.2	25.2	48.5	28.0	28.0	52.4	41.4	41.4	48.9	40.8	40.8
IncrcmntDel:	1.4	0.2	0.2	0.1	0.3	0.3	2.0	0.8	0.8	0.1	0.9	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	49.7	25.4	25.4	48.6	28.3	28.3	54.4	42.3	42.3	49.1	41.6	41.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.7	25.4	25.4	48.6	28.3	28.3	54.4	42.3	42.3	49.1	41.6	41.6
LOS by Move:	D	C	C	D	C	C	D-	D	D	D	D	D
HCM2kAvgQ:	5	10	10	0	10	10	4	7	7	0	8	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P AM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	132	721	15	9	605	115	93	92	106	12	203	9
Growth 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
Initial Bse:	132	721	15	9	605	115	93	92	106	12	203	9
Added Vol:	27	0	0	0	24	32	0	0	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	159	721	15	9	629	147	93	92	106	12	217	9
User 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
PHF 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
PHF Volume:	159	721	15	9	629	147	93	92	106	12	217	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	721	15	9	629	147	93	92	106	12	217	9
PCE 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
MLF 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
Final Volume:	159	721	15	9	629	147	93	92	106	12	217	9

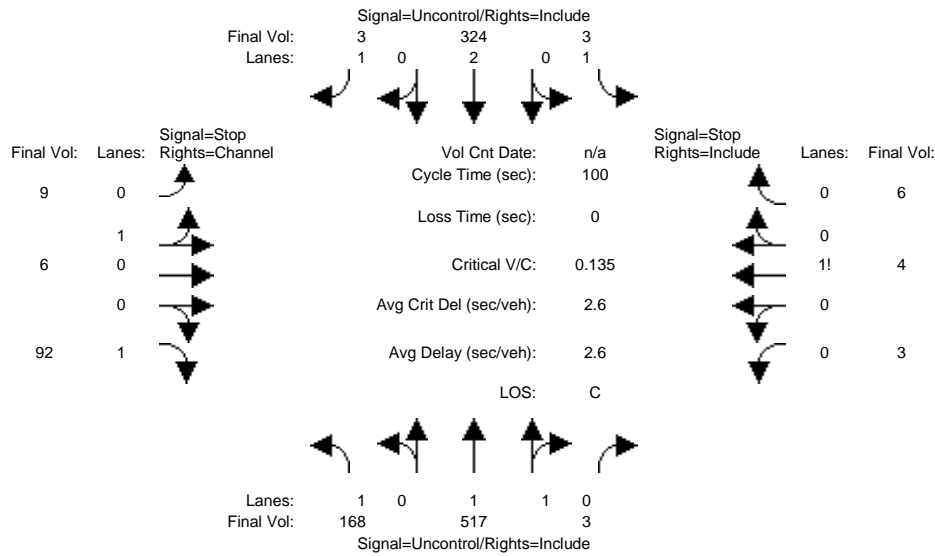
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.96	0.04	1.00	1.61	0.39	1.00	0.46	0.54	1.00	0.96	0.04
Final Sat.:	1750	3625	75	1750	2999	701	1750	836	964	1750	1728	72

Capacity Analysis Module:												
Vol/Sat:	0.09	0.20	0.20	0.01	0.21	0.21	0.05	0.11	0.11	0.01	0.13	0.13
Crit Moves:	***				***		***				***	
Green Time:	21.4	55.3	55.3	15.6	49.5	49.5	12.5	27.9	27.9	14.2	29.6	29.6
Volume/Cap:	0.53	0.45	0.45	0.04	0.53	0.53	0.53	0.49	0.49	0.06	0.53	0.53
Uniform Del:	47.2	24.3	24.3	48.1	28.9	28.9	53.4	42.4	42.4	49.4	41.6	41.6
IncrcmntDel:	1.8	0.2	0.2	0.1	0.4	0.4	3.1	1.0	1.0	0.1	1.3	1.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	49.0	24.5	24.5	48.2	29.3	29.3	56.5	43.3	43.3	49.6	42.9	42.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.0	24.5	24.5	48.2	29.3	29.3	56.5	43.3	43.3	49.6	42.9	42.9
LOS by Move:	D	C	C	D	C	C	E+	D	D	D	D	D
HCM2kAvgQ:	7	10	10	0	11	11	4	7	7	0	8	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTime.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	168 517 3	3 324 3	9 6 92	3 4 6
ApproachDel:	xxxxxx	xxxxxx	12.0	20.4

-----|-----|-----|-----|-----|
 Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.4]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=107]
 FAIL - Approach volume less than 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1138]
 SUCCEED - Total volume greater than or equal to 800 for intersection
 with four or more approaches.

-----|-----|-----|-----|-----|
 Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=13]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1138]
 SUCCEED - Total volume greater than or equal to 800 for intersection
 with four or more approaches.

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	168 517 3	3 324 3	9 6 92	3 4 6

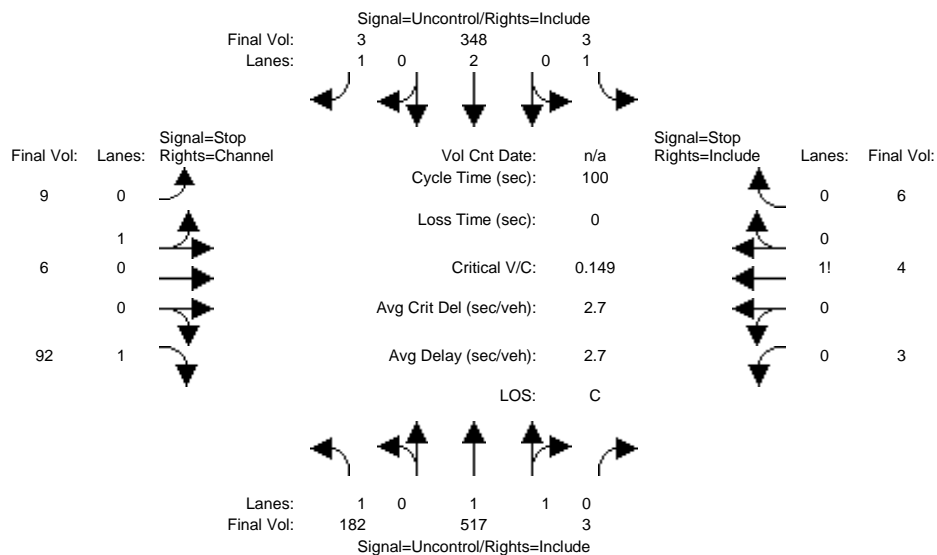
-----|-----|-----|-----|-----|
 Major Street Volume: 1018
 Minor Approach Volume: 107
 Minor Approach Volume Threshold: 366

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and rows for Volume Module metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing movements and rows for Critical Gap Module metrics: Critical Gp, FollowUpTim.

Table with 12 columns representing movements and rows for Capacity Module metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and rows for Level Of Service Module metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	182 517 3	3 348 3	9 6 92	3 4 6
ApproachDel:	xxxxxx	xxxxxx	12.4	21.6

-----|-----|-----|-----|-----|
 Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.4]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=107]
 FAIL - Approach volume less than 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1176]
 SUCCEED - Total volume greater than or equal to 800 for intersection
 with four or more approaches.

-----|-----|-----|-----|-----|
 Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=13]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1176]
 SUCCEED - Total volume greater than or equal to 800 for intersection
 with four or more approaches.

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	182 517 3	3 348 3	9 6 92	3 4 6

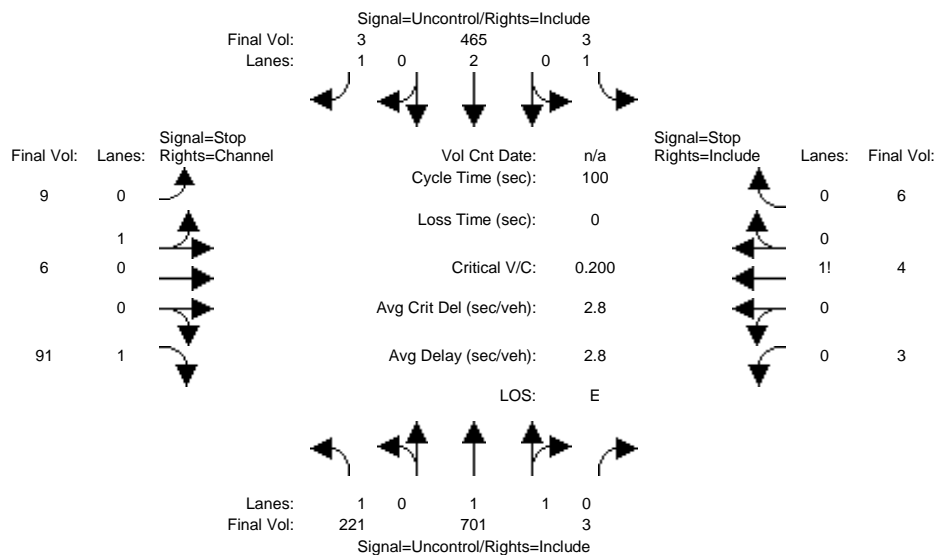
-----|-----|-----|-----|-----|
 Major Street Volume: 1056
 Minor Approach Volume: 107
 Minor Approach Volume Threshold: 351

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 2 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 4 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	221 701 3	3 465 3	9 6 91	3 4 6
ApproachDel:	xxxxxx	xxxxxx	15.9	35.1

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.5]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=106]
 FAIL - Approach volume less than 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1515]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=13]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1515]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	221 701 3	3 465 3	9 6 91	3 4 6

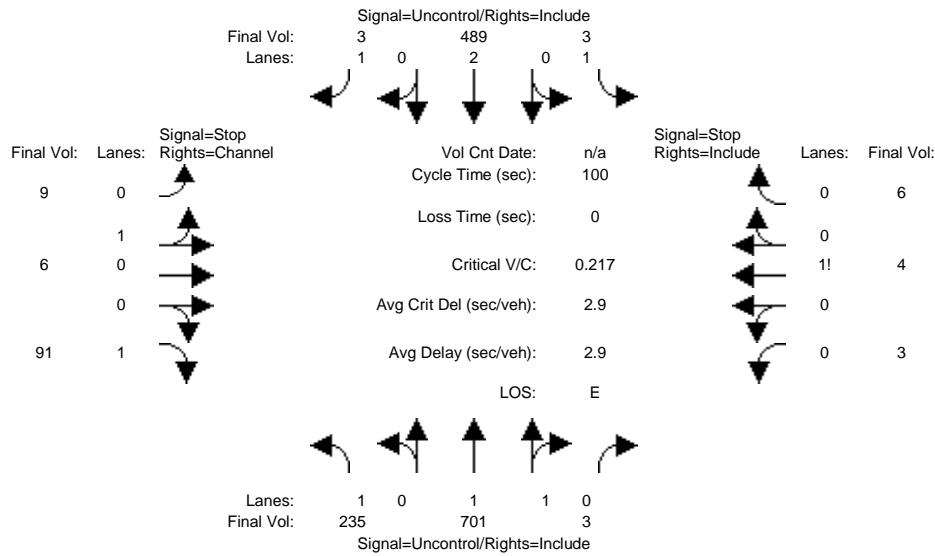
Major Street Volume: 1396
 Minor Approach Volume: 106
 Minor Approach Volume Threshold: 231

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P AM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	235 701 3	3 489 3	9 6 91	3 4 6
ApproachDel:	xxxxxx	xxxxxx	16.8	38.1

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.5]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=106]
 FAIL - Approach volume less than 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1553]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=13]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1553]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	235 701 3	3 489 3	9 6 91	3 4 6

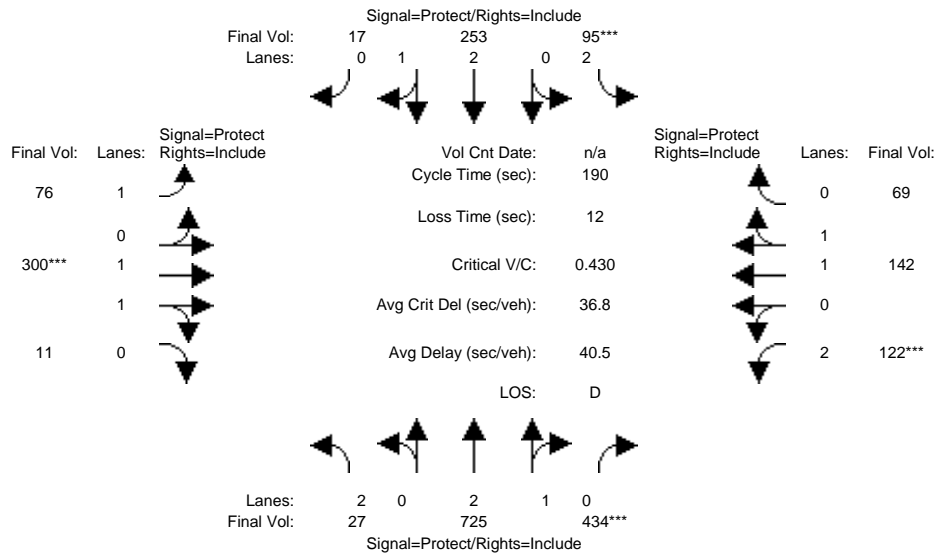
Major Street Volume: 1434
 Minor Approach Volume: 106
 Minor Approach Volume Threshold: 219

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	27	725	434	95	253	17	76	300	11	122	142	69
Growth 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
Initial Bse:	27	725	434	95	253	17	76	300	11	122	142	69
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	725	434	95	253	17	76	300	11	122	142	69
User 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
PHF 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
PHF Volume:	27	725	434	95	253	17	76	300	11	122	142	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	725	434	95	253	17	76	300	11	122	142	69
PCE 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
MLF 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
Final Volume:	27	725	434	95	253	17	76	300	11	122	142	69

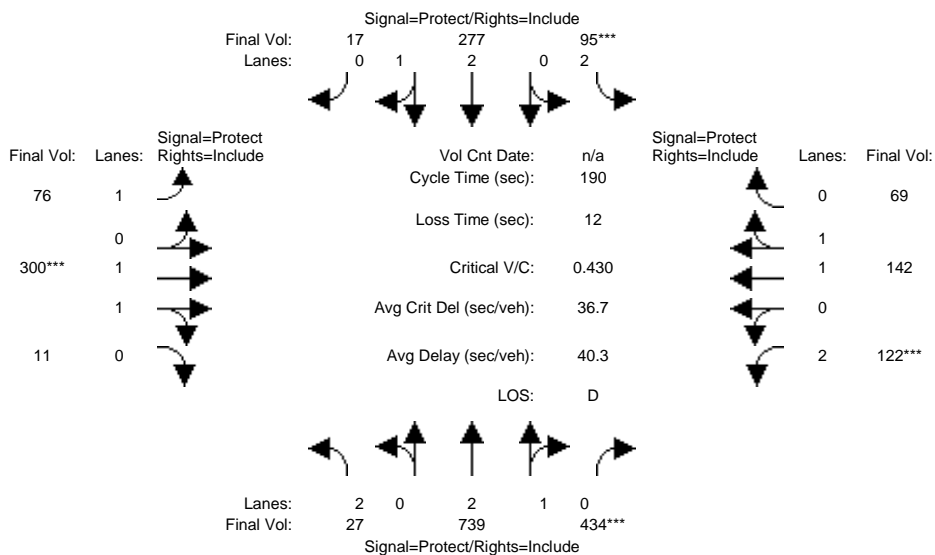
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.92	0.97	0.95	0.83	0.99	0.95
Lanes:	2.00	2.00	1.00	2.00	2.80	0.20	1.00	1.93	0.07	2.00	1.33	0.67
Final Sat.:	3150	3800	1750	3150	5247	353	1750	3569	131	3150	2489	1210

Capacity Analysis Module:												
Vol/Sat:	0.01	0.19	0.25	0.03	0.05	0.05	0.04	0.08	0.08	0.04	0.06	0.06
Crit Moves:			****	****			****			****		
Green Time:	50.7	110	109.7	13.3	72.4	72.4	23.5	37.2	37.2	17.1	30.8	30.8
Volume/Cap:	0.03	0.33	0.43	0.43	0.13	0.13	0.35	0.43	0.43	0.43	0.35	0.35
Uniform Del:	48.8	19.9	21.4	80.2	36.2	36.2	72.3	63.6	63.6	77.5	67.0	67.0
IncrcmntDel:	0.0	0.1	0.1	1.3	0.0	0.0	1.0	0.4	0.4	1.0	0.4	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	48.8	19.9	21.5	81.6	36.3	36.3	73.3	64.0	64.0	78.6	67.3	67.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.8	19.9	21.5	81.6	36.3	36.3	73.3	64.0	64.0	78.6	67.3	67.3
LOS by Move:	D	B-	C+	F	D+	D+	E	E	E	E-	E	E
HCM2kAvgQ:	1	10	14	3	3	3	4	8	8	4	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Wolfe Rd			South Wolfe Rd			East Arques Ave			West Arques Ave		
Base Vol:	27	725	434	95	253	17	76	300	11	122	142	69
Growth 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
Initial Bse:	27	725	434	95	253	17	76	300	11	122	142	69
Added Vol:	0	14	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	739	434	95	277	17	76	300	11	122	142	69
User 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
PHF 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
PHF Volume:	27	739	434	95	277	17	76	300	11	122	142	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	739	434	95	277	17	76	300	11	122	142	69
PCE 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
MLF 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
Final Volume:	27	739	434	95	277	17	76	300	11	122	142	69

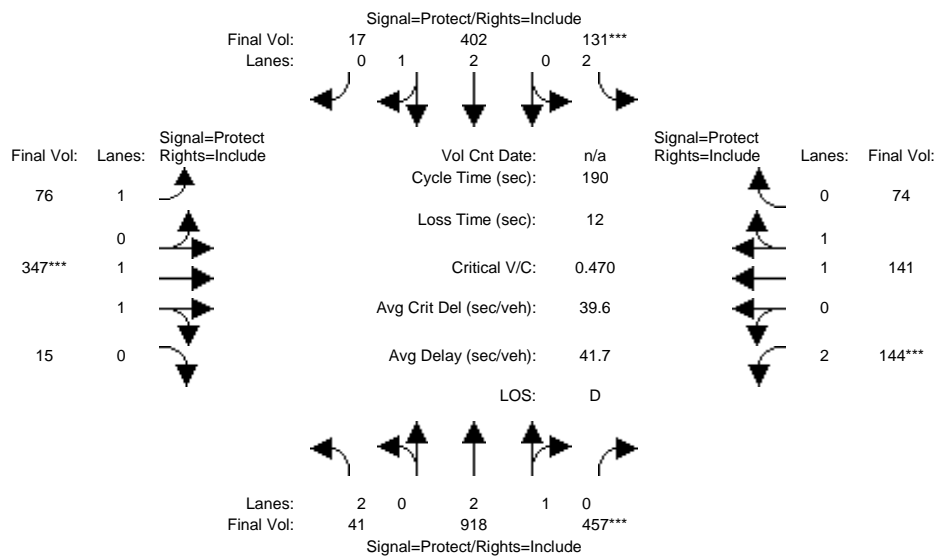
Saturation Flow Module:	North Wolfe Rd			South Wolfe Rd			East Arques Ave			West Arques Ave		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.92	0.97	0.95	0.83	0.99	0.95
Lanes:	2.00	2.00	1.00	2.00	2.82	0.18	1.00	1.93	0.07	2.00	1.33	0.67
Final Sat.:	3150	3800	1750	3150	5276	324	1750	3569	131	3150	2489	1210

Capacity Analysis Module:	North Wolfe Rd			South Wolfe Rd			East Arques Ave			West Arques Ave		
Vol/Sat:	0.01	0.19	0.25	0.03	0.05	0.05	0.04	0.08	0.08	0.04	0.06	0.06
Crit Moves:			****	****			****			****		
Green Time:	50.7	110	109.7	13.3	72.4	72.4	23.5	37.2	37.2	17.1	30.8	30.8
Volume/Cap:	0.03	0.34	0.43	0.43	0.14	0.14	0.35	0.43	0.43	0.43	0.35	0.35
Uniform Del:	48.8	20.0	21.4	80.2	36.4	36.4	72.3	63.6	63.6	77.5	67.0	67.0
IncrcmntDel:	0.0	0.1	0.1	1.3	0.0	0.0	1.0	0.4	0.4	1.0	0.4	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	48.8	20.0	21.5	81.6	36.4	36.4	73.3	64.0	64.0	78.6	67.3	67.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.8	20.0	21.5	81.6	36.4	36.4	73.3	64.0	64.0	78.6	67.3	67.3
LOS by Move:	D	C+	C+	F	D+	D+	E	E	E	E-	E	E
HCM2kAvgQ:	1	10	14	3	3	3	4	8	8	4	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Wolfe			South Wolfe			East Arques			West Arques		
Base Vol:	41	918	457	131	402	17	76	347	15	144	141	74
Growth 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
Initial Bse:	41	918	457	131	402	17	76	347	15	144	141	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	918	457	131	402	17	76	347	15	144	141	74
User 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
PHF 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
PHF Volume:	41	918	457	131	402	17	76	347	15	144	141	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	918	457	131	402	17	76	347	15	144	141	74
PCE 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
MLF 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
Final Volume:	41	918	457	131	402	17	76	347	15	144	141	74

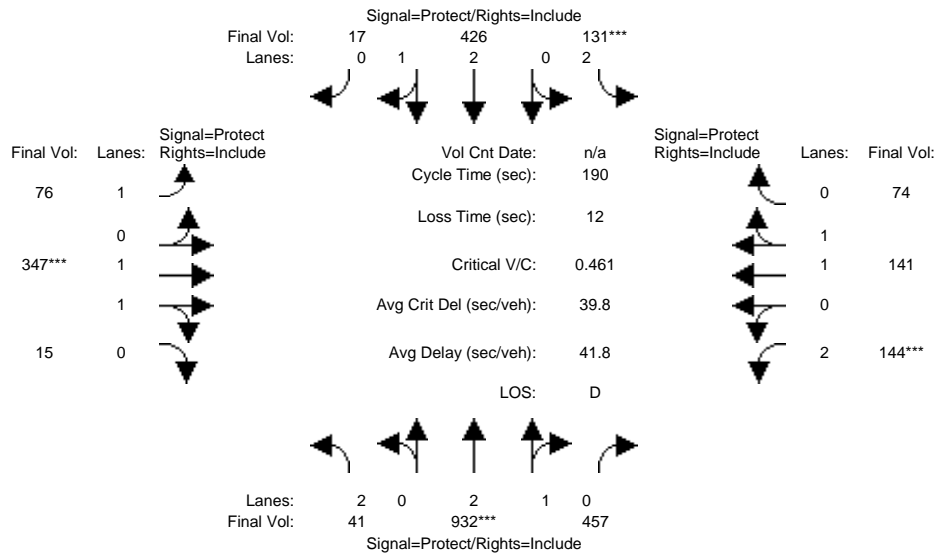
Saturation Flow Module:	North Wolfe			South Wolfe			East Arques			West Arques		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.95	0.83	0.98	0.95	0.92	0.97	0.95	0.83	0.99	0.95
Lanes:	2.00	2.00	1.00	2.00	2.87	0.13	1.00	1.91	0.09	2.00	1.29	0.71
Final Sat.:	3150	3800	1800	3150	5372	227	1750	3547	153	3150	2426	1273

Capacity Analysis Module:	North Wolfe			South Wolfe			East Arques			West Arques		
Vol/Sat:	0.01	0.24	0.25	0.04	0.07	0.07	0.04	0.10	0.10	0.05	0.06	0.06
Crit Moves:			****	****			****			****		
Green Time:	40.8	103	102.6	16.8	78.5	78.5	24.8	39.5	39.5	18.5	33.2	33.2
Volume/Cap:	0.06	0.45	0.47	0.47	0.18	0.18	0.33	0.47	0.47	0.47	0.33	0.33
Uniform Del:	56.2	25.1	25.6	78.0	33.5	33.5	71.1	62.6	62.6	76.9	65.1	65.1
IncrcmntDel:	0.0	0.1	0.1	1.3	0.0	0.0	0.9	0.5	0.5	1.1	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	56.3	25.2	25.7	79.3	33.5	33.5	72.0	63.0	63.0	78.0	65.4	65.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.3	25.2	25.7	79.3	33.5	33.5	72.0	63.0	63.0	78.0	65.4	65.4
LOS by Move:	E+	C	C	E-	C-	C-	E	E	E	E-	E	E
HCM2kAvgQ:	1	15	16	4	5	5	4	9	9	5	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P AM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
	North Wolfe Rd			South Wolfe Rd			East Arques Ave			West Arques Ave		
Base Vol:	41	918	457	131	402	17	76	347	15	144	141	74
Growth 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
Initial Bse:	41	918	457	131	402	17	76	347	15	144	141	74
Added Vol:	0	14	0	0	24	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	932	457	131	426	17	76	347	15	144	141	74
User 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
PHF 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
PHF Volume:	41	932	457	131	426	17	76	347	15	144	141	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	932	457	131	426	17	76	347	15	144	141	74
PCE 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
MLF 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
Final Volume:	41	932	457	131	426	17	76	347	15	144	141	74

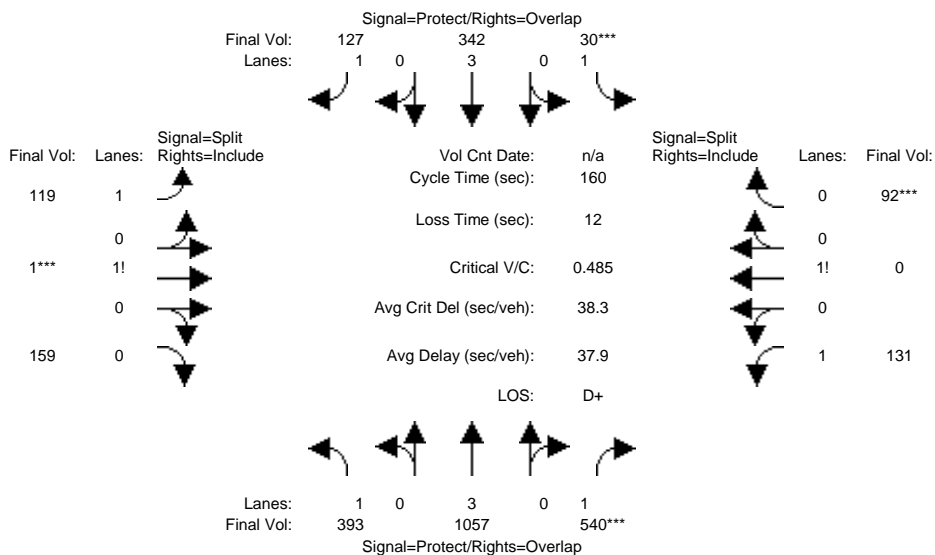
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.95	0.83	0.98	0.95	0.92	0.97	0.95	0.83	0.99	0.95
Lanes:	2.00	2.00	1.00	2.00	2.88	0.12	1.00	1.91	0.09	2.00	1.29	0.71
Final Sat.:	3150	3799	1800	3150	5385	215	1750	3547	153	3150	2426	1273

Capacity Analysis Module:												
Vol/Sat:	0.01	0.25	0.25	0.04	0.08	0.08	0.04	0.10	0.10	0.05	0.06	0.06
Crit Moves:	****			****			****			****		
Green Time:	39.0	101	101.1	17.1	79.2	79.2	25.3	40.3	40.3	18.8	33.8	33.8
Volume/Cap:	0.06	0.46	0.48	0.46	0.19	0.19	0.33	0.46	0.46	0.46	0.33	0.33
Uniform Del:	57.6	26.1	26.4	77.7	33.2	33.2	70.7	61.9	61.9	76.5	64.5	64.5
IncrcmntDel:	0.0	0.1	0.1	1.2	0.0	0.0	0.8	0.4	0.4	1.1	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	57.7	26.2	26.6	78.9	33.2	33.2	71.5	62.4	62.4	77.6	64.8	64.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.7	26.2	26.6	78.9	33.2	33.2	71.5	62.4	62.4	77.6	64.8	64.8
LOS by Move:	E+	C	C	E-	C-	C-	E	E	E	E-	E	E
HCM2kAvgQ:	1	15	16	4	5	5	4	9	9	5	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	393	1057	540	30	342	127	119	1	159	131	0	92
Growth 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
Initial Bse:	393	1057	540	30	342	127	119	1	159	131	0	92
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	393	1057	540	30	342	127	119	1	159	131	0	92
User 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
PHF 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
PHF Volume:	393	1057	540	30	342	127	119	1	159	131	0	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	1057	540	30	342	127	119	1	159	131	0	92
PCE 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
MLF 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
Final Volume:	393	1057	540	30	342	127	119	1	159	131	0	92

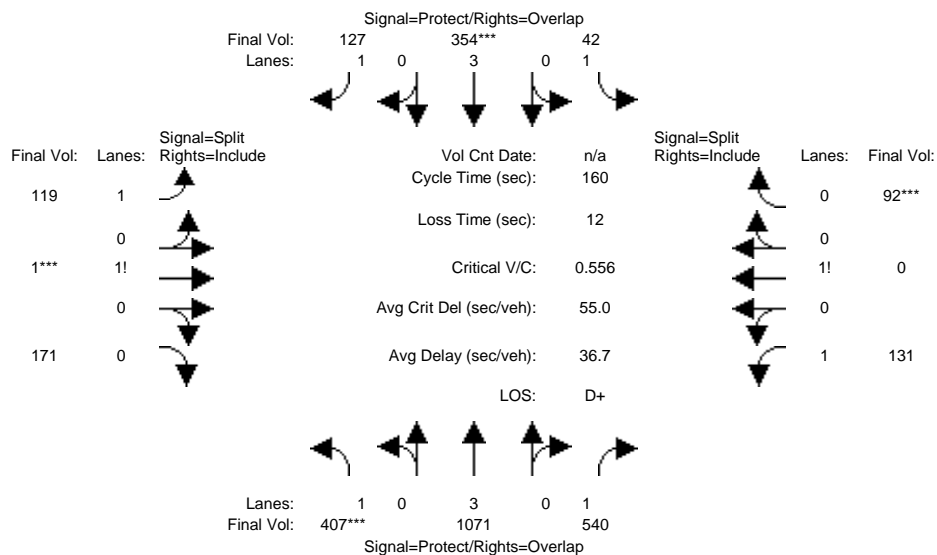
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.27	0.01	0.72	1.42	0.00	0.58
Final Sat.:	1750	5700	1750	1750	5700	1750	2234	8	1294	2478	0	1022

Capacity Analysis Module:												
Vol/Sat:	0.22	0.19	0.31	0.02	0.06	0.07	0.05	0.12	0.12	0.05	0.00	0.09
Crit Moves:			****	****				****				****
Green Time:	77.0	68.2	97.9	16.0	18.3	52.4	34.1	34.1	34.1	29.7	0.0	29.7
Volume/Cap:	0.47	0.43	0.50	0.17	0.52	0.22	0.25	0.58	0.58	0.28	0.00	0.48
Uniform Del:	27.8	32.3	17.4	65.9	66.7	39.0	52.3	56.5	56.5	56.0	0.0	58.3
IncrcmntDel:	0.4	0.1	0.4	0.5	0.8	0.2	0.1	1.7	1.7	0.2	0.0	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	28.2	32.4	17.8	66.4	67.5	39.2	52.5	58.2	58.2	56.2	0.0	59.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.2	32.4	17.8	66.4	67.5	39.2	52.5	58.2	58.2	56.2	0.0	59.1
LOS by Move:	C	C-	B	E	E	D	D-	E+	E+	E+	A	E+
HCM2kAvgQ:	14	12	16	1	5	5	4	11	11	4	0	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	393	1057	540	30	342	127	119	1	159	131	0	92
Growth 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
Initial Bse:	393	1057	540	30	342	127	119	1	159	131	0	92
Added Vol:	14	14	0	12	12	0	0	0	12	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	407	1071	540	42	354	127	119	1	171	131	0	92
User 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
PHF 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
PHF Volume:	407	1071	540	42	354	127	119	1	171	131	0	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	407	1071	540	42	354	127	119	1	171	131	0	92
PCE 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
MLF 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
Final Volume:	407	1071	540	42	354	127	119	1	171	131	0	92

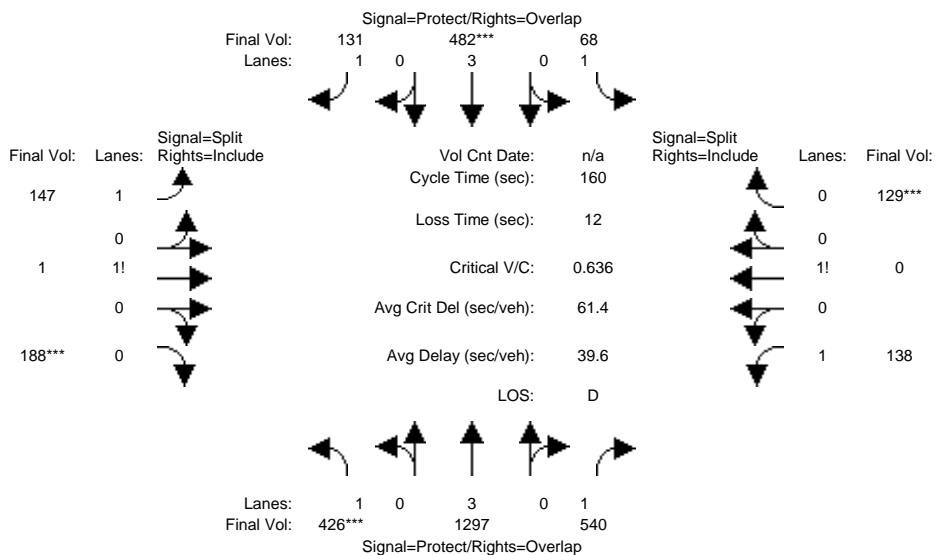
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.26	0.01	0.73	1.42	0.00	0.58
Final Sat.:	1750	5700	1750	1750	5700	1750	2209	8	1320	2478	0	1022

Capacity Analysis Module:												
Vol/Sat:	0.23	0.19	0.31	0.02	0.06	0.07	0.05	0.13	0.13	0.05	0.00	0.09
Crit Moves:	***				***			***				***
Green Time:	77.0	79.1	101.8	16.0	15.7	48.3	32.7	32.7	32.7	22.7	0.0	22.7
Volume/Cap:	0.48	0.38	0.48	0.24	0.63	0.24	0.26	0.63	0.63	0.37	0.00	0.63
Uniform Del:	28.0	25.2	15.3	66.4	69.4	42.0	53.6	58.2	58.2	62.2	0.0	64.8
IncrcmntDel:	0.4	0.1	0.3	0.7	2.4	0.2	0.1	2.9	2.9	0.4	0.0	3.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	28.5	25.3	15.6	67.1	71.8	42.3	53.7	61.1	61.1	62.6	0.0	68.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.5	25.3	15.6	67.1	71.8	42.3	53.7	61.1	61.1	62.6	0.0	68.5
LOS by Move:	C	C	B	E	E	D	D-	E	E	E	A	E
HCM2kAvgQ:	14	10	15	2	6	5	4	12	12	5	0	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	426	1297	540	68	482	131	147	1	188	138	0	129
Growth 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
Initial Bse:	426	1297	540	68	482	131	147	1	188	138	0	129
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	426	1297	540	68	482	131	147	1	188	138	0	129
User 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
PHF 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
PHF Volume:	426	1297	540	68	482	131	147	1	188	138	0	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	426	1297	540	68	482	131	147	1	188	138	0	129
PCE 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
MLF 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
Final Volume:	426	1297	540	68	482	131	147	1	188	138	0	129

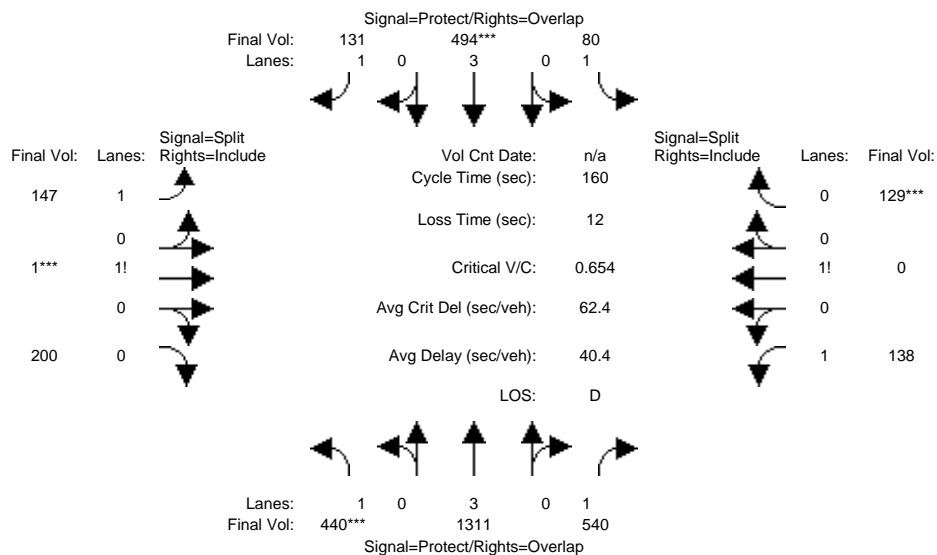
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.28	0.01	0.71	1.35	0.00	0.65
Final Sat.:	1750	5700	1750	1750	5700	1750	2250	7	1279	2360	0	1140

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.24	0.23	0.31	0.04	0.08	0.07	0.07	0.15	0.15	0.06	0.00	0.11
Crit Moves:	***			****					****			****
Green Time:	77.0	80.4	103.7	16.0	17.4	47.7	30.3	30.3	30.3	23.3	0.0	23.3
Volume/Cap:	0.51	0.45	0.48	0.39	0.78	0.25	0.35	0.78	0.78	0.40	0.00	0.78
Uniform Del:	28.4	25.7	14.3	67.4	69.4	42.6	56.3	61.7	61.7	62.0	0.0	65.8
IncrcmntDel:	0.5	0.1	0.3	1.4	6.2	0.3	0.2	8.6	8.6	0.4	0.0	10.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	28.9	25.8	14.7	68.9	75.6	42.9	56.5	70.3	70.3	62.4	0.0	76.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.9	25.8	14.7	68.9	75.6	42.9	56.5	70.3	70.3	62.4	0.0	76.5
LOS by Move:	C	C	B	E	E-	D	E+	E	E	E	A	E-
HCM2kAvgQ:	15	13	14	3	8	5	5	15	15	5	0	12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P AM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	426	1297	540	68	482	131	147	1	188	138	0	129
Growth 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
Initial Bse:	426	1297	540	68	482	131	147	1	188	138	0	129
Added Vol:	14	14	0	12	12	0	0	0	12	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	440	1311	540	80	494	131	147	1	200	138	0	129
User 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
PHF 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
PHF Volume:	440	1311	540	80	494	131	147	1	200	138	0	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	440	1311	540	80	494	131	147	1	200	138	0	129
PCE 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
MLF 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
Final Volume:	440	1311	540	80	494	131	147	1	200	138	0	129

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.27	0.01	0.72	1.35	0.00	0.65
Final Sat.:	1750	5700	1750	1750	5700	1750	2228	7	1302	2360	0	1140

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.25	0.23	0.31	0.05	0.09	0.07	0.07	0.15	0.15	0.06	0.00	0.11
Crit Moves:	***			****			****					****
Green Time:	77.0	79.8	102.5	16.0	17.4	48.3	30.9	30.9	30.9	22.7	0.0	22.7
Volume/Cap:	0.52	0.46	0.48	0.46	0.80	0.25	0.34	0.80	0.80	0.41	0.00	0.80
Uniform Del:	28.8	26.1	14.9	67.9	69.6	42.2	55.8	61.6	61.6	62.5	0.0	66.4
IncrcmntDel:	0.6	0.1	0.3	1.9	7.1	0.2	0.2	9.8	9.8	0.4	0.0	12.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	29.3	26.2	15.2	69.8	76.7	42.4	56.0	71.4	71.4	63.0	0.0	78.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.3	26.2	15.2	69.8	76.7	42.4	56.0	71.4	71.4	63.0	0.0	78.9
LOS by Move:	C	C	B	E	E-	D	E+	E	E	E	A	E-
HCM2kAvgQ:	16	13	14	4	8	5	5	15	15	5	0	12

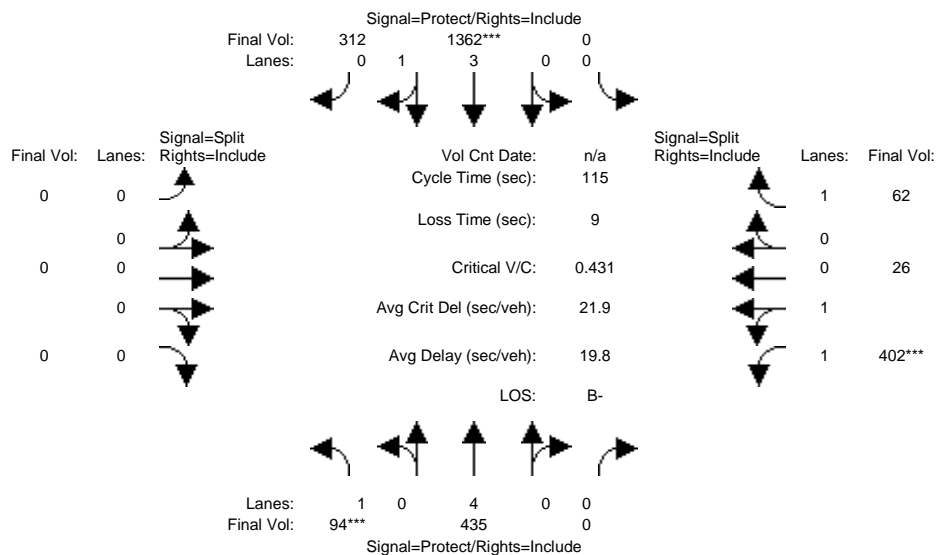
Note: Queue reported is the number of cars per lane.

Summary Scenario Comparison Report (With Average Critical Delay)
Future Volume Alternative

Intersection	Existing MD				Existing+P MD				Bkgd MD					Bkgd+P MD				
	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)	LOS	Avg Del (sec)	Crit V/C	Crit Change	Avg Crit Del (sec)	Avg Crit Del Change	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)
#1 Mathilda Ave & SR 237 WB	B-	19.8	0.431	21.9	B-	20.0	0.434	22.1	B	17.0	0.650	+ 0.216	19.2	- 2.9	B	17.2	0.653	19.3
#2 Mathilda Ave & SR 237 EB	B	17.7	0.650	35.0	B	17.7	0.655	35.1	C	25.1	0.925	+ 0.270	57.2	+ 22.1	C	25.3	0.929	58.0
#3 Mathilda Ave & Ross Dr	B	16.7	0.339	10.9	B	16.9	0.343	11.2	B	14.3	0.462	+ 0.119	9.5	- 1.8	B	14.5	0.467	9.7
#4 Mathilda Ave & Almanor Ave	C+	21.9	0.321	16.9	C+	20.9	0.337	13.5	C	30.9	0.558	+ 0.221	28.6	+ 15.1	C	30.9	0.566	28.5
#5 Mathilda Ave & San Aleso Ave	A	9.8	0.275	7.1	B+	10.0	0.282	7.1	A	9.8	0.360	+ 0.078	7.6	+ 0.6	B+	10.2	0.366	7.7
#6 Mathilda Ave & Maude Ave	C	30.2	0.440	29.2	C	29.6	0.439	28.5	C-	34.0	0.700	+ 0.261	34.7	+ 6.2	C-	34.1	0.706	34.7
#7 Mathilda Ave & Indio Ave	B+	10.4	0.380	7.4	B+	10.4	0.388	7.4	B+	10.6	0.521	+ 0.133	8.8	+ 1.4	B+	10.7	0.530	8.9
#8 Mathilda Ave & California Ave	B	17.6	0.391	14.5	B	17.4	0.396	14.4	B-	19.1	0.510	+ 0.114	16.5	+ 2.1	B-	19.0	0.515	16.4
#9 San Aleso Ave & Ahwanee Ave	A	2.4	0.048	2.4	B	5.6	0.145	5.6	A	2.5	0.054	- 0.091	2.5	- 3.1	B	5.6	0.149	5.6
#10 Borregas Ave & Ahwanee Ave	A	7.9	0.169	7.9	A	8.2	0.247	8.2	A	7.9	0.182	- 0.065	7.9	- 0.3	A	8.3	0.260	8.3
#11 Borregas Ave & Duane Ave	B	2.3	0.049	2.3	B	2.4	0.051	2.4	B	2.2	0.050	- 0.000	2.2	- 0.2	B	2.3	0.052	2.3
#12 Borregas Ave/Sunnyvale Ave & Maude Ave	C-	32.7	0.381	34.4	C-	32.9	0.388	34.8	C-	32.4	0.416	+ 0.029	33.7	- 1.1	C-	32.6	0.422	34.1
#13 Morse Ave & Ahwanee Ave	B	5.9	0.146	5.9	B	5.7	0.156	5.7	B	5.8	0.147	- 0.008	5.8	+ 0.2	B	5.6	0.158	5.6
#14 Morse Ave & Duane Ave	A	8.8	0.295	8.8	A	8.9	0.299	8.9	A	9.0	0.314	+ 0.014	9.0	+ 0.1	A	9.1	0.319	9.1
#15 Morse Ave & Maude Ave	B	4.3	0.150	4.3	B	4.2	0.152	4.2	B	4.3	0.165	+ 0.013	4.3	+ 0.1	B	4.2	0.168	4.2
#16 Fair Oaks Ave & Weddell Ave	C+	20.0	0.239	22.8	B-	19.9	0.242	22.8	B-	19.5	0.338	+ 0.095	23.5	+ 0.7	B-	19.4	0.341	23.5
#17 Fair Oaks Ave & US 101 NB	C+	20.0	0.581	25.1	B-	19.9	0.584	25.1	C+	22.2	0.766	+ 0.182	29.5	+ 4.4	C+	22.1	0.768	29.6
#18 Fair Oaks Ave & Ahwanee Ave	B-	18.2	0.384	16.6	B-	19.2	0.396	17.4	B	17.4	0.441	+ 0.045	16.0	- 1.4	B-	18.4	0.453	16.8
#19 Fair Oaks Ave & Duane Ave	C	30.5	0.550	33.6	C	30.7	0.556	34.0	C	29.9	0.635	+ 0.079	34.3	+ 0.3	C	30.2	0.641	34.8
#20 Fair Oaks Ave & Wolfe Rd	B	13.4	0.286	18.8	B	13.1	0.290	19.0	B	14.0	0.351	+ 0.061	19.8	+ 0.8	B	13.8	0.355	19.9
#21 Fair Oaks Ave & Maude Ave	C	29.0	0.413	27.9	C	29.3	0.434	28.6	C	29.1	0.477	+ 0.043	28.2	- 0.4	C	29.5	0.499	29.0
#22 Wolfe Rd & Maude Ave	C	2.7	0.178	2.7	C	2.7	0.180	2.7	C	2.7	0.231	+ 0.051	2.7	- 0.0	C	2.7	0.234	2.7
#23 Wolfe Rd & Arques Ave	D	39.3	0.291	38.9	D	39.1	0.291	38.9	D+	38.8	0.310	+ 0.019	38.5	- 0.4	D+	38.6	0.312	38.4
#24 Wolfe Rd & Central Expwy Ramps	D	41.3	0.371	46.3	D	41.7	0.382	46.4	D	42.8	0.423	+ 0.041	47.0	+ 0.6	D	41.0	0.433	43.6

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #1: Mathilda Ave & SR 237 WB



Street Name:	Mathilda Ave						SR 237 WB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	94	435	0	0	1362	312	0	0	0	402	26	62
Growth 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
Initial Bse:	94	435	0	0	1362	312	0	0	0	402	26	62
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	435	0	0	1362	312	0	0	0	402	26	62
User 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
PHF 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
PHF Volume:	94	435	0	0	1362	312	0	0	0	402	26	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	435	0	0	1362	312	0	0	0	402	26	62
PCE 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
MLF 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
Final Volume:	94	435	0	0	1362	312	0	0	0	402	26	62

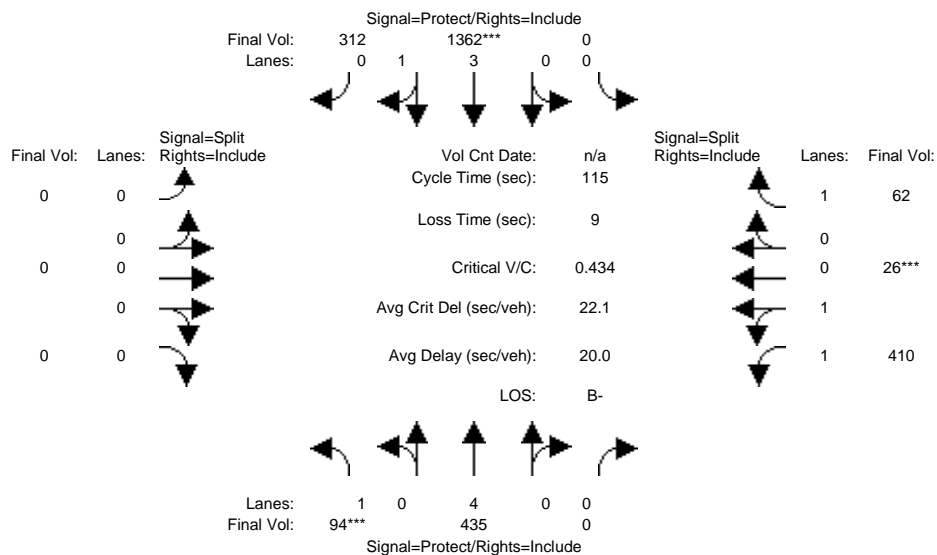
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	4.00	0.00	0.00	3.22	0.78	0.00	0.00	0.00	1.88	0.12	1.00
Final Sat.:	1750	7600	0	0	6100	1397	0	0	0	3334	216	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.05	0.06	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.12	0.12	0.04
Crit Moves:	****				****					****		
Green Time:	14.3	73.9	0.0	0.0	59.5	59.5	0.0	0.0	0.0	32.1	32.1	32.1
Volume/Cap:	0.43	0.09	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.43	0.43	0.13
Uniform Del:	46.6	7.8	0.0	0.0	17.2	17.2	0.0	0.0	0.0	33.9	33.9	30.9
IncrcmntDel:	1.4	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	47.9	7.8	0.0	0.0	17.3	17.3	0.0	0.0	0.0	34.2	34.2	31.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.9	7.8	0.0	0.0	17.3	17.3	0.0	0.0	0.0	34.2	34.2	31.1
LOS by Move:	D	A	A	A	B	B	A	A	A	C-	C-	C
HCM2kAvgQ:	3	1	0	0	9	9	0	0	0	7	7	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #1: Mathilda Ave & SR 237 WB



Street Name:	Mathilda Ave						SR 237 WB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	94	435	0	0	1362	312	0	0	0	402	26	62
Growth 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
Initial Bse:	94	435	0	0	1362	312	0	0	0	402	26	62
Added Vol:	0	0	0	0	0	0	0	0	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	435	0	0	1362	312	0	0	0	410	26	62
User 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
PHF 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
PHF Volume:	94	435	0	0	1362	312	0	0	0	410	26	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	435	0	0	1362	312	0	0	0	410	26	62
PCE 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
MLF 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
Final Volume:	94	435	0	0	1362	312	0	0	0	410	26	62

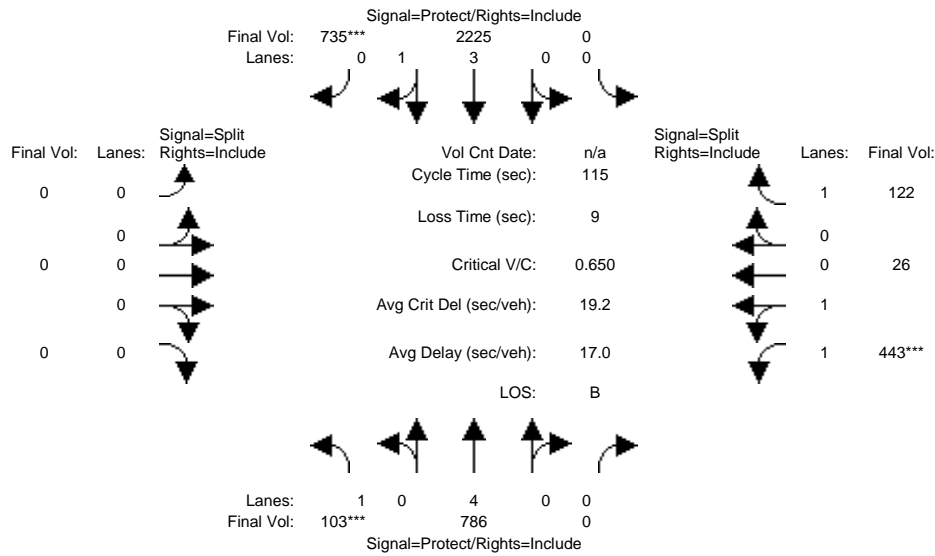
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	4.00	0.00	0.00	3.22	0.78	0.00	0.00	0.00	1.88	0.12	1.00
Final Sat.:	1750	7600	0	0	6100	1397	0	0	0	3338	212	1750

Capacity Analysis Module:												
Vol/Sat:	0.05	0.06	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.12	0.12	0.04
Crit Moves:	****				****					****		
Green Time:	14.2	73.4	0.0	0.0	59.2	59.2	0.0	0.0	0.0	32.6	32.6	32.6
Volume/Cap:	0.43	0.09	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.43	0.43	0.13
Uniform Del:	46.6	8.0	0.0	0.0	17.4	17.4	0.0	0.0	0.0	33.7	33.7	30.6
IncrcmntDel:	1.4	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	48.0	8.0	0.0	0.0	17.5	17.5	0.0	0.0	0.0	34.0	34.0	30.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.0	8.0	0.0	0.0	17.5	17.5	0.0	0.0	0.0	34.0	34.0	30.7
LOS by Move:	D	A	A	A	B	B	A	A	A	C-	C-	C
HCM2kAvgQ:	3	1	0	0	9	9	0	0	0	7	7	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd MD

Intersection #1: Mathilda Ave & SR 237 WB



Street Name:	Mathilda Ave						SR 237 WB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	103	786	0	0	2225	735	0	0	0	443	26	122
Growth 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
Initial Bse:	103	786	0	0	2225	735	0	0	0	443	26	122
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	786	0	0	2225	735	0	0	0	443	26	122
User 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
PHF 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
PHF Volume:	103	786	0	0	2225	735	0	0	0	443	26	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	786	0	0	2225	735	0	0	0	443	26	122
PCE 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
MLF 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
Final Volume:	103	786	0	0	2225	735	0	0	0	443	26	122

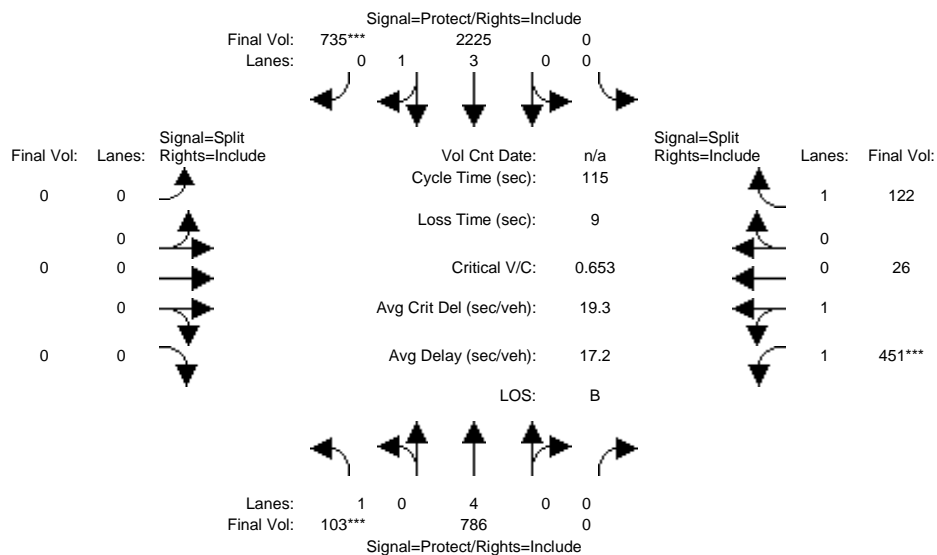
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	4.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.89	0.11	1.00
Final Sat.:	1750	7600	0	0	5699	1800	0	0	0	3353	197	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.10	0.00	0.00	0.39	0.41	0.00	0.00	0.00	0.13	0.13	0.07
Crit Moves:	****					****				****		
Green Time:	10.4	82.6	0.0	0.0	72.2	72.2	0.0	0.0	0.0	23.4	23.4	23.4
Volume/Cap:	0.65	0.14	0.00	0.00	0.62	0.65	0.00	0.00	0.00	0.65	0.65	0.34
Uniform Del:	50.5	5.1	0.0	0.0	13.1	13.4	0.0	0.0	0.0	42.1	42.1	39.2
IncrcmntDel:	9.2	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	2.1	2.1	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	59.7	5.1	0.0	0.0	13.3	13.8	0.0	0.0	0.0	44.2	44.2	39.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.7	5.1	0.0	0.0	13.3	13.8	0.0	0.0	0.0	44.2	44.2	39.8
LOS by Move:	E+	A	A	A	B	B	A	A	A	D	D	D
HCM2kAvgQ:	4	2	0	0	16	17	0	0	0	9	9	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #1: Mathilda Ave & SR 237 WB



Street Name:	Mathilda Ave						SR 237 WB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	7	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	103	786	0	0	2225	735	0	0	0	443	26	122
Growth 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
Initial Bse:	103	786	0	0	2225	735	0	0	0	443	26	122
Added Vol:	0	0	0	0	0	0	0	0	0	8	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	786	0	0	2225	735	0	0	0	451	26	122
User 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
PHF 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
PHF Volume:	103	786	0	0	2225	735	0	0	0	451	26	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	786	0	0	2225	735	0	0	0	451	26	122
PCE 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
MLF 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
Final Volume:	103	786	0	0	2225	735	0	0	0	451	26	122

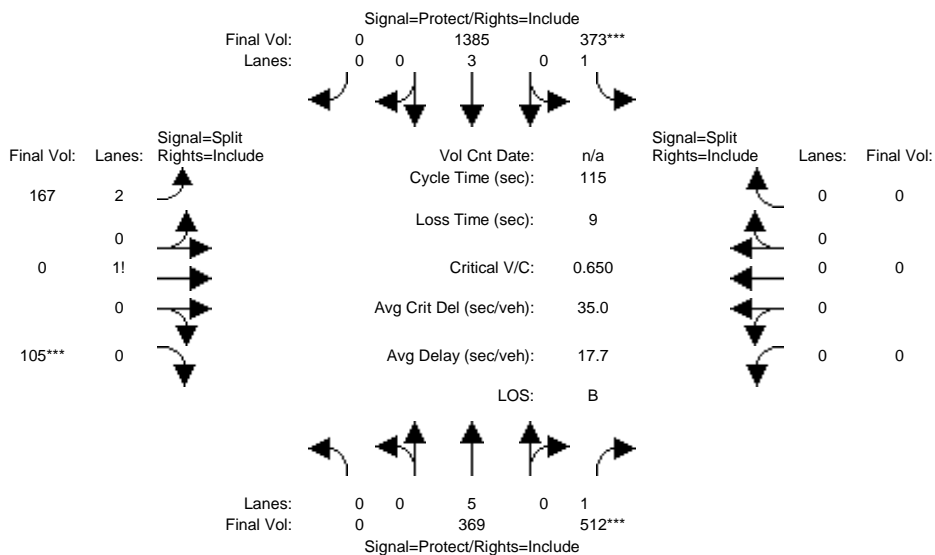
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	4.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.89	0.11	1.00
Final Sat.:	1750	7600	0	0	5699	1800	0	0	0	3356	193	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.10	0.00	0.00	0.39	0.41	0.00	0.00	0.00	0.13	0.13	0.07
Crit Moves:	****					****				****		
Green Time:	10.4	82.3	0.0	0.0	72.0	72.0	0.0	0.0	0.0	23.7	23.7	23.7
Volume/Cap:	0.65	0.14	0.00	0.00	0.62	0.65	0.00	0.00	0.00	0.65	0.65	0.34
Uniform Del:	50.6	5.2	0.0	0.0	13.2	13.6	0.0	0.0	0.0	41.9	41.9	39.0
IncrementDel:	9.4	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	2.1	2.1	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	60.0	5.2	0.0	0.0	13.5	14.0	0.0	0.0	0.0	44.0	44.0	39.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.0	5.2	0.0	0.0	13.5	14.0	0.0	0.0	0.0	44.0	44.0	39.5
LOS by Move:	E+	A	A	A	B	B	A	A	A	D	D	D
HCM2kAvgQ:	4	2	0	0	16	17	0	0	0	9	9	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #2: Mathilda Ave & SR 237 EB



Street Name:	Mathilda Ave						SR 237 EB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	369	512	373	1385	0	167	0	105	0	0	0
Growth 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
Initial Bse:	0	369	512	373	1385	0	167	0	105	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	369	512	373	1385	0	167	0	105	0	0	0
User 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
PHF 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
PHF Volume:	0	369	512	373	1385	0	167	0	105	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	369	512	373	1385	0	167	0	105	0	0	0
PCE 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
MLF 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
Final Volume:	0	369	512	373	1385	0	167	0	105	0	0	0

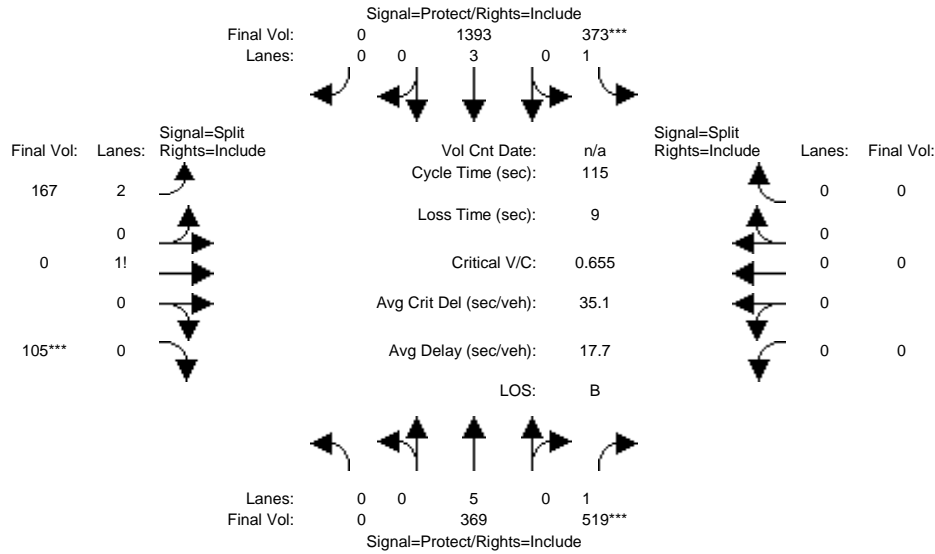
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.95	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	1.00	3.00	0.00	2.38	0.00	0.62	0.00	0.00	0.00
Final Sat.:	0	9500	1750	1750	5700	0	3744	0	1121	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.04	0.29	0.21	0.24	0.00	0.04	0.00	0.09	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green Time:	0.0	51.7	51.7	37.7	89.4	0.0	16.6	0.0	16.6	0.0	0.0	0.0
Volume/Cap:	0.00	0.09	0.65	0.65	0.31	0.00	0.31	0.00	0.65	0.00	0.00	0.00
Uniform Del:	0.0	18.1	24.6	33.0	3.8	0.0	44.1	0.0	46.5	0.0	0.0	0.0
IncrcmntDel:	0.0	0.0	1.9	2.6	0.0	0.0	0.2	0.0	3.6	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	18.1	26.5	35.7	3.8	0.0	44.3	0.0	50.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	18.1	26.5	35.7	3.8	0.0	44.3	0.0	50.1	0.0	0.0	0.0
LOS by Move:	A	B-	C	D+	A	A	D	A	D	A	A	A
HCM2kAvgQ:	0	1	15	12	5	0	3	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P MD

Intersection #2: Mathilda Ave & SR 237 EB



Street Name:	Mathilda Ave						SR 237 EB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	369	512	373	1385	0	167	0	105	0	0	0
Growth 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
Initial Bse:	0	369	512	373	1385	0	167	0	105	0	0	0
Added Vol:	0	0	7	0	8	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	369	519	373	1393	0	167	0	105	0	0	0
User 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
PHF 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
PHF Volume:	0	369	519	373	1393	0	167	0	105	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	369	519	373	1393	0	167	0	105	0	0	0
PCE 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
MLF 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
Final Volume:	0	369	519	373	1393	0	167	0	105	0	0	0

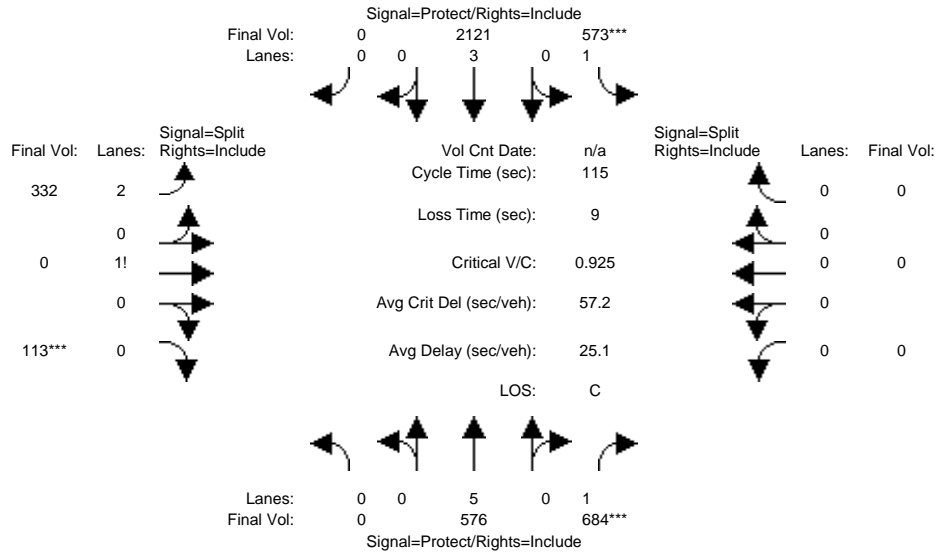
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.95	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	1.00	3.00	0.00	2.38	0.00	0.62	0.00	0.00	0.00
Final Sat.:	0	9500	1750	1750	5700	0	3744	0	1121	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.04	0.30	0.21	0.24	0.00	0.04	0.00	0.09	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green Time:	0.0	52.1	52.1	37.4	89.5	0.0	16.5	0.0	16.5	0.0	0.0	0.0
Volume/Cap:	0.00	0.09	0.65	0.65	0.31	0.00	0.31	0.00	0.65	0.00	0.00	0.00
Uniform Del:	0.0	17.9	24.5	33.2	3.7	0.0	44.2	0.0	46.6	0.0	0.0	0.0
IncrcmntDel:	0.0	0.0	2.0	2.7	0.0	0.0	0.2	0.0	3.7	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	17.9	26.4	36.0	3.8	0.0	44.4	0.0	50.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.9	26.4	36.0	3.8	0.0	44.4	0.0	50.3	0.0	0.0	0.0
LOS by Move:	A	B	C	D+	A	A	D	A	D	A	A	A
HCM2kAvgQ:	0	1	15	12	5	0	3	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #2: Mathilda Ave & SR 237 EB



Street Name:	Mathilda Ave						SR 237 EB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	576	684	573	2121	0	332	0	113	0	0	0
Growth 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
Initial Bse:	0	576	684	573	2121	0	332	0	113	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	576	684	573	2121	0	332	0	113	0	0	0
User 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
PHF 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
PHF Volume:	0	576	684	573	2121	0	332	0	113	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	576	684	573	2121	0	332	0	113	0	0	0
PCE 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
MLF 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
Final Volume:	0	576	684	573	2121	0	332	0	113	0	0	0

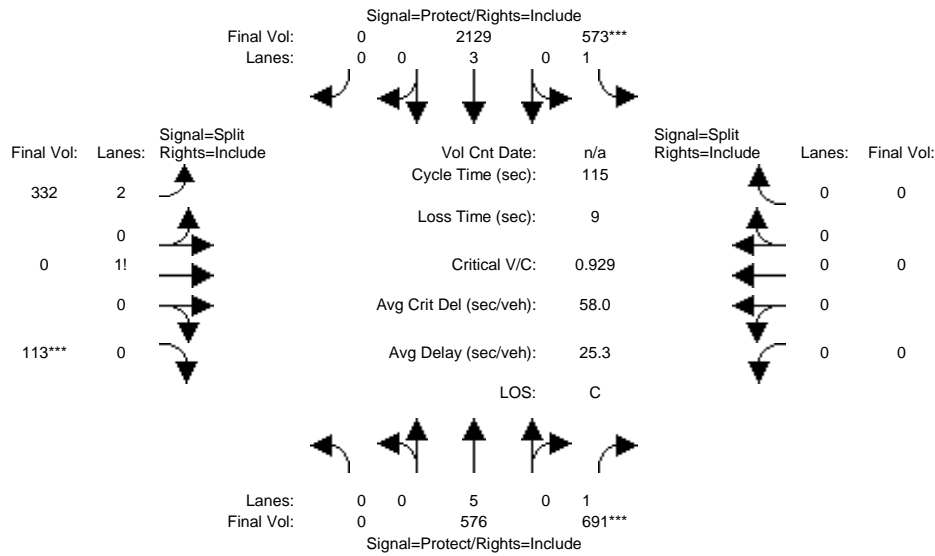
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.84	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	1.00	3.00	0.00	2.52	0.00	0.48	0.00	0.00	0.00
Final Sat.:	0	9500	1750	1750	5700	0	4013	0	843	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.39	0.33	0.37	0.00	0.08	0.00	0.13	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green Time:	0.0	48.6	48.6	40.7	89.3	0.0	16.7	0.0	16.7	0.0	0.0	0.0
Volume/Cap:	0.00	0.14	0.92	0.92	0.48	0.00	0.57	0.00	0.92	0.00	0.00	0.00
Uniform Del:	0.0	20.4	31.5	35.7	4.6	0.0	45.8	0.0	48.5	0.0	0.0	0.0
IncrcmntDel:	0.0	0.0	17.4	19.8	0.1	0.0	1.0	0.0	23.7	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	20.4	48.8	55.5	4.6	0.0	46.9	0.0	72.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.4	48.8	55.5	4.6	0.0	46.9	0.0	72.3	0.0	0.0	0.0
LOS by Move:	A	C+	D	E+	A	A	D	A	E	A	A	A
HCM2kAvgQ:	0	2	28	23	9	0	6	0	13	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #2: Mathilda Ave & SR 237 EB



Street Name:	Mathilda Ave						SR 237 EB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	576	684	573	2121	0	332	0	113	0	0	0
Growth 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
Initial Bse:	0	576	684	573	2121	0	332	0	113	0	0	0
Added Vol:	0	0	7	0	8	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	576	691	573	2129	0	332	0	113	0	0	0
User 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
PHF 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
PHF Volume:	0	576	691	573	2129	0	332	0	113	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	576	691	573	2129	0	332	0	113	0	0	0
PCE 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
MLF 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
Final Volume:	0	576	691	573	2129	0	332	0	113	0	0	0

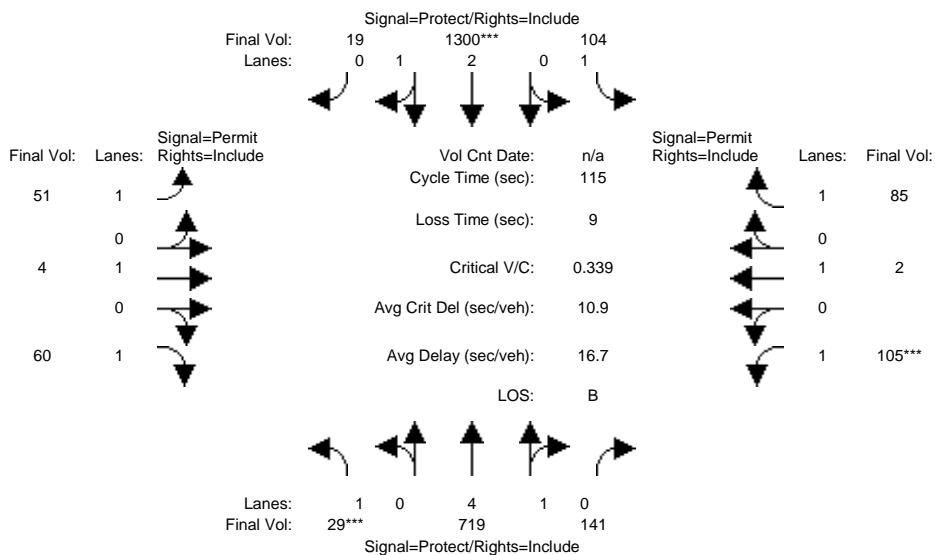
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.84	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	5.00	1.00	1.00	3.00	0.00	2.52	0.00	0.48	0.00	0.00	0.00
Final Sat.:	0	9500	1750	1750	5700	0	4013	0	843	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.39	0.33	0.37	0.00	0.08	0.00	0.13	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green Time:	0.0	48.9	48.9	40.5	89.4	0.0	16.6	0.0	16.6	0.0	0.0	0.0
Volume/Cap:	0.00	0.14	0.93	0.93	0.48	0.00	0.57	0.00	0.93	0.00	0.00	0.00
Uniform Del:	0.0	20.2	31.4	35.8	4.5	0.0	45.9	0.0	48.6	0.0	0.0	0.0
IncrcmntDel:	0.0	0.0	18.0	20.6	0.1	0.0	1.0	0.0	24.6	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	20.3	49.4	56.4	4.6	0.0	47.0	0.0	73.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.3	49.4	56.4	4.6	0.0	47.0	0.0	73.2	0.0	0.0	0.0
LOS by Move:	A	C+	D	E+	A	A	D	A	E	A	A	A
HCM2kAvgQ:	0	2	28	23	9	0	6	0	13	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing MD

Intersection #3: Mathilda Ave & Ross Dr



Street Name:	Mathilda Ave						Ross Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	29	719	141	104	1300	19	51	4	60	105	2	85
Growth 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
Initial Bse:	29	719	141	104	1300	19	51	4	60	105	2	85
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	719	141	104	1300	19	51	4	60	105	2	85
User 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
PHF 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
PHF Volume:	29	719	141	104	1300	19	51	4	60	105	2	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	719	141	104	1300	19	51	4	60	105	2	85
PCE 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
MLF 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
Final Volume:	29	719	141	104	1300	19	51	4	60	105	2	85

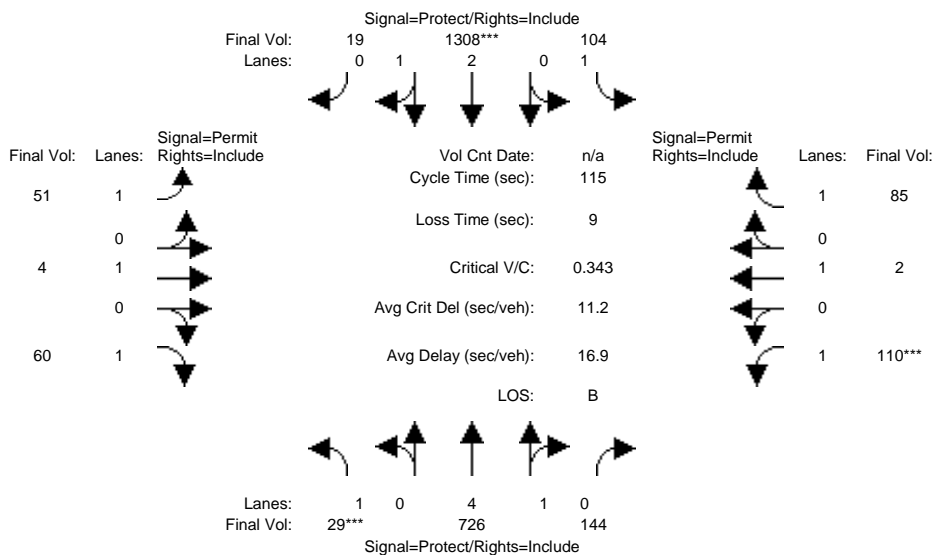
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	4.14	0.86	1.00	2.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	7856	1541	1750	5519	81	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.09	0.09	0.06	0.24	0.24	0.03	0.00	0.03	0.06	0.00	0.05
Crit Moves:	****				****					****		
Green Time:	7.0	51.6	51.6	34.3	78.9	78.9	20.1	20.1	20.1	20.1	20.1	20.1
Volume/Cap:	0.27	0.20	0.20	0.20	0.34	0.34	0.17	0.01	0.20	0.34	0.01	0.28
Uniform Del:	51.6	19.2	19.2	30.1	7.4	7.4	40.3	39.2	40.5	41.7	39.2	41.2
IncrcmntDel:	1.4	0.0	0.0	0.2	0.1	0.1	0.3	0.0	0.3	0.7	0.0	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.0	19.3	19.3	30.3	7.5	7.5	40.6	39.3	40.9	42.3	39.2	41.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	19.3	19.3	30.3	7.5	7.5	40.6	39.3	40.9	42.3	39.2	41.7
LOS by Move:	D-	B-	B-	C	A	A	D	D	D	D	D	D
HCM2kAvgQ:	1	4	4	3	6	6	2	0	2	4	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #3: Mathilda Ave & Ross Dr



Street Name:	Mathilda Ave						Ross Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	29	719	141	104	1300	19	51	4	60	105	2	85
Growth 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
Initial Bse:	29	719	141	104	1300	19	51	4	60	105	2	85
Added Vol:	0	7	3	0	8	0	0	0	0	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	726	144	104	1308	19	51	4	60	110	2	85
User 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
PHF 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
PHF Volume:	29	726	144	104	1308	19	51	4	60	110	2	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	726	144	104	1308	19	51	4	60	110	2	85
PCE 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
MLF 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
Final Volume:	29	726	144	104	1308	19	51	4	60	110	2	85

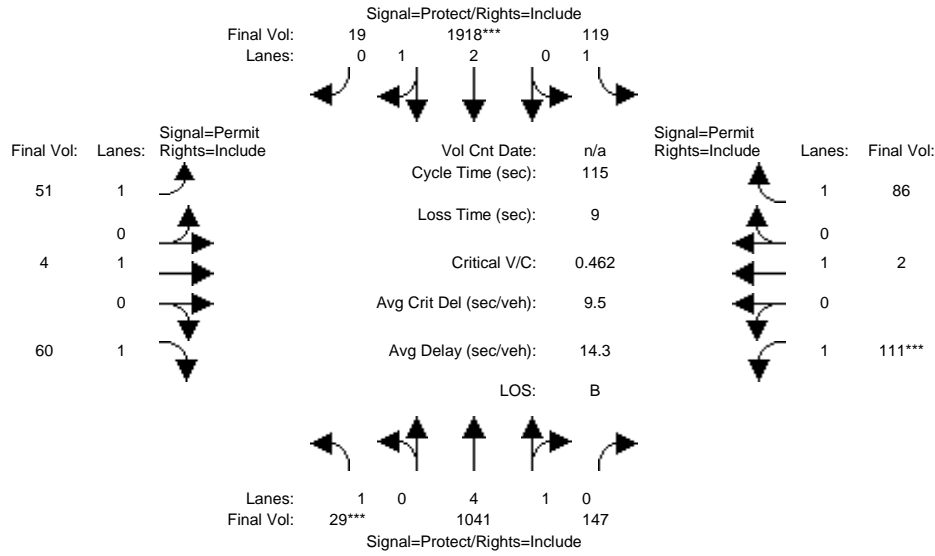
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	4.14	0.86	1.00	2.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	7841	1555	1750	5520	80	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.09	0.09	0.06	0.24	0.24	0.03	0.00	0.03	0.06	0.00	0.05
Crit Moves:	****			****						****		
Green Time:	7.0	51.4	51.4	33.8	78.2	78.2	20.8	20.8	20.8	20.8	20.8	20.8
Volume/Cap:	0.27	0.21	0.21	0.20	0.35	0.35	0.16	0.01	0.19	0.35	0.01	0.27
Uniform Del:	51.6	19.4	19.4	30.5	7.7	7.7	39.8	38.7	40.0	41.2	38.7	40.6
IncrcmntDel:	1.4	0.0	0.0	0.2	0.1	0.1	0.2	0.0	0.3	0.7	0.0	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.0	19.4	19.4	30.7	7.8	7.8	40.0	38.7	40.3	41.9	38.7	41.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	19.4	19.4	30.7	7.8	7.8	40.0	38.7	40.3	41.9	38.7	41.1
LOS by Move:	D-	B-	B-	C	A	A	D	D+	D	D	D+	D
HCM2kAvgQ:	1	4	4	3	7	7	2	0	2	4	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd MD

Intersection #3: Mathilda Ave & Ross Dr



Street Name:	Mathilda Ave						Ross Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	29	1041	147	119	1918	19	51	4	60	111	2	86
Growth 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
Initial Bse:	29	1041	147	119	1918	19	51	4	60	111	2	86
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	1041	147	119	1918	19	51	4	60	111	2	86
User 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
PHF 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
PHF Volume:	29	1041	147	119	1918	19	51	4	60	111	2	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1041	147	119	1918	19	51	4	60	111	2	86
PCE 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
MLF 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
Final Volume:	29	1041	147	119	1918	19	51	4	60	111	2	86

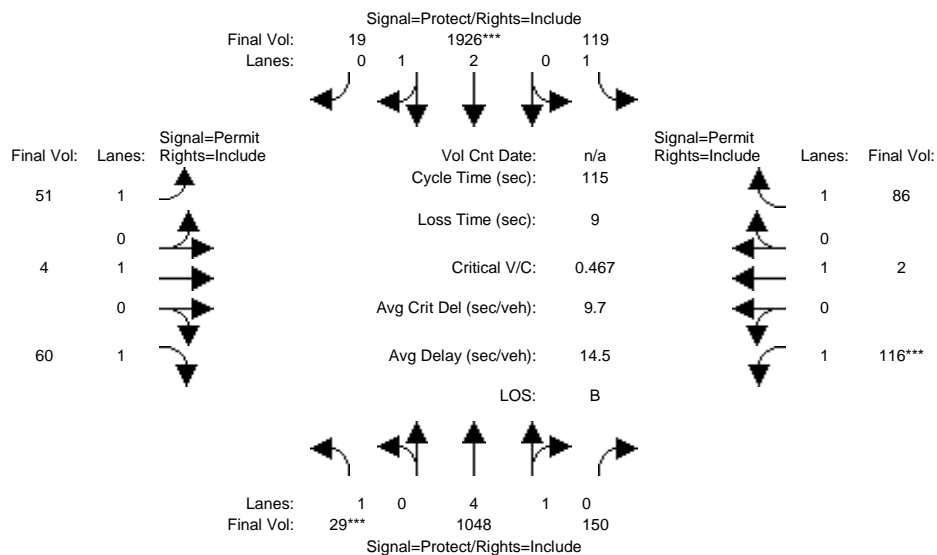
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	4.35	0.65	1.00	2.97	0.03	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	8235	1163	1750	5545	55	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.13	0.13	0.07	0.35	0.35	0.03	0.00	0.03	0.06	0.00	0.05
Crit Moves:	***			****						****		
Green Time:	7.0	58.9	58.9	31.7	83.7	83.7	15.3	15.3	15.3	15.3	15.3	15.3
Volume/Cap:	0.27	0.25	0.25	0.25	0.48	0.48	0.22	0.02	0.26	0.48	0.01	0.37
Uniform Del:	51.6	15.6	15.6	32.4	6.5	6.5	44.5	43.3	44.7	46.1	43.2	45.4
IncrcmntDel:	1.4	0.0	0.0	0.3	0.1	0.1	0.5	0.0	0.6	1.5	0.0	1.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.0	15.7	15.7	32.6	6.6	6.6	45.0	43.3	45.3	47.6	43.2	46.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	15.7	15.7	32.6	6.6	6.6	45.0	43.3	45.3	47.6	43.2	46.4
LOS by Move:	D-	B	B	C-	A	A	D	D	D	D	D	D
HCM2kAvgQ:	1	5	5	3	10	10	2	0	2	4	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P MD

Intersection #3: Mathilda Ave & Ross Dr



Street Name:	Mathilda Ave						Ross Dr					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	29	1041	147	119	1918	19	51	4	60	111	2	86
Growth 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
Initial Bse:	29	1041	147	119	1918	19	51	4	60	111	2	86
Added Vol:	0	7	3	0	8	0	0	0	0	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	1048	150	119	1926	19	51	4	60	116	2	86
User 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
PHF 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
PHF Volume:	29	1048	150	119	1926	19	51	4	60	116	2	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1048	150	119	1926	19	51	4	60	116	2	86
PCE 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
MLF 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
Final Volume:	29	1048	150	119	1926	19	51	4	60	116	2	86

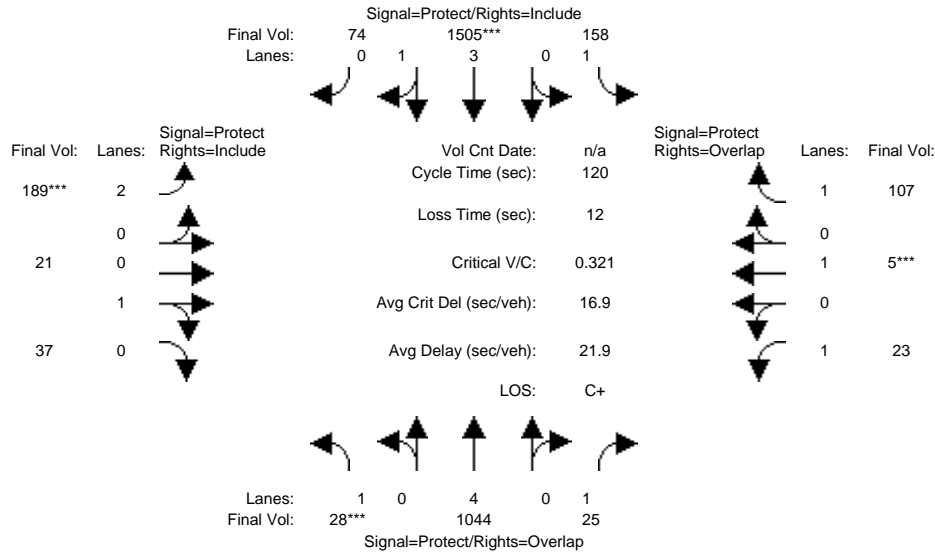
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	4.35	0.65	1.00	2.97	0.03	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	8221	1177	1750	5545	55	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.13	0.13	0.07	0.35	0.35	0.03	0.00	0.03	0.07	0.00	0.05
Crit Moves:	****				****					****		
Green Time:	7.0	58.8	58.8	31.4	83.1	83.1	15.9	15.9	15.9	15.9	15.9	15.9
Volume/Cap:	0.27	0.25	0.25	0.25	0.48	0.48	0.21	0.02	0.25	0.48	0.01	0.36
Uniform Del:	51.6	15.7	15.7	32.6	6.8	6.8	44.0	42.8	44.2	45.8	42.8	44.9
IncrcmntDel:	1.4	0.0	0.0	0.3	0.1	0.1	0.4	0.0	0.5	1.5	0.0	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.0	15.8	15.8	32.9	6.9	6.9	44.4	42.8	44.8	47.3	42.8	45.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	15.8	15.8	32.9	6.9	6.9	44.4	42.8	44.8	47.3	42.8	45.8
LOS by Move:	D-	B	B	C-	A	A	D	D	D	D	D	D
HCM2kAvgQ:	1	5	5	3	10	10	2	0	2	5	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Mathilda Ave NB			Mathilda Ave SB			Almanor Ave EB			Almanor Ave WB		
Base Vol:	28	1044	25	158	1505	74	189	21	37	23	5	107
Growth 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
Initial Bse:	28	1044	25	158	1505	74	189	21	37	23	5	107
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	1044	25	158	1505	74	189	21	37	23	5	107
User 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
PHF 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
PHF Volume:	28	1044	25	158	1505	74	189	21	37	23	5	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	1044	25	158	1505	74	189	21	37	23	5	107
PCE 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
MLF 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
Final Volume:	28	1044	25	158	1505	74	189	21	37	23	5	107

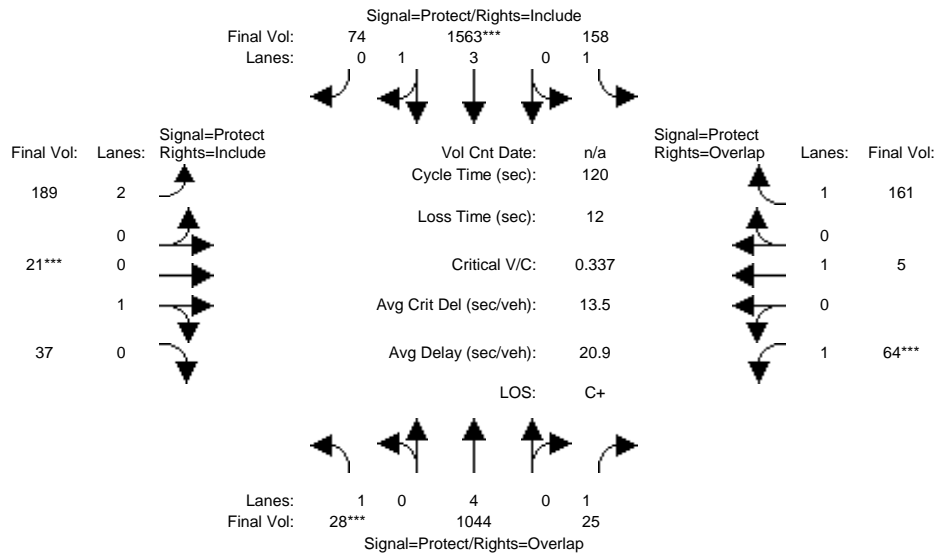
Saturation Flow Module:	Mathilda Ave NB			Mathilda Ave SB			Almanor Ave EB			Almanor Ave WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.80	0.20	2.00	0.36	0.64	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7148	351	3150	652	1148	1750	1900	1750

Capacity Analysis Module:	Mathilda Ave NB			Mathilda Ave SB			Almanor Ave EB			Almanor Ave WB		
Vol/Sat:	0.02	0.14	0.01	0.09	0.21	0.21	0.06	0.03	0.03	0.01	0.00	0.06
Crit Moves:	***			****			****			****		
Green Time:	7.0	47.0	59.4	30.9	70.8	70.8	20.2	17.8	17.8	12.4	10.0	40.9
Volume/Cap:	0.27	0.35	0.03	0.35	0.36	0.36	0.36	0.22	0.22	0.13	0.03	0.18
Uniform Del:	54.1	25.8	15.5	36.4	12.8	12.8	44.2	45.0	45.0	48.9	50.5	27.8
IncrcmntDel:	1.5	0.1	0.0	0.5	0.0	0.0	0.4	0.4	0.4	0.3	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	55.5	25.8	15.5	36.9	12.8	12.8	44.6	45.4	45.4	49.2	50.6	27.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.5	25.8	15.5	36.9	12.8	12.8	44.6	45.4	45.4	49.2	50.6	27.9
LOS by Move:	E+	C	B	D+	B	B	D	D	D	D	D	C
HCM2kAvgQ:	1	6	0	5	7	7	4	2	2	1	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P MD

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	28	1044	25	158	1505	74	189	21	37	23	5	107
Growth 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
Initial Bse:	28	1044	25	158	1505	74	189	21	37	23	5	107
Added Vol:	0	0	0	0	58	0	0	0	0	41	0	54
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	1044	25	158	1563	74	189	21	37	64	5	161
User 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
PHF 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
PHF Volume:	28	1044	25	158	1563	74	189	21	37	64	5	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	1044	25	158	1563	74	189	21	37	64	5	161
PCE 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
MLF 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
Final Volume:	28	1044	25	158	1563	74	189	21	37	64	5	161

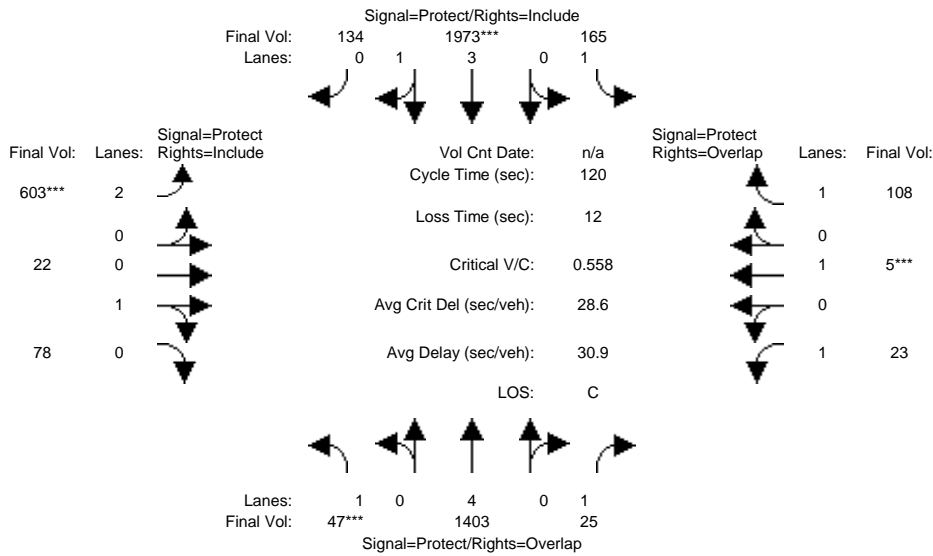
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.81	0.19	2.00	0.36	0.64	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7160	339	3150	652	1148	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.14	0.01	0.09	0.22	0.22	0.06	0.03	0.03	0.04	0.00	0.09
Crit Moves:	****				****			****		****		
Green Time:	7.0	50.6	63.4	33.2	76.8	76.8	10.1	11.3	11.3	12.9	14.1	47.3
Volume/Cap:	0.27	0.33	0.03	0.33	0.34	0.34	0.71	0.34	0.34	0.34	0.02	0.23
Uniform Del:	54.1	23.3	13.5	34.5	9.9	9.9	53.5	50.8	50.8	49.6	46.9	24.3
IncrcmntDel:	1.5	0.1	0.0	0.4	0.0	0.0	8.6	1.2	1.2	1.1	0.0	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	55.5	23.3	13.5	34.9	10.0	10.0	62.2	52.0	52.0	50.7	46.9	24.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.5	23.3	13.5	34.9	10.0	10.0	62.2	52.0	52.0	50.7	46.9	24.4
LOS by Move:	E+	C	B	C-	A	A	E	D-	D-	D	D	C
HCM2kAvgQ:	1	6	0	5	7	7	6	2	2	3	0	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd MD

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	47	1403	25	165	1973	134	603	22	78	23	5	108
Growth 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
Initial Bse:	47	1403	25	165	1973	134	603	22	78	23	5	108
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	47	1403	25	165	1973	134	603	22	78	23	5	108
User 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
PHF 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
PHF Volume:	47	1403	25	165	1973	134	603	22	78	23	5	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	1403	25	165	1973	134	603	22	78	23	5	108
PCE 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
MLF 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
Final Volume:	47	1403	25	165	1973	134	603	22	78	23	5	108

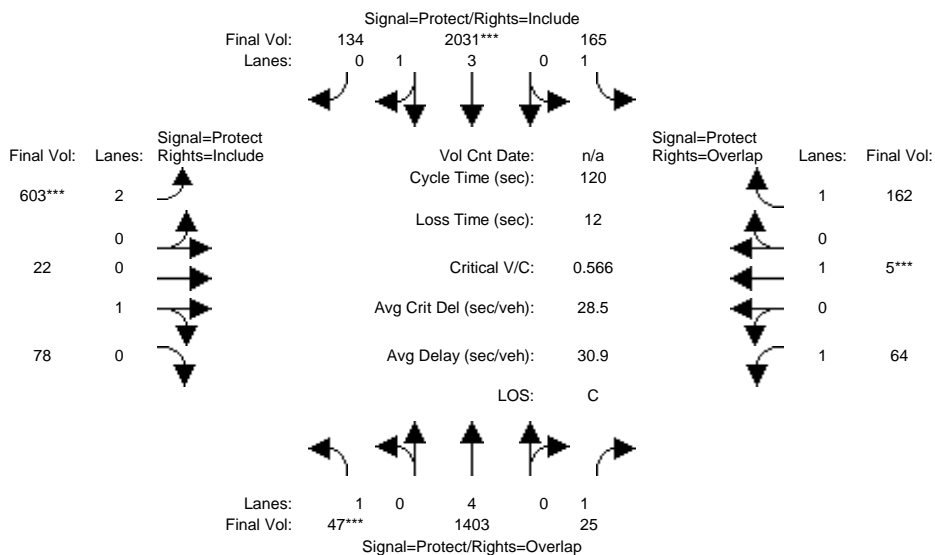
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.74	0.26	2.00	0.22	0.78	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7022	477	3150	396	1404	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.01	0.09	0.28	0.28	0.19	0.06	0.06	0.01	0.00	0.06
Crit Moves:	***				****		****				****	
Green Time:	7.0	40.5	59.8	20.7	54.1	54.1	36.9	27.6	27.6	19.3	10.0	30.7
Volume/Cap:	0.46	0.55	0.03	0.55	0.62	0.62	0.62	0.24	0.24	0.08	0.03	0.24
Uniform Del:	54.7	32.3	15.3	45.4	25.1	25.1	35.6	37.7	37.7	42.8	50.5	35.4
IncrcmntDel:	3.3	0.3	0.0	2.1	0.4	0.4	1.3	0.3	0.3	0.1	0.1	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	57.9	32.6	15.4	47.5	25.5	25.5	36.9	38.0	38.0	42.9	50.6	35.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.9	32.6	15.4	47.5	25.5	25.5	36.9	38.0	38.0	42.9	50.6	35.7
LOS by Move:	E+	C-	B	D	C	C	D+	D+	D+	D	D	D+
HCM2kAvgQ:	2	10	0	7	15	15	12	3	3	1	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	47	1403	25	165	1973	134	603	22	78	23	5	108
Growth 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
Initial Bse:	47	1403	25	165	1973	134	603	22	78	23	5	108
Added Vol:	0	0	0	0	58	0	0	0	0	41	0	54
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	47	1403	25	165	2031	134	603	22	78	64	5	162
User 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
PHF 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
PHF Volume:	47	1403	25	165	2031	134	603	22	78	64	5	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	1403	25	165	2031	134	603	22	78	64	5	162
PCE 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
MLF 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
Final Volume:	47	1403	25	165	2031	134	603	22	78	64	5	162

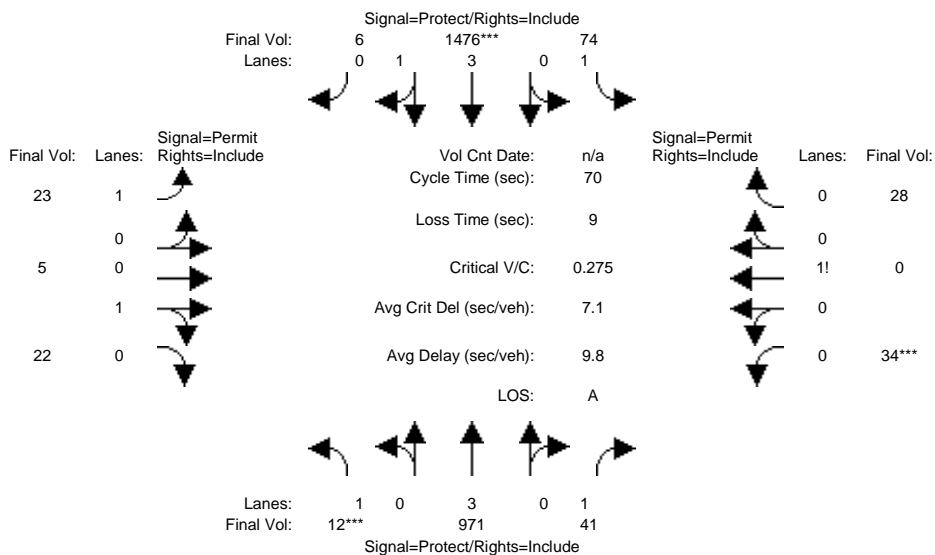
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.74	0.26	2.00	0.22	0.78	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7035	464	3150	396	1404	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.01	0.09	0.29	0.29	0.19	0.06	0.06	0.04	0.00	0.09
Crit Moves:	***				****		****				****	
Green Time:	7.0	40.9	59.9	20.9	54.7	54.7	36.3	27.2	27.2	19.1	10.0	30.9
Volume/Cap:	0.46	0.54	0.03	0.54	0.63	0.63	0.63	0.24	0.24	0.23	0.03	0.36
Uniform Del:	54.7	32.0	15.3	45.2	25.0	25.0	36.1	38.0	38.0	44.1	50.5	36.5
IncrcmntDel:	3.3	0.2	0.0	2.0	0.4	0.4	1.4	0.3	0.3	0.4	0.1	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	57.9	32.2	15.3	47.2	25.4	25.4	37.5	38.3	38.3	44.5	50.6	37.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.9	32.2	15.3	47.2	25.4	25.4	37.5	38.3	38.3	44.5	50.6	37.0
LOS by Move:	E+	C-	B	D	C	C	D+	D+	D+	D	D	D+
HCM2kAvgQ:	2	10	0	7	16	16	12	3	3	2	0	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	12	971	41	74	1476	6	23	5	22	34	0	28
Growth 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
Initial Bse:	12	971	41	74	1476	6	23	5	22	34	0	28
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	971	41	74	1476	6	23	5	22	34	0	28
User 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
PHF 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
PHF Volume:	12	971	41	74	1476	6	23	5	22	34	0	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	971	41	74	1476	6	23	5	22	34	0	28
PCE 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
MLF 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
Final Volume:	12	971	41	74	1476	6	23	5	22	34	0	28

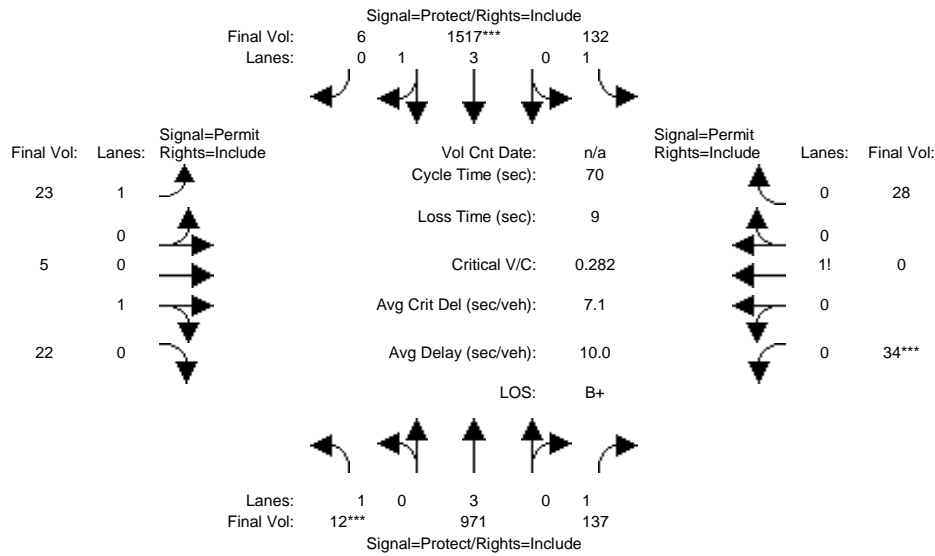
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.98	0.02	1.00	0.19	0.81	0.55	0.00	0.45
Final Sat.:	1750	5700	1750	1750	7470	30	1750	333	1467	960	0	790

Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.02	0.04	0.20	0.20	0.01	0.02	0.02	0.04	0.00	0.04
Crit Moves:	****				****					****		
Green Time:	7.0	32.1	32.1	18.9	44.0	44.0	10.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.07	0.37	0.05	0.16	0.31	0.31	0.09	0.11	0.11	0.25	0.00	0.25
Uniform Del:	28.5	12.3	10.5	19.5	6.0	6.0	26.1	26.1	26.1	26.7	0.0	26.7
IncrementDel:	0.2	0.1	0.0	0.2	0.0	0.0	0.2	0.2	0.2	0.5	0.0	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	28.7	12.4	10.5	19.7	6.1	6.1	26.2	26.3	26.3	27.2	0.0	27.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.7	12.4	10.5	19.7	6.1	6.1	26.2	26.3	26.3	27.2	0.0	27.2
LOS by Move:	C	B	B+	B-	A	A	C	C	C	C	A	C
HCM2kAvgQ:	0	4	1	1	4	4	1	1	1	1	0	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	12	971	41	74	1476	6	23	5	22	34	0	28
Growth 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
Initial Bse:	12	971	41	74	1476	6	23	5	22	34	0	28
Added Vol:	0	0	96	58	41	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	971	137	132	1517	6	23	5	22	34	0	28
User 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
PHF 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
PHF Volume:	12	971	137	132	1517	6	23	5	22	34	0	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	971	137	132	1517	6	23	5	22	34	0	28
PCE 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
MLF 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
Final Volume:	12	971	137	132	1517	6	23	5	22	34	0	28

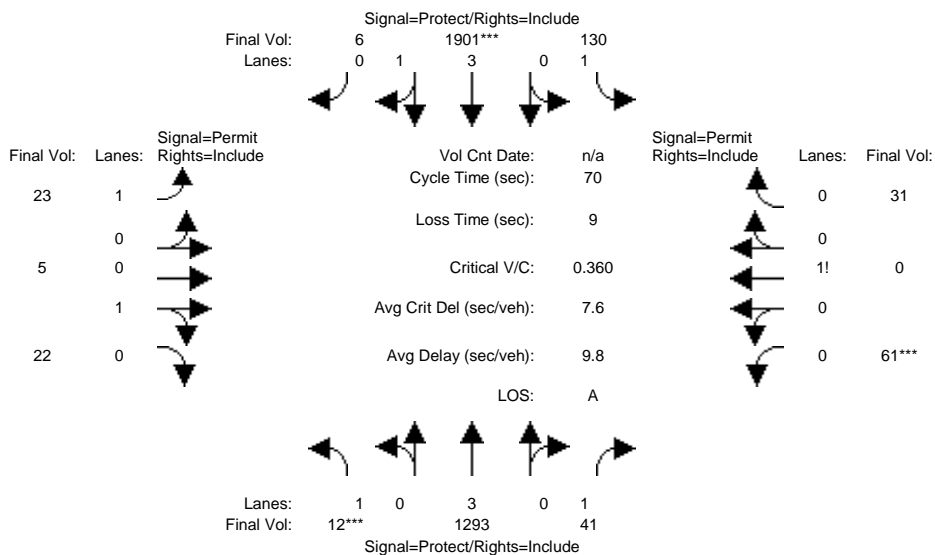
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.98	0.02	1.00	0.19	0.81	0.55	0.00	0.45
Final Sat.:	1750	5700	1750	1750	7470	30	1750	333	1467	960	0	790

Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.08	0.08	0.20	0.20	0.01	0.02	0.02	0.04	0.00	0.04
Crit Moves:	****				****					****		
Green Time:	7.0	32.1	32.1	18.9	44.0	44.0	10.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.07	0.37	0.17	0.28	0.32	0.32	0.09	0.11	0.11	0.25	0.00	0.25
Uniform Del:	28.5	12.3	11.1	20.2	6.1	6.1	26.1	26.1	26.1	26.7	0.0	26.7
IncrcmntDel:	0.2	0.1	0.1	0.3	0.0	0.0	0.2	0.2	0.2	0.5	0.0	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	28.7	12.4	11.2	20.5	6.1	6.1	26.2	26.3	26.3	27.2	0.0	27.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.7	12.4	11.2	20.5	6.1	6.1	26.2	26.3	26.3	27.2	0.0	27.2
LOS by Move:	C	B	B+	C+	A	A	C	C	C	C	A	C
HCM2kAvgQ:	0	4	2	2	4	4	1	1	1	1	0	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd MD

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	12	1293	41	130	1901	6	23	5	22	61	0	31
Growth 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
Initial Bse:	12	1293	41	130	1901	6	23	5	22	61	0	31
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	1293	41	130	1901	6	23	5	22	61	0	31
User 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
PHF 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
PHF Volume:	12	1293	41	130	1901	6	23	5	22	61	0	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	1293	41	130	1901	6	23	5	22	61	0	31
PCE 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
MLF 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
Final Volume:	12	1293	41	130	1901	6	23	5	22	61	0	31

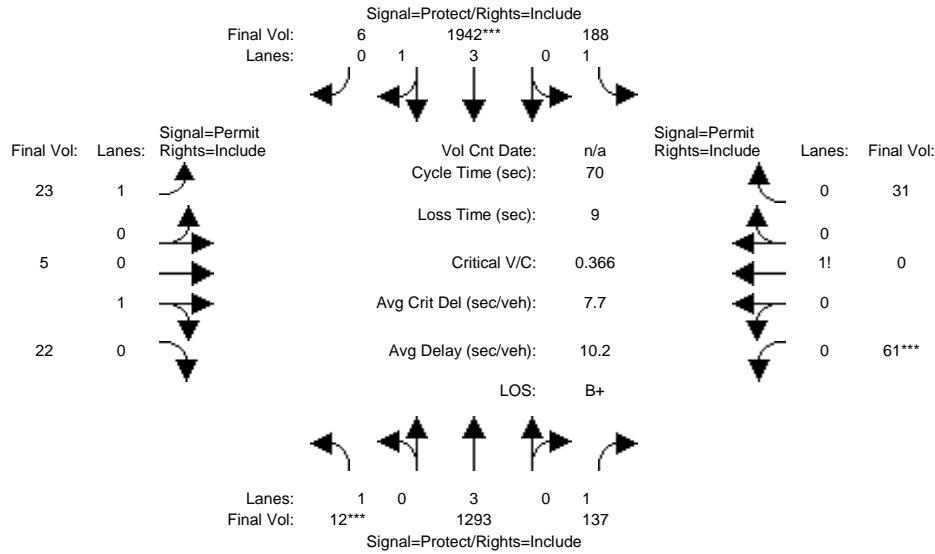
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.99	0.01	1.00	0.19	0.81	0.66	0.00	0.34
Final Sat.:	1750	5700	1750	1750	7476	24	1750	333	1467	1160	0	590

Capacity Analysis Module:												
Vol/Sat:	0.01	0.23	0.02	0.07	0.25	0.25	0.01	0.02	0.02	0.05	0.00	0.05
Crit Moves:	****				****					****		
Green Time:	7.0	35.4	35.4	15.6	44.0	44.0	10.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.07	0.45	0.05	0.33	0.40	0.40	0.09	0.11	0.11	0.37	0.00	0.37
Uniform Del:	28.5	11.1	8.8	22.8	6.5	6.5	26.1	26.1	26.1	27.1	0.0	27.1
IncrcmntDel:	0.2	0.1	0.0	0.5	0.1	0.1	0.2	0.2	0.2	0.9	0.0	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	28.7	11.2	8.8	23.3	6.5	6.5	26.2	26.3	26.3	28.1	0.0	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.7	11.2	8.8	23.3	6.5	6.5	26.2	26.3	26.3	28.1	0.0	28.1
LOS by Move:	C	B+	A	C	A	A	C	C	C	C	A	C
HCM2kAvgQ:	0	6	0	2	5	5	1	1	1	2	0	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	12	1293	41	130	1901	6	23	5	22	61	0	31
Growth 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
Initial Bse:	12	1293	41	130	1901	6	23	5	22	61	0	31
Added Vol:	0	0	96	58	41	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	1293	137	188	1942	6	23	5	22	61	0	31
User 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
PHF 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
PHF Volume:	12	1293	137	188	1942	6	23	5	22	61	0	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	1293	137	188	1942	6	23	5	22	61	0	31
PCE 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
MLF 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
Final Volume:	12	1293	137	188	1942	6	23	5	22	61	0	31

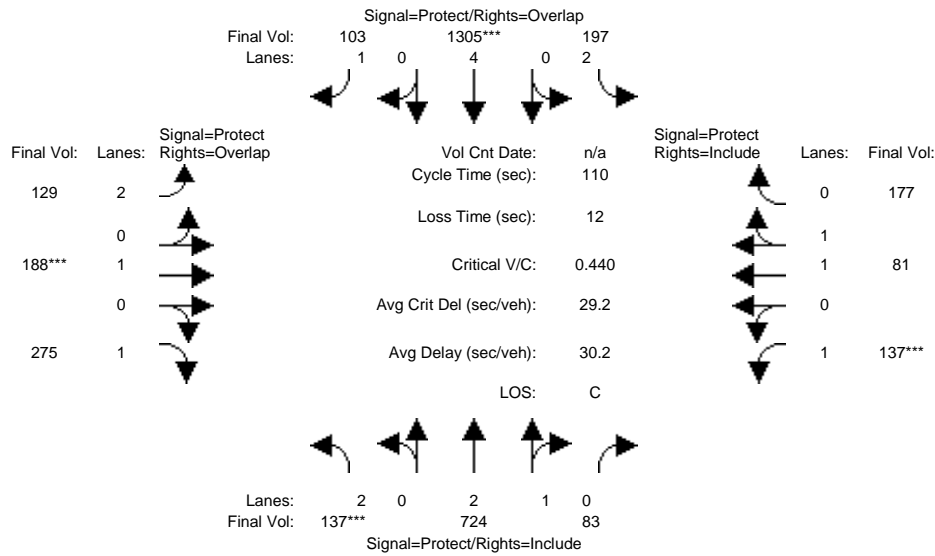
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.99	0.01	1.00	0.19	0.81	0.66	0.00	0.34
Final Sat.:	1750	5700	1750	1750	7477	23	1750	333	1467	1160	0	590

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.23	0.08	0.11	0.26	0.26	0.01	0.02	0.02	0.05	0.00	0.05
Crit Moves:	****				****					****		
Green Time:	7.0	34.6	34.6	16.4	44.0	44.0	10.0	10.0	10.0	10.0	0.0	10.0
Volume/Cap:	0.07	0.46	0.16	0.46	0.41	0.41	0.09	0.11	0.11	0.37	0.00	0.37
Uniform Del:	28.5	11.6	9.7	23.0	6.5	6.5	26.1	26.1	26.1	27.1	0.0	27.1
IncrcmntDel:	0.2	0.1	0.1	0.8	0.1	0.1	0.2	0.2	0.2	0.9	0.0	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	28.7	11.7	9.8	23.8	6.6	6.6	26.2	26.3	26.3	28.1	0.0	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.7	11.7	9.8	23.8	6.6	6.6	26.2	26.3	26.3	28.1	0.0	28.1
LOS by Move:	C	B+	A	C	A	A	C	C	C	C	A	C
HCM2kAvgQ:	0	6	2	4	5	5	1	1	1	2	0	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing MD

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	137	724	83	197	1305	103	129	188	275	137	81	177
Growth 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
Initial Bse:	137	724	83	197	1305	103	129	188	275	137	81	177
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	724	83	197	1305	103	129	188	275	137	81	177
User 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
PHF 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
PHF Volume:	137	724	83	197	1305	103	129	188	275	137	81	177
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	724	83	197	1305	103	129	188	275	137	81	177
PCE 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
MLF 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
Final Volume:	137	724	83	197	1305	103	129	188	275	137	81	177

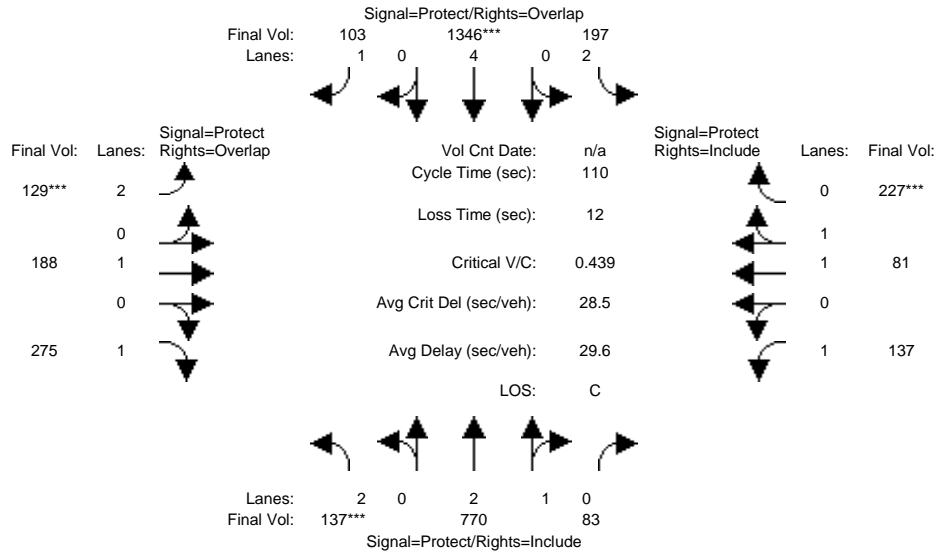
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.68	0.32	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3150	5023	576	3150	7600	1750	3150	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.14	0.06	0.17	0.06	0.04	0.10	0.16	0.08	0.04	0.10
Crit Moves:	****				****			****		****		
Green Time:	10.9	37.3	37.3	16.5	42.9	60.0	17.1	24.7	35.6	19.5	27.2	27.2
Volume/Cap:	0.44	0.43	0.43	0.42	0.44	0.11	0.26	0.44	0.49	0.44	0.17	0.41
Uniform Del:	46.7	28.1	28.1	42.4	24.7	12.1	40.9	36.7	29.9	40.3	32.6	34.7
IncrcmntDel:	1.0	0.2	0.2	0.6	0.1	0.1	0.3	0.7	0.7	1.0	0.1	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	47.7	28.2	28.2	43.0	24.8	12.1	41.2	37.4	30.5	41.3	32.6	35.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.7	28.2	28.2	43.0	24.8	12.1	41.2	37.4	30.5	41.3	32.6	35.1
LOS by Move:	D	C	C	D	C	B	D	D+	C	D	C-	D+
HCM2kAvgQ:	3	7	7	4	8	2	2	6	8	5	2	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P MD

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	137	724	83	197	1305	103	129	188	275	137	81	177
Growth 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
Initial Bse:	137	724	83	197	1305	103	129	188	275	137	81	177
Added Vol:	0	46	0	0	41	0	0	0	0	0	0	50
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	770	83	197	1346	103	129	188	275	137	81	227
User 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
PHF 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
PHF Volume:	137	770	83	197	1346	103	129	188	275	137	81	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	770	83	197	1346	103	129	188	275	137	81	227
PCE 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
MLF 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
Final Volume:	137	770	83	197	1346	103	129	188	275	137	81	227

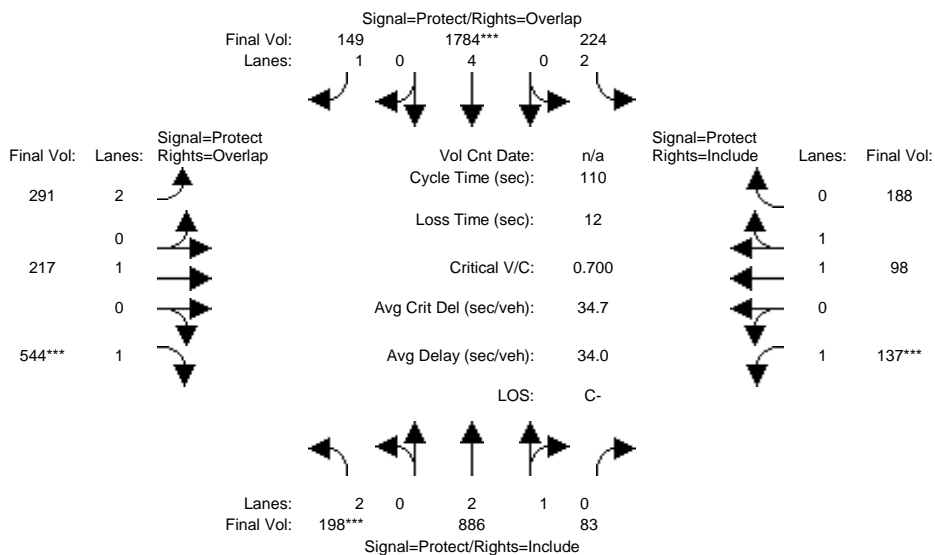
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.70	0.30	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3150	5054	545	3150	7600	1750	3150	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.15	0.06	0.18	0.06	0.04	0.10	0.16	0.08	0.04	0.13
Crit Moves:	***			****			****					****
Green Time:	10.9	39.0	39.0	16.3	44.4	54.6	10.3	25.3	36.2	17.4	32.5	32.5
Volume/Cap:	0.44	0.43	0.43	0.42	0.44	0.12	0.44	0.43	0.48	0.49	0.14	0.44
Uniform Del:	46.7	27.1	27.1	42.6	23.8	14.8	47.2	36.2	29.4	42.3	28.5	31.4
IncrcmntDel:	1.0	0.2	0.2	0.6	0.1	0.1	1.1	0.7	0.6	1.4	0.0	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	47.7	27.2	27.2	43.2	23.9	14.9	48.2	36.9	30.0	43.6	28.6	31.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.7	27.2	27.2	43.2	23.9	14.9	48.2	36.9	30.0	43.6	28.6	31.8
LOS by Move:	D	C	C	D	C	B	D	D+	C	D	C	C
HCM2kAvgQ:	3	7	7	4	8	2	3	6	8	5	2	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	198	886	83	224	1784	149	291	217	544	137	98	188
Growth 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
Initial Bse:	198	886	83	224	1784	149	291	217	544	137	98	188
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	198	886	83	224	1784	149	291	217	544	137	98	188
User 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
PHF 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
PHF Volume:	198	886	83	224	1784	149	291	217	544	137	98	188
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	886	83	224	1784	149	291	217	544	137	98	188
PCE 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
MLF 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
Final Volume:	198	886	83	224	1784	149	291	217	544	137	98	188

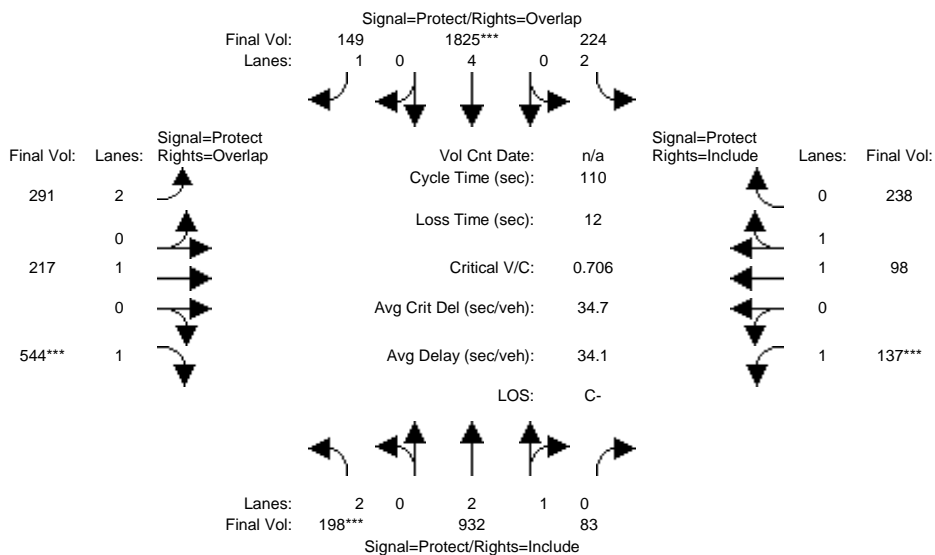
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.73	0.27	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3150	5120	480	3150	7600	1750	3150	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.17	0.07	0.23	0.09	0.09	0.11	0.31	0.08	0.05	0.11
Crit Moves:	****				****				****	****		
Green Time:	9.9	33.1	33.1	13.6	36.9	60.5	23.6	38.8	48.7	12.3	27.5	27.5
Volume/Cap:	0.70	0.57	0.57	0.57	0.70	0.15	0.43	0.32	0.70	0.70	0.21	0.43
Uniform Del:	48.6	32.5	32.5	45.5	31.8	12.2	37.4	26.0	24.8	47.1	32.6	34.7
IncrcmntDel:	7.6	0.5	0.5	2.1	0.9	0.1	0.4	0.3	2.9	10.8	0.1	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	56.2	33.0	33.0	47.6	32.6	12.2	37.8	26.3	27.7	57.8	32.7	35.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.2	33.0	33.0	47.6	32.6	12.2	37.8	26.3	27.7	57.8	32.7	35.1
LOS by Move:	E+	C-	C-	D	C-	B	D+	C	C	E+	C-	D+
HCM2kAvgQ:	4	9	9	4	13	3	5	5	17	6	3	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	198	886	83	224	1784	149	291	217	544	137	98	188
Growth 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
Initial Bse:	198	886	83	224	1784	149	291	217	544	137	98	188
Added Vol:	0	46	0	0	41	0	0	0	0	0	0	50
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	198	932	83	224	1825	149	291	217	544	137	98	238
User 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
PHF 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
PHF Volume:	198	932	83	224	1825	149	291	217	544	137	98	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	932	83	224	1825	149	291	217	544	137	98	238
PCE 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
MLF 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
Final Volume:	198	932	83	224	1825	149	291	217	544	137	98	238

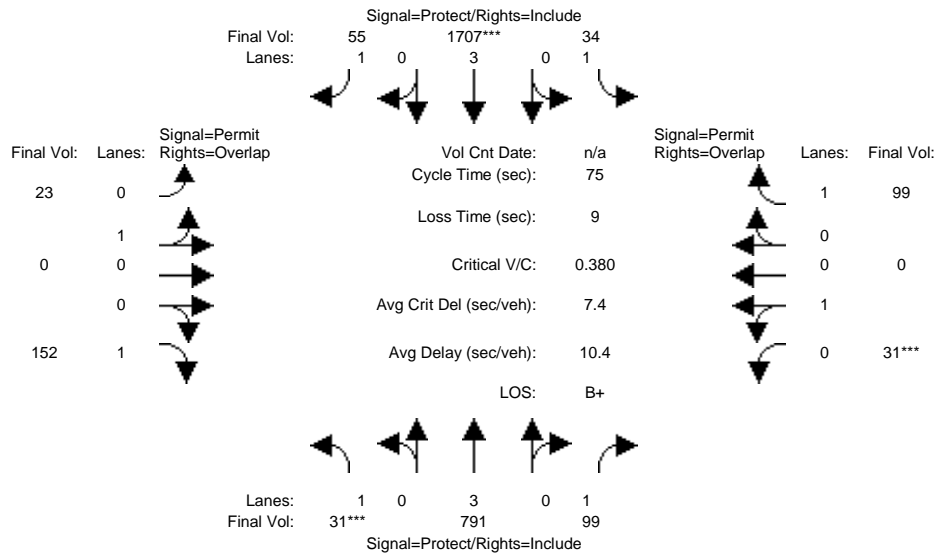
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.75	0.25	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3150	5141	458	3150	7600	1750	3150	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.06	0.18	0.18	0.07	0.24	0.09	0.09	0.11	0.31	0.08	0.05	0.14
Crit Moves:	****				****				****	****		
Green Time:	9.8	33.9	33.9	13.3	37.4	57.9	20.5	38.5	48.3	12.2	30.2	30.2
Volume/Cap:	0.71	0.59	0.59	0.59	0.71	0.16	0.50	0.33	0.71	0.71	0.19	0.50
Uniform Del:	48.7	32.2	32.2	45.8	31.5	13.5	40.1	26.2	25.1	47.2	30.5	33.5
IncrementDel:	8.0	0.5	0.5	2.4	0.9	0.1	0.7	0.3	3.1	11.3	0.1	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	56.7	32.7	32.7	48.2	32.4	13.6	40.8	26.5	28.2	58.5	30.6	34.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.7	32.7	32.7	48.2	32.4	13.6	40.8	26.5	28.2	58.5	30.6	34.1
LOS by Move:	E+	C-	C-	D	C-	B	D	C	C	E+	C	C-
HCM2kAvgQ:	4	10	10	4	13	3	6	5	17	6	3	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	31	791	99	34	1707	55	23	0	152	31	0	99
Growth 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
Initial Bse:	31	791	99	34	1707	55	23	0	152	31	0	99
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	791	99	34	1707	55	23	0	152	31	0	99
User 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
PHF 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
PHF Volume:	31	791	99	34	1707	55	23	0	152	31	0	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	791	99	34	1707	55	23	0	152	31	0	99
PCE 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
MLF 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
Final Volume:	31	791	99	34	1707	55	23	0	152	31	0	99

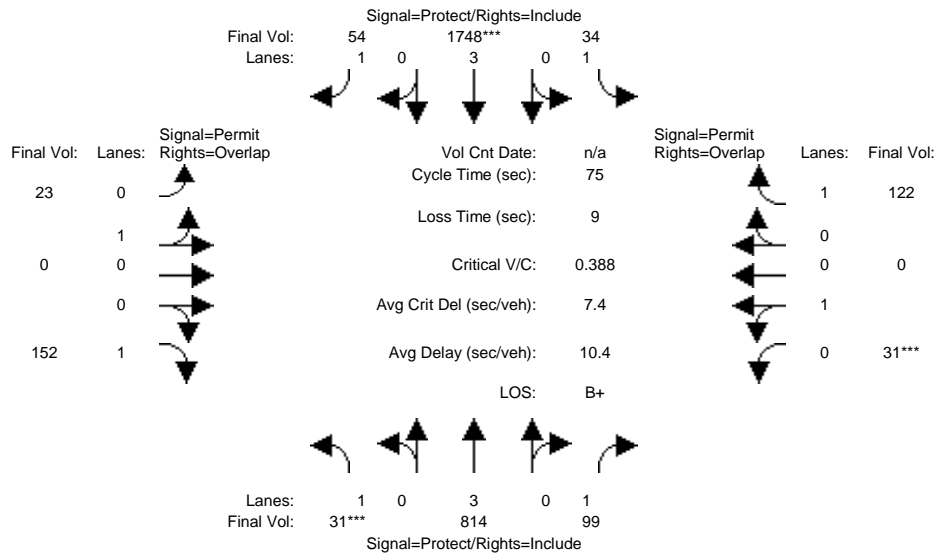
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.14	0.06	0.02	0.30	0.03	0.01	0.00	0.09	0.02	0.00	0.06
Crit Moves:	***				****					****		
Green Time:	7.0	33.5	33.5	22.5	49.0	49.0	10.0	0.0	17.0	10.0	0.0	32.5
Volume/Cap:	0.19	0.31	0.13	0.06	0.46	0.05	0.10	0.00	0.38	0.13	0.00	0.13
Uniform Del:	31.4	13.3	12.2	18.7	6.4	4.7	28.5	0.0	24.6	28.7	0.0	12.8
IncrcmntDel:	0.6	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.6	0.2	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	31.9	13.4	12.3	18.8	6.5	4.7	28.7	0.0	25.2	28.9	0.0	12.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.9	13.4	12.3	18.8	6.5	4.7	28.7	0.0	25.2	28.9	0.0	12.8
LOS by Move:	C	B	B	B-	A	A	C	A	C	C	A	B
HCM2kAvgQ:	1	4	1	1	6	0	1	0	4	1	0	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	31	791	99	34	1707	55	23	0	152	31	0	99
Growth 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
Initial Bse:	31	791	99	34	1707	55	23	0	152	31	0	99
Added Vol:	0	23	0	0	41	-1	0	0	0	0	0	23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	814	99	34	1748	54	23	0	152	31	0	122
User 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
PHF 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
PHF Volume:	31	814	99	34	1748	54	23	0	152	31	0	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	814	99	34	1748	54	23	0	152	31	0	122
PCE 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
MLF 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
Final Volume:	31	814	99	34	1748	54	23	0	152	31	0	122

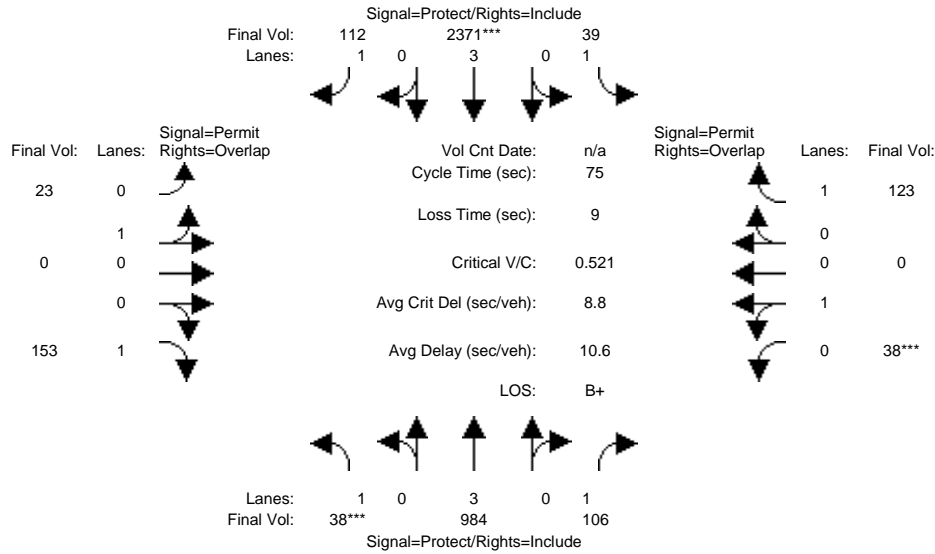
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.14	0.06	0.02	0.31	0.03	0.01	0.00	0.09	0.02	0.00	0.07
Crit Moves:	***				****					****		
Green Time:	7.0	33.9	33.9	22.1	49.0	49.0	10.0	0.0	17.0	10.0	0.0	32.1
Volume/Cap:	0.19	0.32	0.13	0.07	0.47	0.05	0.10	0.00	0.38	0.13	0.00	0.16
Uniform Del:	31.4	13.2	12.0	19.0	6.5	4.7	28.5	0.0	24.6	28.7	0.0	13.2
IncrcmntDel:	0.6	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.6	0.2	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	31.9	13.2	12.0	19.1	6.6	4.7	28.7	0.0	25.2	28.9	0.0	13.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.9	13.2	12.0	19.1	6.6	4.7	28.7	0.0	25.2	28.9	0.0	13.3
LOS by Move:	C	B	B	B-	A	A	C	A	C	C	A	B
HCM2kAvgQ:	1	4	1	1	7	0	1	0	4	1	0	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	38	984	106	39	2371	112	23	0	153	38	0	123
Growth 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
Initial Bse:	38	984	106	39	2371	112	23	0	153	38	0	123
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	984	106	39	2371	112	23	0	153	38	0	123
User 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
PHF 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
PHF Volume:	38	984	106	39	2371	112	23	0	153	38	0	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	984	106	39	2371	112	23	0	153	38	0	123
PCE 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
MLF 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
Final Volume:	38	984	106	39	2371	112	23	0	153	38	0	123

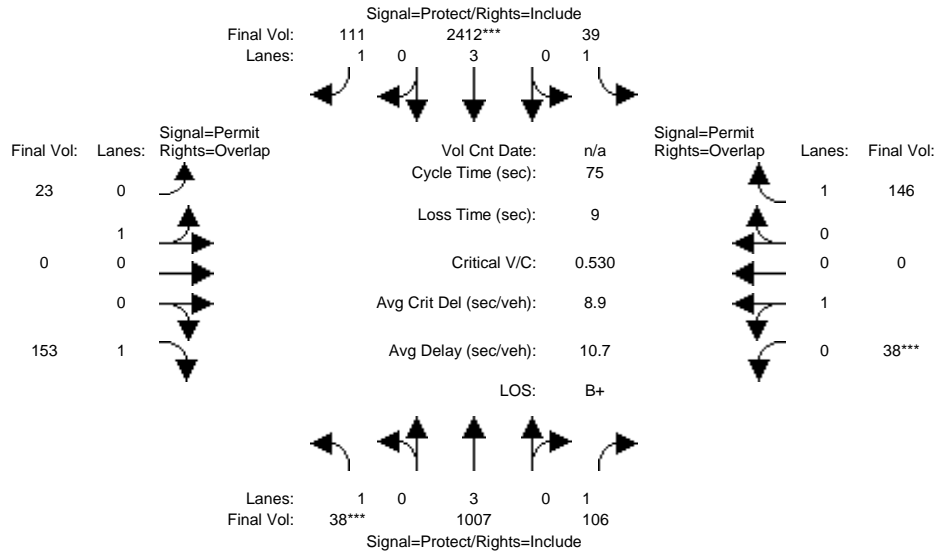
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.17	0.06	0.02	0.42	0.06	0.01	0.00	0.09	0.02	0.00	0.07
Crit Moves:	***				****					****		
Green Time:	7.0	36.3	36.3	19.7	49.0	49.0	10.0	0.0	17.0	10.0	0.0	29.7
Volume/Cap:	0.23	0.36	0.12	0.09	0.64	0.10	0.10	0.00	0.39	0.16	0.00	0.18
Uniform Del:	31.5	12.0	10.6	20.9	7.7	4.8	28.5	0.0	24.6	28.8	0.0	14.7
IncrcmntDel:	0.7	0.1	0.1	0.1	0.4	0.0	0.2	0.0	0.6	0.3	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	32.2	12.1	10.7	21.0	8.1	4.9	28.7	0.0	25.2	29.1	0.0	14.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.2	12.1	10.7	21.0	8.1	4.9	28.7	0.0	25.2	29.1	0.0	14.9
LOS by Move:	C-	B	B+	C+	A	A	C	A	C	C	A	B
HCM2kAvgQ:	1	5	1	1	11	1	1	0	4	1	0	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	38	984	106	39	2371	112	23	0	153	38	0	123
Growth 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
Initial Bse:	38	984	106	39	2371	112	23	0	153	38	0	123
Added Vol:	0	23	0	0	41	-1	0	0	0	0	0	23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	1007	106	39	2412	111	23	0	153	38	0	146
User 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
PHF 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
PHF Volume:	38	1007	106	39	2412	111	23	0	153	38	0	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	1007	106	39	2412	111	23	0	153	38	0	146
PCE 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
MLF 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
Final Volume:	38	1007	106	39	2412	111	23	0	153	38	0	146

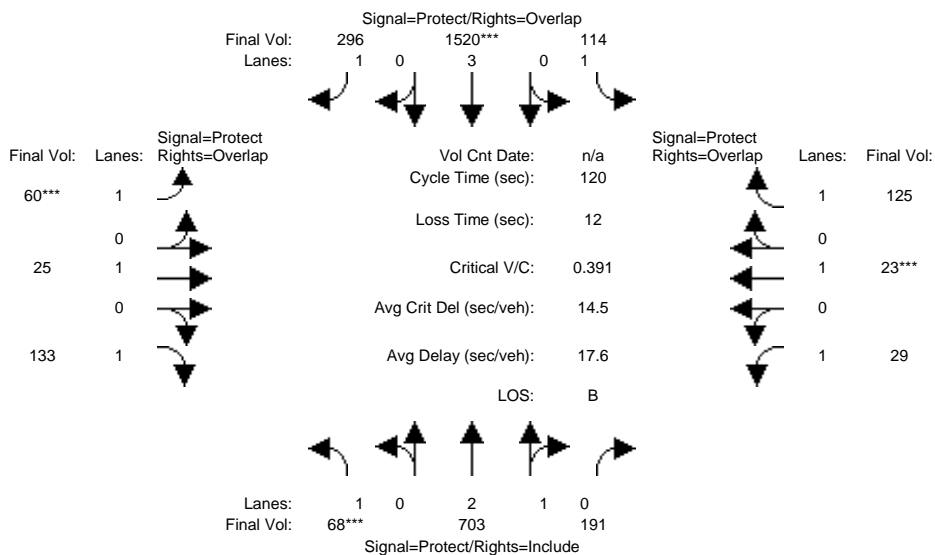
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.06	0.02	0.42	0.06	0.01	0.00	0.09	0.02	0.00	0.08
Crit Moves:	***				****					****		
Green Time:	7.0	36.6	36.6	19.4	49.0	49.0	10.0	0.0	17.0	10.0	0.0	29.4
Volume/Cap:	0.23	0.36	0.12	0.09	0.65	0.10	0.10	0.00	0.39	0.16	0.00	0.21
Uniform Del:	31.5	11.9	10.4	21.1	7.8	4.8	28.5	0.0	24.6	28.8	0.0	15.2
IncrcmntDel:	0.7	0.1	0.1	0.1	0.4	0.0	0.2	0.0	0.6	0.3	0.0	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	32.2	12.0	10.5	21.2	8.2	4.8	28.7	0.0	25.2	29.1	0.0	15.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.2	12.0	10.5	21.2	8.2	4.8	28.7	0.0	25.2	29.1	0.0	15.3
LOS by Move:	C-	B+	B+	C+	A	A	C	A	C	C	A	B
HCM2kAvgQ:	1	5	1	1	11	1	1	0	4	1	0	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	68	703	191	114	1520	296	60	25	133	29	23	125
Growth 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
Initial Bse:	68	703	191	114	1520	296	60	25	133	29	23	125
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	703	191	114	1520	296	60	25	133	29	23	125
User 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
PHF 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
PHF Volume:	68	703	191	114	1520	296	60	25	133	29	23	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	703	191	114	1520	296	60	25	133	29	23	125
PCE 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
MLF 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
Final Volume:	68	703	191	114	1520	296	60	25	133	29	23	125

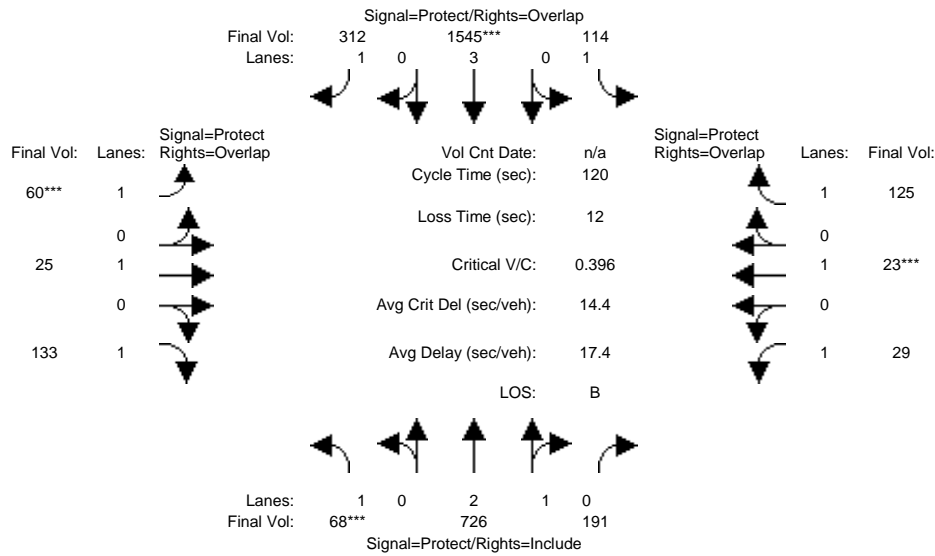
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.34	0.66	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4402	1196	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.07	0.27	0.17	0.03	0.01	0.08	0.02	0.01	0.07
Crit Moves:	****				****		****				****	
Green Time:	11.2	62.6	62.6	25.5	76.9	86.8	9.9	11.7	22.9	8.2	10.0	35.5
Volume/Cap:	0.42	0.31	0.31	0.31	0.42	0.23	0.42	0.13	0.40	0.24	0.15	0.24
Uniform Del:	51.3	16.3	16.3	39.8	10.6	5.5	52.3	49.5	42.5	53.0	51.0	32.0
IncrcmntDel:	1.7	0.1	0.1	0.5	0.1	0.1	1.9	0.3	0.8	1.1	0.4	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.0	16.4	16.4	40.2	10.6	5.6	54.3	49.9	43.3	54.0	51.5	32.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.0	16.4	16.4	40.2	10.6	5.6	54.3	49.9	43.3	54.0	51.5	32.3
LOS by Move:	D-	B	B	D	B+	A	D-	D	D	D-	D-	C-
HCM2kAvgQ:	3	6	6	4	9	4	3	1	5	1	1	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P MD

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Mathilda Ave						California Ave					
Base Vol:	68	703	191	114	1520	296	60	25	133	29	23	125
Growth 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
Initial Bse:	68	703	191	114	1520	296	60	25	133	29	23	125
Added Vol:	0	23	0	0	25	16	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	726	191	114	1545	312	60	25	133	29	23	125
User 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
PHF 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
PHF Volume:	68	726	191	114	1545	312	60	25	133	29	23	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	726	191	114	1545	312	60	25	133	29	23	125
PCE 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
MLF 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
Final Volume:	68	726	191	114	1545	312	60	25	133	29	23	125

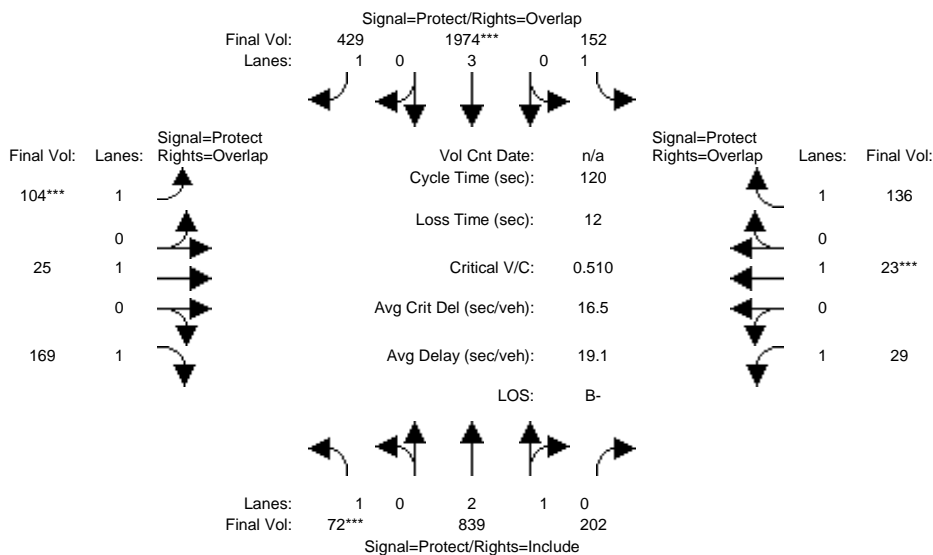
Saturation Flow Module:	Mathilda Ave						California Ave					
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.35	0.65	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4432	1166	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:	Mathilda Ave						California Ave					
Vol/Sat:	0.04	0.16	0.16	0.07	0.27	0.18	0.03	0.01	0.08	0.02	0.01	0.07
Crit Moves:	***				***		***				***	
Green Time:	11.1	63.1	63.1	25.1	77.2	86.9	9.8	11.6	22.7	8.1	10.0	35.1
Volume/Cap:	0.42	0.31	0.31	0.31	0.42	0.25	0.42	0.14	0.40	0.24	0.15	0.24
Uniform Del:	51.4	16.1	16.1	40.1	10.5	5.5	52.4	49.6	42.7	53.0	51.0	32.3
IncrcmntDel:	1.8	0.1	0.1	0.5	0.1	0.1	2.0	0.3	0.8	1.1	0.4	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.2	16.2	16.2	40.6	10.6	5.6	54.4	49.9	43.5	54.1	51.5	32.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.2	16.2	16.2	40.6	10.6	5.6	54.4	49.9	43.5	54.1	51.5	32.6
LOS by Move:	D-	B	B	D	B+	A	D-	D	D	D-	D-	C-
HCM2kAvgQ:	3	6	6	4	9	4	3	1	5	1	1	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	72	839	202	152	1974	429	104	25	169	29	23	136
Growth 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
Initial Bse:	72	839	202	152	1974	429	104	25	169	29	23	136
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	839	202	152	1974	429	104	25	169	29	23	136
User 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
PHF 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
PHF Volume:	72	839	202	152	1974	429	104	25	169	29	23	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	839	202	152	1974	429	104	25	169	29	23	136
PCE 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
MLF 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
Final Volume:	72	839	202	152	1974	429	104	25	169	29	23	136

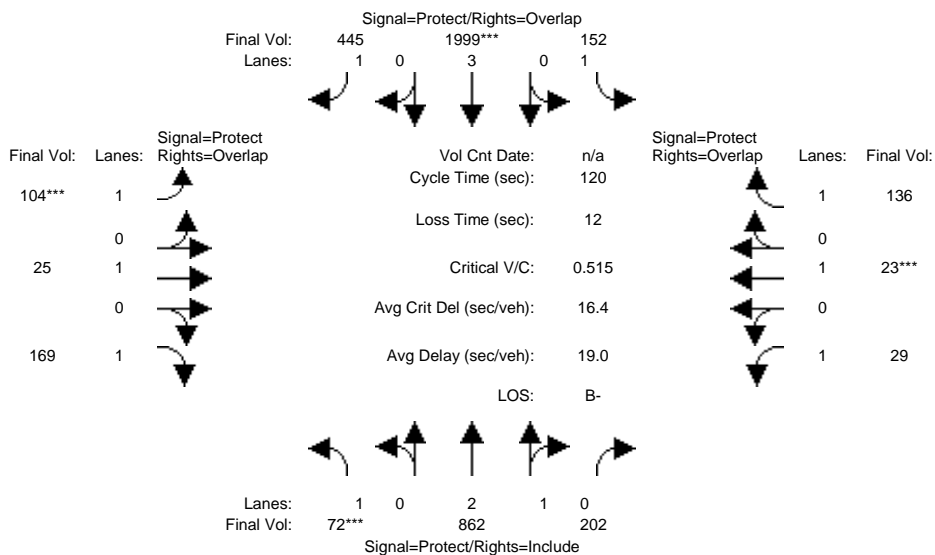
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.40	0.60	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4512	1086	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.19	0.09	0.35	0.25	0.06	0.01	0.10	0.02	0.01	0.08
Crit Moves:	***				***		***				***	
Green Time:	9.0	57.9	57.9	27.1	75.9	89.0	13.0	13.5	22.6	9.5	10.0	37.1
Volume/Cap:	0.55	0.39	0.39	0.39	0.55	0.33	0.55	0.12	0.51	0.21	0.15	0.25
Uniform Del:	53.5	19.7	19.7	39.4	12.4	5.3	50.7	47.8	43.8	51.7	51.0	31.1
IncrcmntDel:	4.8	0.1	0.1	0.6	0.2	0.2	3.3	0.2	1.4	0.8	0.4	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	58.3	19.8	19.8	40.0	12.5	5.5	54.0	48.1	45.2	52.5	51.5	31.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.3	19.8	19.8	40.0	12.5	5.5	54.0	48.1	45.2	52.5	51.5	31.3
LOS by Move:	E+	B-	B-	D	B	A	D-	D	D	D-	D-	C
HCM2kAvgQ:	4	8	8	5	13	6	5	1	7	1	1	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	72	839	202	152	1974	429	104	25	169	29	23	136
Growth 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
Initial Bse:	72	839	202	152	1974	429	104	25	169	29	23	136
Added Vol:	0	23	0	0	25	16	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	862	202	152	1999	445	104	25	169	29	23	136
User 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
PHF 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
PHF Volume:	72	862	202	152	1999	445	104	25	169	29	23	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	862	202	152	1999	445	104	25	169	29	23	136
PCE 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
MLF 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
Final Volume:	72	862	202	152	1999	445	104	25	169	29	23	136

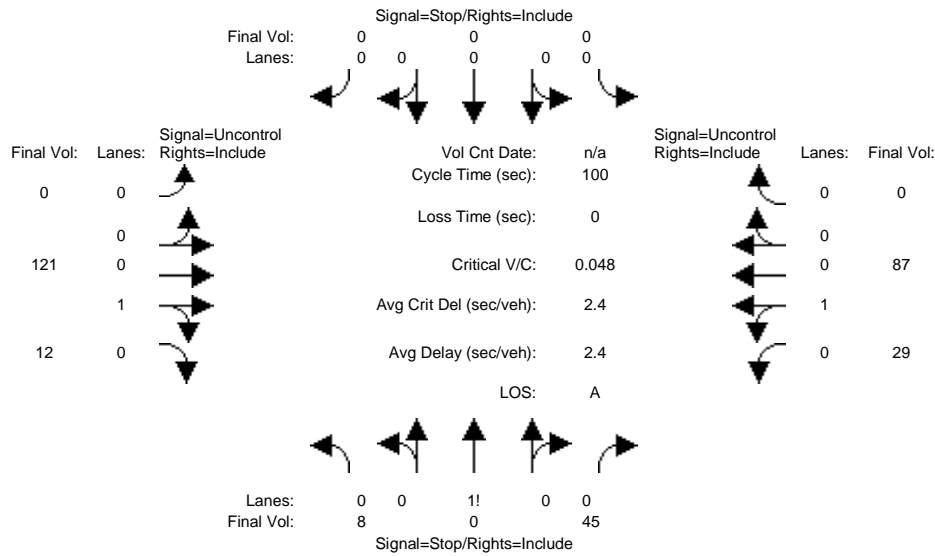
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.41	0.59	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4535	1063	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.19	0.09	0.35	0.25	0.06	0.01	0.10	0.02	0.01	0.08
Crit Moves:	***				***		***				***	
Green Time:	8.9	58.4	58.4	26.7	76.2	89.1	12.9	13.5	22.4	9.4	10.0	36.7
Volume/Cap:	0.55	0.39	0.39	0.39	0.55	0.34	0.55	0.12	0.52	0.21	0.15	0.25
Uniform Del:	53.6	19.5	19.5	39.7	12.3	5.3	50.8	47.9	43.9	51.8	51.0	31.4
IncrcmntDel:	5.1	0.1	0.1	0.7	0.2	0.2	3.5	0.2	1.5	0.8	0.4	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	58.7	19.6	19.6	40.4	12.5	5.5	54.3	48.2	45.4	52.6	51.5	31.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.7	19.6	19.6	40.4	12.5	5.5	54.3	48.2	45.4	52.6	51.5	31.6
LOS by Move:	E+	B-	B-	D	B	A	D-	D	D	D-	D-	C
HCM2kAvgQ:	4	8	8	5	13	6	5	1	7	1	1	4

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	8	0	45	0	0	0	0	121	12	29	87	0
ApproachDel:	9.3			xxxxxxx			xxxxxxx			xxxxxxx		

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=53]
    FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=302]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	8	0	45	0	0	0	0	121	12	29	87	0

```

Major Street Volume:          249
Minor Approach Volume:        53
Minor Approach Volume Threshold: 590
    
```

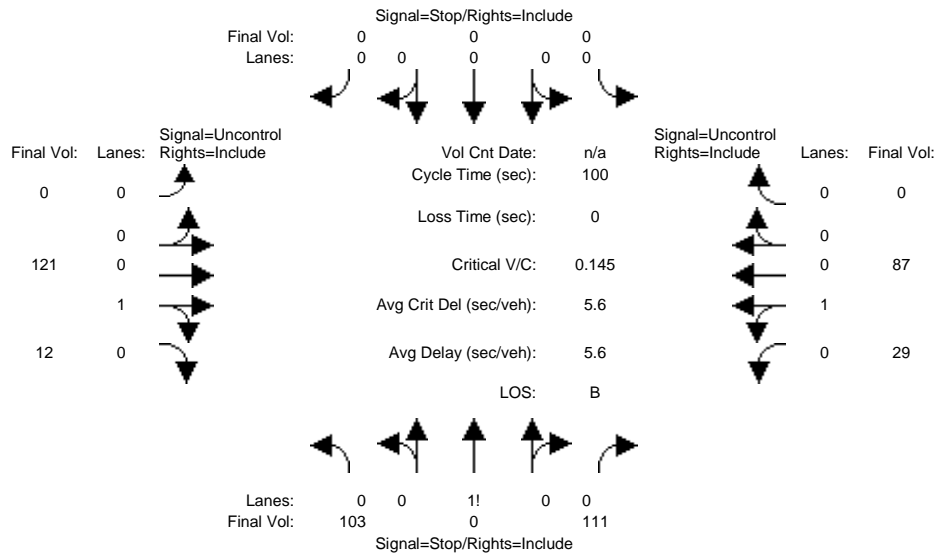
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gp and FollowUpTim.

Table with 13 columns representing movements and 4 rows of capacity data including Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	103 0 111	0 0 0 0	0 121 12	29 87 0
ApproachDel:	11.0	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=214]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=463]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	103 0 111	0 0 0 0	0 121 12	29 87 0

```

Major Street Volume:          249
Minor Approach Volume:       214
Minor Approach Volume Threshold: 590
    
```

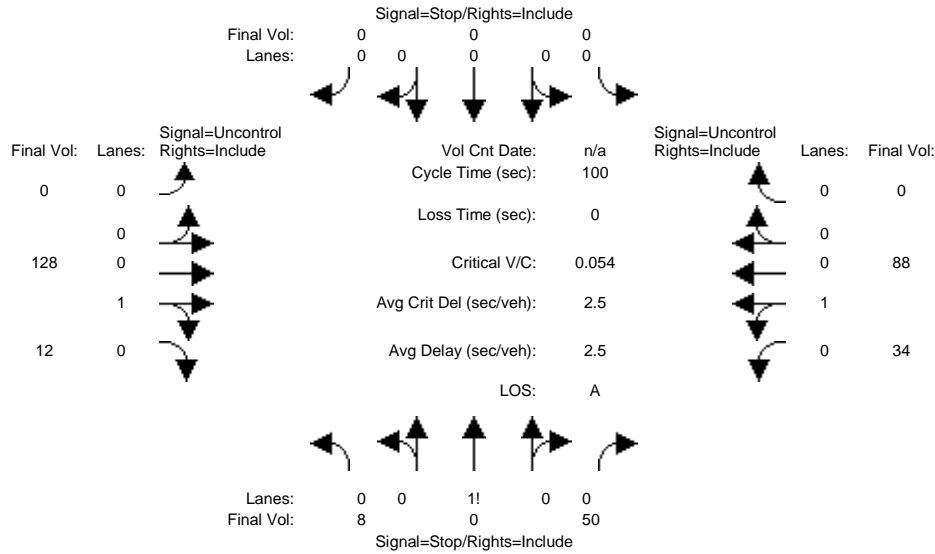
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 12 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	8 0 50	0 0 0	0 128 12	34 88 0
ApproachDel:	9.4	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=58]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=3][total volume=320]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	8 0 50	0 0 0	0 128 12	34 88 0

Major Street Volume: 262
 Minor Approach Volume: 58
 Minor Approach Volume Threshold: 577

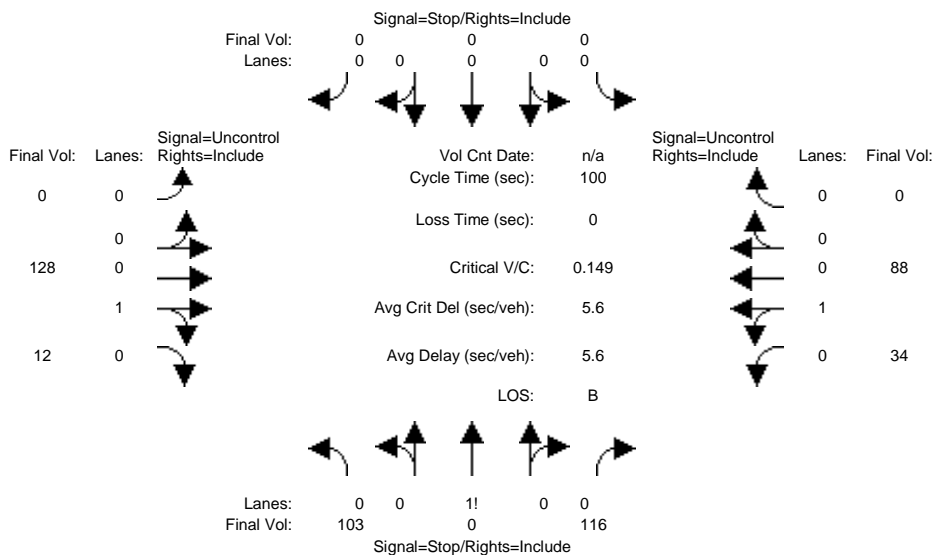
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P MD

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module and rows for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Critical Gap Module and rows for Critical Gp, FollowUpTim.

Table with columns for Capacity Module and rows for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with columns for Level of Service Module and rows for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	103 0 116	0 0 0 0	0 128 12	34 88 0
ApproachDel:	11.2	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.7]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=219]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=481]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #9 San Aleso Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	103 0 116	0 0 0 0	0 128 12	34 88 0

```

Major Street Volume:          262
Minor Approach Volume:       219
Minor Approach Volume Threshold: 577
    
```

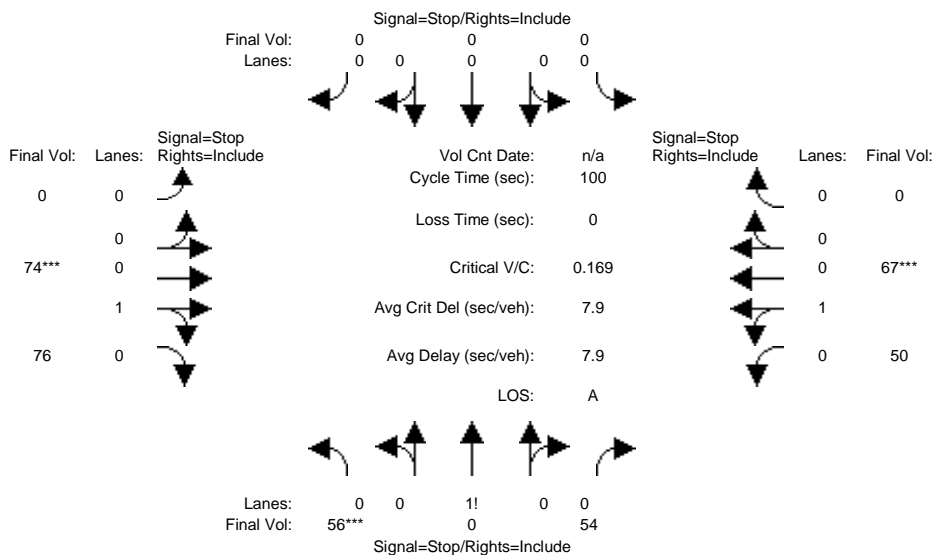
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing MD

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	56	0	54	0	0	0	0	74	76	50	67	0
Growth 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
Initial Bse:	56	0	54	0	0	0	0	74	76	50	67	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	0	54	0	0	0	0	74	76	50	67	0
User 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
PHF 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
PHF Volume:	56	0	54	0	0	0	0	74	76	50	67	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	0	54	0	0	0	0	74	76	50	67	0
PCE 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
MLF 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
FinalVolume:	56	0	54	0	0	0	0	74	76	50	67	0

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.51	0.00	0.49	0.00	0.00	0.00	0.00	0.49	0.51	0.43	0.57	0.00
Final Sat.:	411	0	397	0	0	0	0	437	449	344	461	0

Capacity Analysis Module:												
Vol/Sat:	0.14	xxxx	0.14	xxxx	xxxx	xxxx	xxxx	0.17	0.17	0.15	0.15	xxxx
Crit Moves:	****							****			****	
Delay/Veh:	7.9	0.0	7.9	0.0	0.0	0.0	0.0	7.7	7.7	8.1	8.1	0.0
Delay 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
AdjDel/Veh:	7.9	0.0	7.9	0.0	0.0	0.0	0.0	7.7	7.7	8.1	8.1	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:	7.9			xxxxxx				7.7			8.1	
Delay Adj:	1.00			xxxxxx				1.00			1.00	
ApprAdjDel:	7.9			xxxxxx				7.7			8.1	
LOS by Appr:	A			*				A			A	
AllWayAvgQ:	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #10 Borregas Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound					
Movement:	L	T	R		L	T	R		L	T	R		L	T	R			
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign					
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Initial Vol:	56		0	54	0		0	0	0	0		74	76	50		67	0	0
Major Street Volume:					267													
Minor Approach Volume:					110													
Minor Approach Volume Threshold:					572													

SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing+P MD

Intersection #10: Borregas Ave & Ahwanee Ave

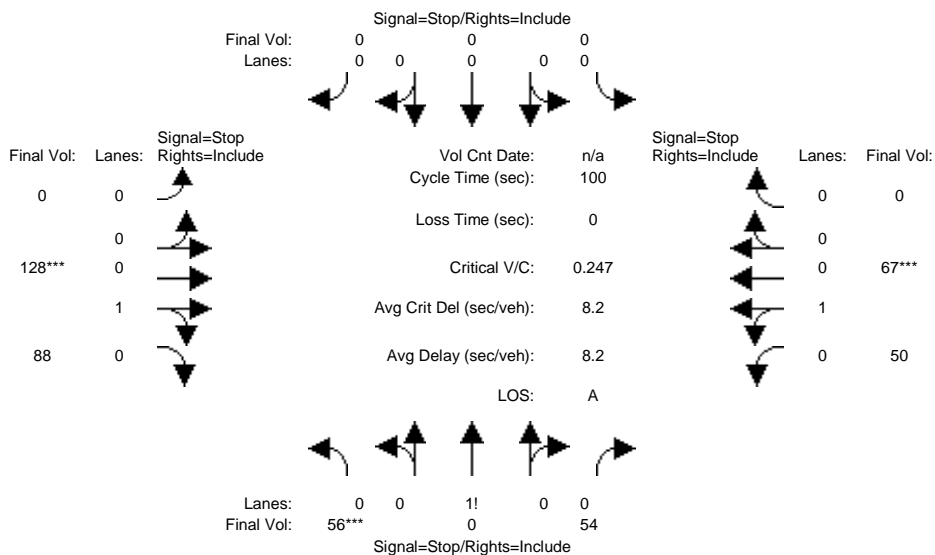


Table with columns for Street Name (Borregas Ave, Ahwanee Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), and Min. Green values.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each movement.

Saturation Flow Module table showing Adjustment, Lanes, and Final Sat values for each movement.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ values.

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #10 Borregas Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound					
Movement:	L	T	R		L	T	R		L	T	R		L	T	R			
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign					
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Initial Vol:	56		0	54	0		0	0	0	0	128		88	50		67		0
Major Street Volume:									333									
Minor Approach Volume:									110									
Minor Approach Volume Threshold:									513									

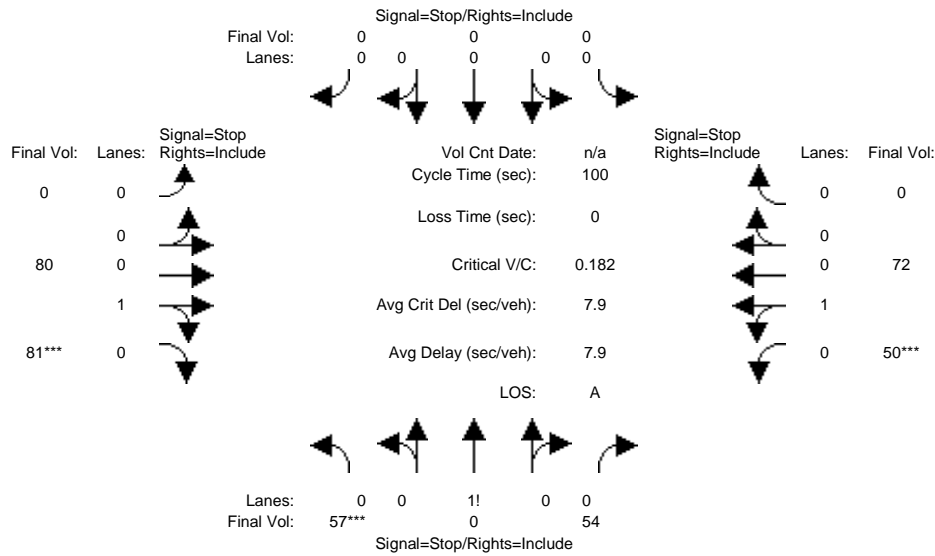
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Bkgd MD

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	57	0	54	0	0	0	0	80	81	50	72	0
Growth 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
Initial Bse:	57	0	54	0	0	0	0	80	81	50	72	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	0	54	0	0	0	0	80	81	50	72	0
User 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
PHF 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
PHF Volume:	57	0	54	0	0	0	0	80	81	50	72	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	0	54	0	0	0	0	80	81	50	72	0
PCE 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
MLF 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
FinalVolume:	57	0	54	0	0	0	0	80	81	50	72	0

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.51	0.00	0.49	0.00	0.00	0.00	0.00	0.50	0.50	0.41	0.59	0.00
Final Sat.:	411	0	389	0	0	0	0	439	445	328	473	0

Capacity Analysis Module:												
Vol/Sat:	0.14	xxxx	0.14	xxxx	xxxx	xxxx	xxxx	0.18	0.18	0.15	0.15	xxxx
Crit Moves:	****								****	****		
Delay/Veh:	7.9	0.0	7.9	0.0	0.0	0.0	0.0	7.8	7.8	8.1	8.1	0.0
Delay 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
AdjDel/Veh:	7.9	0.0	7.9	0.0	0.0	0.0	0.0	7.8	7.8	8.1	8.1	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:		7.9		xxxxxx				7.8			8.1	
Delay Adj:		1.00		xxxxxx				1.00			1.00	
ApprAdjDel:		7.9		xxxxxx				7.8			8.1	
LOS by Appr:		A		*				A			A	
AllWayAvgQ:	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0
Initial Vol:	57		0	54	0	0	0	0	0	80		81	50	72		0				
Major Street Volume:					283															
Minor Approach Volume:					111															
Minor Approach Volume Threshold:					556															

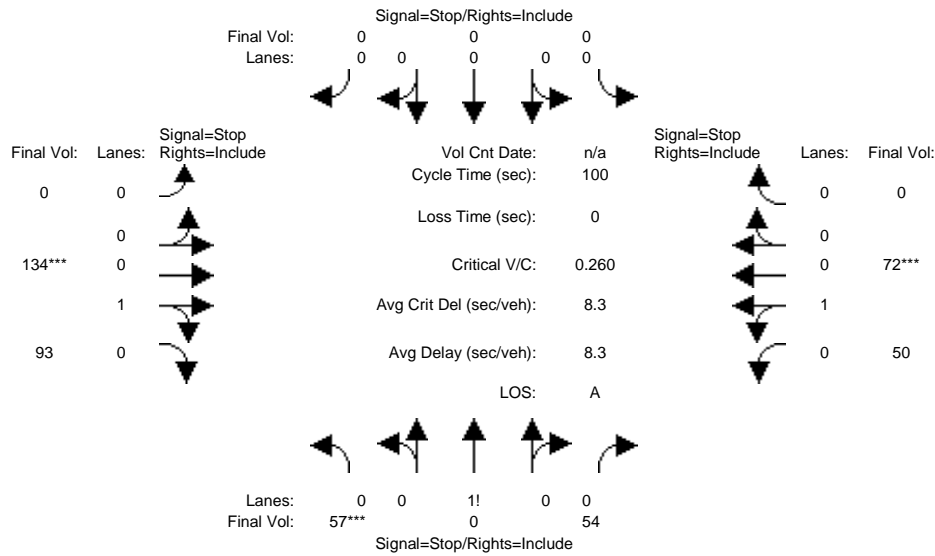
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Bkgd+P MD

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module:												
Base Vol:	57	0	54	0	0	0	0	80	81	50	72	0
Growth 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
Initial Bse:	57	0	54	0	0	0	0	80	81	50	72	0
Added Vol:	0	0	0	0	0	0	0	54	12	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	0	54	0	0	0	0	134	93	50	72	0
User 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
PHF 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
PHF Volume:	57	0	54	0	0	0	0	134	93	50	72	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	0	54	0	0	0	0	134	93	50	72	0
PCE 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
MLF 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
FinalVolume:	57	0	54	0	0	0	0	134	93	50	72	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.51	0.00	0.49	0.00	0.00	0.00	0.00	0.59	0.41	0.41	0.59	0.00
Final Sat.:	394	0	373	0	0	0	0	515	357	323	464	0
Capacity Analysis Module:												
Vol/Sat:	0.14	xxxx	0.14	xxxx	xxxx	xxxx	xxxx	0.26	0.26	0.16	0.16	xxxx
Crit Moves:	****							****			****	
Delay/Veh:	8.1	0.0	8.1	0.0	0.0	0.0	0.0	8.4	8.4	8.2	8.2	0.0
Delay 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
AdjDel/Veh:	8.1	0.0	8.1	0.0	0.0	0.0	0.0	8.4	8.4	8.2	8.2	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:	8.1			xxxxxx				8.4			8.2	
Delay Adj:	1.00			xxxxxx				1.00			1.00	
ApprAdjDel:	8.1			xxxxxx				8.4			8.2	
LOS by Appr:	A			*				A			A	
AllWayAvgQ:	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.
 Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
Initial Vol:	57		0	54	0	0	0	0	0	134		93	50	72		0				
Major Street Volume:					349															
Minor Approach Volume:					111															
Minor Approach Volume Threshold:					500															

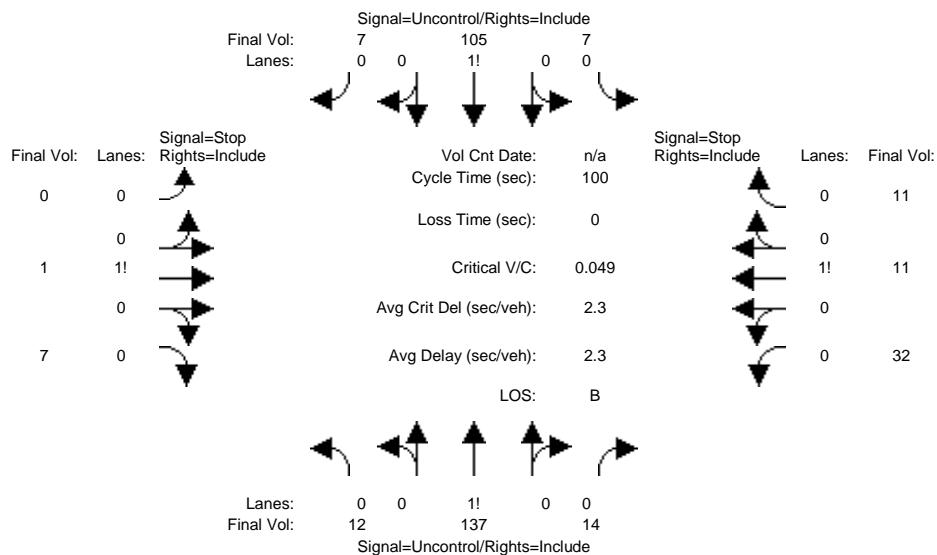
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	12	137	14	7	105	7	0	1	7	32	11	11
Growth 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
Initial Bse:	12	137	14	7	105	7	0	1	7	32	11	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	137	14	7	105	7	0	1	7	32	11	11
User 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
PHF 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
PHF Volume:	12	137	14	7	105	7	0	1	7	32	11	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	12	137	14	7	105	7	0	1	7	32	11	11

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	112	xxxx	xxxxx	151	xxxx	xxxxx	xxxxx	298	109	295	294	144
Potent Cap.:	1490	xxxx	xxxxx	1442	xxxx	xxxxx	xxxxx	618	951	662	620	909
Move Cap.:	1490	xxxx	xxxxx	1442	xxxx	xxxxx	xxxxx	610	951	650	612	909
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	xxxxx	0.00	0.01	0.05	0.02	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	889	xxxx	681	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.1	xxxxx	10.7	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	B	*
ApproachDel:	xxxxxxx			xxxxxxx				9.1			10.7	
ApproachLOS:		*	*		*	*		A			B	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 137 14	7 105 7	0 1 7	32 11 11
ApproachDel:	xxxxxx	xxxxxx	9.1	10.7

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.0]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=8]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=344]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=54]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=344]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 137 14	7 105 7	0 1 7	32 11 11

Major Street Volume: 282
 Minor Approach Volume: 54
 Minor Approach Volume Threshold: 557

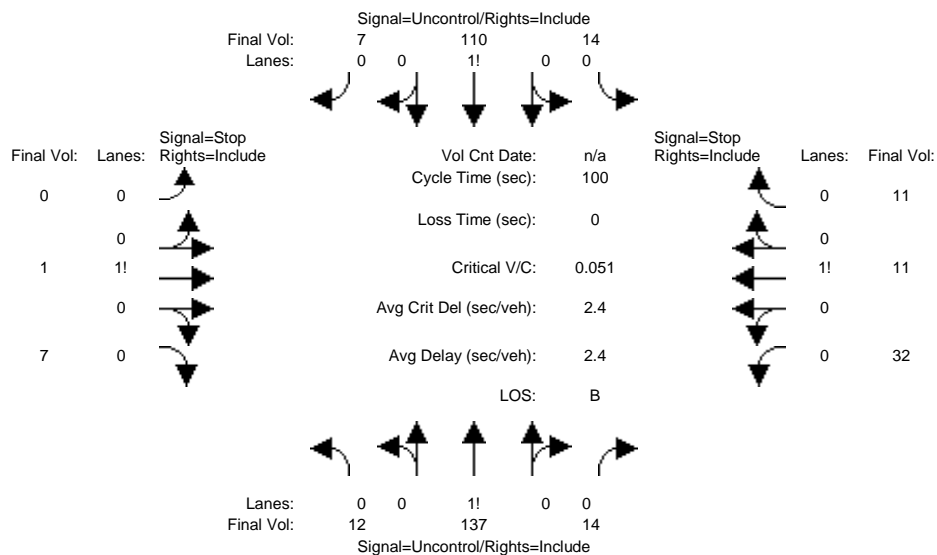
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and rows for Volume Module metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table for Critical Gap Module with 12 columns and 2 rows: Critical Gp, FollowUpTim.

Table for Capacity Module with 12 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table for Level Of Service Module with 12 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 137 14	14 110 7	0 1 7	32 11 11
ApproachDel:	xxxxxx	xxxxxx	9.1	10.9

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.0]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=8]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=356]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=54]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=356]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 137 14	14 110 7	0 1 7	32 11 11

Major Street Volume: 294
 Minor Approach Volume: 54
 Minor Approach Volume Threshold: 546

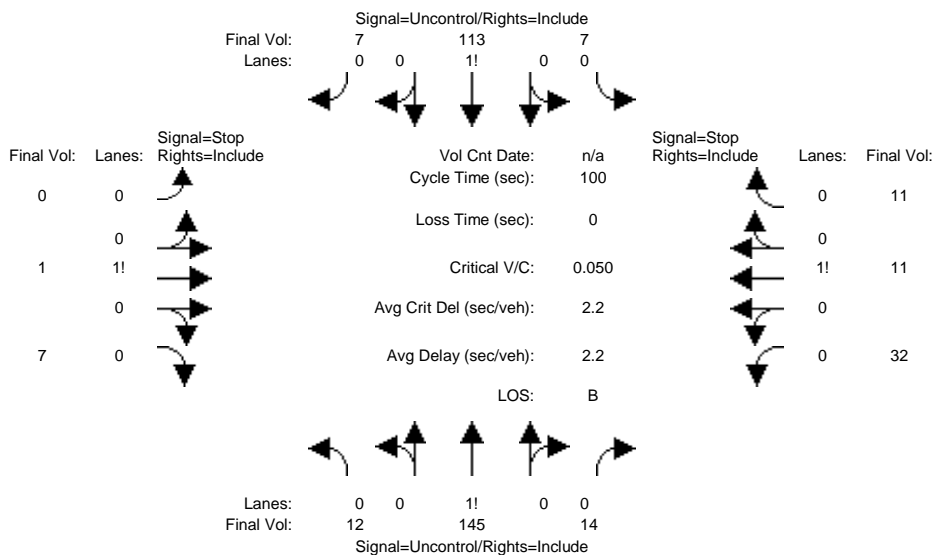
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	145	14	7	113	7	0	1	7	32	11	11
Growth 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
Initial Bse:	12	145	14	7	113	7	0	1	7	32	11	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	145	14	7	113	7	0	1	7	32	11	11
User 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
PHF 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
PHF Volume:	12	145	14	7	113	7	0	1	7	32	11	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	12	145	14	7	113	7	0	1	7	32	11	11

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	120	xxxx	xxxxxx	159	xxxx	xxxxxx	xxxx	314	117	311	310	152
Potent Cap.:	1480	xxxx	xxxxxx	1433	xxxx	xxxxxx	xxxx	605	941	646	608	900
Move Cap.:	1480	xxxx	xxxxxx	1433	xxxx	xxxxxx	xxxx	597	941	634	600	900
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.00	0.01	0.05	0.02	0.01

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	878	xxxx	666	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.0	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.1	xxxxxx	10.9	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	B	*
ApproachDel:	xxxxxxx			xxxxxxx				9.1			10.9	
ApproachLOS:	*			*				A			B	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 145 14	7 113 7	0 1 7	32 11 11
ApproachDel:	xxxxxx	xxxxxx	9.1	10.9

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.0]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=8]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=360]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=54]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=360]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 145 14	7 113 7	0 1 7	32 11 11

Major Street Volume: 298
 Minor Approach Volume: 54
 Minor Approach Volume Threshold: 542

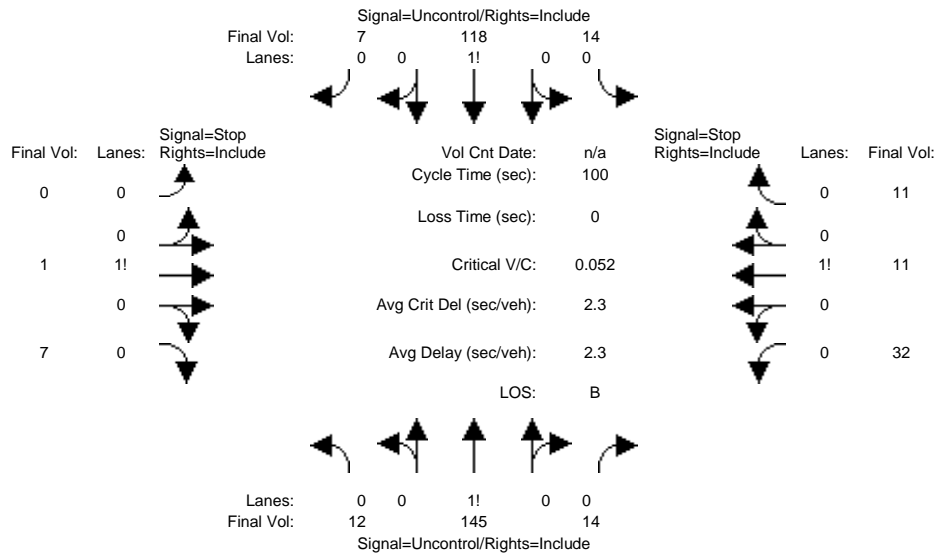
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P MD

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns for volume metrics (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume) and 12 rows for different approaches and movements.

Table for Critical Gap Module with 13 columns for gap and follow-up times across different approaches and movements.

Table for Capacity Module with 13 columns for capacity metrics (Cnflct Vol, Potent Cap., Move Cap., Volume/Cap) and 4 rows for different approaches and movements.

Table for Level Of Service Module with 13 columns for LOS metrics (2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS) and 9 rows for different approaches and movements.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 145 14	14 118 7	0 1 7	32 11 11
ApproachDel:	xxxxxx	xxxxxx	9.2	11.1

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.0]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=8]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=372]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=54]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=372]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 0 1 0	0 0 1! 0 0
Initial Vol:	12 145 14	14 118 7	0 1 7	32 11 11

Major Street Volume: 310
 Minor Approach Volume: 54
 Minor Approach Volume Threshold: 532

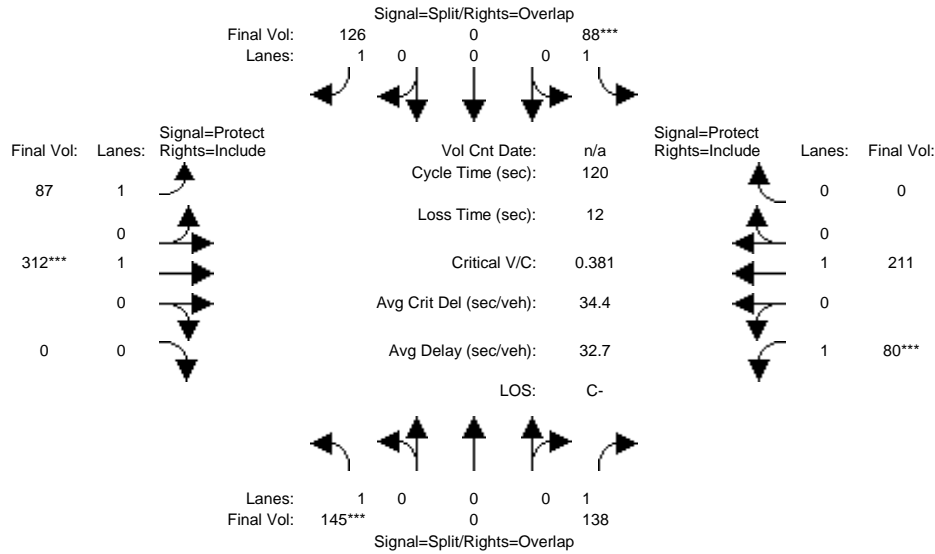
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	145	0	138	88	0	126	87	312	0	80	211	0
Growth 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
Initial Bse:	145	0	138	88	0	126	87	312	0	80	211	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	145	0	138	88	0	126	87	312	0	80	211	0
User 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
PHF 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
PHF Volume:	145	0	138	88	0	126	87	312	0	80	211	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	0	138	88	0	126	87	312	0	80	211	0
PCE 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
MLF 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
Final Volume:	145	0	138	88	0	126	87	312	0	80	211	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

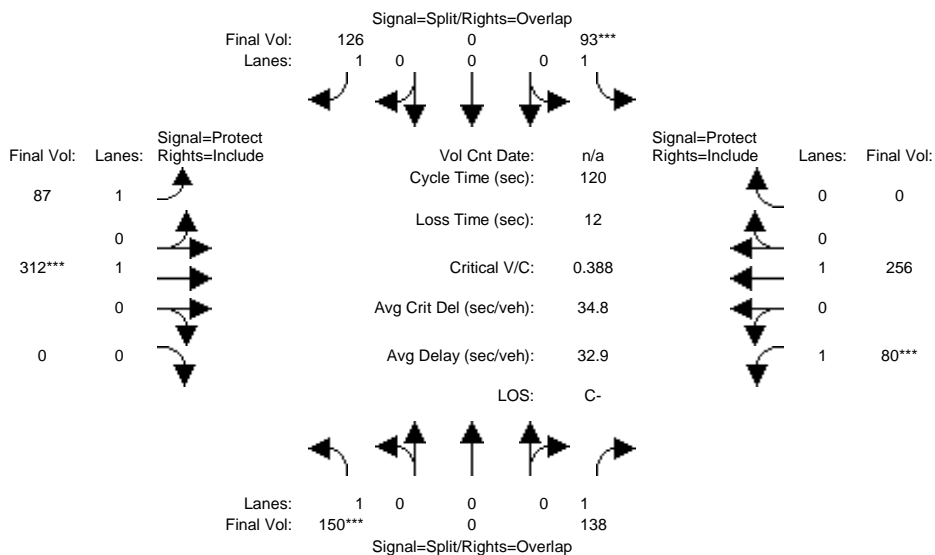
Capacity Analysis Module:

Vol/Sat:	0.08	0.00	0.08	0.05	0.00	0.07	0.05	0.16	0.00	0.05	0.11	0.00
Crit Moves:	***			***			***			***		
Green Time:	26.1	0.0	40.5	15.8	0.0	38.6	22.8	51.7	0.0	14.4	43.3	0.0
Volume/Cap:	0.38	0.00	0.23	0.38	0.00	0.22	0.26	0.38	0.00	0.38	0.31	0.00
Uniform Del:	40.1	0.0	28.6	47.6	0.0	29.8	41.5	23.3	0.0	48.7	27.6	0.0
IncrcmntDel:	0.6	0.0	0.2	1.1	0.0	0.2	0.4	0.3	0.0	1.2	0.3	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	40.7	0.0	28.8	48.7	0.0	30.0	41.9	23.6	0.0	49.9	27.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.7	0.0	28.8	48.7	0.0	30.0	41.9	23.6	0.0	49.9	27.8	0.0
LOS by Move:	D	A	C	D	A	C	D	C	A	D	C	A
HCM2kAvgQ:	5	0	4	4	0	4	3	8	0	3	5	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	145	0	138	88	0	126	87	312	0	80	211	0
Growth 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
Initial Bse:	145	0	138	88	0	126	87	312	0	80	211	0
Added Vol:	5	0	0	5	0	0	0	0	0	0	45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	150	0	138	93	0	126	87	312	0	80	256	0
User 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
PHF 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
PHF Volume:	150	0	138	93	0	126	87	312	0	80	256	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	0	138	93	0	126	87	312	0	80	256	0
PCE 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
MLF 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
Final Volume:	150	0	138	93	0	126	87	312	0	80	256	0

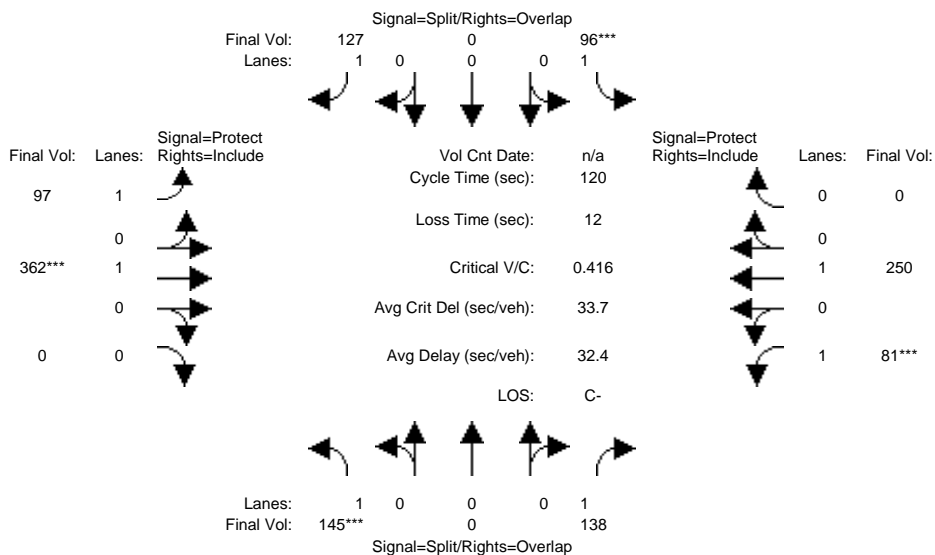
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.08	0.05	0.00	0.07	0.05	0.16	0.00	0.05	0.13	0.00
Crit Moves:	***			***			***			***		
Green Time:	26.5	0.0	40.7	16.5	0.0	36.1	19.6	50.8	0.0	14.2	45.4	0.0
Volume/Cap:	0.39	0.00	0.23	0.39	0.00	0.24	0.30	0.39	0.00	0.39	0.36	0.00
Uniform Del:	39.8	0.0	28.4	47.2	0.0	31.6	44.2	23.8	0.0	48.9	26.8	0.0
IncrcmntDel:	0.6	0.0	0.2	1.0	0.0	0.2	0.6	0.3	0.0	1.2	0.3	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	40.5	0.0	28.6	48.2	0.0	31.8	44.8	24.2	0.0	50.1	27.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.5	0.0	28.6	48.2	0.0	31.8	44.8	24.2	0.0	50.1	27.1	0.0
LOS by Move:	D	A	C	D	A	C	D	C	A	D	C	A
HCM2kAvgQ:	5	0	4	4	0	4	3	8	0	3	7	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	145	0	138	96	0	127	97	362	0	81	250	0
Growth 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
Initial Bse:	145	0	138	96	0	127	97	362	0	81	250	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	145	0	138	96	0	127	97	362	0	81	250	0
User 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
PHF 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
PHF Volume:	145	0	138	96	0	127	97	362	0	81	250	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	0	138	96	0	127	97	362	0	81	250	0
PCE 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
MLF 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
Final Volume:	145	0	138	96	0	127	97	362	0	81	250	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

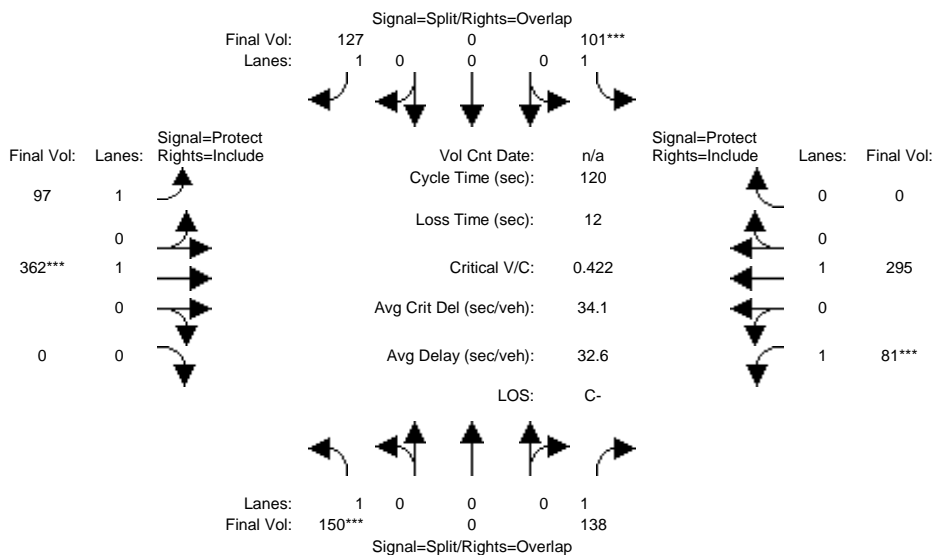
Capacity Analysis Module:

Vol/Sat:	0.08	0.00	0.08	0.05	0.00	0.07	0.06	0.19	0.00	0.05	0.13	0.00
Crit Moves:	***			***			***			***		
Green Time:	23.9	0.0	37.2	15.8	0.0	36.8	21.0	54.9	0.0	13.3	47.3	0.0
Volume/Cap:	0.42	0.00	0.25	0.42	0.00	0.24	0.32	0.42	0.00	0.42	0.33	0.00
Uniform Del:	42.0	0.0	31.0	47.8	0.0	31.1	43.3	21.8	0.0	49.7	25.3	0.0
IncrcmntDel:	0.8	0.0	0.2	1.2	0.0	0.2	0.6	0.3	0.0	1.4	0.3	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	42.8	0.0	31.2	49.1	0.0	31.3	43.9	22.1	0.0	51.1	25.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.8	0.0	31.2	49.1	0.0	31.3	43.9	22.1	0.0	51.1	25.6	0.0
LOS by Move:	D	A	C	D	A	C	D	C+	A	D-	C	A
HCM2kAvgQ:	5	0	4	4	0	4	4	9	0	3	6	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P MD

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	145	0	138	96	0	127	97	362	0	81	250	0
Growth 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
Initial Bse:	145	0	138	96	0	127	97	362	0	81	250	0
Added Vol:	5	0	0	5	0	0	0	0	0	0	45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	150	0	138	101	0	127	97	362	0	81	295	0
User 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
PHF 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
PHF Volume:	150	0	138	101	0	127	97	362	0	81	295	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	0	138	101	0	127	97	362	0	81	295	0
PCE 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
MLF 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
Final Volume:	150	0	138	101	0	127	97	362	0	81	295	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

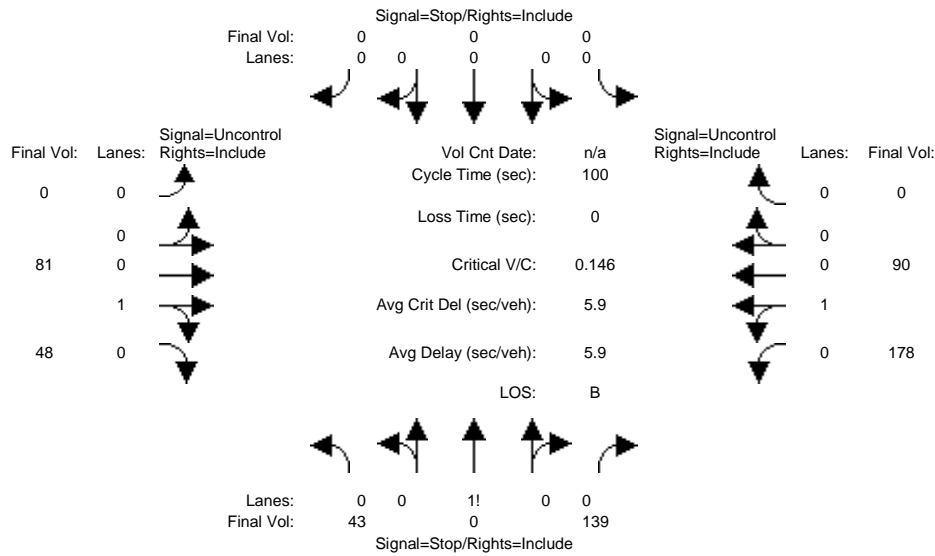
Capacity Analysis Module:

Vol/Sat:	0.09	0.00	0.08	0.06	0.00	0.07	0.06	0.19	0.00	0.05	0.16	0.00
Crit Moves:	***			***			***			***		
Green Time:	24.3	0.0	37.5	16.4	0.0	34.8	18.4	54.1	0.0	13.1	48.9	0.0
Volume/Cap:	0.42	0.00	0.25	0.42	0.00	0.25	0.36	0.42	0.00	0.42	0.38	0.00
Uniform Del:	41.7	0.0	30.8	47.5	0.0	32.6	45.6	22.3	0.0	49.9	24.9	0.0
IncrcmntDel:	0.8	0.0	0.2	1.2	0.0	0.3	0.8	0.3	0.0	1.5	0.3	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	42.5	0.0	31.0	48.7	0.0	32.9	46.4	22.7	0.0	51.4	25.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.5	0.0	31.0	48.7	0.0	32.9	46.4	22.7	0.0	51.4	25.3	0.0
LOS by Move:	D	A	C	D	A	C-	D	C+	A	D-	C	A
HCM2kAvgQ:	5	0	4	4	0	4	4	9	0	3	8	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	43	0	139	0	0	0	0	81	48	178	90	0
Growth 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
Initial Bse:	43	0	139	0	0	0	0	81	48	178	90	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	0	139	0	0	0	0	81	48	178	90	0
User 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
PHF 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
PHF Volume:	43	0	139	0	0	0	0	81	48	178	90	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	43	0	139	0	0	0	0	81	48	178	90	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	551	551	105	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	129	xxxx	xxxxx
Potent Cap.:	499	445	955	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1469	xxxx	xxxxx
Move Cap.:	447	385	955	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1469	xxxx	xxxxx
Volume/Cap:	0.10	0.00	0.15	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	753	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	11.3			xxxxxxx			xxxxxxx		xxxxxxx			
ApproachLOS:		B		*			*		*			*

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report

 Intersection #13 Morse Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	43	0	139	0	0	0	0	81	48	178	90	0
ApproachDel:	11.3			xxxxxxx			xxxxxxx			xxxxxxx		

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=579]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

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*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	43	0	139	0	0	0	0	81	48	178	90	0

```

Major Street Volume:          397
Minor Approach Volume:       182
Minor Approach Volume Threshold: 466
    
```

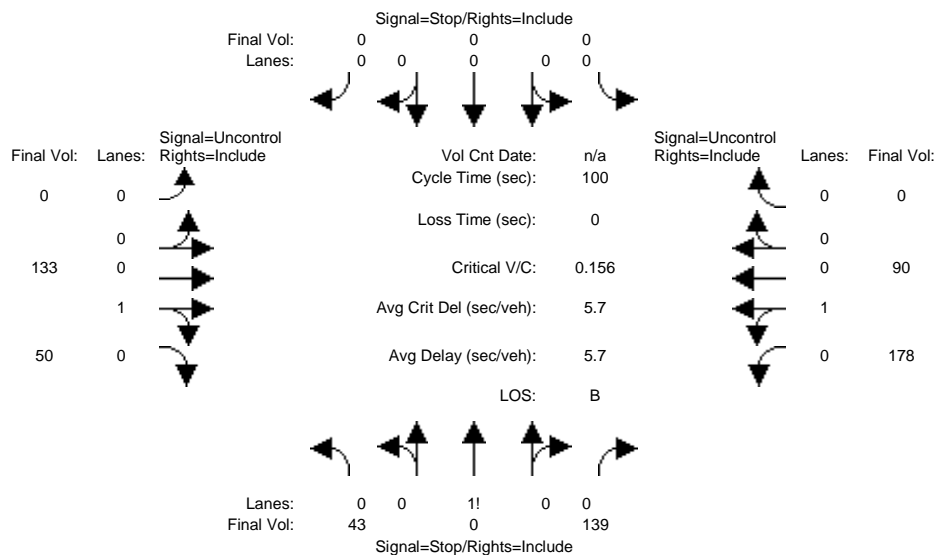
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table for Critical Gap Module with 12 columns and 2 rows: Critical Gp, FollowUpTim.

Table for Capacity Module with 12 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table for Level of Service Module with 12 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	43 0 139	0 0 0 0	0 133 50	178 90 0
ApproachDel:	11.9	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=633]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	43 0 139	0 0 0 0	0 133 50	178 90 0

```

Major Street Volume:      451
Minor Approach Volume:    182
Minor Approach Volume Threshold: 432
    
```

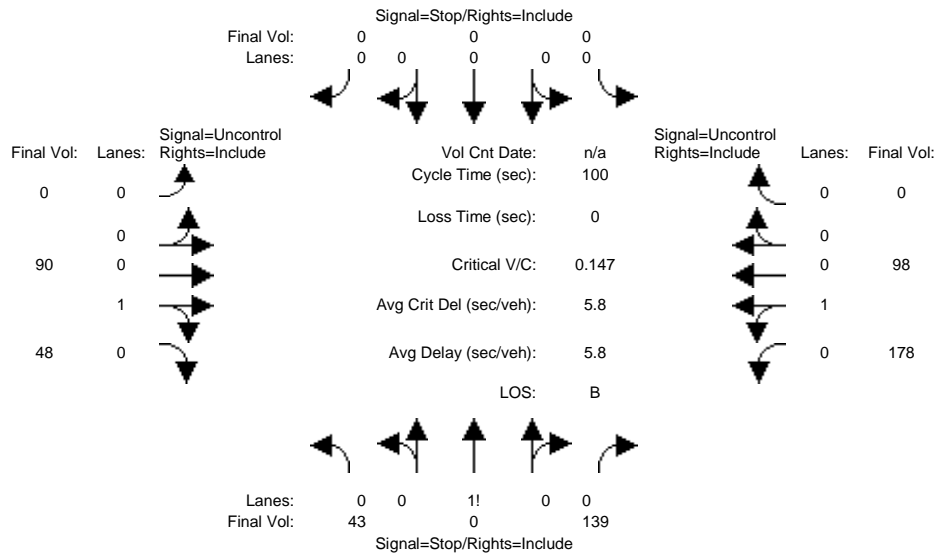
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	43	0	139	0	0	0	0	90	48	178	98	0
Growth 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
Initial Bse:	43	0	139	0	0	0	0	90	48	178	98	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	0	139	0	0	0	0	90	48	178	98	0
User 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
PHF 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
PHF Volume:	43	0	139	0	0	0	0	90	48	178	98	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	43	0	139	0	0	0	0	90	48	178	98	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	568	568	114	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	138	xxxx	xxxxx
Potent Cap.:	488	435	944	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1458	xxxx	xxxxx
Move Cap.:	437	376	944	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1458	xxxx	xxxxx
Volume/Cap:	0.10	0.00	0.15	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	741	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	11.4			xxxxxxx			xxxxxxx		xxxxxxx			
ApproachLOS:		B			*			*			*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	43 0 139	0 0 0 0	0 90 48	178 98 0
ApproachDel:	11.4	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=596]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	43 0 139	0 0 0 0	0 90 48	178 98 0
Major Street Volume:	414			
Minor Approach Volume:	182			
Minor Approach Volume Threshold:	455			

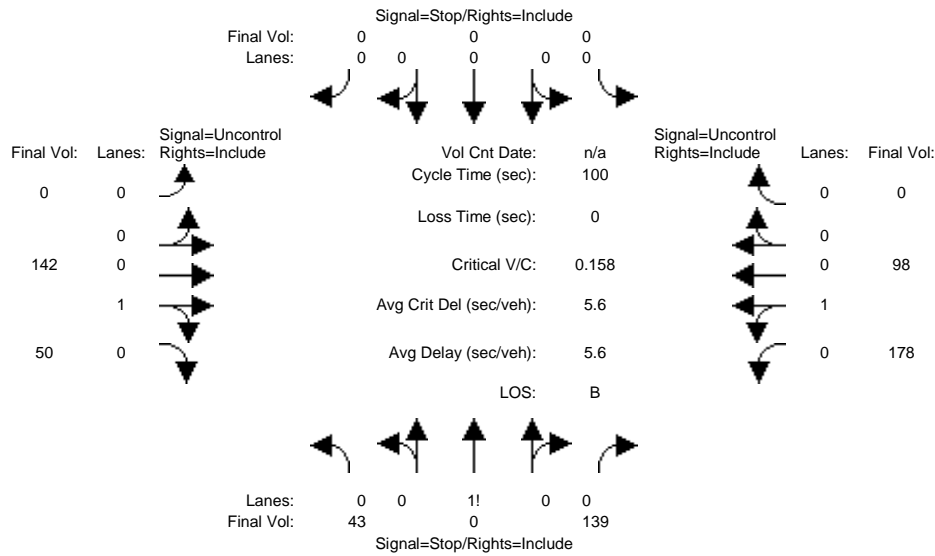
SIGNAL WARRANT DISCLAIMER

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Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P MD

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	43	0	139	0	0	0	0	90	48	178	98	0
Growth 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
Initial Bse:	43	0	139	0	0	0	0	90	48	178	98	0
Added Vol:	0	0	0	0	0	0	0	52	2	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	0	139	0	0	0	0	142	50	178	98	0
User 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
PHF 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
PHF Volume:	43	0	139	0	0	0	0	142	50	178	98	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	43	0	139	0	0	0	0	142	50	178	98	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx

Capacity Module:

Cnflct Vol:	621	621	167	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	192	xxxxx	xxxxx
Potent Cap.:	454	406	882	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1394	xxxxx	xxxxx
Move Cap.:	405	348	882	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1394	xxxxx	xxxxx
Volume/Cap:	0.11	0.00	0.16	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.13	xxxxx	xxxxx

Level of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.0	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	690	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	1.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx
Shrd ConDel:	xxxxx	12.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.0	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	12.1			xxxxxxx			xxxxxxx		xxxxxxx		xxxxxxx		
ApproachLOS:		B			*		*		*		*		*

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report

 Intersection #13 Morse Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	43 0 139	0 0 0 0	0 142 50	178 98 0
ApproachDel:	12.1	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=182]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=650]
    SUCCEED - Total volume greater than or equal to 650 for intersection
    with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #13 Morse Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	43 0 139	0 0 0 0	0 142 50	178 98 0

```

Major Street Volume:          468
Minor Approach Volume:        182
Minor Approach Volume Threshold: 422
    
```

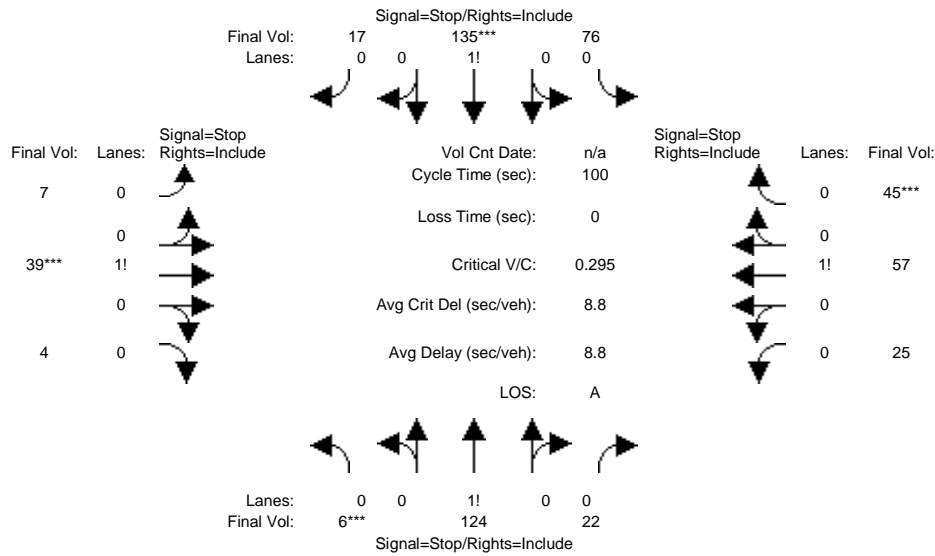
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Existing MD

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	6	124	22	76	135	17	7	39	4	25	57	45
Growth 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
Initial Bse:	6	124	22	76	135	17	7	39	4	25	57	45
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	124	22	76	135	17	7	39	4	25	57	45
User 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
PHF 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
PHF Volume:	6	124	22	76	135	17	7	39	4	25	57	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	124	22	76	135	17	7	39	4	25	57	45
PCE 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
MLF 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
FinalVolume:	6	124	22	76	135	17	7	39	4	25	57	45

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.82	0.14	0.33	0.60	0.07	0.14	0.78	0.08	0.20	0.45	0.35
Final Sat.:	30	628	111	258	458	58	95	532	55	143	326	257

Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.29	0.29	0.29	0.07	0.07	0.07	0.17	0.17	0.17
Crit Moves:	****				****			****			****	
Delay/Veh:	8.5	8.5	8.5	9.3	9.3	9.3	8.2	8.2	8.2	8.5	8.5	8.5
Delay 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
AdjDel/Veh:	8.5	8.5	8.5	9.3	9.3	9.3	8.2	8.2	8.2	8.5	8.5	8.5
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.5			9.3			8.2			8.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.5			9.3			8.2			8.5	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.2	0.2	0.2	0.4	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #14 Morse Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 124 22	76 135 17	7 39 4	25 57 45
Major Street Volume:	380			
Minor Approach Volume:	127			
Minor Approach Volume Threshold:	477			

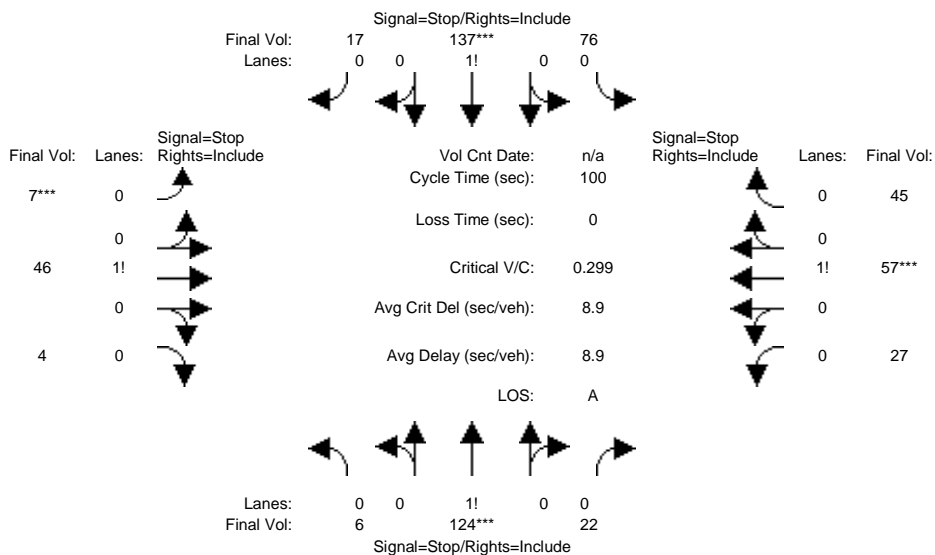
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing+P MD

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:	Morse Ave NB			Morse Ave SB			Duane Ave EB			Duane Ave WB		
Base Vol:	6	124	22	76	135	17	7	39	4	25	57	45
Growth 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
Initial Bse:	6	124	22	76	135	17	7	39	4	25	57	45
Added Vol:	0	0	0	0	2	0	0	7	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	124	22	76	137	17	7	46	4	27	57	45
User 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
PHF 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
PHF Volume:	6	124	22	76	137	17	7	46	4	27	57	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	124	22	76	137	17	7	46	4	27	57	45
PCE 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
MLF 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
Final Volume:	6	124	22	76	137	17	7	46	4	27	57	45

Saturation Flow Module:	Morse Ave NB			Morse Ave SB			Duane Ave EB			Duane Ave WB		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.82	0.14	0.33	0.60	0.07	0.12	0.81	0.07	0.21	0.44	0.35
Final Sat.:	30	623	111	254	458	57	84	549	48	151	319	252

Capacity Analysis Module:	Morse Ave NB			Morse Ave SB			Duane Ave EB			Duane Ave WB		
Vol/Sat:	0.20	0.20	0.20	0.30	0.30	0.30	0.08	0.08	0.08	0.18	0.18	0.18
Crit Moves:	****			****			****			****		
Delay/Veh:	8.6	8.6	8.6	9.4	9.4	9.4	8.3	8.3	8.3	8.6	8.6	8.6
Delay 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
AdjDel/Veh:	8.6	8.6	8.6	9.4	9.4	9.4	8.3	8.3	8.3	8.6	8.6	8.6
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.6			9.4			8.3			8.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.6			9.4			8.3			8.6	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.2	0.2	0.2	0.4	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #14 Morse Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 124 22	76 137 17	7 46 4	27 57 45
Major Street Volume:	382			
Minor Approach Volume:	129			
Minor Approach Volume Threshold:	476			

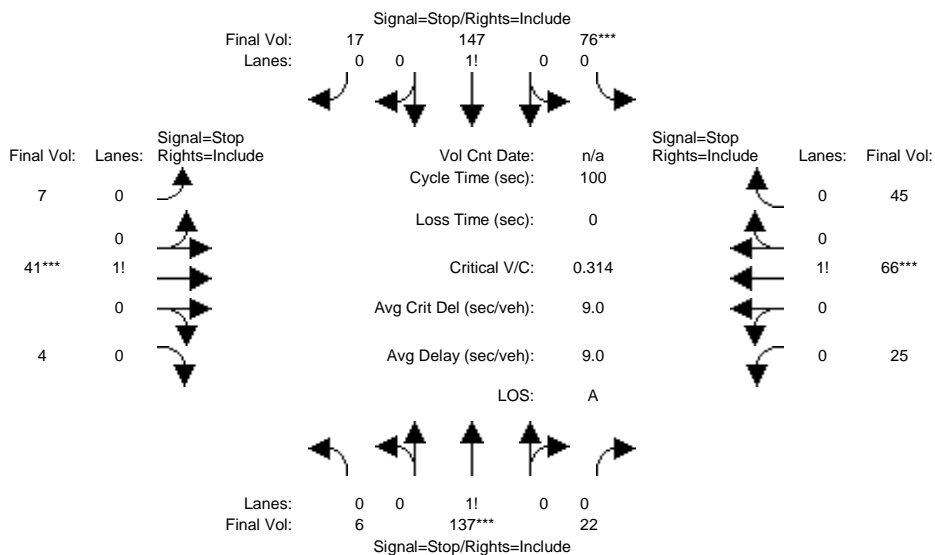
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Bkgd MD

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	6	137	22	76	147	17	7	41	4	25	66	45
Growth 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
Initial Bse:	6	137	22	76	147	17	7	41	4	25	66	45
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	137	22	76	147	17	7	41	4	25	66	45
User 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
PHF 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
PHF Volume:	6	137	22	76	147	17	7	41	4	25	66	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	137	22	76	147	17	7	41	4	25	66	45
PCE 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
MLF 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
FinalVolume:	6	137	22	76	147	17	7	41	4	25	66	45

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.83	0.13	0.32	0.61	0.07	0.13	0.79	0.08	0.18	0.49	0.33
Final Sat.:	28	630	101	242	468	54	90	527	51	131	346	236

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.22	0.22	0.22	0.31	0.31	0.31	0.08	0.08	0.08	0.19	0.19	0.19
Crit Moves:	****			****			****			****		
Delay/Veh:	8.7	8.7	8.7	9.5	9.5	9.5	8.3	8.3	8.3	8.7	8.7	8.7
Delay 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
AdjDel/Veh:	8.7	8.7	8.7	9.5	9.5	9.5	8.3	8.3	8.3	8.7	8.7	8.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.7			9.5			8.3			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.7			9.5			8.3			8.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 Morse Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 137 22	76 147 17	7 41 4	25 66 45
Major Street Volume:	405			
Minor Approach Volume:	136			
Minor Approach Volume Threshold:	460			

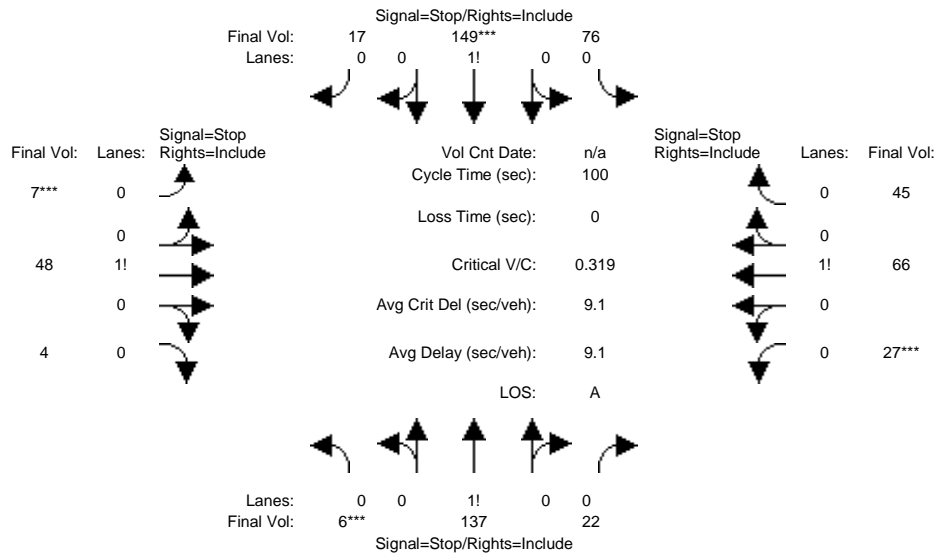
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Bkgd+P MD

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	6	137	22	76	147	17	7	41	4	25	66	45
Growth 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
Initial Bse:	6	137	22	76	147	17	7	41	4	25	66	45
Added Vol:	0	0	0	0	2	0	0	7	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	137	22	76	149	17	7	48	4	27	66	45
User 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
PHF 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
PHF Volume:	6	137	22	76	149	17	7	48	4	27	66	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	137	22	76	149	17	7	48	4	27	66	45
PCE 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
MLF 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
FinalVolume:	6	137	22	76	149	17	7	48	4	27	66	45

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.83	0.13	0.31	0.62	0.07	0.12	0.81	0.07	0.19	0.48	0.33
Final Sat.:	27	625	100	238	467	53	79	542	45	139	339	231

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.22	0.22	0.22	0.32	0.32	0.32	0.09	0.09	0.09	0.19	0.19	0.19
Crit Moves:	****			****			****			****		
Delay/Veh:	8.8	8.8	8.8	9.6	9.6	9.6	8.4	8.4	8.4	8.8	8.8	8.8
Delay 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
AdjDel/Veh:	8.8	8.8	8.8	9.6	9.6	9.6	8.4	8.4	8.4	8.8	8.8	8.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.8			9.6			8.4			8.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.8			9.6			8.4			8.8	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #14 Morse Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	6 137 22	76 149 17	7 48 4	27 66 45
Major Street Volume:	407			
Minor Approach Volume:	138			
Minor Approach Volume Threshold:	459			

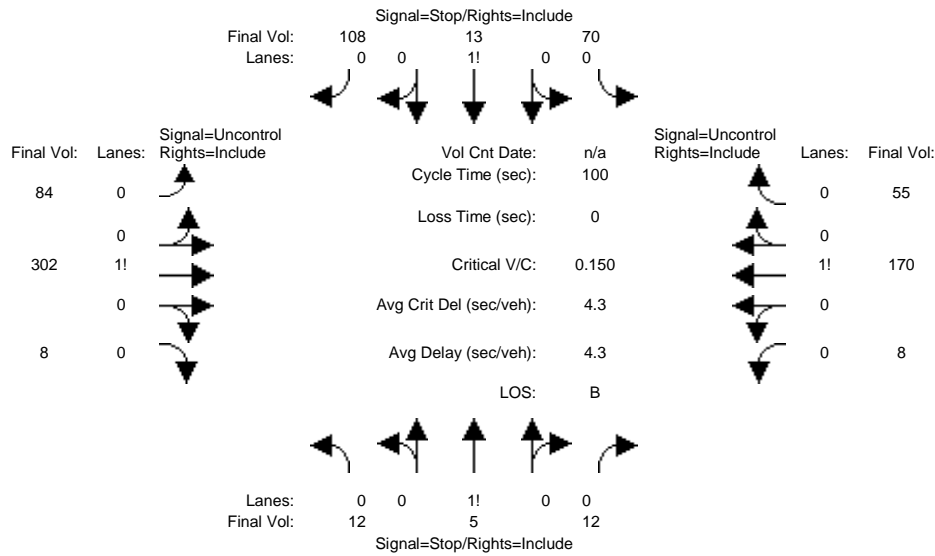
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	5	12	70	13	108	84	302	8	8	170	55
Growth 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
Initial Bse:	12	5	12	70	13	108	84	302	8	8	170	55
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	5	12	70	13	108	84	302	8	8	170	55
User 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
PHF 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
PHF Volume:	12	5	12	70	13	108	84	302	8	8	170	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	5	12	70	13	108	84	302	8	8	170	55

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	748	715	306	696	692	198	225	xxxx	xxxxx	310	xxxx	xxxxx
Potent Cap.:	331	359	739	359	370	849	1356	xxxx	xxxxx	1262	xxxx	xxxxx
Move Cap.:	265	333	739	330	344	849	1356	xxxx	xxxxx	1262	xxxx	xxxxx
Total Cap:	426	460	xxxxx	467	469	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.03	0.01	0.02	0.15	0.03	0.13	0.06	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	524	xxxxx	xxxx	627	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	1.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	12.3	xxxxx	xxxxx	13.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:		12.3			13.2		xxxxxxx		xxxxxxx		xxxxxxx	
ApproachLOS:		B			B		*		*		*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 108	84 302 8	8 170 55
ApproachDel:	12.3	13.2	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=29]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=847]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.7]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=191]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=847]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 108	84 302 8	8 170 55

Major Street Volume: 627
 Minor Approach Volume: 191
 Minor Approach Volume Threshold: 344

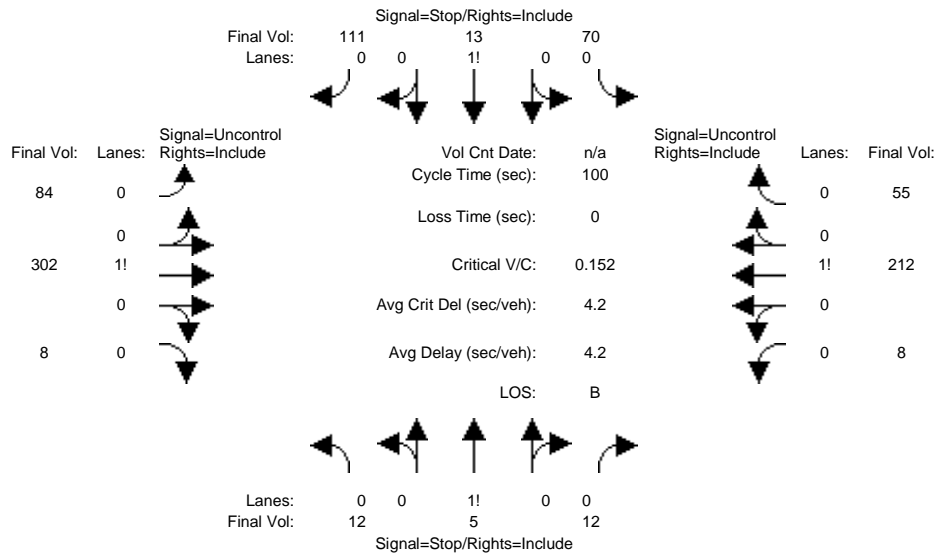
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level of Service Computation Report
 2000 HCM Unsignalized (Future Volume Alternative)
 Existing+P MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	5	12	70	13	108	84	302	8	8	170	55
Growth 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
Initial Bse:	12	5	12	70	13	108	84	302	8	8	170	55
Added Vol:	0	0	0	0	0	3	0	0	0	0	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	5	12	70	13	111	84	302	8	8	212	55
User 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
PHF 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
PHF Volume:	12	5	12	70	13	111	84	302	8	8	212	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	5	12	70	13	111	84	302	8	8	212	55

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	792	757	306	738	734	240	267	xxxx	xxxxxx	310	xxxx	xxxxxx
Potent Cap.:	310	339	739	336	350	804	1308	xxxx	xxxxxx	1262	xxxx	xxxxxx
Move Cap.:	244	314	739	308	324	804	1308	xxxx	xxxxxx	1262	xxxx	xxxxxx
Total Cap:	405	448	xxxxxx	459	461	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.03	0.01	0.02	0.15	0.03	0.14	0.06	xxxx	xxxx	0.01	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.9	xxxx	xxxxxx	7.9	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	509	xxxxxx	xxxx	609	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.2	xxxxxx	xxxxxx	1.4	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	12.5	xxxxxx	xxxxxx	13.7	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:		12.5			13.7		xxxxxxx		xxxxxxx		xxxxxxx	
ApproachLOS:		B			B		*		*		*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 111	84 302 8	8 212 55
ApproachDel:	12.5	13.7	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=29]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=892]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.7]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=194]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=892]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 111	84 302 8	8 212 55

Major Street Volume: 669
 Minor Approach Volume: 194
 Minor Approach Volume Threshold: 327

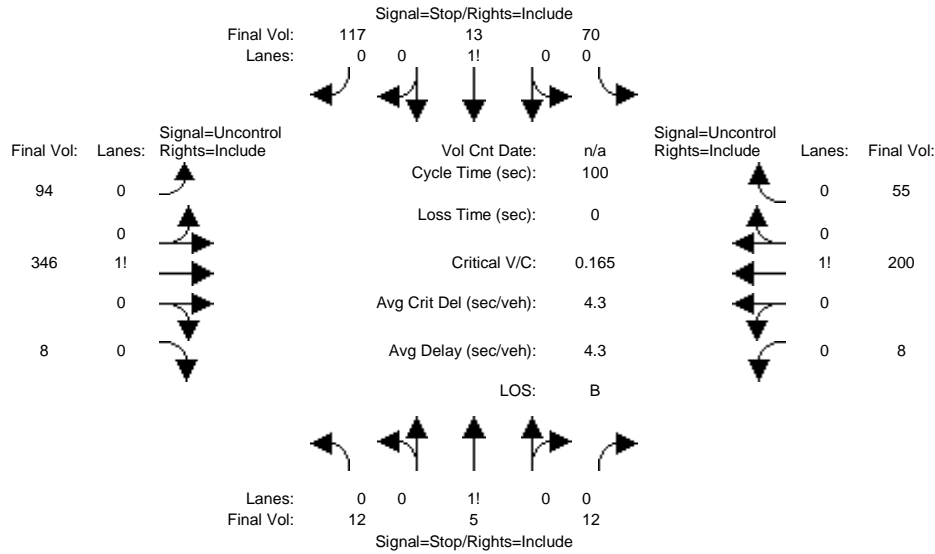
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
 2000 HCM Unsignalized (Future Volume Alternative)
 Bkgd MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	5	12	70	13	117	94	346	8	8	200	55
Growth 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
Initial Bse:	12	5	12	70	13	117	94	346	8	8	200	55
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	5	12	70	13	117	94	346	8	8	200	55
User 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
PHF 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
PHF Volume:	12	5	12	70	13	117	94	346	8	8	200	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	5	12	70	13	117	94	346	8	8	200	55

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	847	809	350	790	786	228	255	xxxx	xxxxxx	354	xxxx	xxxxxx
Potent Cap.:	284	317	698	310	327	817	1322	xxxx	xxxxxx	1216	xxxx	xxxxxx
Move Cap.:	221	291	698	282	300	817	1322	xxxx	xxxxxx	1216	xxxx	xxxxxx
Total Cap:	382	423	xxxxxx	424	432	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.03	0.01	0.02	0.16	0.03	0.14	0.07	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.9	xxxx	xxxxxx	8.0	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	480	xxxxxx	xxxx	591	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.2	xxxxxx	xxxxxx	1.5	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	13.0	xxxxxx	xxxxxx	14.2	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:	13.0			14.2			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		*

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 117	94 346 8	8 200 55
ApproachDel:	13.0	14.2	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=29]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=940]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.8]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=200]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=940]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 117	94 346 8	8 200 55

Major Street Volume: 711
 Minor Approach Volume: 200
 Minor Approach Volume Threshold: 310

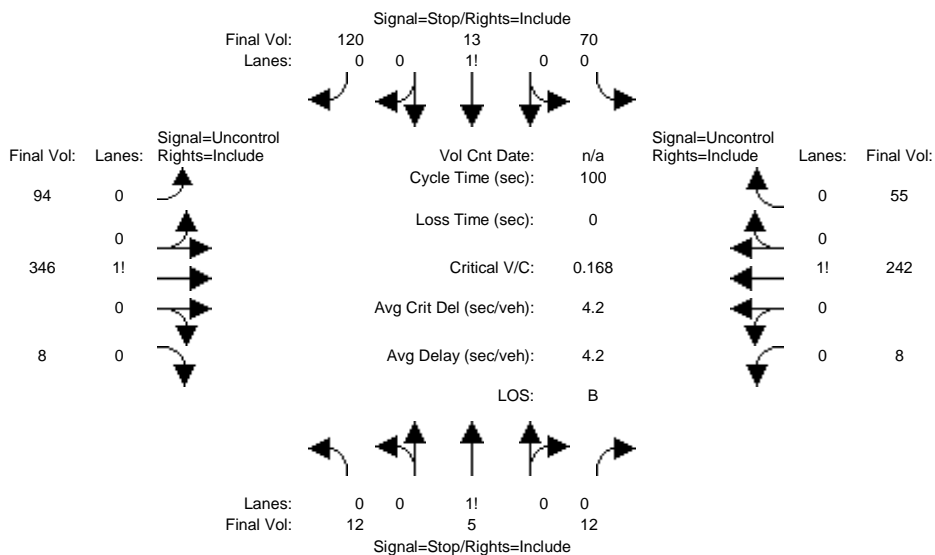
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P MD

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	5	12	70	13	117	94	346	8	8	200	55
Growth 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
Initial Bse:	12	5	12	70	13	117	94	346	8	8	200	55
Added Vol:	0	0	0	0	0	3	0	0	0	0	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	5	12	70	13	120	94	346	8	8	242	55
User 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
PHF 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
PHF Volume:	12	5	12	70	13	120	94	346	8	8	242	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	5	12	70	13	120	94	346	8	8	242	55

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	890	851	350	832	828	270	297	xxxx	xxxxx	354	xxxx	xxxxx
Potent Cap.:	266	299	698	291	309	774	1276	xxxx	xxxxx	1216	xxxx	xxxxx
Move Cap.:	203	274	698	264	283	774	1276	xxxx	xxxxx	1216	xxxx	xxxxx
Total Cap:	363	413	xxxxx	417	425	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.03	0.01	0.02	0.17	0.03	0.16	0.07	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	8.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	465	xxxxx	xxxx	575	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	1.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	13.3	xxxxx	xxxxx	14.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:		13.3			14.6		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:		B			B		*		*		*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 120	94 346 8	8 242 55
ApproachDel:	13.3	14.6	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=29]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=985]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.8]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=203]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=985]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 5 12	70 13 120	94 346 8	8 242 55

Major Street Volume: 753
 Minor Approach Volume: 203
 Minor Approach Volume Threshold: 295

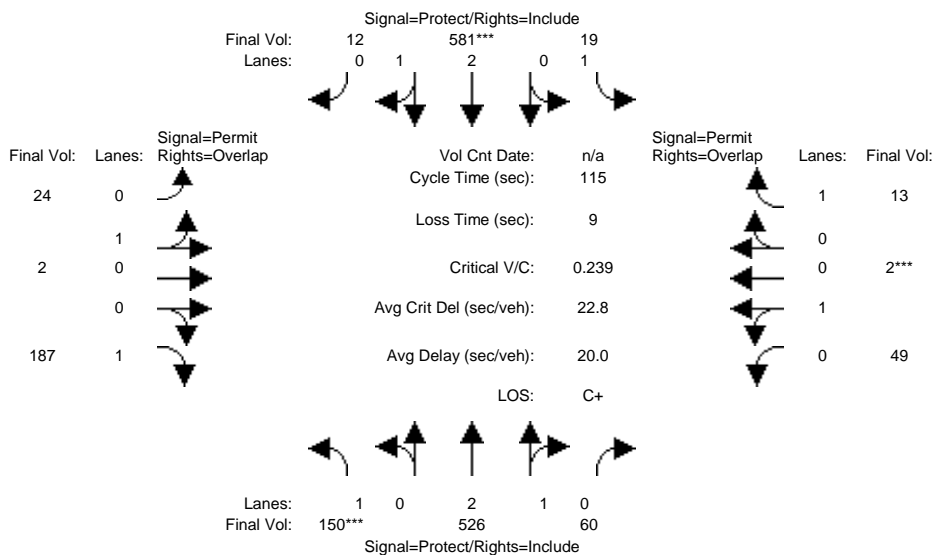
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	150	526	60	19	581	12	24	2	187	49	2	13
Growth 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
Initial Bse:	150	526	60	19	581	12	24	2	187	49	2	13
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	150	526	60	19	581	12	24	2	187	49	2	13
User 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
PHF 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
PHF Volume:	150	526	60	19	581	12	24	2	187	49	2	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	526	60	19	581	12	24	2	187	49	2	13
PCE 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
MLF 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
Final Volume:	150	526	60	19	581	12	24	2	187	49	2	13

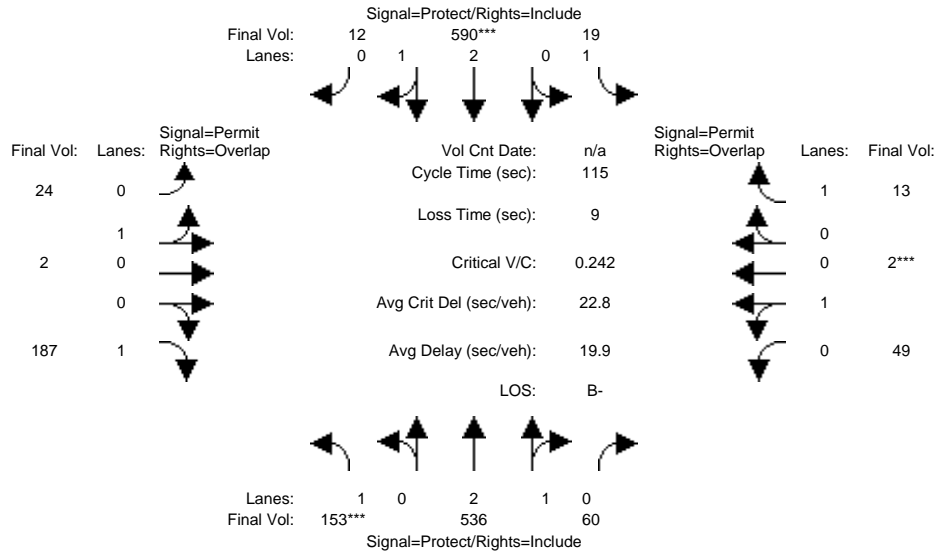
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.68	0.32	1.00	2.94	0.06	0.92	0.08	1.00	0.96	0.04	1.00
Final Sat.:	1750	5026	573	1750	5487	113	1662	138	1750	1729	71	1750

Capacity Analysis Module:												
Vol/Sat:	0.09	0.10	0.10	0.01	0.11	0.11	0.01	0.01	0.11	0.03	0.03	0.01
Crit Moves:	***				****						****	
Green Time:	41.3	58.4	58.4	34.0	51.0	51.0	13.7	13.7	55.0	13.7	13.7	47.6
Volume/Cap:	0.24	0.21	0.21	0.04	0.24	0.24	0.12	0.12	0.22	0.24	0.24	0.02
Uniform Del:	25.8	15.6	15.6	28.9	19.9	19.9	45.3	45.3	17.5	46.0	46.0	19.9
IncrcmntDel:	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.6	0.6	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	26.0	15.6	15.6	28.9	19.9	19.9	45.6	45.6	17.7	46.5	46.5	19.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.0	15.6	15.6	28.9	19.9	19.9	45.6	45.6	17.7	46.5	46.5	19.9
LOS by Move:	C	B	B	C	B-	B-	D	D	B	D	D	B-
HCM2kAvgQ:	4	4	4	1	4	4	1	1	4	2	2	0

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P MD

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	150	526	60	19	581	12	24	2	187	49	2	13
Growth 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
Initial Bse:	150	526	60	19	581	12	24	2	187	49	2	13
Added Vol:	3	10	0	0	9	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	153	536	60	19	590	12	24	2	187	49	2	13
User 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
PHF 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
PHF Volume:	153	536	60	19	590	12	24	2	187	49	2	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	536	60	19	590	12	24	2	187	49	2	13
PCE 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
MLF 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
Final Volume:	153	536	60	19	590	12	24	2	187	49	2	13

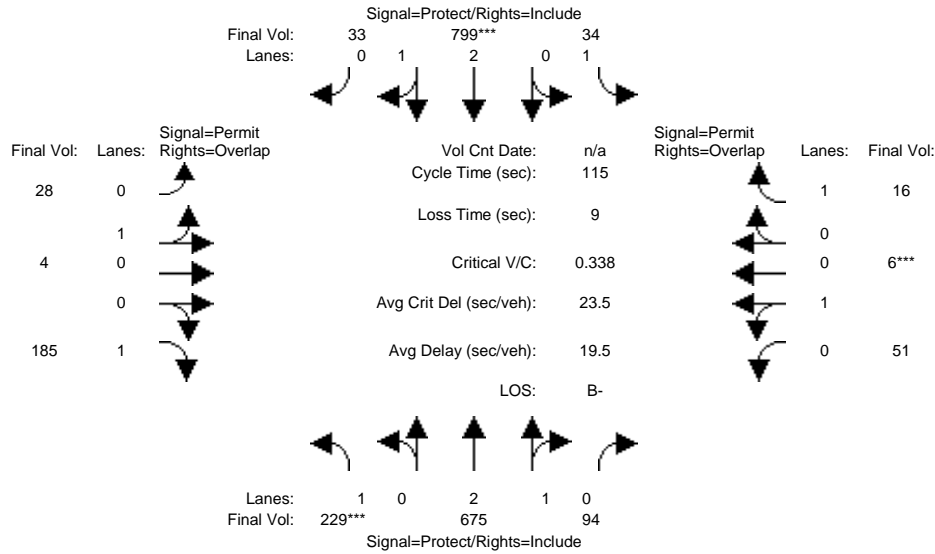
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.69	0.31	1.00	2.94	0.06	0.92	0.08	1.00	0.96	0.04	1.00
Final Sat.:	1750	5035	564	1750	5488	112	1662	138	1750	1729	71	1750

Capacity Analysis Module:												
Vol/Sat:	0.09	0.11	0.11	0.01	0.11	0.11	0.01	0.01	0.11	0.03	0.03	0.01
Crit Moves:	****				****					****		
Green Time:	41.5	58.9	58.9	33.7	51.0	51.0	13.5	13.5	55.0	13.5	13.5	47.1
Volume/Cap:	0.24	0.21	0.21	0.04	0.24	0.24	0.12	0.12	0.22	0.24	0.24	0.02
Uniform Del:	25.7	15.3	15.3	29.1	19.9	19.9	45.5	45.5	17.5	46.1	46.1	20.2
IncrcmntDel:	0.2	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.1	0.6	0.6	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	25.9	15.4	15.4	29.1	20.0	20.0	45.8	45.8	17.7	46.7	46.7	20.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.9	15.4	15.4	29.1	20.0	20.0	45.8	45.8	17.7	46.7	46.7	20.2
LOS by Move:	C	B	B	C	B-	B-	D	D	B	D	D	C+
HCM2kAvgQ:	4	4	4	1	4	4	1	1	4	2	2	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
	229	675	94	34	799	33	28	4	185	51	6	16
Base Vol:	229	675	94	34	799	33	28	4	185	51	6	16
Growth 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
Initial Bse:	229	675	94	34	799	33	28	4	185	51	6	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	229	675	94	34	799	33	28	4	185	51	6	16
User 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
PHF 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
PHF Volume:	229	675	94	34	799	33	28	4	185	51	6	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	229	675	94	34	799	33	28	4	185	51	6	16
PCE 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
MLF 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
Final Volume:	229	675	94	34	799	33	28	4	185	51	6	16

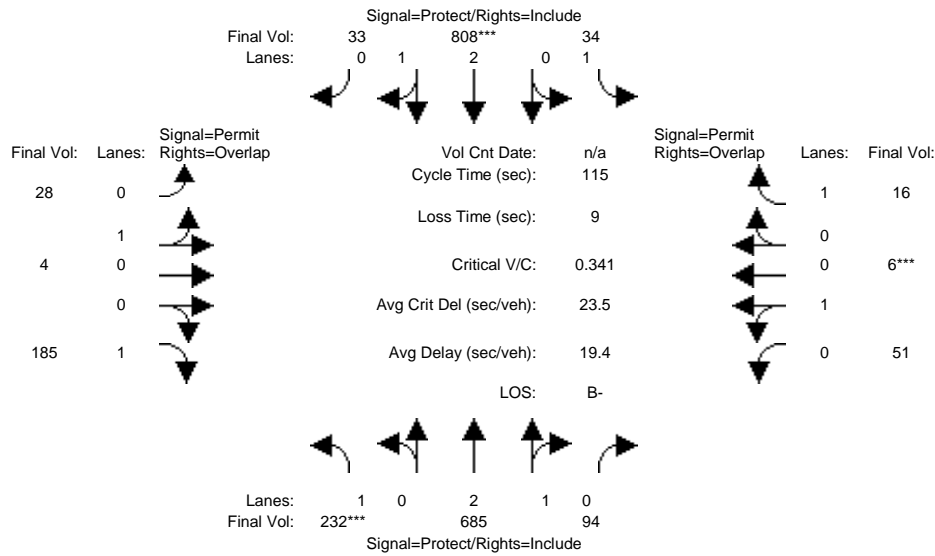
Saturation Flow Module:												
	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.62	0.38	1.00	2.88	0.12	0.87	0.13	1.00	0.89	0.11	1.00
Final Sat.:	1750	4915	684	1750	5378	222	1575	225	1750	1611	189	1750

Capacity Analysis Module:												
	0.13	0.14	0.14	0.02	0.15	0.15	0.02	0.02	0.11	0.03	0.03	0.01
Vol/Sat:	0.13	0.14	0.14	0.02	0.15	0.15	0.02	0.02	0.11	0.03	0.03	0.01
Crit Moves:	****				****						****	
Green Time:	44.6	66.0	66.0	29.2	50.6	50.6	10.8	10.8	55.4	10.8	10.8	40.0
Volume/Cap:	0.34	0.24	0.24	0.08	0.34	0.34	0.19	0.19	0.22	0.34	0.34	0.03
Uniform Del:	24.8	12.1	12.1	32.6	21.2	21.2	48.1	48.1	17.3	48.8	48.8	24.7
IncrcmntDel:	0.3	0.0	0.0	0.1	0.1	0.1	0.5	0.5	0.1	1.2	1.2	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	25.1	12.2	12.2	32.7	21.2	21.2	48.6	48.6	17.4	50.0	50.0	24.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.1	12.2	12.2	32.7	21.2	21.2	48.6	48.6	17.4	50.0	50.0	24.7
LOS by Move:	C	B	B	C-	C+	C+	D	D	B	D	D	C
HCM2kAvgQ:	6	4	4	1	6	6	1	1	4	2	2	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P MD

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	229	675	94	34	799	33	28	4	185	51	6	16
Growth 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
Initial Bse:	229	675	94	34	799	33	28	4	185	51	6	16
Added Vol:	3	10	0	0	9	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	232	685	94	34	808	33	28	4	185	51	6	16
User 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
PHF 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
PHF Volume:	232	685	94	34	808	33	28	4	185	51	6	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	232	685	94	34	808	33	28	4	185	51	6	16
PCE 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
MLF 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
Final Volume:	232	685	94	34	808	33	28	4	185	51	6	16

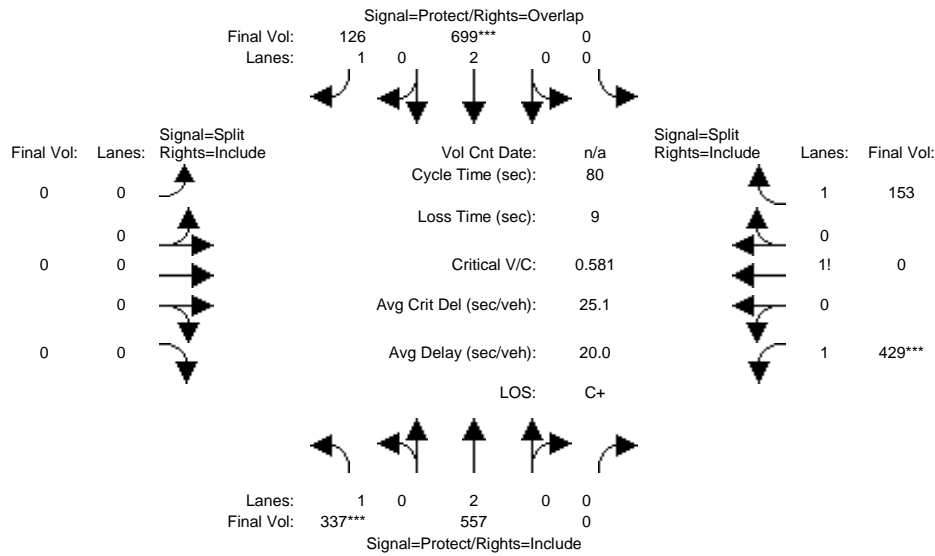
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.62	0.38	1.00	2.88	0.12	0.87	0.13	1.00	0.89	0.11	1.00
Final Sat.:	1750	4923	676	1750	5380	220	1575	225	1750	1611	189	1750

Capacity Analysis Module:												
Vol/Sat:	0.13	0.14	0.14	0.02	0.15	0.15	0.02	0.02	0.11	0.03	0.03	0.01
Crit Moves:	****				****						****	
Green Time:	44.7	66.3	66.3	29.0	50.6	50.6	10.7	10.7	55.4	10.7	10.7	39.7
Volume/Cap:	0.34	0.24	0.24	0.08	0.34	0.34	0.19	0.19	0.22	0.34	0.34	0.03
Uniform Del:	24.8	12.0	12.0	32.8	21.2	21.2	48.2	48.2	17.3	48.9	48.9	24.9
IncrcmntDel:	0.3	0.0	0.0	0.1	0.1	0.1	0.6	0.6	0.1	1.2	1.2	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	25.1	12.0	12.0	32.9	21.3	21.3	48.7	48.7	17.4	50.1	50.1	24.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.1	12.0	12.0	32.9	21.3	21.3	48.7	48.7	17.4	50.1	50.1	24.9
LOS by Move:	C	B	B	C-	C+	C+	D	D	B	D	D	C
HCM2kAvgQ:	6	4	4	1	7	7	1	1	4	2	2	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing MD

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	337	557	0	0	699	126	0	0	0	429	0	153
Growth 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
Initial Bse:	337	557	0	0	699	126	0	0	0	429	0	153
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	557	0	0	699	126	0	0	0	429	0	153
User 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
PHF 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
PHF Volume:	337	557	0	0	699	126	0	0	0	429	0	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	337	557	0	0	699	126	0	0	0	429	0	153
PCE 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
MLF 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
Final Volume:	337	557	0	0	699	126	0	0	0	429	0	153

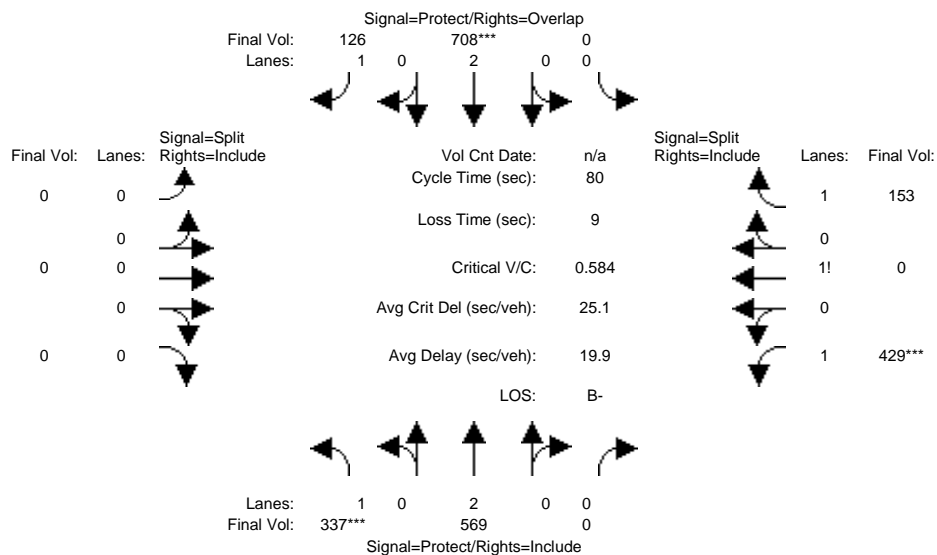
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.73	0.00	1.27
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	3078	0	2215

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.19	0.15	0.00	0.00	0.18	0.07	0.00	0.00	0.00	0.14	0.00	0.07
Crit Moves:	****			****						****		
Green Time:	26.5	51.8	0.0	0.0	25.3	25.3	0.0	0.0	0.0	19.2	0.0	19.2
Volume/Cap:	0.58	0.23	0.00	0.00	0.58	0.23	0.00	0.00	0.00	0.58	0.00	0.29
Uniform Del:	22.2	5.8	0.0	0.0	22.9	20.1	0.0	0.0	0.0	26.9	0.0	24.8
IncrcmntDel:	1.5	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.9	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	23.6	5.9	0.0	0.0	23.6	20.3	0.0	0.0	0.0	27.7	0.0	24.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.6	5.9	0.0	0.0	23.6	20.3	0.0	0.0	0.0	27.7	0.0	24.9
LOS by Move:	C	A	A	A	C	C+	A	A	A	C	A	C
HCM2kAvgQ:	8	3	0	0	7	2	0	0	0	7	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	337	557	0	0	699	126	0	0	0	429	0	153
Growth 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
Initial Bse:	337	557	0	0	699	126	0	0	0	429	0	153
Added Vol:	0	12	0	0	9	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	569	0	0	708	126	0	0	0	429	0	153
User 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
PHF 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
PHF Volume:	337	569	0	0	708	126	0	0	0	429	0	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	337	569	0	0	708	126	0	0	0	429	0	153
PCE 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
MLF 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
Final Volume:	337	569	0	0	708	126	0	0	0	429	0	153

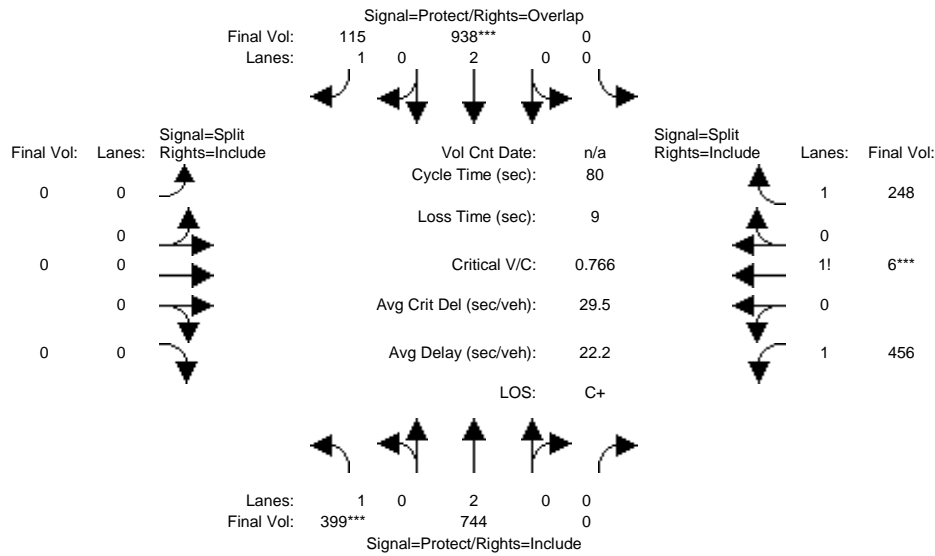
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.73	0.00	1.27
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	3078	0	2215

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.19	0.15	0.00	0.00	0.19	0.07	0.00	0.00	0.00	0.14	0.00	0.07
Crit Moves:	***			****						****		
Green Time:	26.4	51.9	0.0	0.0	25.5	25.5	0.0	0.0	0.0	19.1	0.0	19.1
Volume/Cap:	0.58	0.23	0.00	0.00	0.58	0.23	0.00	0.00	0.00	0.58	0.00	0.29
Uniform Del:	22.3	5.8	0.0	0.0	22.8	20.0	0.0	0.0	0.0	26.9	0.0	24.9
IncrcmntDel:	1.5	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.9	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	23.8	5.8	0.0	0.0	23.5	20.2	0.0	0.0	0.0	27.8	0.0	25.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.8	5.8	0.0	0.0	23.5	20.2	0.0	0.0	0.0	27.8	0.0	25.0
LOS by Move:	C	A	A	A	C	C+	A	A	A	C	A	C
HCM2kAvgQ:	8	3	0	0	7	2	0	0	0	7	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd MD

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	399	744	0	0	938	115	0	0	0	456	6	248
Growth 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
Initial Bse:	399	744	0	0	938	115	0	0	0	456	6	248
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	399	744	0	0	938	115	0	0	0	456	6	248
User 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
PHF 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
PHF Volume:	399	744	0	0	938	115	0	0	0	456	6	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	399	744	0	0	938	115	0	0	0	456	6	248
PCE 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
MLF 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
Final Volume:	399	744	0	0	938	115	0	0	0	456	6	248

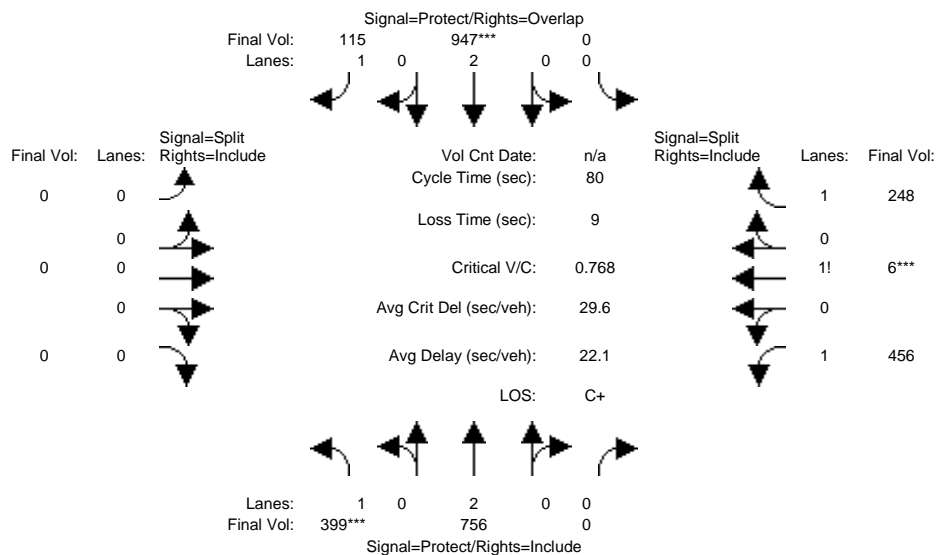
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.64	0.02	1.34
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2865	29	2356

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.23	0.20	0.00	0.00	0.25	0.07	0.00	0.00	0.00	0.16	0.20	0.11
Crit Moves:	****			****						****		
Green Time:	23.8	49.6	0.0	0.0	25.8	25.8	0.0	0.0	0.0	21.4	21.4	21.4
Volume/Cap:	0.77	0.32	0.00	0.00	0.77	0.20	0.00	0.00	0.00	0.60	0.77	0.39
Uniform Del:	25.5	7.2	0.0	0.0	24.4	19.7	0.0	0.0	0.0	25.5	27.0	24.0
IncrcmntDel:	6.7	0.1	0.0	0.0	2.9	0.2	0.0	0.0	0.0	0.8	3.9	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	32.2	7.2	0.0	0.0	27.3	19.8	0.0	0.0	0.0	26.4	30.9	24.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.2	7.2	0.0	0.0	27.3	19.8	0.0	0.0	0.0	26.4	30.9	24.1
LOS by Move:	C-	A	A	A	C	B-	A	A	A	C	C	C
HCM2kAvgQ:	12	4	0	0	11	2	0	0	0	7	11	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P MD

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	399	744	0	0	938	115	0	0	0	456	6	248
Growth 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
Initial Bse:	399	744	0	0	938	115	0	0	0	456	6	248
Added Vol:	0	12	0	0	9	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	399	756	0	0	947	115	0	0	0	456	6	248
User 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
PHF 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
PHF Volume:	399	756	0	0	947	115	0	0	0	456	6	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	399	756	0	0	947	115	0	0	0	456	6	248
PCE 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
MLF 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
Final Volume:	399	756	0	0	947	115	0	0	0	456	6	248

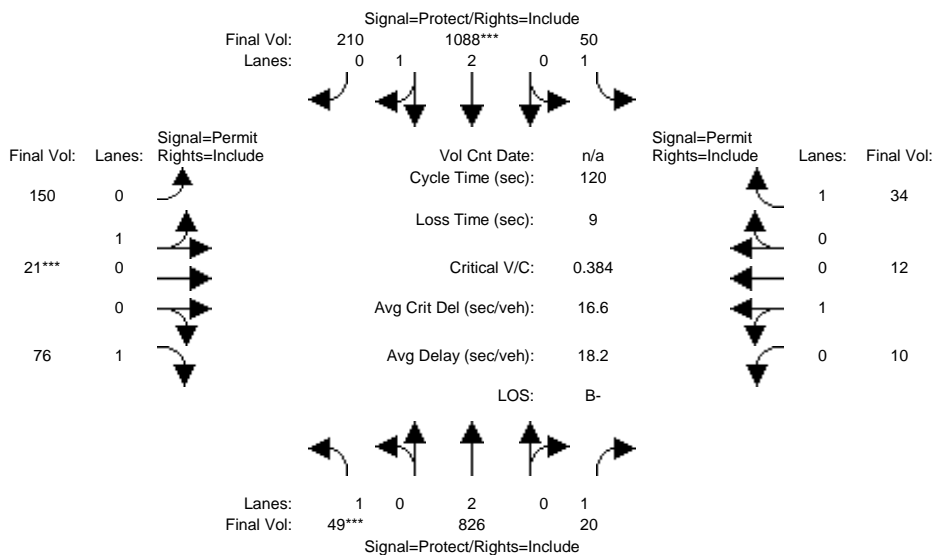
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.64	0.02	1.34
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2865	29	2356

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.23	0.20	0.00	0.00	0.25	0.07	0.00	0.00	0.00	0.16	0.20	0.11
Crit Moves:	****				****						****	
Green Time:	23.7	49.7	0.0	0.0	26.0	26.0	0.0	0.0	0.0	21.3	21.3	21.3
Volume/Cap:	0.77	0.32	0.00	0.00	0.77	0.20	0.00	0.00	0.00	0.60	0.77	0.40
Uniform Del:	25.6	7.2	0.0	0.0	24.3	19.5	0.0	0.0	0.0	25.6	27.1	24.1
IncrcmntDel:	6.8	0.1	0.0	0.0	3.0	0.2	0.0	0.0	0.0	0.8	4.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	32.5	7.2	0.0	0.0	27.3	19.7	0.0	0.0	0.0	26.5	31.0	24.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.5	7.2	0.0	0.0	27.3	19.7	0.0	0.0	0.0	26.5	31.0	24.2
LOS by Move:	C-	A	A	A	C	B-	A	A	A	C	C	C
HCM2kAvgQ:	12	4	0	0	11	2	0	0	0	7	11	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	49	826	20	50	1088	210	150	21	76	10	12	34
Growth 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
Initial Bse:	49	826	20	50	1088	210	150	21	76	10	12	34
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	826	20	50	1088	210	150	21	76	10	12	34
User 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
PHF 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
PHF Volume:	49	826	20	50	1088	210	150	21	76	10	12	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	826	20	50	1088	210	150	21	76	10	12	34
PCE 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
MLF 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
Final Volume:	49	826	20	50	1088	210	150	21	76	10	12	34

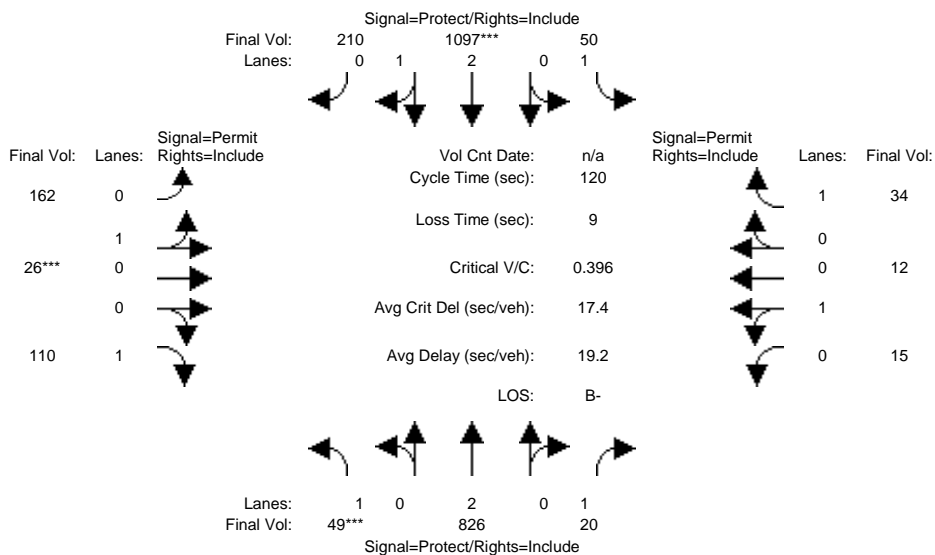
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.50	0.50	0.88	0.12	1.00	0.45	0.55	1.00
Final Sat.:	1750	3800	1750	1750	4693	906	1579	221	1750	818	982	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.22	0.01	0.03	0.23	0.23	0.10	0.10	0.04	0.01	0.01	0.02
Crit Moves:	***			****			****					
Green Time:	8.8	64.1	64.1	17.2	72.5	72.5	29.7	29.7	29.7	29.7	29.7	29.7
Volume/Cap:	0.38	0.41	0.02	0.20	0.38	0.38	0.38	0.38	0.18	0.05	0.05	0.08
Uniform Del:	53.0	16.6	13.2	45.3	12.2	12.2	37.5	37.5	35.5	34.4	34.4	34.6
IncrcmntDel:	1.9	0.1	0.0	0.4	0.1	0.1	0.6	0.6	0.2	0.0	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	55.0	16.8	13.2	45.7	12.3	12.3	38.1	38.1	35.7	34.4	34.4	34.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.0	16.8	13.2	45.7	12.3	12.3	38.1	38.1	35.7	34.4	34.4	34.7
LOS by Move:	D-	B	B	D	B	B	D+	D+	D+	C-	C-	C-
HCM2kAvgQ:	2	9	0	2	8	8	6	6	2	1	1	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	49	826	20	50	1088	210	150	21	76	10	12	34
Growth 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
Initial Bse:	49	826	20	50	1088	210	150	21	76	10	12	34
Added Vol:	0	0	0	0	9	0	12	5	34	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	826	20	50	1097	210	162	26	110	15	12	34
User 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
PHF 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
PHF Volume:	49	826	20	50	1097	210	162	26	110	15	12	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	826	20	50	1097	210	162	26	110	15	12	34
PCE 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
MLF 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
Final Volume:	49	826	20	50	1097	210	162	26	110	15	12	34

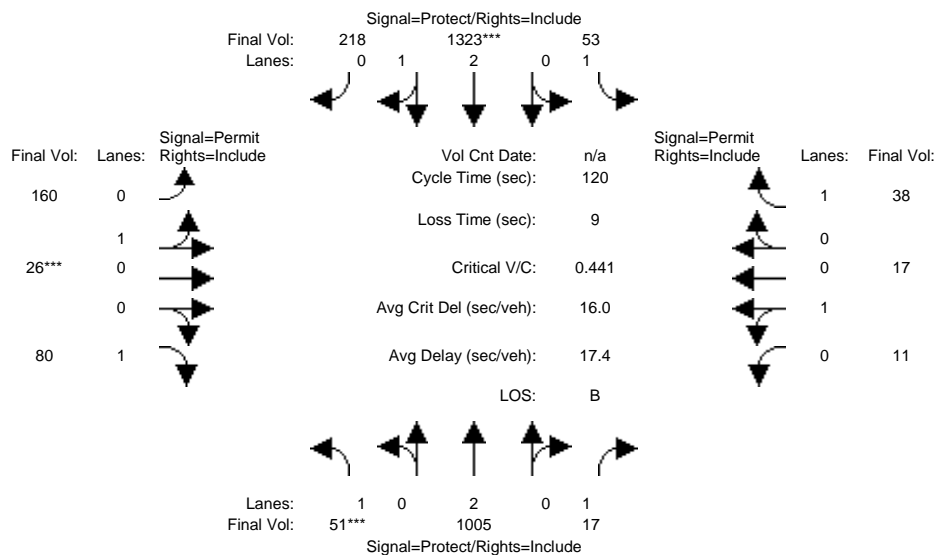
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.50	0.50	0.86	0.14	1.00	0.56	0.44	1.00
Final Sat.:	1750	3800	1750	1750	4699	900	1551	249	1750	1000	800	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.22	0.01	0.03	0.23	0.23	0.10	0.10	0.06	0.02	0.02	0.02
Crit Moves:	***				****			****				
Green Time:	8.5	62.5	62.5	16.8	70.8	70.8	31.7	31.7	31.7	31.7	31.7	31.7
Volume/Cap:	0.40	0.42	0.02	0.20	0.40	0.40	0.40	0.40	0.24	0.06	0.06	0.07
Uniform Del:	53.3	17.6	13.9	45.7	13.1	13.1	36.3	36.3	34.7	33.0	33.0	33.1
IncrcmntDel:	2.1	0.1	0.0	0.4	0.1	0.1	0.5	0.5	0.3	0.1	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	55.4	17.7	13.9	46.1	13.2	13.2	36.8	36.8	34.9	33.0	33.0	33.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.4	17.7	13.9	46.1	13.2	13.2	36.8	36.8	34.9	33.0	33.0	33.2
LOS by Move:	E+	B	B	D	B	B	D+	D+	C-	C-	C-	C-
HCM2kAvgQ:	2	9	0	2	9	9	6	6	3	1	1	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	51	1005	17	53	1323	218	160	26	80	11	17	38
Growth 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
Initial Bse:	51	1005	17	53	1323	218	160	26	80	11	17	38
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	1005	17	53	1323	218	160	26	80	11	17	38
User 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
PHF 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
PHF Volume:	51	1005	17	53	1323	218	160	26	80	11	17	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	1005	17	53	1323	218	160	26	80	11	17	38
PCE 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
MLF 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
Final Volume:	51	1005	17	53	1323	218	160	26	80	11	17	38

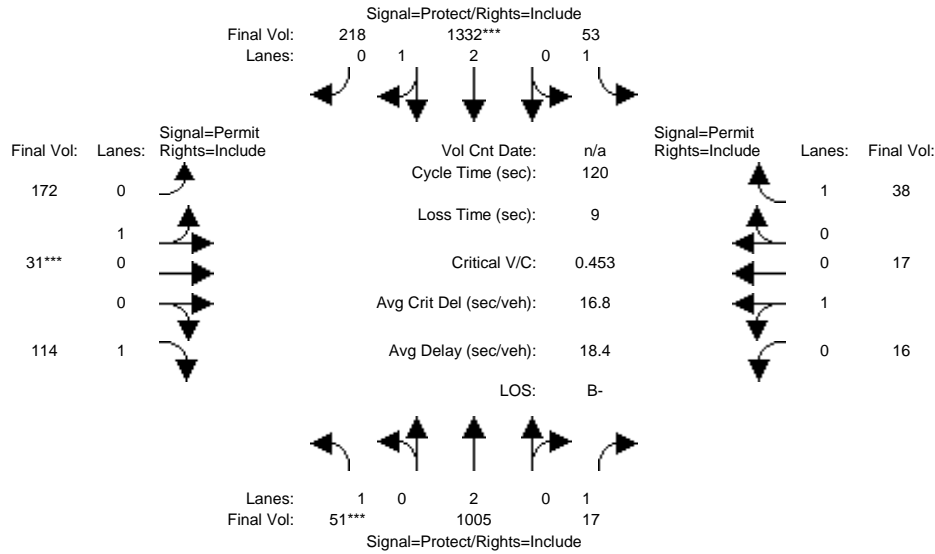
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.56	0.44	0.86	0.14	1.00	0.39	0.61	1.00
Final Sat.:	1750	3800	1750	1750	4807	792	1548	252	1750	707	1093	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.01	0.03	0.28	0.28	0.10	0.10	0.05	0.02	0.02	0.02
Crit Moves:	****			****			****					
Green Time:	7.9	67.9	67.9	15.0	74.9	74.9	28.1	28.1	28.1	28.1	28.1	28.1
Volume/Cap:	0.44	0.47	0.02	0.24	0.44	0.44	0.44	0.44	0.19	0.07	0.07	0.09
Uniform Del:	53.9	15.4	11.4	47.4	11.7	11.7	39.2	39.2	36.8	35.7	35.7	35.9
IncrcmntDel:	2.7	0.2	0.0	0.6	0.1	0.1	0.7	0.7	0.2	0.1	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	56.6	15.5	11.4	48.0	11.8	11.8	40.0	40.0	37.1	35.8	35.8	36.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.6	15.5	11.4	48.0	11.8	11.8	40.0	40.0	37.1	35.8	35.8	36.0
LOS by Move:	E+	B	B+	D	B+	B+	D	D	D+	D+	D+	D+
HCM2kAvgQ:	2	10	0	2	10	10	6	6	3	1	1	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	51	1005	17	53	1323	218	160	26	80	11	17	38
Growth 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
Initial Bse:	51	1005	17	53	1323	218	160	26	80	11	17	38
Added Vol:	0	0	0	0	9	0	12	5	34	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	1005	17	53	1332	218	172	31	114	16	17	38
User 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
PHF 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
PHF Volume:	51	1005	17	53	1332	218	172	31	114	16	17	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	1005	17	53	1332	218	172	31	114	16	17	38
PCE 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
MLF 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
Final Volume:	51	1005	17	53	1332	218	172	31	114	16	17	38

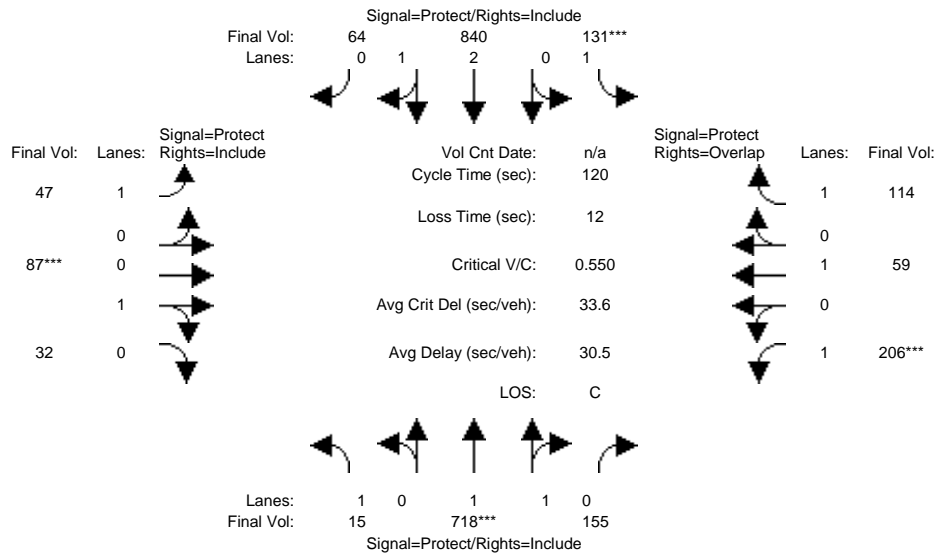
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.56	0.44	0.85	0.15	1.00	0.48	0.52	1.00
Final Sat.:	1750	3800	1750	1750	4811	787	1525	275	1750	873	927	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.01	0.03	0.28	0.28	0.11	0.11	0.07	0.02	0.02	0.02
Crit Moves:	****				****			****				
Green Time:	7.7	66.5	66.5	14.7	73.4	73.4	29.9	29.9	29.9	29.9	29.9	29.9
Volume/Cap:	0.45	0.48	0.02	0.25	0.45	0.45	0.45	0.45	0.26	0.07	0.07	0.09
Uniform Del:	54.1	16.2	12.1	47.7	12.5	12.5	38.1	38.1	36.2	34.5	34.5	34.6
IncrcmntDel:	2.9	0.2	0.0	0.6	0.1	0.1	0.7	0.7	0.3	0.1	0.1	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	57.0	16.4	12.1	48.3	12.6	12.6	38.9	38.9	36.5	34.5	34.5	34.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.0	16.4	12.1	48.3	12.6	12.6	38.9	38.9	36.5	34.5	34.5	34.7
LOS by Move:	E+	B	B	D	B	B	D+	D+	D+	C-	C-	C-
HCM2kAvgQ:	2	11	0	2	10	10	7	7	4	1	1	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	15	718	155	131	840	64	47	87	32	206	59	114
Growth 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
Initial Bse:	15	718	155	131	840	64	47	87	32	206	59	114
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	718	155	131	840	64	47	87	32	206	59	114
User 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
PHF 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
PHF Volume:	15	718	155	131	840	64	47	87	32	206	59	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	718	155	131	840	64	47	87	32	206	59	114
PCE 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
MLF 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
Final Volume:	15	718	155	131	840	64	47	87	32	206	59	114

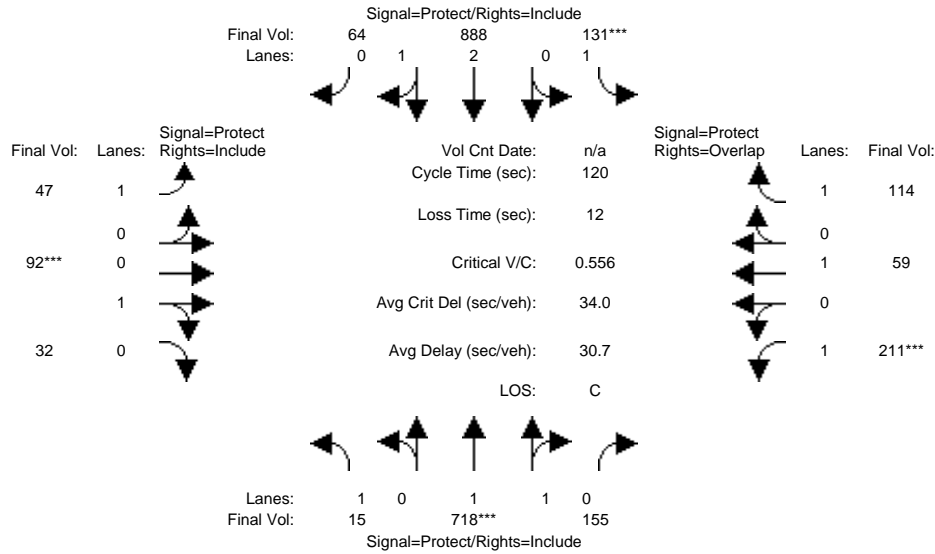
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.64	0.36	1.00	2.78	0.22	1.00	0.73	0.27	1.00	1.00	1.00
Final Sat.:	1750	3043	657	1750	5203	396	1750	1316	484	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.24	0.24	0.07	0.16	0.16	0.03	0.07	0.07	0.12	0.03	0.07
Crit Moves:	****			****			****			****		
Green Time:	18.0	51.5	51.5	16.3	49.9	49.9	16.5	14.4	14.4	25.7	23.6	40.0
Volume/Cap:	0.06	0.55	0.55	0.55	0.39	0.39	0.20	0.55	0.55	0.55	0.16	0.20
Uniform Del:	43.7	25.6	25.6	48.4	24.4	24.4	45.8	49.7	49.7	42.0	40.0	28.6
IncrcmntDel:	0.1	0.4	0.4	2.7	0.1	0.1	0.4	3.0	3.0	1.7	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	43.8	26.0	26.0	51.1	24.6	24.6	46.2	52.7	52.7	43.7	40.2	28.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.8	26.0	26.0	51.1	24.6	24.6	46.2	52.7	52.7	43.7	40.2	28.7
LOS by Move:	D	C	C	D-	C	C	D	D-	D-	D	D	C
HCM2kAvgQ:	0	12	12	5	8	8	2	5	5	8	2	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	15	718	155	131	840	64	47	87	32	206	59	114
Growth 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
Initial Bse:	15	718	155	131	840	64	47	87	32	206	59	114
Added Vol:	0	0	0	0	48	0	0	5	0	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	718	155	131	888	64	47	92	32	211	59	114
User 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
PHF 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
PHF Volume:	15	718	155	131	888	64	47	92	32	211	59	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	718	155	131	888	64	47	92	32	211	59	114
PCE 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
MLF 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
Final Volume:	15	718	155	131	888	64	47	92	32	211	59	114

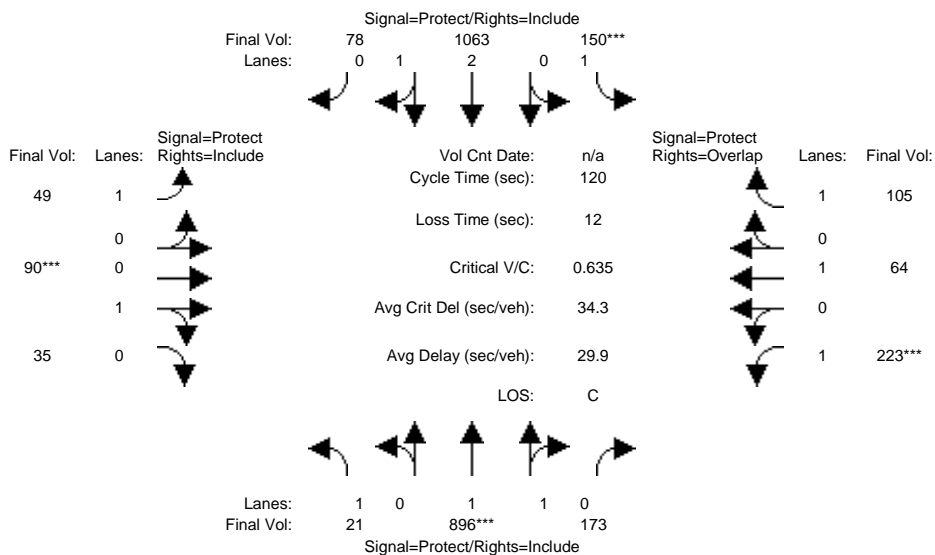
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.64	0.36	1.00	2.79	0.21	1.00	0.74	0.26	1.00	1.00	1.00
Final Sat.:	1750	3043	657	1750	5223	376	1750	1335	465	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.24	0.24	0.07	0.17	0.17	0.03	0.07	0.07	0.12	0.03	0.07
Crit Moves:	****			****			****			****		
Green Time:	17.1	50.9	50.9	16.2	50.0	50.0	16.8	14.9	14.9	26.0	24.1	40.2
Volume/Cap:	0.06	0.56	0.56	0.56	0.41	0.41	0.19	0.56	0.56	0.56	0.15	0.19
Uniform Del:	44.5	26.0	26.0	48.6	24.6	24.6	45.6	49.5	49.5	41.8	39.6	28.4
IncrcmntDel:	0.1	0.4	0.4	2.9	0.1	0.1	0.4	3.1	3.1	1.8	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	44.6	26.5	26.5	51.5	24.7	24.7	45.9	52.5	52.5	43.7	39.8	28.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.6	26.5	26.5	51.5	24.7	24.7	45.9	52.5	52.5	43.7	39.8	28.5
LOS by Move:	D	C	C	D-	C	C	D	D-	D-	D	D	C
HCM2kAvgQ:	0	12	12	5	8	8	2	5	5	8	2	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	21	896	173	150	1063	78	49	90	35	223	64	105
Growth 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
Initial Bse:	21	896	173	150	1063	78	49	90	35	223	64	105
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	896	173	150	1063	78	49	90	35	223	64	105
User 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
PHF 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
PHF Volume:	21	896	173	150	1063	78	49	90	35	223	64	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	896	173	150	1063	78	49	90	35	223	64	105
PCE 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
MLF 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
Final Volume:	21	896	173	150	1063	78	49	90	35	223	64	105

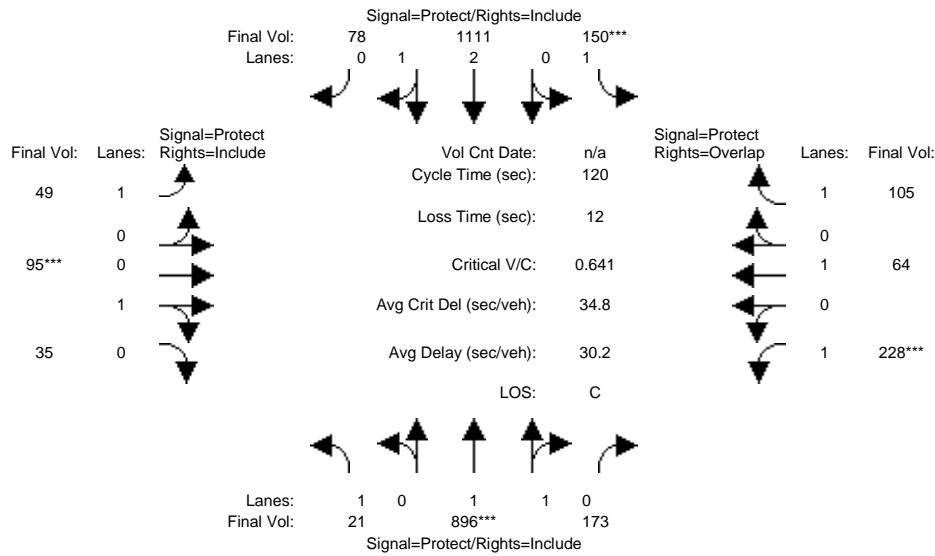
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.99	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.67	0.33	1.00	2.79	0.21	1.00	0.72	0.28	1.00	1.00	1.00
Final Sat.:	1750	3101	599	1750	5217	383	1750	1296	504	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.29	0.29	0.09	0.20	0.20	0.03	0.07	0.07	0.13	0.03	0.06
Crit Moves:	****			****			****			****		
Green Time:	15.8	54.6	54.6	16.2	55.0	55.0	15.3	13.1	13.1	24.1	21.9	38.1
Volume/Cap:	0.09	0.64	0.64	0.64	0.44	0.44	0.22	0.64	0.64	0.64	0.18	0.19
Uniform Del:	45.8	25.1	25.1	49.1	22.1	22.1	47.0	51.1	51.1	43.9	41.5	29.7
IncrcmntDel:	0.2	0.8	0.8	5.6	0.1	0.1	0.5	6.7	6.7	3.8	0.3	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	46.0	25.9	25.9	54.7	22.2	22.2	47.5	57.8	57.8	47.7	41.8	29.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.0	25.9	25.9	54.7	22.2	22.2	47.5	57.8	57.8	47.7	41.8	29.9
LOS by Move:	D	C	C	D-	C+	C+	D	E+	E+	D	D	C
HCM2kAvgQ:	1	15	15	6	9	9	2	6	6	9	2	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P MD

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	21	896	173	150	1063	78	49	90	35	223	64	105
Growth 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
Initial Bse:	21	896	173	150	1063	78	49	90	35	223	64	105
Added Vol:	0	0	0	0	48	0	0	5	0	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	896	173	150	1111	78	49	95	35	228	64	105
User 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
PHF 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
PHF Volume:	21	896	173	150	1111	78	49	95	35	228	64	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	896	173	150	1111	78	49	95	35	228	64	105
PCE 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
MLF 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
Final Volume:	21	896	173	150	1111	78	49	95	35	228	64	105

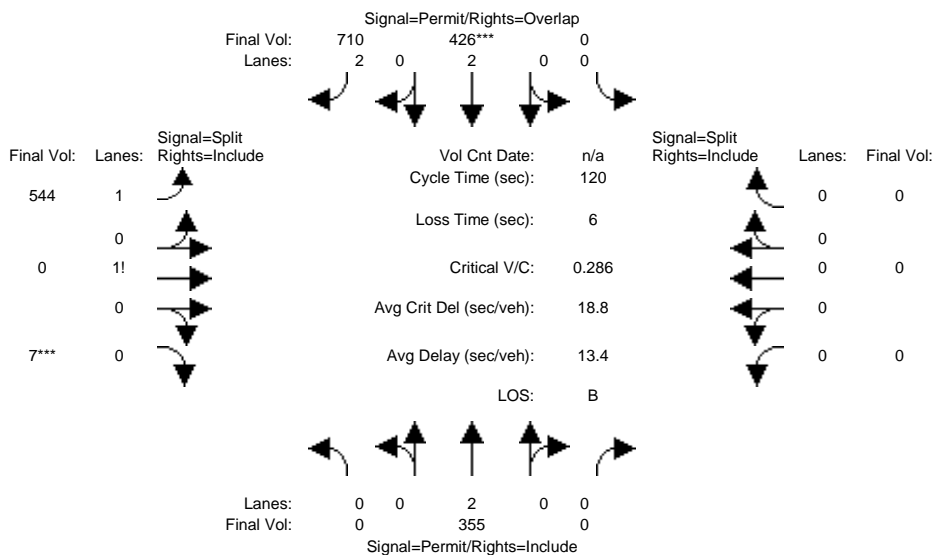
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.67	0.33	1.00	2.80	0.20	1.00	0.73	0.27	1.00	1.00	1.00
Final Sat.:	1750	3101	599	1750	5232	367	1750	1315	485	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.29	0.29	0.09	0.21	0.21	0.03	0.07	0.07	0.13	0.03	0.06
Crit Moves:	****			****			****			****		
Green Time:	15.1	54.1	54.1	16.0	55.0	55.0	15.6	13.5	13.5	24.4	22.3	38.3
Volume/Cap:	0.10	0.64	0.64	0.64	0.46	0.46	0.22	0.64	0.64	0.64	0.18	0.19
Uniform Del:	46.4	25.5	25.5	49.3	22.4	22.4	46.7	50.9	50.9	43.8	41.2	29.6
IncrcmntDel:	0.2	0.9	0.9	5.9	0.1	0.1	0.5	6.8	6.8	3.9	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	46.6	26.3	26.3	55.2	22.5	22.5	47.2	57.7	57.7	47.7	41.4	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.6	26.3	26.3	55.2	22.5	22.5	47.2	57.7	57.7	47.7	41.4	29.7
LOS by Move:	D	C	C	E+	C+	C+	D	E+	E+	D	D	C
HCM2kAvgQ:	1	15	15	6	10	10	2	6	6	9	2	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Base Vol:	0	355	0	0	426	710	544	0	7	0	0	0
Growth 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
Initial Bse:	0	355	0	0	426	710	544	0	7	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	355	0	0	426	710	544	0	7	0	0	0
User 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
PHF 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
PHF Volume:	0	355	0	0	426	710	544	0	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	355	0	0	426	710	544	0	7	0	0	0
PCE 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
MLF 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
Final Volume:	0	355	0	0	426	710	544	0	7	0	0	0

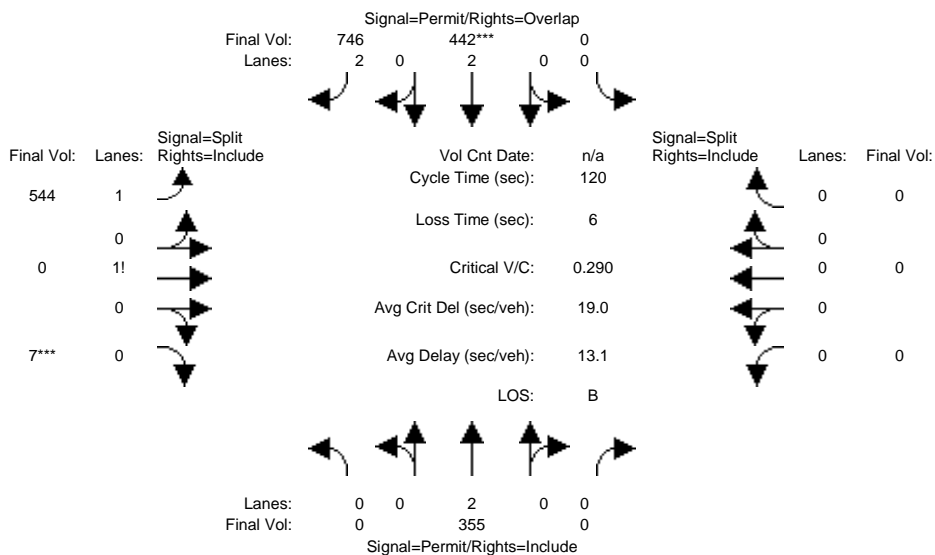
Saturation Flow Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3456	0	44	0	0	0

Capacity Analysis Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Vol/Sat:	0.00	0.09	0.00	0.00	0.11	0.23	0.16	0.00	0.16	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	47.1	0.0	0.0	47.1	114.0	66.9	0.0	66.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.24	0.00	0.00	0.29	0.24	0.28	0.00	0.29	0.00	0.00	0.00
Uniform Del:	0.0	24.4	0.0	0.0	25.0	0.2	13.9	0.0	14.0	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	24.5	0.0	0.0	25.1	0.2	14.0	0.0	14.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	24.5	0.0	0.0	25.1	0.2	14.0	0.0	14.0	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	4	0	0	5	1	6	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	355	0	0	426	710	544	0	7	0	0	0
Growth 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
Initial Bse:	0	355	0	0	426	710	544	0	7	0	0	0
Added Vol:	0	0	0	0	16	36	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	355	0	0	442	746	544	0	7	0	0	0
User 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
PHF 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
PHF Volume:	0	355	0	0	442	746	544	0	7	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	355	0	0	442	746	544	0	7	0	0	0
PCE 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
MLF 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
Final Volume:	0	355	0	0	442	746	544	0	7	0	0	0

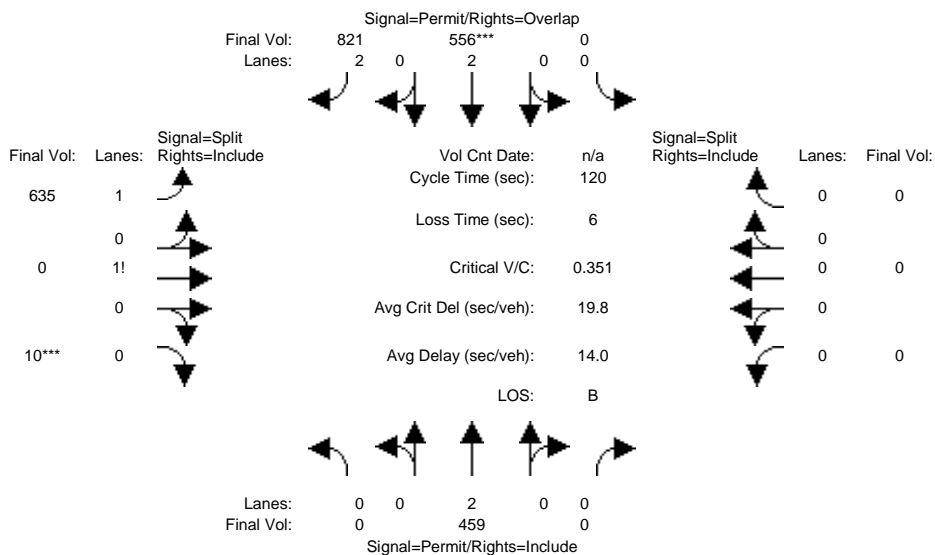
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3456	0	44	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.09	0.00	0.00	0.12	0.24	0.16	0.00	0.16	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	48.1	0.0	0.0	48.1	114.0	65.9	0.0	65.9	0.0	0.0	0.0
Volume/Cap:	0.00	0.23	0.00	0.00	0.29	0.25	0.29	0.00	0.29	0.00	0.00	0.00
Uniform Del:	0.0	23.8	0.0	0.0	24.4	0.2	14.5	0.0	14.5	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	23.8	0.0	0.0	24.5	0.2	14.5	0.0	14.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	23.8	0.0	0.0	24.5	0.2	14.5	0.0	14.6	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	4	0	0	5	1	6	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	459	0	0	556	821	635	0	10	0	0	0
Growth 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
Initial Bse:	0	459	0	0	556	821	635	0	10	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	459	0	0	556	821	635	0	10	0	0	0
User 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
PHF 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
PHF Volume:	0	459	0	0	556	821	635	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	459	0	0	556	821	635	0	10	0	0	0
PCE 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
MLF 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
Final Volume:	0	459	0	0	556	821	635	0	10	0	0	0

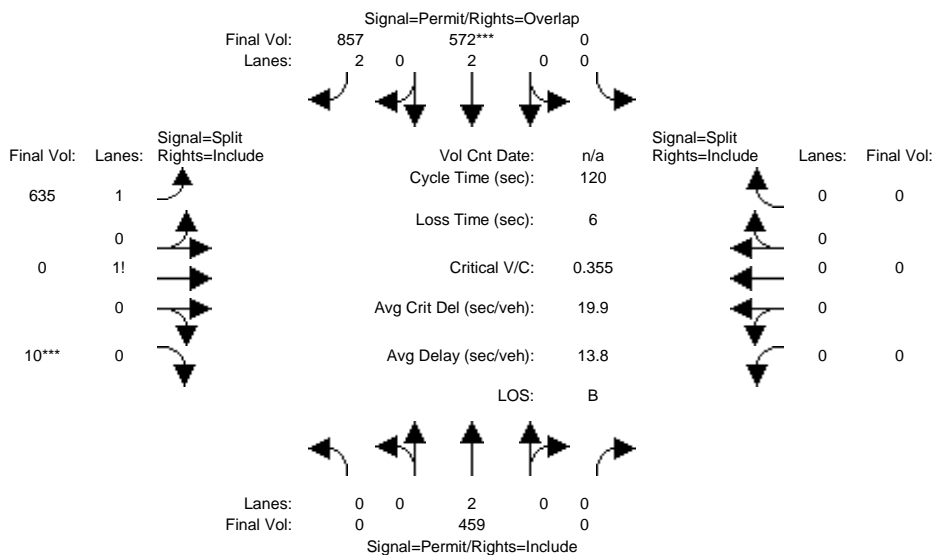
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3447	0	53	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.12	0.00	0.00	0.15	0.26	0.18	0.00	0.19	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	50.0	0.0	0.0	50.0	114.0	64.0	0.0	64.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.29	0.00	0.00	0.35	0.27	0.35	0.00	0.35	0.00	0.00	0.00
Uniform Del:	0.0	23.2	0.0	0.0	23.9	0.2	16.0	0.0	16.1	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	23.3	0.0	0.0	24.0	0.3	16.1	0.0	16.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	23.3	0.0	0.0	24.0	0.3	16.1	0.0	16.2	0.0	0.0	0.0
LOS by Move:	A	C	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	5	0	0	7	2	7	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	459	0	0	556	821	635	0	10	0	0	0
Growth 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
Initial Bse:	0	459	0	0	556	821	635	0	10	0	0	0
Added Vol:	0	0	0	0	16	36	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	459	0	0	572	857	635	0	10	0	0	0
User 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
PHF 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
PHF Volume:	0	459	0	0	572	857	635	0	10	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	459	0	0	572	857	635	0	10	0	0	0
PCE 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
MLF 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
Final Volume:	0	459	0	0	572	857	635	0	10	0	0	0

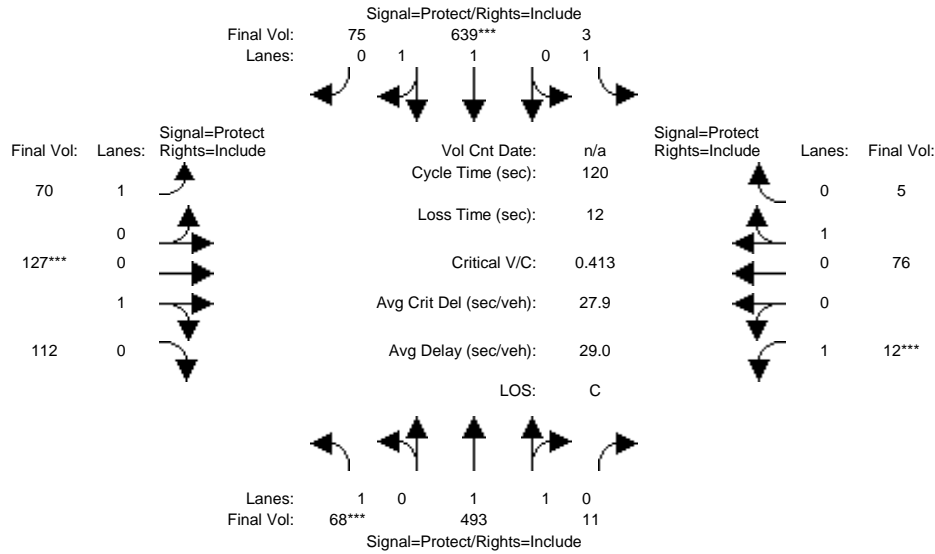
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3447	0	53	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.12	0.00	0.00	0.15	0.27	0.18	0.00	0.19	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	50.8	0.0	0.0	50.8	114.0	63.2	0.0	63.2	0.0	0.0	0.0
Volume/Cap:	0.00	0.29	0.00	0.00	0.36	0.29	0.35	0.00	0.36	0.00	0.00	0.00
Uniform Del:	0.0	22.7	0.0	0.0	23.5	0.2	16.5	0.0	16.5	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	22.8	0.0	0.0	23.6	0.3	16.6	0.0	16.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	22.8	0.0	0.0	23.6	0.3	16.6	0.0	16.7	0.0	0.0	0.0
LOS by Move:	A	C+	A	A	C	A	B	A	B	A	A	A
HCM2kAvgQ:	0	5	0	0	7	2	7	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	68	493	11	3	639	75	70	127	112	12	76	5
Growth 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
Initial Bse:	68	493	11	3	639	75	70	127	112	12	76	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	493	11	3	639	75	70	127	112	12	76	5
User 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
PHF 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
PHF Volume:	68	493	11	3	639	75	70	127	112	12	76	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	493	11	3	639	75	70	127	112	12	76	5
PCE 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
MLF 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
Final Volume:	68	493	11	3	639	75	70	127	112	12	76	5

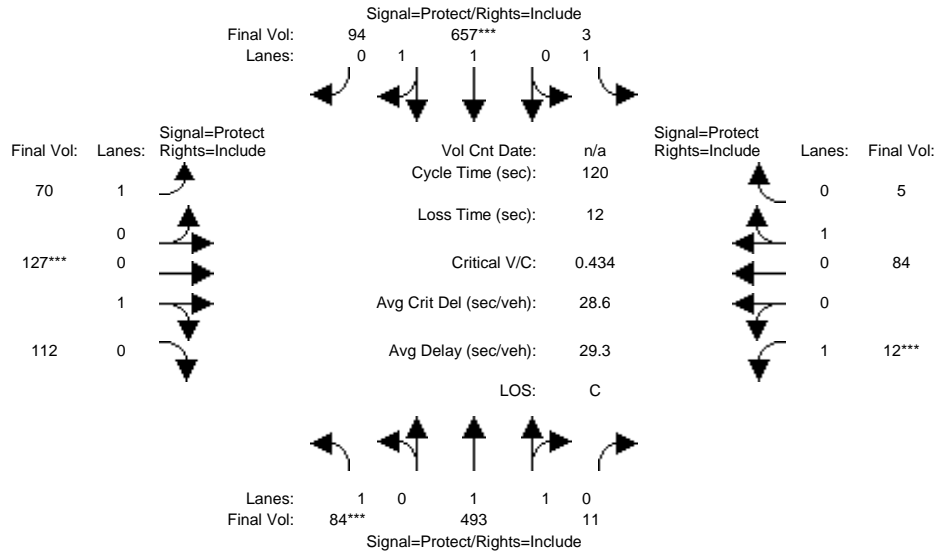
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.96	0.04	1.00	1.78	0.22	1.00	0.53	0.47	1.00	0.94	0.06
Final Sat.:	1750	3619	81	1750	3311	389	1750	956	844	1750	1689	111

Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.14	0.00	0.19	0.19	0.04	0.13	0.13	0.01	0.05	0.05
Crit Moves:	***				***			***			***	
Green Time:	10.8	45.0	45.0	19.3	53.5	53.5	18.0	36.8	36.8	7.0	25.8	25.8
Volume/Cap:	0.43	0.36	0.36	0.01	0.43	0.43	0.27	0.43	0.43	0.12	0.21	0.21
Uniform Del:	51.7	27.2	27.2	42.4	22.9	22.9	45.1	33.3	33.3	53.6	38.8	38.8
IncrcmntDel:	1.9	0.2	0.2	0.0	0.2	0.2	0.5	0.5	0.5	0.5	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	53.6	27.3	27.3	42.4	23.0	23.0	45.7	33.8	33.8	54.1	39.0	39.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.6	27.3	27.3	42.4	23.0	23.0	45.7	33.8	33.8	54.1	39.0	39.0
LOS by Move:	D-	C	C	D	C	C	D	C-	C-	D-	D	D
HCM2kAvgQ:	3	7	7	0	9	9	3	7	7	1	3	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	68	493	11	3	639	75	70	127	112	12	76	5
Growth 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
Initial Bse:	68	493	11	3	639	75	70	127	112	12	76	5
Added Vol:	16	0	0	0	18	19	0	0	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	493	11	3	657	94	70	127	112	12	84	5
User 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
PHF 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
PHF Volume:	84	493	11	3	657	94	70	127	112	12	84	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	493	11	3	657	94	70	127	112	12	84	5
PCE 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
MLF 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
Final Volume:	84	493	11	3	657	94	70	127	112	12	84	5

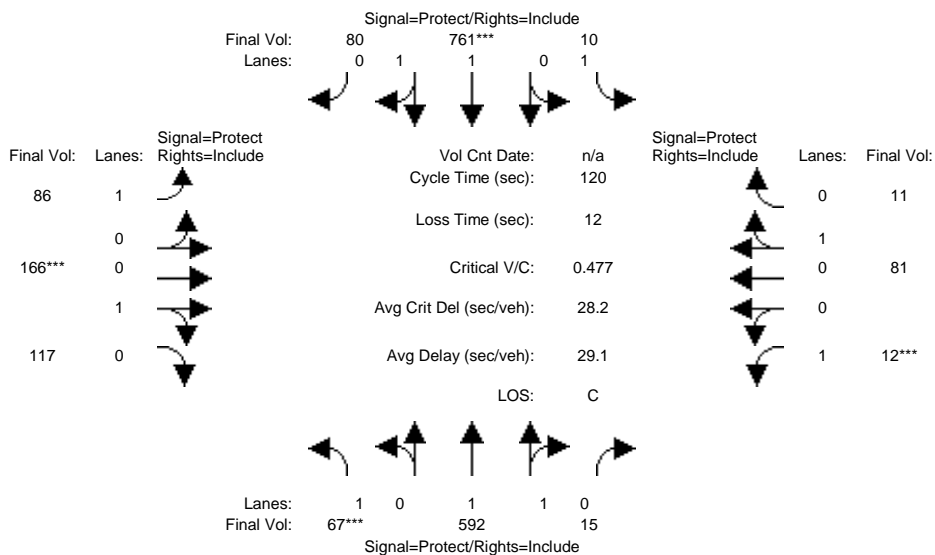
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.96	0.04	1.00	1.74	0.26	1.00	0.53	0.47	1.00	0.94	0.06
Final Sat.:	1750	3619	81	1750	3237	463	1750	956	844	1750	1699	101

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.05	0.14	0.14	0.00	0.20	0.20	0.04	0.13	0.13	0.01	0.05	0.05
Crit Moves:	***			****			****			****		
Green Time:	12.6	46.3	46.3	19.8	53.4	53.4	17.3	34.9	34.9	7.0	24.7	24.7
Volume/Cap:	0.46	0.35	0.35	0.01	0.46	0.46	0.28	0.46	0.46	0.12	0.24	0.24
Uniform Del:	50.5	26.2	26.2	41.9	23.2	23.2	45.8	34.8	34.8	53.6	39.8	39.8
IncrementDel:	1.8	0.2	0.2	0.0	0.2	0.2	0.6	0.6	0.6	0.5	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	52.2	26.4	26.4	41.9	23.4	23.4	46.4	35.4	35.4	54.1	40.2	40.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.2	26.4	26.4	41.9	23.4	23.4	46.4	35.4	35.4	54.1	40.2	40.2
LOS by Move:	D-	C	C	D	C	C	D	D+	D+	D-	D	D
HCM2kAvgQ:	4	7	7	0	10	10	3	8	8	1	3	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	67	592	15	10	761	80	86	166	117	12	81	11
Growth 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
Initial Bse:	67	592	15	10	761	80	86	166	117	12	81	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	592	15	10	761	80	86	166	117	12	81	11
User 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
PHF 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
PHF Volume:	67	592	15	10	761	80	86	166	117	12	81	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	592	15	10	761	80	86	166	117	12	81	11
PCE 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
MLF 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
Final Volume:	67	592	15	10	761	80	86	166	117	12	81	11

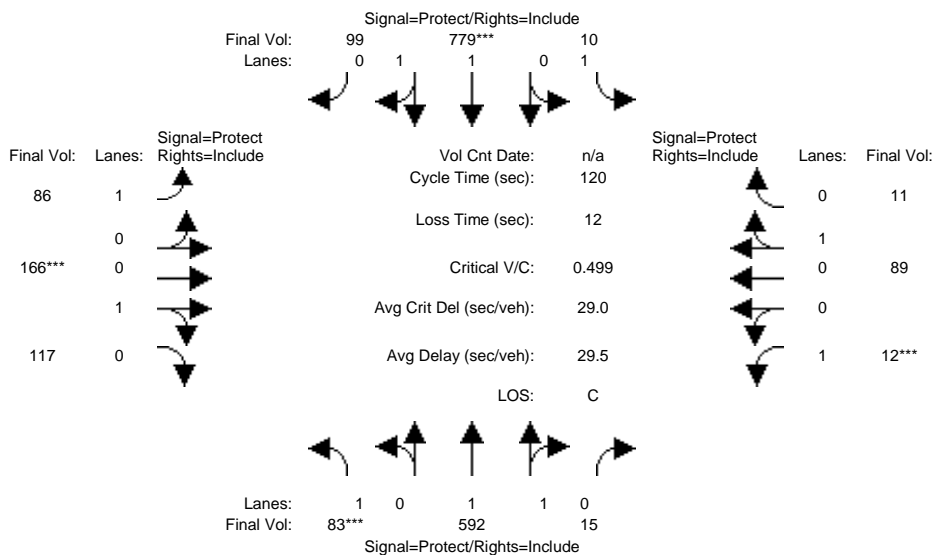
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.95	0.05	1.00	1.80	0.20	1.00	0.59	0.41	1.00	0.88	0.12
Final Sat.:	1750	3608	91	1750	3348	352	1750	1056	744	1750	1585	215

Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.01	0.23	0.23	0.05	0.16	0.16	0.01	0.05	0.05
Crit Moves:	***				***			***			***	
Green Time:	9.1	46.8	46.8	16.6	54.3	54.3	18.3	37.6	37.6	7.0	26.2	26.2
Volume/Cap:	0.50	0.42	0.42	0.04	0.50	0.50	0.32	0.50	0.50	0.12	0.23	0.23
Uniform Del:	53.2	26.7	26.7	44.8	23.3	23.3	45.3	33.6	33.6	53.6	38.6	38.6
IncrcmntDel:	3.0	0.2	0.2	0.1	0.2	0.2	0.7	0.7	0.7	0.5	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	56.3	26.9	26.9	44.8	23.5	23.5	46.0	34.3	34.3	54.1	38.9	38.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.3	26.9	26.9	44.8	23.5	23.5	46.0	34.3	34.3	54.1	38.9	38.9
LOS by Move:	E+	C	C	D	C	C	D	C-	C-	D-	D+	D+
HCM2kAvgQ:	3	8	8	0	11	11	3	9	9	1	3	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	67	592	15	10	761	80	86	166	117	12	81	11
Growth 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
Initial Bse:	67	592	15	10	761	80	86	166	117	12	81	11
Added Vol:	16	0	0	0	18	19	0	0	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	592	15	10	779	99	86	166	117	12	89	11
User 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
PHF 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
PHF Volume:	83	592	15	10	779	99	86	166	117	12	89	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	592	15	10	779	99	86	166	117	12	89	11
PCE 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
MLF 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
Final Volume:	83	592	15	10	779	99	86	166	117	12	89	11

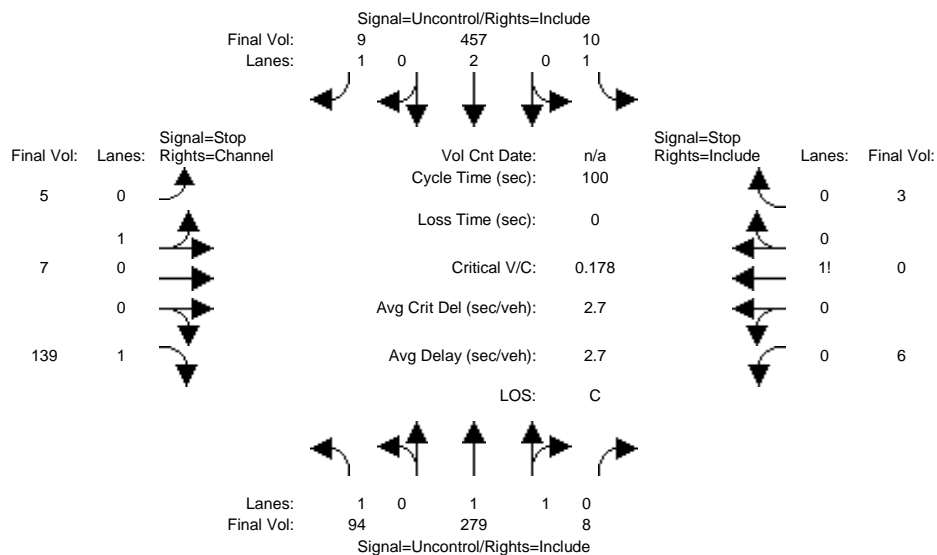
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.95	0.05	1.00	1.77	0.23	1.00	0.59	0.41	1.00	0.89	0.11
Final Sat.:	1750	3608	91	1750	3282	417	1750	1056	744	1750	1602	198

Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.16	0.01	0.24	0.24	0.05	0.16	0.16	0.01	0.06	0.06
Crit Moves:	***				****			****			****	
Green Time:	10.8	48.0	48.0	17.1	54.2	54.2	17.7	35.9	35.9	7.0	25.3	25.3
Volume/Cap:	0.53	0.41	0.41	0.04	0.53	0.53	0.33	0.53	0.53	0.12	0.26	0.26
Uniform Del:	52.1	25.8	25.8	44.4	23.6	23.6	45.9	34.9	34.9	53.6	39.6	39.6
IncrcmntDel:	3.2	0.2	0.2	0.1	0.3	0.3	0.8	1.0	1.0	0.5	0.4	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	55.4	26.0	26.0	44.5	23.9	23.9	46.6	35.9	35.9	54.1	40.0	40.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.4	26.0	26.0	44.5	23.9	23.9	46.6	35.9	35.9	54.1	40.0	40.0
LOS by Move:	E+	C	C	D	C	C	D	D+	D+	D-	D	D
HCM2kAvgQ:	4	8	8	0	12	12	3	9	9	1	3	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	94 279 8	10 457 9	5 7 139	6 0 3
ApproachDel:	xxxxxx	xxxxxx	11.4	16.8

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.5]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=151]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1017]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.0]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=9]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1017]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	94 279 8	10 457 9	5 7 139	6 0 3

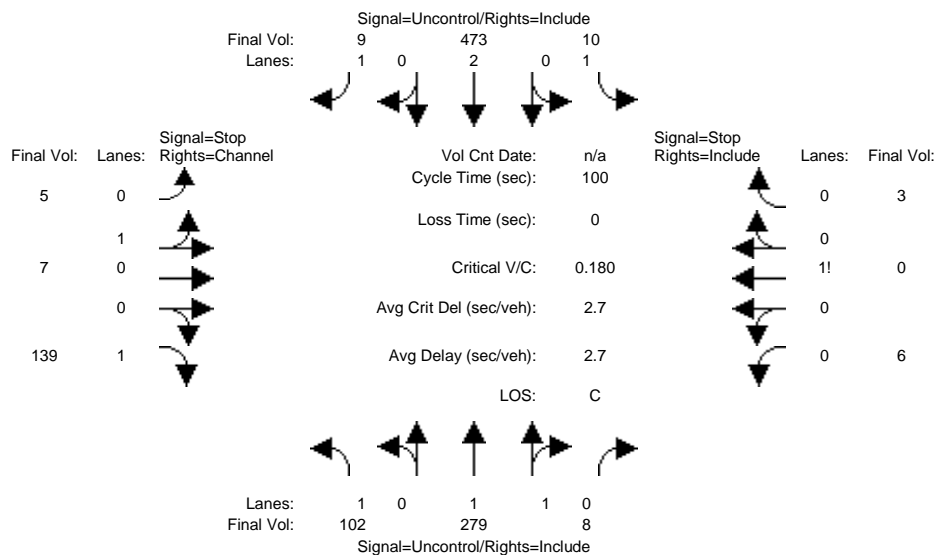
Major Street Volume: 857
 Minor Approach Volume: 151
 Minor Approach Volume Threshold: 440

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing movements and 2 rows representing critical gap and follow-up time metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 4 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 6 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	102 279 8	10 473 9	5 7 139	6 0 3
ApproachDel:	xxxxxx	xxxxxx	11.5	17.4

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.5]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=151]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1041]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.0]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=9]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1041]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	102 279 8	10 473 9	5 7 139	6 0 3

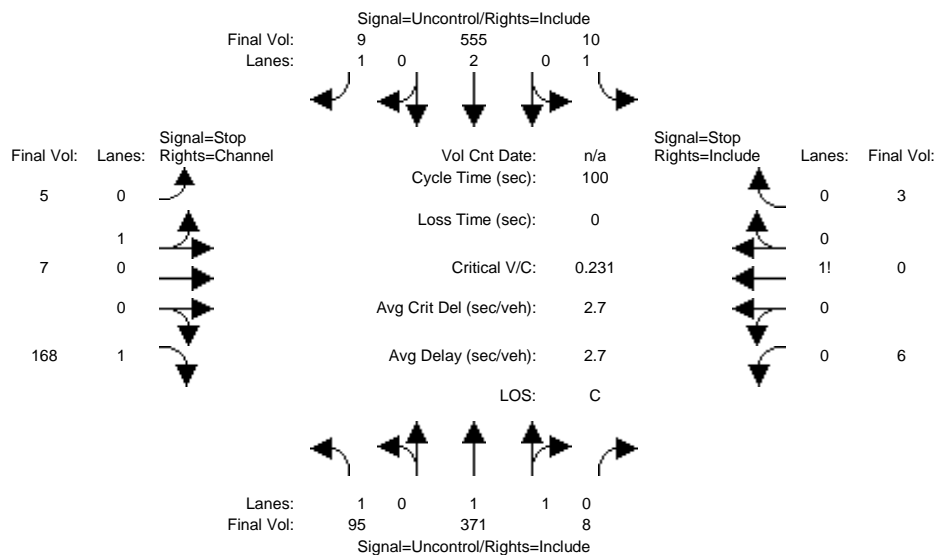
Major Street Volume: 881
 Minor Approach Volume: 151
 Minor Approach Volume Threshold: 429

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTime.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	95 371 8	10 555 9	5 7 168	6 0 3
ApproachDel:	xxxxxx	xxxxxx	12.4	21.0

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.6]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=180]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1237]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=9]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1237]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	95 371 8	10 555 9	5 7 168	6 0 3

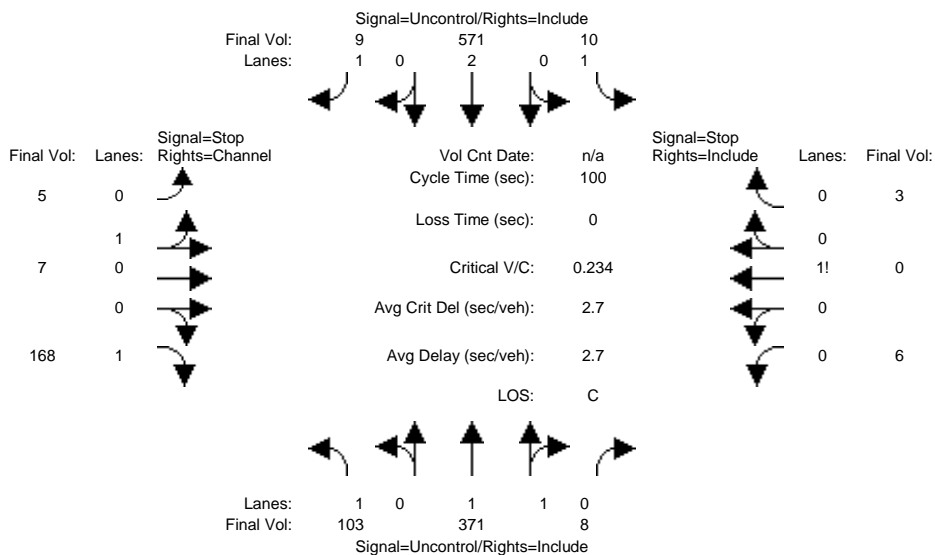
Major Street Volume: 1048
 Minor Approach Volume: 180
 Minor Approach Volume Threshold: 354

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P MD

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTime.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	103 371 8	10 571 9	5 7 168	6 0 3
ApproachDel:	xxxxxx	xxxxxx	12.6	21.8

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.6]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=180]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1261]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=9]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1261]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	103 371 8	10 571 9	5 7 168	6 0 3

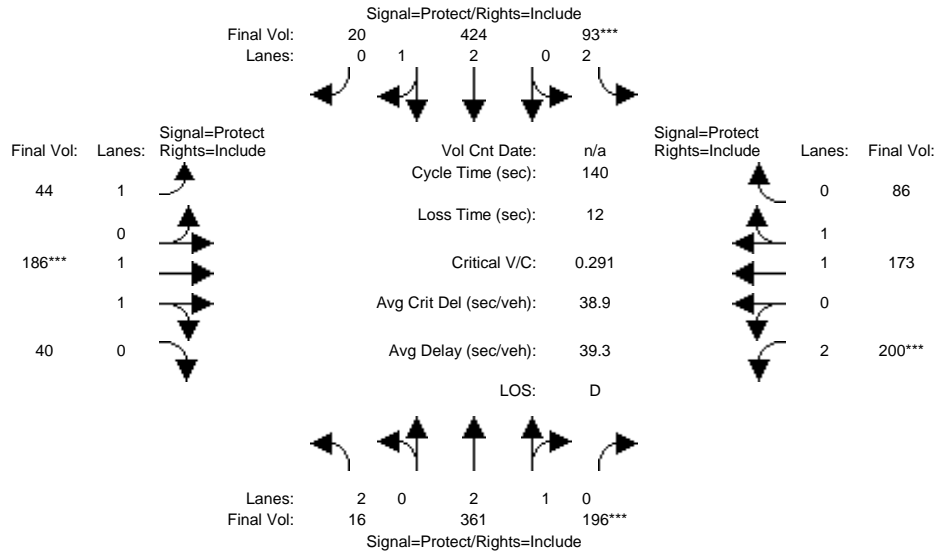
Major Street Volume: 1072
 Minor Approach Volume: 180
 Minor Approach Volume Threshold: 344

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing MD

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	16	361	196	93	424	20	44	186	40	200	173	86
Growth 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
Initial Bse:	16	361	196	93	424	20	44	186	40	200	173	86
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	361	196	93	424	20	44	186	40	200	173	86
User 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
PHF 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
PHF Volume:	16	361	196	93	424	20	44	186	40	200	173	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	361	196	93	424	20	44	186	40	200	173	86
PCE 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
MLF 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
Final Volume:	16	361	196	93	424	20	44	186	40	200	173	86

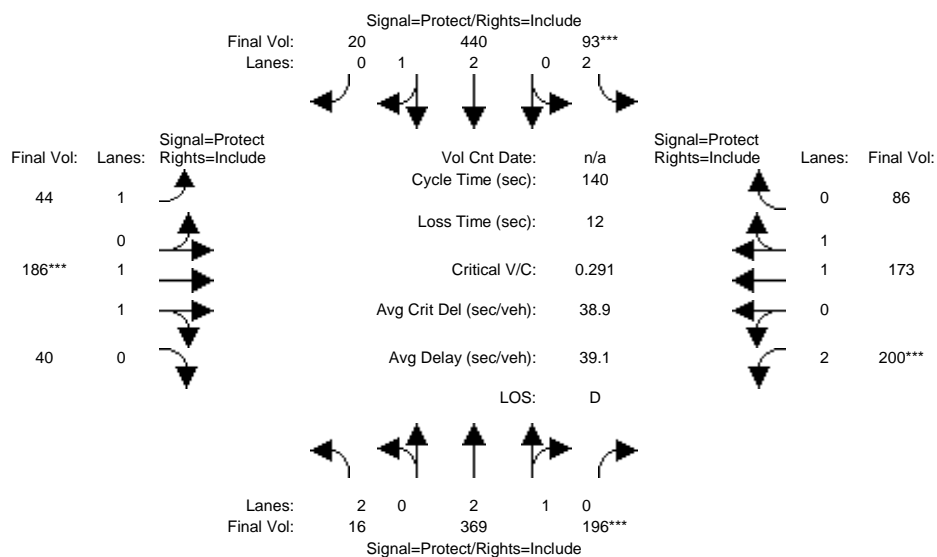
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.99	0.95
Lanes:	2.00	2.00	1.00	2.00	2.86	0.14	1.00	1.64	0.36	2.00	1.32	0.68
Final Sat.:	3150	3800	1750	3150	5347	252	1750	3045	655	3150	2471	1228

Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.11	0.03	0.08	0.08	0.03	0.06	0.06	0.06	0.07	0.07
Crit Moves:			****	****			****			****		
Green Time:	26.3	53.9	53.9	14.2	41.7	41.7	24.7	29.4	29.4	30.5	35.3	35.3
Volume/Cap:	0.03	0.25	0.29	0.29	0.27	0.27	0.14	0.29	0.29	0.29	0.28	0.28
Uniform Del:	46.4	29.3	29.8	58.2	37.4	37.4	48.7	46.5	46.5	45.7	42.1	42.1
IncrcmntDel:	0.0	0.1	0.1	0.5	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	46.4	29.3	29.9	58.7	37.5	37.5	48.9	46.8	46.8	45.9	42.3	42.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.4	29.3	29.9	58.7	37.5	37.5	48.9	46.8	46.8	45.9	42.3	42.3
LOS by Move:	D	C	C	E+	D+	D+	D	D	D	D	D	D
HCM2kAvgQ:	0	5	6	2	5	5	2	4	4	4	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	16	361	196	93	424	20	44	186	40	200	173	86
Growth 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
Initial Bse:	16	361	196	93	424	20	44	186	40	200	173	86
Added Vol:	0	8	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	369	196	93	440	20	44	186	40	200	173	86
User 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
PHF 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
PHF Volume:	16	369	196	93	440	20	44	186	40	200	173	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	369	196	93	440	20	44	186	40	200	173	86
PCE 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
MLF 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
Final Volume:	16	369	196	93	440	20	44	186	40	200	173	86

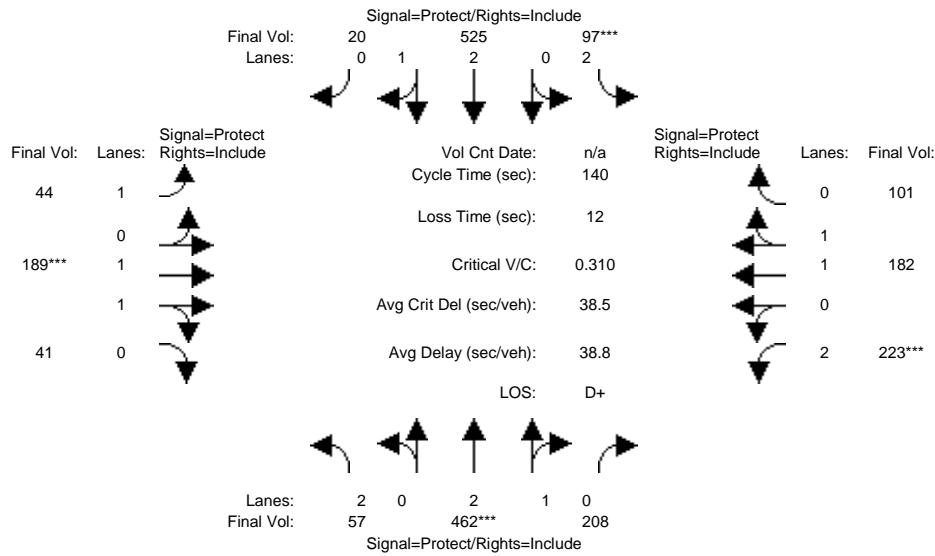
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.99	0.95
Lanes:	2.00	2.00	1.00	2.00	2.86	0.14	1.00	1.64	0.36	2.00	1.32	0.68
Final Sat.:	3150	3800	1750	3150	5356	243	1750	3045	655	3150	2471	1228

Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.11	0.03	0.08	0.08	0.03	0.06	0.06	0.06	0.07	0.07
Crit Moves:			****	****			****			****		
Green Time:	25.8	53.9	53.9	14.2	42.3	42.3	24.7	29.4	29.4	30.5	35.3	35.3
Volume/Cap:	0.03	0.25	0.29	0.29	0.27	0.27	0.14	0.29	0.29	0.29	0.28	0.28
Uniform Del:	46.9	29.3	29.8	58.2	37.1	37.1	48.7	46.5	46.5	45.7	42.1	42.1
IncrcmntDel:	0.0	0.1	0.1	0.5	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	46.9	29.4	29.9	58.7	37.2	37.2	48.9	46.8	46.8	45.9	42.3	42.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.9	29.4	29.9	58.7	37.2	37.2	48.9	46.8	46.8	45.9	42.3	42.3
LOS by Move:	D	C	C	E+	D+	D+	D	D	D	D	D	D
HCM2kAvgQ:	0	5	6	2	5	5	2	4	4	4	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	57	462	208	97	525	20	44	189	41	223	182	101
Growth 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
Initial Bse:	57	462	208	97	525	20	44	189	41	223	182	101
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	462	208	97	525	20	44	189	41	223	182	101
User 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
PHF 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
PHF Volume:	57	462	208	97	525	20	44	189	41	223	182	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	462	208	97	525	20	44	189	41	223	182	101
PCE 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
MLF 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
Final Volume:	57	462	208	97	525	20	44	189	41	223	182	101

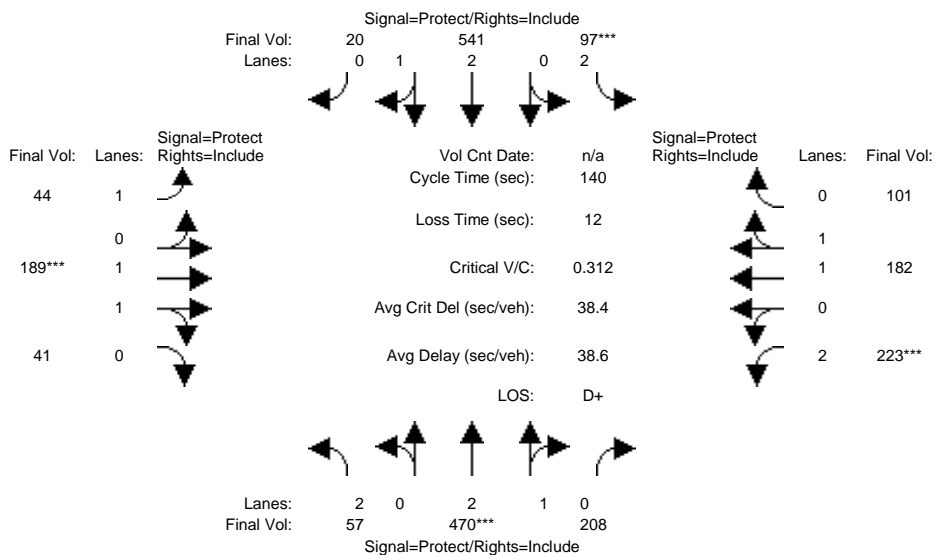
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.95	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.99	0.95
Lanes:	2.00	2.03	0.97	2.00	2.89	0.11	1.00	1.63	0.37	2.00	1.27	0.73
Final Sat.:	3150	3859	1737	3150	5394	205	1750	3040	659	3150	2379	1320

Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.12	0.03	0.10	0.10	0.03	0.06	0.06	0.07	0.08	0.08
Crit Moves:	****			****			****			****		
Green Time:	23.1	54.1	54.1	13.9	44.9	44.9	23.7	28.1	28.1	32.0	36.3	36.3
Volume/Cap:	0.11	0.31	0.31	0.31	0.30	0.30	0.15	0.31	0.31	0.31	0.30	0.30
Uniform Del:	49.7	30.0	30.0	58.6	35.8	35.8	49.5	47.7	47.7	44.9	41.6	41.6
IncrcmntDel:	0.1	0.1	0.1	0.6	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	49.8	30.1	30.1	59.2	35.9	35.9	49.8	47.9	47.9	45.1	41.8	41.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.8	30.1	30.1	59.2	35.9	35.9	49.8	47.9	47.9	45.1	41.8	41.8
LOS by Move:	D	C	C	E+	D+	D+	D	D	D	D	D	D
HCM2kAvgQ:	1	6	6	2	6	6	2	4	4	5	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P MD

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
	57	462	208	97	525	20	44	189	41	223	182	101
Base Vol:	57	462	208	97	525	20	44	189	41	223	182	101
Growth 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
Initial Bse:	57	462	208	97	525	20	44	189	41	223	182	101
Added Vol:	0	8	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	470	208	97	541	20	44	189	41	223	182	101
User 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
PHF 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
PHF Volume:	57	470	208	97	541	20	44	189	41	223	182	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	470	208	97	541	20	44	189	41	223	182	101
PCE 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
MLF 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
Final Volume:	57	470	208	97	541	20	44	189	41	223	182	101

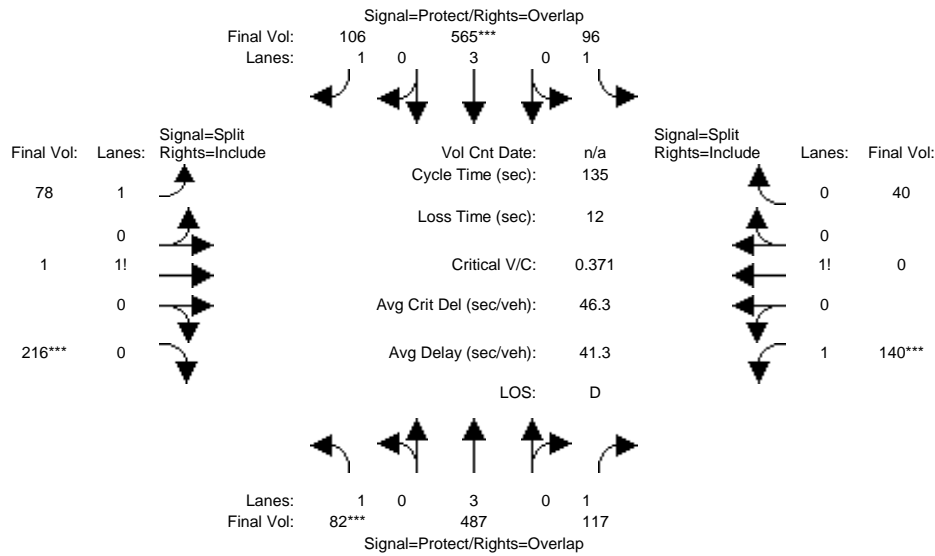
Saturation Flow Module:												
	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.95	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.99	0.95
Lanes:	2.00	2.05	0.95	2.00	2.89	0.11	1.00	1.63	0.37	2.00	1.27	0.73
Final Sat.:	3150	3880	1717	3150	5400	200	1750	3040	659	3150	2379	1320

Capacity Analysis Module:												
	0.02	0.12	0.12	0.03	0.10	0.10	0.03	0.06	0.06	0.07	0.08	0.08
Vol/Sat:	0.02	0.12	0.12	0.03	0.10	0.10	0.03	0.06	0.06	0.07	0.08	0.08
Crit Moves:	****			****			****			****		
Green Time:	22.7	54.4	54.4	13.8	45.5	45.5	23.6	27.9	27.9	31.8	36.1	36.1
Volume/Cap:	0.11	0.31	0.31	0.31	0.31	0.31	0.15	0.31	0.31	0.31	0.30	0.30
Uniform Del:	50.0	29.8	29.8	58.7	35.4	35.4	49.6	47.8	47.8	45.0	41.7	41.7
IncrcmntDel:	0.1	0.1	0.1	0.6	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	50.1	29.8	29.8	59.2	35.5	35.5	49.9	48.1	48.1	45.2	41.9	41.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.1	29.8	29.8	59.2	35.5	35.5	49.9	48.1	48.1	45.2	41.9	41.9
LOS by Move:	D	C	C	E+	D+	D+	D	D	D	D	D	D
HCM2kAvgQ:	1	7	7	2	6	6	2	4	4	5	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	82	487	117	96	565	106	78	1	216	140	0	40
Growth 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
Initial Bse:	82	487	117	96	565	106	78	1	216	140	0	40
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	487	117	96	565	106	78	1	216	140	0	40
User 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
PHF 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
PHF Volume:	82	487	117	96	565	106	78	1	216	140	0	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	487	117	96	565	106	78	1	216	140	0	40
PCE 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
MLF 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
Final Volume:	82	487	117	96	565	106	78	1	216	140	0	40

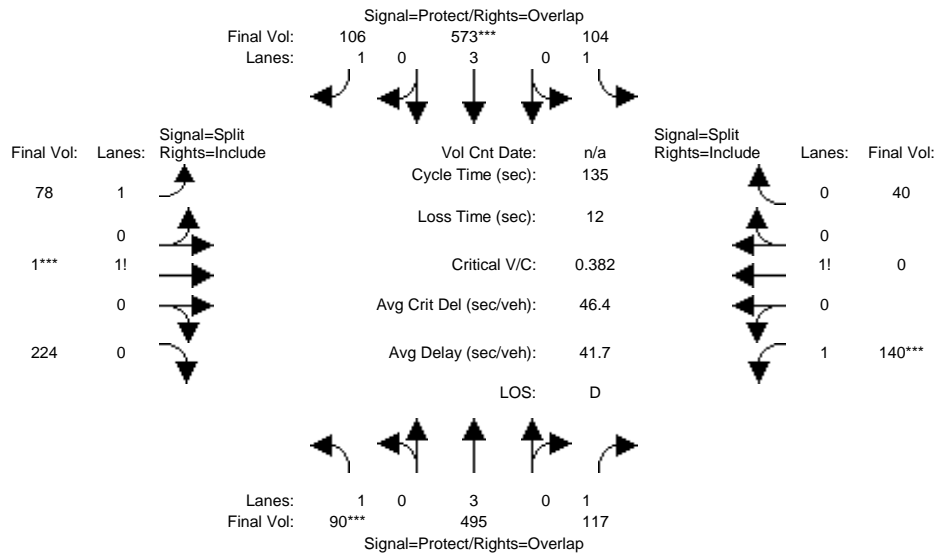
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.15	0.01	0.84	1.64	0.00	0.36
Final Sat.:	1750	5700	1750	1750	5700	1750	2023	7	1512	2864	0	636

Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.07	0.05	0.10	0.06	0.04	0.14	0.14	0.05	0.00	0.06
Crit Moves:	***			****					****	****		
Green Time:	40.0	40.8	57.9	15.0	27.0	65.9	38.9	38.9	38.9	17.1	0.0	17.1
Volume/Cap:	0.16	0.28	0.16	0.49	0.50	0.12	0.13	0.50	0.50	0.39	0.00	0.50
Uniform Del:	35.1	35.9	23.6	56.4	48.0	18.8	35.6	39.9	39.9	54.1	0.0	54.9
IncrcmntDel:	0.1	0.1	0.1	2.0	0.3	0.1	0.0	0.7	0.7	0.5	0.0	1.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	35.2	36.0	23.7	58.4	48.3	18.9	35.6	40.6	40.6	54.6	0.0	56.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.2	36.0	23.7	58.4	48.3	18.9	35.6	40.6	40.6	54.6	0.0	56.0
LOS by Move:	D+	D+	C	E+	D	B-	D+	D	D	D-	A	E+
HCM2kAvgQ:	3	5	3	4	7	2	2	9	9	4	0	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	82	487	117	96	565	106	78	1	216	140	0	40
Growth 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
Initial Bse:	82	487	117	96	565	106	78	1	216	140	0	40
Added Vol:	8	8	0	8	8	0	0	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	495	117	104	573	106	78	1	224	140	0	40
User 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
PHF 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
PHF Volume:	90	495	117	104	573	106	78	1	224	140	0	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	495	117	104	573	106	78	1	224	140	0	40
PCE 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
MLF 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
Final Volume:	90	495	117	104	573	106	78	1	224	140	0	40

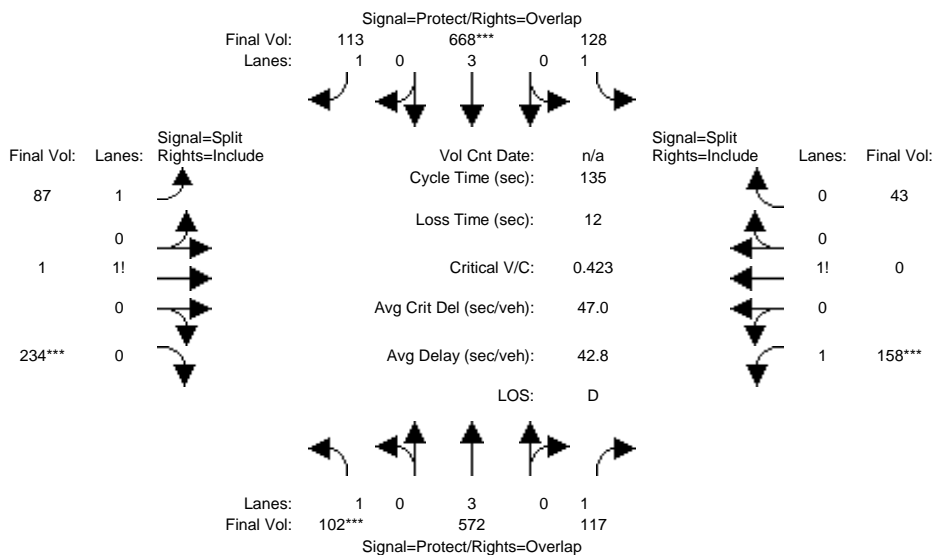
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.15	0.01	0.84	1.64	0.00	0.36
Final Sat.:	1750	5700	1750	1750	5700	1750	2015	7	1521	2864	0	636

Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.07	0.06	0.10	0.06	0.04	0.15	0.15	0.05	0.00	0.06
Crit Moves:	***				***			***		***		
Green Time:	40.0	39.7	56.5	15.0	26.9	66.2	39.3	39.3	39.3	16.8	0.0	16.8
Volume/Cap:	0.17	0.30	0.16	0.53	0.51	0.12	0.13	0.51	0.51	0.39	0.00	0.51
Uniform Del:	35.2	36.8	24.5	56.7	48.2	18.7	35.2	39.7	39.7	54.4	0.0	55.2
IncrcmntDel:	0.2	0.1	0.1	2.9	0.4	0.1	0.0	0.7	0.7	0.6	0.0	1.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	35.4	36.9	24.6	59.6	48.5	18.7	35.3	40.4	40.4	55.0	0.0	56.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.4	36.9	24.6	59.6	48.5	18.7	35.3	40.4	40.4	55.0	0.0	56.4
LOS by Move:	D+	D+	C	E+	D	B-	D+	D	D	D-	A	E+
HCM2kAvgQ:	3	5	3	4	7	2	2	10	10	4	0	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	102	572	117	128	668	113	87	1	234	158	0	43
Growth 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
Initial Bse:	102	572	117	128	668	113	87	1	234	158	0	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	572	117	128	668	113	87	1	234	158	0	43
User 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
PHF 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
PHF Volume:	102	572	117	128	668	113	87	1	234	158	0	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	572	117	128	668	113	87	1	234	158	0	43
PCE 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
MLF 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
Final Volume:	102	572	117	128	668	113	87	1	234	158	0	43

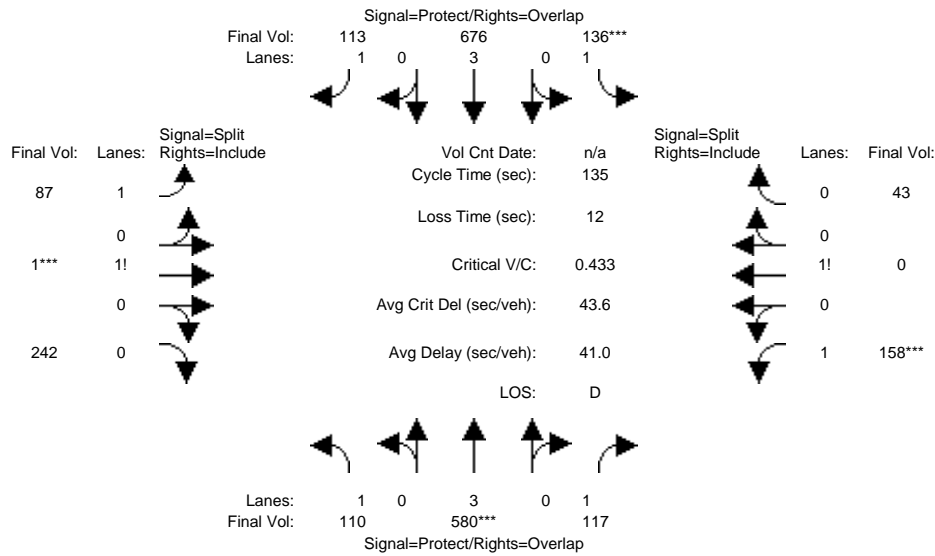
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.16	0.01	0.83	1.65	0.00	0.35
Final Sat.:	1750	5700	1750	1750	5700	1750	2030	6	1506	2883	0	617

Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.07	0.07	0.12	0.06	0.04	0.16	0.16	0.05	0.00	0.07
Crit Moves:	****				****				****	****		
Green Time:	40.0	39.6	56.5	15.0	28.4	66.1	37.7	37.7	37.7	16.9	0.0	16.9
Volume/Cap:	0.20	0.34	0.16	0.66	0.56	0.13	0.15	0.56	0.56	0.44	0.00	0.56
Uniform Del:	35.5	37.5	24.5	57.5	47.7	18.8	36.6	41.5	41.5	54.6	0.0	55.5
IncrcmntDel:	0.2	0.1	0.1	8.0	0.6	0.1	0.0	1.2	1.2	0.7	0.0	1.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	35.7	37.6	24.6	65.6	48.2	18.9	36.7	42.7	42.7	55.3	0.0	57.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.7	37.6	24.6	65.6	48.2	18.9	36.7	42.7	42.7	55.3	0.0	57.5
LOS by Move:	D+	D+	C	E	D	B-	D+	D	D	E+	A	E+
HCM2kAvgQ:	3	6	3	6	8	3	2	11	11	4	0	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P MD

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	102	572	117	128	668	113	87	1	234	158	0	43
Growth 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
Initial Bse:	102	572	117	128	668	113	87	1	234	158	0	43
Added Vol:	8	8	0	8	8	0	0	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	110	580	117	136	676	113	87	1	242	158	0	43
User 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
PHF 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
PHF Volume:	110	580	117	136	676	113	87	1	242	158	0	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	110	580	117	136	676	113	87	1	242	158	0	43
PCE 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
MLF 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
Final Volume:	110	580	117	136	676	113	87	1	242	158	0	43

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.15	0.01	0.84	1.65	0.00	0.35
Final Sat.:	1750	5700	1750	1750	5700	1750	2022	6	1514	2883	0	617

Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.07	0.08	0.12	0.06	0.04	0.16	0.16	0.05	0.00	0.07
Crit Moves:	****			****			****			****		
Green Time:	40.0	33.2	55.9	15.0	31.5	83.6	52.1	52.1	52.1	22.7	0.0	22.7
Volume/Cap:	0.21	0.41	0.16	0.70	0.51	0.10	0.11	0.41	0.41	0.33	0.00	0.41
Uniform Del:	35.7	42.8	24.8	57.8	45.0	10.5	26.6	30.3	30.3	49.4	0.0	50.2
IncrcmntDel:	0.2	0.2	0.1	10.8	0.3	0.0	0.0	0.4	0.4	0.3	0.0	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	35.9	43.0	24.9	68.6	45.4	10.5	26.6	30.6	30.6	49.7	0.0	50.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.9	43.0	24.9	68.6	45.4	10.5	26.6	30.6	30.6	49.7	0.0	50.8
LOS by Move:	D+	D	C	E	D	B+	C	C	C	D	A	D
HCM2kAvgQ:	4	7	3	6	8	2	2	9	9	4	0	5

Note: Queue reported is the number of cars per lane.

HCM Signalized Intersection Capacity Analysis
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

12/19/2017






























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations				↙	↖	↗	↘	↑↑↑			↑↑↑	↘	
Traffic Volume (vph)	0	0	0	541	31	39	86	524	0	0	1610	558	
Future Volume (vph)	0	0	0	541	31	39	86	524	0	0	1610	558	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3			5.3		
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86			0.86		
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00		
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00		
Frt				1.00	1.00	0.85	1.00	1.00			0.96		
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00		
Satd. Flow (prot)				1681	1694	1583	1770	6408			6160		
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00		
Satd. Flow (perm)				1681	1694	1583	1770	6408			6160		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	541	31	39	86	524	0	0	1610	558	
RTOR Reduction (vph)	0	0	0	0	0	31	0	0	0	0	44	0	
Lane Group Flow (vph)	0	0	0	287	285	8	86	524	0	0	2124	0	
Confl. Peds. (#/hr)									9				
Turn Type				Split	NA	Perm	Prot	NA			NA		
Protected Phases				8	8		5	2			6		
Permitted Phases						8							
Actuated Green, G (s)				27.1	27.1	27.1	17.7	102.7			79.7		
Effective Green, g (s)				27.1	27.1	27.1	17.7	102.7			79.7		
Actuated g/C Ratio				0.19	0.19	0.19	0.13	0.73			0.57		
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3			5.3		
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0		
Lane Grp Cap (vph)				325	327	306	223	4700			3506		
v/s Ratio Prot				c0.17	0.17		c0.05	0.08			c0.34		
v/s Ratio Perm						0.00							
v/c Ratio				0.88	0.87	0.02	0.39	0.11			0.61		
Uniform Delay, d1				54.9	54.8	45.7	56.2	5.4			19.8		
Progression Factor				1.00	1.00	1.00	1.20	0.53			0.30		
Incremental Delay, d2				27.5	25.8	0.1	4.9	0.0			0.5		
Delay (s)				82.4	80.6	45.9	72.4	2.9			6.5		
Level of Service				F	F	D	E	A			A		
Approach Delay (s)		0.0			79.2			12.7			6.5		
Approach LOS		A			E			B			A		
Intersection Summary													
HCM 2000 Control Delay			20.7		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.63										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)					15.5			
Intersection Capacity Utilization			105.7%		ICU Level of Service					G			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























12/19/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 						   		 	   		
Traffic Volume (vph)	130	0	135	0	0	0	0	480	641	347	1804	0	
Future Volume (vph)	130	0	135	0	0	0	0	480	641	347	1804	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.86						1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1457						7544	1560	1770	5085		
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1457						7544	1560	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	130	0	135	0	0	0	0	480	641	347	1804	0	
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	364	0	0	0	
Lane Group Flow (vph)	117	89	0	0	0	0	0	480	277	347	1804	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Effective Green, g (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Actuated g/C Ratio	0.22	0.22						0.39	0.39	0.26	0.70		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	692	313						2947	609	463	3548		
v/s Ratio Prot	0.04	c0.06						0.06		c0.20	c0.35		
v/s Ratio Perm									0.18				
v/c Ratio	0.17	0.28						0.16	0.46	0.75	0.51		
Uniform Delay, d1	44.8	45.9						27.8	31.6	47.4	9.9		
Progression Factor	1.00	1.00						1.31	8.90	0.69	0.86		
Incremental Delay, d2	0.5	2.3						0.0	0.5	8.6	0.4		
Delay (s)	45.3	48.2						36.5	281.8	41.5	8.9		
Level of Service	D	D						D	F	D	A		
Approach Delay (s)		46.9			0.0			176.8			14.2		
Approach LOS		D			A			F			B		
Intersection Summary													
HCM 2000 Control Delay			68.2									HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			0.54										
Actuated Cycle Length (s)			140.0									Sum of lost time (s)	18.5
Intersection Capacity Utilization			105.7%									ICU Level of Service	G
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr




















12/19/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	70	39	129	125	4	71	59	980	323	190	1695	54	
Future Volume (vph)	70	39	129	125	4	71	59	980	323	190	1695	54	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91		
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	0.99		1.00	1.00		
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00		1.00	1.00		
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		1.00	1.00		
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1555	1760	1863	1583	1770	7205		1770	5062		
Flt Permitted	0.76	1.00	1.00	0.73	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1407	1863	1555	1355	1863	1583	1770	7205		1770	5062		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	70	39	129	125	4	71	59	980	323	190	1695	54	
RTOR Reduction (vph)	0	0	91	0	0	50	0	61	0	0	3	0	
Lane Group Flow (vph)	70	39	38	125	4	21	59	1242	0	190	1746	0	
Confl. Peds. (#/hr)			5	5					5				
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA		
Protected Phases		4			8		5	2		1		6	
Permitted Phases	4		4	8		8							
Actuated Green, G (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	35.3		50.4	66.7		
Effective Green, g (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	35.3		50.4	66.7		
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.29	0.14	0.25		0.36	0.48		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	412	545	455	396	545	463	240	1816		637	2411		
v/s Ratio Prot		0.02			0.00		0.03	c0.17		0.11	c0.35		
v/s Ratio Perm	0.05		0.02	c0.09		0.01							
v/c Ratio	0.17	0.07	0.08	0.32	0.01	0.04	0.25	0.68		0.30	0.72		
Uniform Delay, d1	36.8	35.8	35.9	38.6	35.1	35.5	54.1	47.3		32.1	29.3		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.02	1.25		0.77	0.78		
Incremental Delay, d2	0.9	0.3	0.4	2.1	0.0	0.2	2.4	1.1		0.2	1.7		
Delay (s)	37.7	36.0	36.2	40.7	35.1	35.7	57.3	60.2		24.9	24.6		
Level of Service	D	D	D	D	D	D	E	E		C	C		
Approach Delay (s)		36.6			38.8			60.1			24.6		
Approach LOS		D			D			E			C		
Intersection Summary													
HCM 2000 Control Delay			39.1		HCM 2000 Level of Service						D		
HCM 2000 Volume to Capacity ratio			0.59										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)						13.3		
Intersection Capacity Utilization			82.0%		ICU Level of Service						D		
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis




























1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

04/16/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	0	543	31	39	86	524	0	0	1610	558	
Future Volume (vph)	0	0	0	543	31	39	86	524	0	0	1610	558	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3				5.3	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86				0.86	
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00				1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00				1.00	
Frt				1.00	1.00	0.85	1.00	1.00				0.96	
Flt Protected				0.95	0.96	1.00	0.95	1.00				1.00	
Satd. Flow (prot)				1681	1694	1583	1770	6408				6160	
Flt Permitted				0.95	0.96	1.00	0.95	1.00				1.00	
Satd. Flow (perm)				1681	1694	1583	1770	6408				6160	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	0	543	31	39	86	524	0	0	1610	558	
RTOR Reduction (vph)	0	0	0	0	0	31	0	0	0	0	44	0	
Lane Group Flow (vph)	0	0	0	288	286	8	86	524	0	0	2124	0	
Confl. Peds. (#/hr)									9				
Turn Type				Split	NA	Perm	Prot	NA				NA	
Protected Phases				8	8		5	2				6	
Permitted Phases						8							
Actuated Green, G (s)				27.1	27.1	27.1	17.7	102.7				79.7	
Effective Green, g (s)				27.1	27.1	27.1	17.7	102.7				79.7	
Actuated g/C Ratio				0.19	0.19	0.19	0.13	0.73				0.57	
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3				5.3	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				3.0	
Lane Grp Cap (vph)				325	327	306	223	4700				3506	
v/s Ratio Prot				c0.17	0.17		c0.05	0.08				c0.34	
v/s Ratio Perm						0.00							
v/c Ratio				0.89	0.87	0.02	0.39	0.11				0.61	
Uniform Delay, d1				54.9	54.8	45.7	56.2	5.4				19.8	
Progression Factor				1.00	1.00	1.00	1.20	0.53				0.30	
Incremental Delay, d2				27.9	26.2	0.1	4.9	0.0				0.5	
Delay (s)				82.9	81.0	45.9	72.4	2.9				6.5	
Level of Service				F	F	D	E	A				A	
Approach Delay (s)		0.0			79.6			12.7				6.5	
Approach LOS		A			E			B				A	
Intersection Summary													
HCM 2000 Control Delay			20.8		HCM 2000 Level of Service						C		
HCM 2000 Volume to Capacity ratio			0.63										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)						15.5		
Intersection Capacity Utilization			106.0%		ICU Level of Service						G		
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp



























04/16/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 						   		 	   		
Traffic Volume (vph)	130	0	135	0	0	0	0	480	645	347	1806	0	
Future Volume (vph)	130	0	135	0	0	0	0	480	645	347	1806	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.86						1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1457						7544	1560	1770	5085		
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1457						7544	1560	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	130	0	135	0	0	0	0	480	645	347	1806	0	
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	364	0	0	0	
Lane Group Flow (vph)	117	89	0	0	0	0	0	480	281	347	1806	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Effective Green, g (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Actuated g/C Ratio	0.22	0.22						0.39	0.39	0.26	0.70		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	692	313						2947	609	463	3548		
v/s Ratio Prot	0.04	c0.06						0.06		c0.20	c0.36		
v/s Ratio Perm									0.18				
v/c Ratio	0.17	0.28						0.16	0.46	0.75	0.51		
Uniform Delay, d1	44.8	45.9						27.8	31.7	47.4	9.9		
Progression Factor	1.00	1.00						1.31	8.67	0.69	0.87		
Incremental Delay, d2	0.5	2.3						0.0	0.5	8.6	0.4		
Delay (s)	45.3	48.2						36.5	275.4	41.5	9.0		
Level of Service	D	D						D	F	D	A		
Approach Delay (s)		46.9			0.0			173.4			14.2		
Approach LOS		D			A			F			B		
Intersection Summary													
HCM 2000 Control Delay			67.2									HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			0.54										
Actuated Cycle Length (s)			140.0									Sum of lost time (s)	18.5
Intersection Capacity Utilization			106.0%									ICU Level of Service	G
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

04/16/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	70	39	129	127	4	71	59	984	324	190	1697	54	
Future Volume (vph)	70	39	129	127	4	71	59	984	324	190	1697	54	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91		
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	0.99		1.00	1.00		
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00		1.00	1.00		
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		1.00	1.00		
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1555	1760	1863	1583	1770	7205		1770	5062		
Flt Permitted	0.76	1.00	1.00	0.73	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1407	1863	1555	1355	1863	1583	1770	7205		1770	5062		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	70	39	129	127	4	71	59	984	324	190	1697	54	
RTOR Reduction (vph)	0	0	91	0	0	50	0	61	0	0	3	0	
Lane Group Flow (vph)	70	39	38	127	4	21	59	1247	0	190	1748	0	
Confl. Peds. (#/hr)			5	5					5				
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA		
Protected Phases		4			8		5	2		1		6	
Permitted Phases	4		4	8		8							
Actuated Green, G (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	35.4		50.3	66.7		
Effective Green, g (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	35.4		50.3	66.7		
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.29	0.14	0.25		0.36	0.48		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	412	545	455	396	545	463	240	1821		635	2411		
v/s Ratio Prot		0.02			0.00		0.03	c0.17		0.11	c0.35		
v/s Ratio Perm	0.05		0.02	c0.09		0.01							
v/c Ratio	0.17	0.07	0.08	0.32	0.01	0.04	0.25	0.69		0.30	0.73		
Uniform Delay, d1	36.8	35.8	35.9	38.6	35.1	35.5	54.1	47.3		32.2	29.3		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.02	1.25		0.77	0.78		
Incremental Delay, d2	0.9	0.3	0.4	2.1	0.0	0.2	2.4	1.1		0.2	1.7		
Delay (s)	37.7	36.0	36.2	40.8	35.1	35.7	57.3	60.1		25.0	24.6		
Level of Service	D	D	D	D	D	D	E	E		C	C		
Approach Delay (s)		36.6			38.9			60.0			24.7		
Approach LOS		D			D			E			C		
Intersection Summary													
HCM 2000 Control Delay			39.1									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.60										
Actuated Cycle Length (s)			140.0									Sum of lost time (s)	13.3
Intersection Capacity Utilization			82.1%									ICU Level of Service	E
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

12/19/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖	↖	↖	↑↑↑			↑↑↑	↗
Traffic Volume (vph)	0	0	0	593	31	114	97	966	0	0	2696	1090
Future Volume (vph)	0	0	0	593	31	114	97	966	0	0	2696	1090
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3				5.3
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86				0.86
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00				1.00
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00				1.00
Frt				1.00	1.00	0.85	1.00	1.00				0.96
Flt Protected				0.95	0.96	1.00	0.95	1.00				1.00
Satd. Flow (prot)				1681	1693	1583	1770	6408				6131
Flt Permitted				0.95	0.96	1.00	0.95	1.00				1.00
Satd. Flow (perm)				1681	1693	1583	1770	6408				6131
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	593	31	114	97	966	0	0	2696	1090
RTOR Reduction (vph)	0	0	0	0	0	92	0	0	0	0	52	0
Lane Group Flow (vph)	0	0	0	308	316	22	97	966	0	0	3734	0
Confl. Peds. (#/hr)									9			
Turn Type				Split	NA	Perm	Prot	NA				NA
Protected Phases				8	8		5	2				6
Permitted Phases						8						
Actuated Green, G (s)				27.1	27.1	27.1	17.7	102.7				79.7
Effective Green, g (s)				27.1	27.1	27.1	17.7	102.7				79.7
Actuated g/C Ratio				0.19	0.19	0.19	0.13	0.73				0.57
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3				5.3
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				3.0
Lane Grp Cap (vph)				325	327	306	223	4700				3490
v/s Ratio Prot				0.18	c0.19		c0.05	0.15				c0.61
v/s Ratio Perm						0.01						
v/c Ratio				0.95	0.97	0.07	0.43	0.21				1.12dr
Uniform Delay, d1				55.8	56.0	46.2	56.5	5.9				30.1
Progression Factor				1.00	1.00	1.00	1.17	0.53				0.59
Incremental Delay, d2				38.2	41.9	0.5	6.0	0.1				37.7
Delay (s)				94.0	97.9	46.6	72.2	3.2				55.6
Level of Service				F	F	D	E	A				E
Approach Delay (s)		0.0			88.4			9.5				55.6
Approach LOS		A			F			A				E

Intersection Summary

HCM 2000 Control Delay	51.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	148.6%	ICU Level of Service	H
Analysis Period (min)	15		




























dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























12/19/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 						   		 	   		
Traffic Volume (vph)	331	0	145	0	0	0	0	732	850	590	2698	0	
Future Volume (vph)	331	0	145	0	0	0	0	732	850	590	2698	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.88						1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.99						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1474						7544	1560	1770	5085		
Flt Permitted	0.95	0.99						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1474						7544	1560	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	331	0	145	0	0	0	0	732	850	590	2698	0	
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	317	0	0	0	
Lane Group Flow (vph)	298	119	0	0	0	0	0	732	533	590	2698	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Effective Green, g (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Actuated g/C Ratio	0.22	0.22						0.39	0.39	0.26	0.70		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	692	316						2947	609	463	3548		
v/s Ratio Prot	c0.09	0.08						0.10		c0.33	0.53		
v/s Ratio Perm									c0.34				
v/c Ratio	0.43	0.38						0.25	0.87	1.27	0.76		
Uniform Delay, d1	47.5	46.9						28.8	39.5	51.6	13.6		
Progression Factor	1.00	1.00						1.26	2.98	1.00	0.58		
Incremental Delay, d2	2.0	3.4						0.0	12.0	125.0	0.1		
Delay (s)	49.5	50.3						36.3	129.7	176.9	8.1		
Level of Service	D	D						D	F	F	A		
Approach Delay (s)		49.8			0.0			86.5			38.4		
Approach LOS		D			A			F			D		
Intersection Summary													
HCM 2000 Control Delay			53.6									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.88										
Actuated Cycle Length (s)			140.0									Sum of lost time (s)	18.5
Intersection Capacity Utilization			148.6%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

12/19/2017

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	70	39	129	134	4	73	59	1439	331	212	2577	54	
Future Volume (vph)	70	39	129	134	4	73	59	1439	331	212	2577	54	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91		
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	0.99		1.00	1.00		
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00		1.00	1.00		
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00		
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1863	1555	1760	1863	1583	1770	7288		1770	5070		
Flt Permitted	0.76	1.00	1.00	0.73	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1407	1863	1555	1355	1863	1583	1770	7288		1770	5070		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	70	39	129	134	4	73	59	1439	331	212	2577	54	
RTOR Reduction (vph)	0	0	91	0	0	52	0	37	0	0	2	0	
Lane Group Flow (vph)	70	39	38	134	4	21	59	1733	0	212	2629	0	
Confl. Peds. (#/hr)			5	5					5				
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA		
Protected Phases		4			8		5	2		1	6		
Permitted Phases	4		4	8		8							
Actuated Green, G (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	48.9		36.8	66.7		
Effective Green, g (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	48.9		36.8	66.7		
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.29	0.14	0.35		0.26	0.48		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	412	545	455	396	545	463	240	2545		465	2415		
v/s Ratio Prot		0.02			0.00		0.03	c0.24		0.12	c0.52		
v/s Ratio Perm	0.05		0.02	c0.10		0.01							
v/c Ratio	0.17	0.07	0.08	0.34	0.01	0.05	0.25	0.68		0.46	1.09		
Uniform Delay, d1	36.8	35.8	35.9	38.9	35.1	35.5	54.1	38.9		43.2	36.6		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.13		0.66	0.59		
Incremental Delay, d2	0.9	0.3	0.4	2.3	0.0	0.2	2.3	0.7		0.5	45.2		
Delay (s)	37.7	36.0	36.2	41.2	35.1	35.7	51.2	44.5		28.9	67.0		
Level of Service	D	D	D	D	D	D	D	D		C	E		
Approach Delay (s)		36.6			39.1			44.8			64.1		
Approach LOS		D			D			D			E		
Intersection Summary													
HCM 2000 Control Delay			54.9									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.79										
Actuated Cycle Length (s)			140.0									Sum of lost time (s)	13.3
Intersection Capacity Utilization			99.5%									ICU Level of Service	F
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Mathilda Ave & SR 237 WB On-Ramp/SR 237 WB Off-Ramp

04/16/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖	↖	↖	↑↑↑			↑↑↑	↗
Traffic Volume (vph)	0	0	0	595	31	114	97	966	0	0	2696	1090
Future Volume (vph)	0	0	0	595	31	114	97	966	0	0	2696	1090
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.9	4.9	4.9	5.3	5.3			5.3	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.86			0.86	
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	
Frt				1.00	1.00	0.85	1.00	1.00			0.96	
Flt Protected				0.95	0.96	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1681	1693	1583	1770	6408			6131	
Flt Permitted				0.95	0.96	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1681	1693	1583	1770	6408			6131	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	595	31	114	97	966	0	0	2696	1090
RTOR Reduction (vph)	0	0	0	0	0	92	0	0	0	0	52	0
Lane Group Flow (vph)	0	0	0	309	317	22	97	966	0	0	3734	0
Confl. Peds. (#/hr)									9			
Turn Type				Split	NA	Perm	Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases						8						
Actuated Green, G (s)				27.1	27.1	27.1	17.7	102.7			79.7	
Effective Green, g (s)				27.1	27.1	27.1	17.7	102.7			79.7	
Actuated g/C Ratio				0.19	0.19	0.19	0.13	0.73			0.57	
Clearance Time (s)				4.9	4.9	4.9	5.3	5.3			5.3	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				325	327	306	223	4700			3490	
v/s Ratio Prot				0.18	c0.19		c0.05	0.15			c0.61	
v/s Ratio Perm						0.01						
v/c Ratio				0.95	0.97	0.07	0.43	0.21			1.12dr	
Uniform Delay, d1				55.8	56.0	46.2	56.5	5.9			30.1	
Progression Factor				1.00	1.00	1.00	1.17	0.53			0.59	
Incremental Delay, d2				38.8	42.6	0.5	6.0	0.1			37.7	
Delay (s)				94.6	98.6	46.6	72.2	3.2			55.6	
Level of Service				F	F	D	E	A			E	
Approach Delay (s)		0.0			89.0			9.5			55.6	
Approach LOS		A			F			A			E	

Intersection Summary




























HCM 2000 Control Delay	51.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	148.9%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 2: Mathilda Ave & SR 237 Off/On Ramp/SR 237 EB On-Ramp

























04/16/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	 						   		 	   		
Traffic Volume (vph)	331	0	145	0	0	0	0	732	854	590	2700	0	
Future Volume (vph)	331	0	145	0	0	0	0	732	854	590	2700	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Lane Util. Factor	0.91	0.91						0.81	1.00	1.00	0.91		
Frbp, ped/bikes	1.00	1.00						1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00						1.00	1.00	1.00	1.00		
Frt	1.00	0.88						1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.99						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	3221	1474						7544	1560	1770	5085		
Flt Permitted	0.95	0.99						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	3221	1474						7544	1560	1770	5085		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	331	0	145	0	0	0	0	732	854	590	2700	0	
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	317	0	0	0	
Lane Group Flow (vph)	298	119	0	0	0	0	0	732	537	590	2700	0	
Confl. Bikes (#/hr)									5				
Turn Type	Split	NA						NA	Perm	Prot	NA		
Protected Phases	4	4						2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Effective Green, g (s)	30.1	30.1						54.7	54.7	36.7	97.7		
Actuated g/C Ratio	0.22	0.22						0.39	0.39	0.26	0.70		
Clearance Time (s)	5.9	5.9						6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	692	316						2947	609	463	3548		
v/s Ratio Prot	c0.09	0.08						0.10		c0.33	0.53		
v/s Ratio Perm									c0.34				
v/c Ratio	0.43	0.38						0.25	0.88	1.27	0.76		
Uniform Delay, d1	47.5	46.9						28.8	39.6	51.6	13.6		
Progression Factor	1.00	1.00						1.26	2.97	1.00	0.59		
Incremental Delay, d2	2.0	3.4						0.0	12.8	125.0	0.1		
Delay (s)	49.5	50.3						36.2	130.3	176.9	8.1		
Level of Service	D	D						D	F	F	A		
Approach Delay (s)		49.8			0.0			86.9			38.4		
Approach LOS		D			A			F			D		
Intersection Summary													
HCM 2000 Control Delay			53.8									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.89										
Actuated Cycle Length (s)			140.0									Sum of lost time (s)	18.5
Intersection Capacity Utilization			148.9%									ICU Level of Service	H
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Mathilda Ave & Ross Dr

04/16/2018

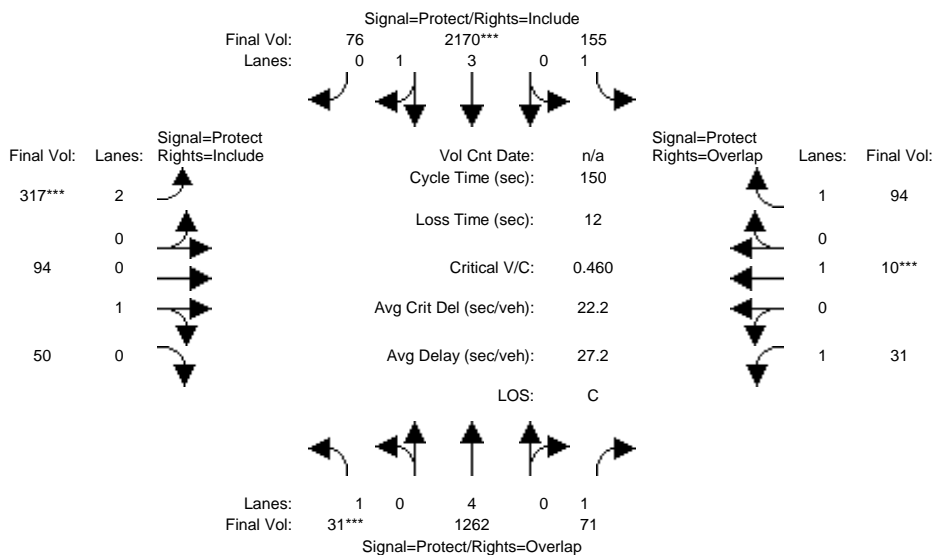
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	39	129	136	4	73	59	1443	332	212	2579	54
Future Volume (vph)	70	39	129	136	4	73	59	1443	332	212	2579	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81		1.00	0.91	
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1555	1760	1863	1583	1770	7288		1770	5070	
Flt Permitted	0.76	1.00	1.00	0.73	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1407	1863	1555	1355	1863	1583	1770	7288		1770	5070	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	39	129	136	4	73	59	1443	332	212	2579	54
RTOR Reduction (vph)	0	0	91	0	0	52	0	37	0	0	2	0
Lane Group Flow (vph)	70	39	38	136	4	21	59	1738	0	212	2631	0
Confl. Peds. (#/hr)			5	5					5			
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	49.0		36.7	66.7	
Effective Green, g (s)	41.0	41.0	41.0	41.0	41.0	41.0	19.0	49.0		36.7	66.7	
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.29	0.14	0.35		0.26	0.48	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.3		4.0	5.3	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	412	545	455	396	545	463	240	2550		463	2415	
v/s Ratio Prot		0.02			0.00		0.03	c0.24		0.12	c0.52	
v/s Ratio Perm	0.05		0.02	c0.10		0.01						
v/c Ratio	0.17	0.07	0.08	0.34	0.01	0.05	0.25	0.68		0.46	1.09	
Uniform Delay, d1	36.8	35.8	35.9	38.9	35.1	35.5	54.1	38.8		43.3	36.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.13		0.66	0.59	
Incremental Delay, d2	0.9	0.3	0.4	2.4	0.0	0.2	2.3	0.7		0.5	45.5	
Delay (s)	37.7	36.0	36.2	41.3	35.1	35.7	51.2	44.4		28.9	67.3	
Level of Service	D	D	D	D	D	D	D	D		C	E	
Approach Delay (s)		36.6			39.2			44.7			64.4	
Approach LOS		D			D			D			E	
Intersection Summary												
HCM 2000 Control Delay			55.0									E
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			140.0							13.3		
Intersection Capacity Utilization			99.6%									F
Analysis Period (min)			15									
c Critical Lane Group												

Summary Scenario Comparison Report (With Average Critical Delay)
Future Volume Alternative

Intersection	Existing PM				Existing+P PM				Bkgd PM					Bkgd+P PM				
	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)	LOS	Avg Del (sec)	Crit V/C	Crit Change	Avg Crit Del (sec)	Avg Crit Del Change	LOS	Avg Del (sec)	Crit V/C	Avg Crit Del (sec)
#4 Mathilda Ave & Almanor Ave	C	27.2	0.460	22.2	C	27.3	0.462	22.2	D	41.1	0.774	+ 0.311	40.8	+ 18.6	D	41.2	0.776	40.9
#5 Mathilda Ave & San Aleso Ave	B	12.9	0.387	9.2	B	13.5	0.389	9.2	B	16.3	0.502	+ 0.113	11.2	+ 2.1	B	17.9	0.542	26.2
#6 Mathilda Ave & Maude Ave	D	44.9	0.667	43.4	D	45.0	0.678	49.7	E	63.1	1.006	+ 0.328	75.4	+ 25.7	E	63.5	1.009	75.9
#7 Mathilda Ave & Indio Ave	C	23.7	0.729	24.2	C	23.7	0.732	24.2	C	26.2	0.914	+ 0.182	29.4	+ 5.2	C	26.4	0.917	29.6
#8 Mathilda Ave & California Ave	C	28.5	0.755	27.7	C	28.4	0.756	27.7	D+	35.7	0.928	+ 0.172	38.3	+ 10.6	D+	35.7	0.930	38.5
#9 San Aleso Ave & Ahwanee Ave	B	2.7	0.127	2.7	B	3.9	0.156	3.9	B	2.9	0.139	- 0.017	2.9	- 1.0	B	4.1	0.169	4.1
#10 Borregas Ave & Ahwanee Ave	A	9.2	0.394	9.2	A	9.4	0.422	9.4	A	9.4	0.416	- 0.005	9.4	- 0.0	A	9.6	0.444	9.6
#11 Borregas Ave & Duane Ave	B	2.7	0.087	2.7	B	2.7	0.087	2.7	B	2.6	0.090	+ 0.002	2.6	- 0.1	B	2.6	0.091	2.6
#12 Borregas Ave/Sunnyvale Ave & Maude Ave	C	29.3	0.594	29.8	C	29.4	0.597	30.0	C	29.8	0.642	+ 0.045	30.5	+ 0.5	C	29.9	0.645	30.7
#13 Morse Ave & Ahwanee Ave	B	3.8	0.118	3.8	B	3.7	0.120	3.7	B	3.7	0.119	- 0.001	3.7	- 0.0	B	3.6	0.121	3.6
#14 Morse Ave & Duane Ave	A	8.6	0.220	8.6	A	8.6	0.222	8.6	A	8.8	0.236	+ 0.014	8.8	+ 0.2	A	8.8	0.238	8.8
#15 Morse Ave & Maude Ave	C	2.8	0.109	2.8	C	2.8	0.112	2.8	C	2.9	0.129	+ 0.017	2.9	+ 0.1	C	2.9	0.132	2.9
#16 Fair Oaks Ave & Weddell Ave	B	16.5	0.434	19.5	B	16.5	0.435	19.6	B-	18.2	0.604	+ 0.169	23.1	+ 3.6	B-	18.2	0.605	23.2
#17 Fair Oaks Ave & US 101 NB	C	27.4	0.817	36.0	C	27.4	0.818	36.0	D	46.3	1.056	+ 0.238	77.6	+ 41.6	D	46.4	1.056	77.9
#18 Fair Oaks Ave & Ahwanee Ave	B	13.9	0.622	11.7	B	14.4	0.627	12.1	B	14.8	0.711	+ 0.084	13.4	+ 1.3	B	15.2	0.715	13.8
#19 Fair Oaks Ave & Duane Ave	C	31.4	0.622	27.6	C	31.6	0.627	27.8	C-	34.5	0.768	+ 0.140	45.0	+ 17.2	C-	34.7	0.770	45.2
#20 Fair Oaks Ave & Wolfe Rd	B	14.1	0.479	23.3	B	14.1	0.481	23.3	B	15.6	0.579	+ 0.098	25.3	+ 2.1	B	15.5	0.581	25.3
#21 Fair Oaks Ave & Maude Ave	C	31.2	0.591	30.6	C	31.4	0.597	30.9	C-	32.6	0.676	+ 0.079	32.9	+ 2.0	C-	32.9	0.683	33.3
#22 Wolfe Rd & Maude Ave	D	4.0	0.486	4.0	D	4.1	0.489	4.1	F	5.5	0.658	+ 0.170	5.5	+ 1.4	F	5.5	0.661	5.5
#23 Wolfe Rd & Arques Ave	D	40.4	0.413	37.6	D	40.3	0.414	37.5	D	41.0	0.480	+ 0.066	39.7	+ 2.1	D	40.9	0.481	39.6
#24 Wolfe Rd & Central Expwy Ramps	E	62.8	0.861	71.8	E	63.1	0.865	72.2	E	73.9	0.953	+ 0.088	89.1	+ 16.9	E	74.5	0.957	89.8

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	31	1262	71	155	2170	76	317	94	50	31	10	94
Growth 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
Initial Bse:	31	1262	71	155	2170	76	317	94	50	31	10	94
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	1262	71	155	2170	76	317	94	50	31	10	94
User 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
PHF 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
PHF Volume:	31	1262	71	155	2170	76	317	94	50	31	10	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	1262	71	155	2170	76	317	94	50	31	10	94
PCE 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
MLF 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
Final Volume:	31	1262	71	155	2170	76	317	94	50	31	10	94

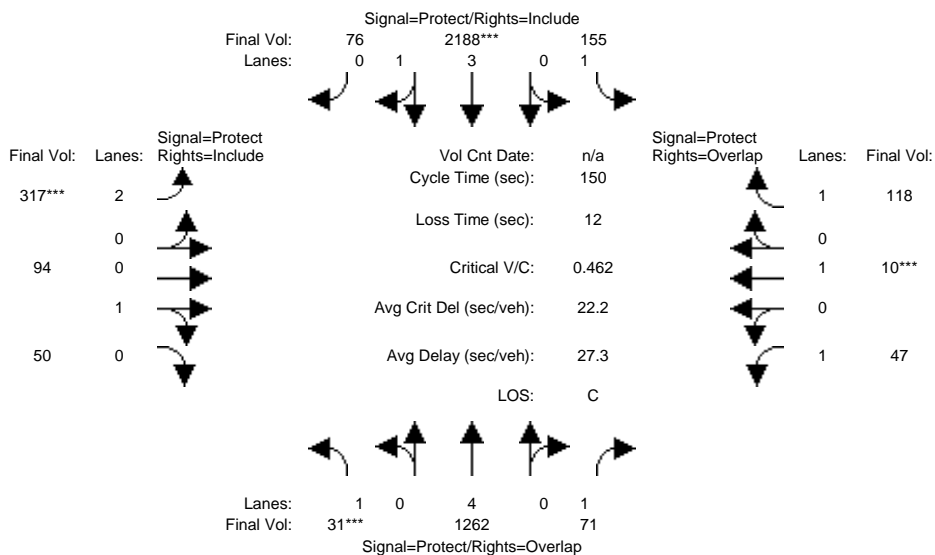
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.86	0.14	2.00	0.65	0.35	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7246	254	3150	1175	625	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.17	0.04	0.09	0.30	0.30	0.10	0.08	0.08	0.02	0.01	0.05
Crit Moves:	***				***		***				***	
Green Time:	7.0	63.6	78.5	33.9	90.6	90.6	30.4	25.5	25.5	14.9	10.0	43.9
Volume/Cap:	0.38	0.39	0.08	0.39	0.50	0.50	0.50	0.47	0.47	0.18	0.08	0.18
Uniform Del:	69.4	29.8	17.7	49.3	16.8	16.8	53.0	56.1	56.1	61.9	65.7	39.6
IncrcmntDel:	2.9	0.1	0.0	0.6	0.1	0.1	0.6	1.1	1.1	0.5	0.3	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	72.3	29.9	17.8	49.9	16.9	16.9	53.6	57.3	57.3	62.4	65.9	39.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.3	29.9	17.8	49.9	16.9	16.9	53.6	57.3	57.3	62.4	65.9	39.8
LOS by Move:	E	C	B	D	B	B	D-	E+	E+	E	E	D
HCM2kAvgQ:	1	10	2	7	14	14	8	7	7	2	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P PM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	31	1262	71	155	2170	76	317	94	50	31	10	94
Growth 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
Initial Bse:	31	1262	71	155	2170	76	317	94	50	31	10	94
Added Vol:	0	0	0	0	18	0	0	0	0	16	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	1262	71	155	2188	76	317	94	50	47	10	118
User 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
PHF 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
PHF Volume:	31	1262	71	155	2188	76	317	94	50	47	10	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	1262	71	155	2188	76	317	94	50	47	10	118
PCE 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
MLF 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
Final Volume:	31	1262	71	155	2188	76	317	94	50	47	10	118

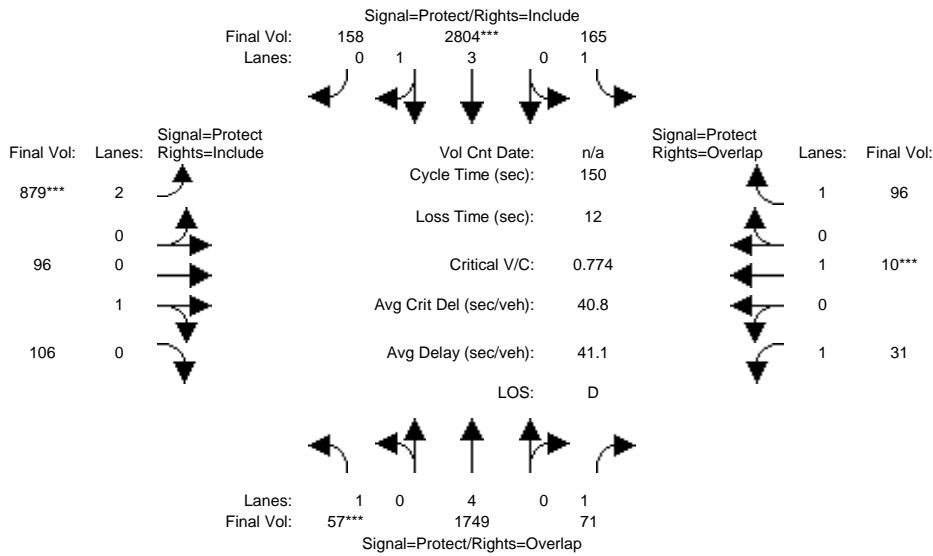
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.86	0.14	2.00	0.65	0.35	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7248	252	3150	1175	625	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.17	0.04	0.09	0.30	0.30	0.10	0.08	0.08	0.03	0.01	0.07
Crit Moves:	***				***		***				***	
Green Time:	7.0	63.7	78.6	34.0	90.7	90.7	30.3	25.4	25.4	14.8	10.0	44.0
Volume/Cap:	0.38	0.39	0.08	0.39	0.50	0.50	0.50	0.47	0.47	0.27	0.08	0.23
Uniform Del:	69.4	29.7	17.7	49.2	16.8	16.8	53.1	56.2	56.2	62.6	65.7	40.2
IncrcmntDel:	2.9	0.1	0.0	0.6	0.1	0.1	0.6	1.2	1.2	0.9	0.3	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	72.3	29.8	17.8	49.8	16.8	16.8	53.8	57.4	57.4	63.4	65.9	40.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.3	29.8	17.8	49.8	16.8	16.8	53.8	57.4	57.4	63.4	65.9	40.4
LOS by Move:	E	C	B	D	B	B	D-	E+	E+	E	E	D
HCM2kAvgQ:	1	10	2	7	15	15	8	7	7	2	0	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd PM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	57	1749	71	165	2804	158	879	96	106	31	10	96
Growth 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
Initial Bse:	57	1749	71	165	2804	158	879	96	106	31	10	96
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	1749	71	165	2804	158	879	96	106	31	10	96
User 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
PHF 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
PHF Volume:	57	1749	71	165	2804	158	879	96	106	31	10	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	1749	71	165	2804	158	879	96	106	31	10	96
PCE 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
MLF 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
Final Volume:	57	1749	71	165	2804	158	879	96	106	31	10	96

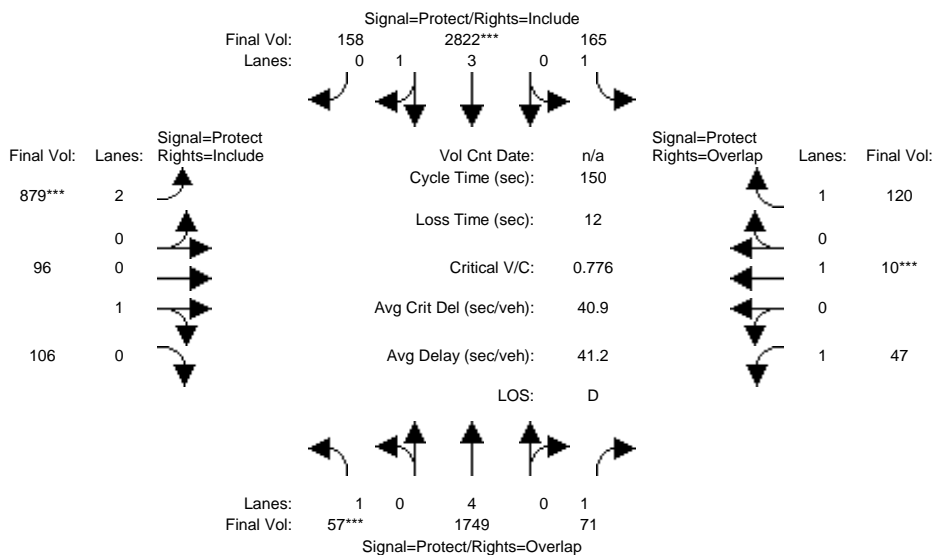
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.78	0.22	2.00	0.48	0.52	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7099	400	3150	855	945	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.04	0.09	0.39	0.39	0.28	0.11	0.11	0.02	0.01	0.05
Crit Moves:	***				***		***				***	
Green Time:	7.0	55.3	72.9	22.6	70.9	70.9	50.1	42.4	42.4	17.7	10.0	32.6
Volume/Cap:	0.70	0.62	0.08	0.62	0.84	0.84	0.84	0.40	0.40	0.15	0.08	0.25
Uniform Del:	70.5	38.9	20.6	59.7	34.5	34.5	46.1	43.4	43.4	59.4	65.7	48.6
IncrcmntDel:	23.3	0.4	0.0	4.6	1.9	1.9	5.9	0.5	0.5	0.3	0.3	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	93.8	39.3	20.7	64.3	36.3	36.3	52.1	43.9	43.9	59.8	65.9	48.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.8	39.3	20.7	64.3	36.3	36.3	52.1	43.9	43.9	59.8	65.9	48.9
LOS by Move:	F	D	C+	E	D+	D+	D-	D	D	E+	E	D
HCM2kAvgQ:	3	16	2	8	31	31	24	8	8	1	0	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P PM

Intersection #4: Mathilda Ave & Almanor Ave



Street Name:	Mathilda Ave						Almanor Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	57	1749	71	165	2804	158	879	96	106	31	10	96
Growth 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
Initial Bse:	57	1749	71	165	2804	158	879	96	106	31	10	96
Added Vol:	0	0	0	0	18	0	0	0	0	16	0	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	1749	71	165	2822	158	879	96	106	47	10	120
User 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
PHF 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
PHF Volume:	57	1749	71	165	2822	158	879	96	106	47	10	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	1749	71	165	2822	158	879	96	106	47	10	120
PCE 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
MLF 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
FinalVolume:	57	1749	71	165	2822	158	879	96	106	47	10	120

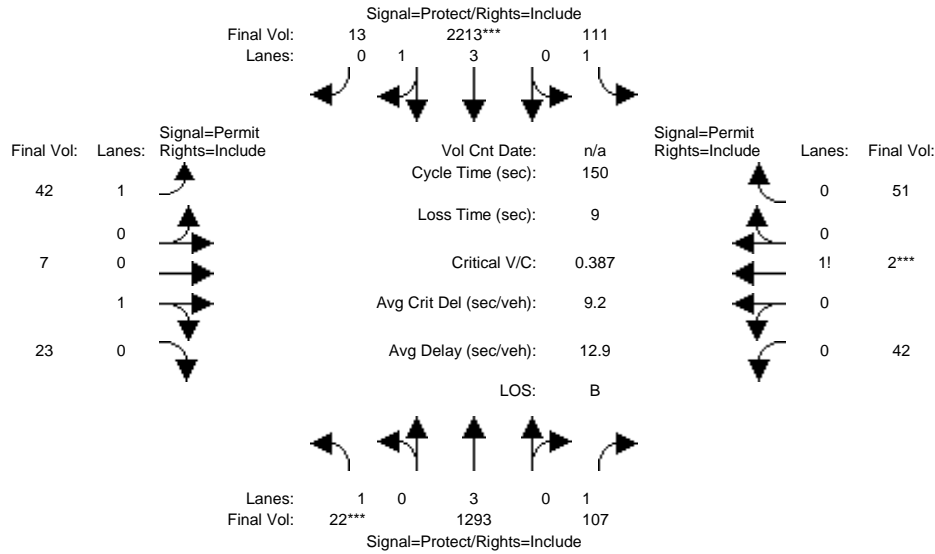
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	4.00	1.00	1.00	3.78	0.22	2.00	0.48	0.52	1.00	1.00	1.00
Final Sat.:	1750	7600	1750	1750	7102	398	3150	855	945	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.04	0.09	0.40	0.40	0.28	0.11	0.11	0.03	0.01	0.07
Crit Moves:	****				****		****				****	
Green Time:	7.0	55.4	73.0	22.7	71.1	71.1	49.9	42.3	42.3	17.6	10.0	32.7
Volume/Cap:	0.70	0.62	0.08	0.62	0.84	0.84	0.84	0.40	0.40	0.23	0.08	0.31
Uniform Del:	70.5	38.8	20.6	59.6	34.4	34.4	46.3	43.5	43.5	60.0	65.7	49.2
IncrcmntDel:	23.3	0.4	0.0	4.6	1.9	1.9	6.1	0.5	0.5	0.6	0.3	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	93.8	39.2	20.6	64.2	36.3	36.3	52.4	44.1	44.1	60.6	65.9	49.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.8	39.2	20.6	64.2	36.3	36.3	52.4	44.1	44.1	60.6	65.9	49.7
LOS by Move:	F	D	C+	E	D+	D+	D-	D	D	E	E	D
HCM2kAvgQ:	3	16	2	8	32	32	24	8	8	2	0	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Mathilda Ave NB			Mathilda Ave SB			San Aleso Ave EB			San Aleso Ave WB		
Base Vol:	22	1293	107	111	2213	13	42	7	23	42	2	51
Growth 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
Initial Bse:	22	1293	107	111	2213	13	42	7	23	42	2	51
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	1293	107	111	2213	13	42	7	23	42	2	51
User 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
PHF 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
PHF Volume:	22	1293	107	111	2213	13	42	7	23	42	2	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	1293	107	111	2213	13	42	7	23	42	2	51
PCE 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
MLF 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
Final Volume:	22	1293	107	111	2213	13	42	7	23	42	2	51

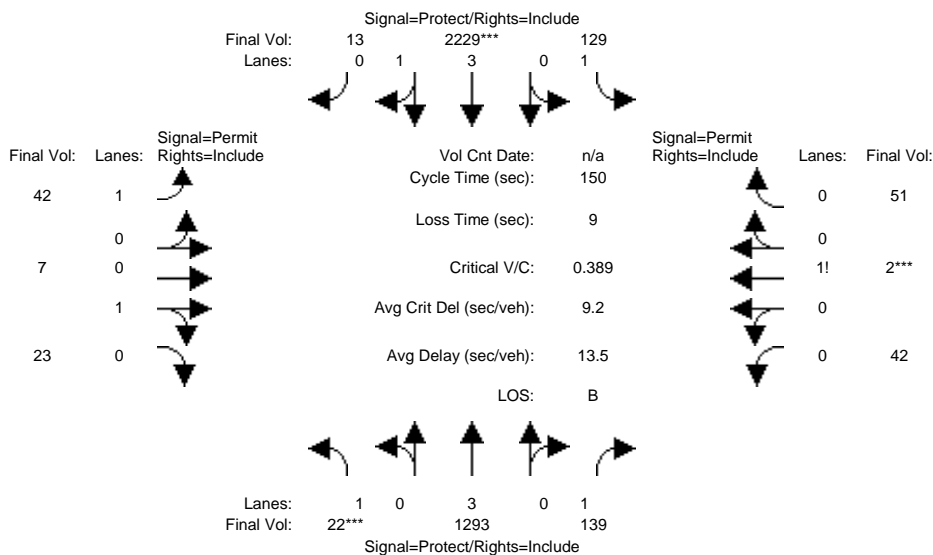
Saturation Flow Module:	Mathilda Ave NB			Mathilda Ave SB			San Aleso Ave EB			San Aleso Ave WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.98	0.02	1.00	0.23	0.77	0.44	0.02	0.54
Final Sat.:	1750	5700	1750	1750	7456	44	1750	420	1380	774	37	939

Capacity Analysis Module:	Mathilda Ave NB			Mathilda Ave SB			San Aleso Ave EB			San Aleso Ave WB		
Vol/Sat:	0.01	0.23	0.06	0.06	0.30	0.30	0.02	0.02	0.02	0.05	0.05	0.05
Crit Moves:	****				****						****	
Green Time:	7.0	94.0	94.0	26.3	113	113.3	20.7	20.7	20.7	20.7	20.7	20.7
Volume/Cap:	0.27	0.36	0.10	0.36	0.39	0.39	0.17	0.12	0.12	0.39	0.39	0.39
Uniform Del:	69.0	13.5	11.1	54.5	6.4	6.4	57.1	56.7	56.7	58.9	58.9	58.9
IncrcmntDel:	1.8	0.1	0.0	0.7	0.0	0.0	0.3	0.2	0.2	1.1	1.1	1.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	70.8	13.6	11.2	55.2	6.4	6.4	57.4	56.9	56.9	60.0	60.0	60.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.8	13.6	11.2	55.2	6.4	6.4	57.4	56.9	56.9	60.0	60.0	60.0
LOS by Move:	E	B	B+	E+	A	A	E+	E+	E+	E+	E+	E+
HCM2kAvgQ:	1	9	2	5	9	9	2	1	1	5	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P PM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	22	1293	107	111	2213	13	42	7	23	42	2	51
Growth 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
Initial Bse:	22	1293	107	111	2213	13	42	7	23	42	2	51
Added Vol:	0	0	32	18	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	1293	139	129	2229	13	42	7	23	42	2	51
User 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
PHF 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
PHF Volume:	22	1293	139	129	2229	13	42	7	23	42	2	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	1293	139	129	2229	13	42	7	23	42	2	51
PCE 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
MLF 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
Final Volume:	22	1293	139	129	2229	13	42	7	23	42	2	51

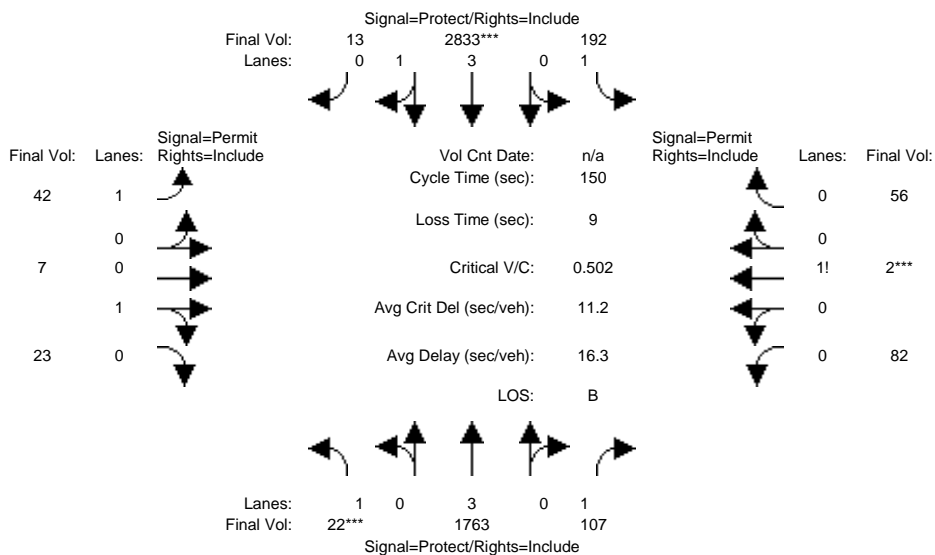
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.98	0.02	1.00	0.23	0.77	0.44	0.02	0.54
Final Sat.:	1750	5700	1750	1750	7456	43	1750	420	1380	774	37	939

Capacity Analysis Module:												
Vol/Sat:	0.01	0.23	0.08	0.07	0.30	0.30	0.02	0.02	0.02	0.05	0.05	0.05
Crit Moves:	****				****						****	
Green Time:	7.0	90.9	90.9	29.5	113	113.4	20.6	20.6	20.6	20.6	20.6	20.6
Volume/Cap:	0.27	0.37	0.13	0.37	0.40	0.40	0.17	0.12	0.12	0.40	0.40	0.40
Uniform Del:	69.0	15.1	12.7	52.2	6.4	6.4	57.2	56.8	56.8	59.0	59.0	59.0
IncrcmntDel:	1.8	0.1	0.1	0.7	0.0	0.0	0.3	0.2	0.2	1.1	1.1	1.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	70.8	15.1	12.7	52.9	6.4	6.4	57.5	57.0	57.0	60.1	60.1	60.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.8	15.1	12.7	52.9	6.4	6.4	57.5	57.0	57.0	60.1	60.1	60.1
LOS by Move:	E	B	B	D-	A	A	E+	E+	E+	E	E	E
HCM2kAvgQ:	1	10	3	5	9	9	2	1	1	5	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	22	1763	107	192	2833	13	42	7	23	82	2	56
Growth 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
Initial Bse:	22	1763	107	192	2833	13	42	7	23	82	2	56
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	1763	107	192	2833	13	42	7	23	82	2	56
User 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
PHF 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
PHF Volume:	22	1763	107	192	2833	13	42	7	23	82	2	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	1763	107	192	2833	13	42	7	23	82	2	56
PCE 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
MLF 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
Final Volume:	22	1763	107	192	2833	13	42	7	23	82	2	56

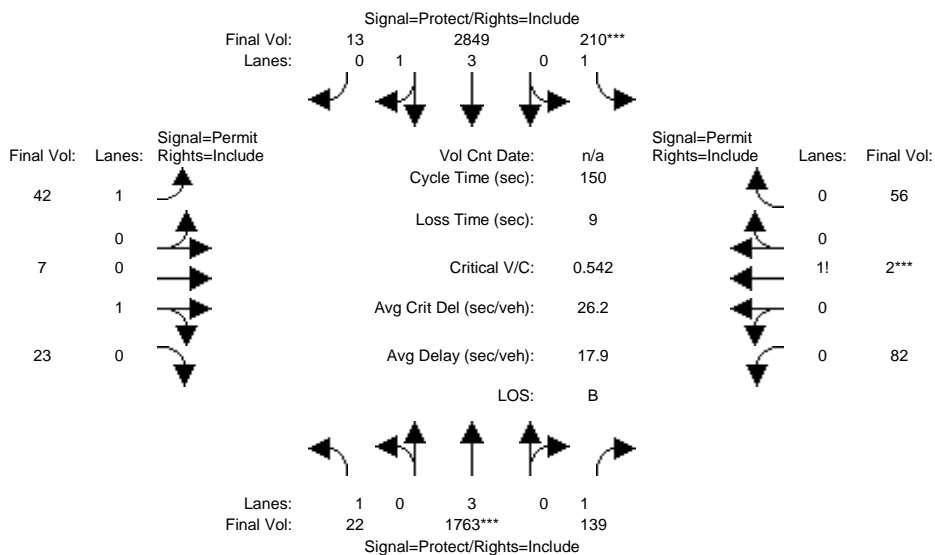
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.98	0.02	1.00	0.23	0.77	0.59	0.01	0.40
Final Sat.:	1750	5700	1750	1750	7466	34	1750	420	1380	1025	25	700

Capacity Analysis Module:												
Vol/Sat:	0.01	0.31	0.06	0.11	0.38	0.38	0.02	0.02	0.02	0.08	0.08	0.08
Crit Moves:	****				****						****	
Green Time:	7.0	86.9	86.9	30.8	111	110.7	23.3	23.3	23.3	23.3	23.3	23.3
Volume/Cap:	0.27	0.53	0.11	0.53	0.51	0.51	0.15	0.11	0.11	0.51	0.51	0.51
Uniform Del:	69.0	19.2	14.2	53.2	8.3	8.3	54.8	54.4	54.4	58.1	58.1	58.1
IncrcmntDel:	1.8	0.2	0.0	1.6	0.1	0.1	0.3	0.2	0.2	1.7	1.7	1.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	70.8	19.4	14.2	54.8	8.4	8.4	55.1	54.6	54.6	59.8	59.8	59.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.8	19.4	14.2	54.8	8.4	8.4	55.1	54.6	54.6	59.8	59.8	59.8
LOS by Move:	E	B-	B	D-	A	A	E+	D-	D-	E+	E+	E+
HCM2kAvgQ:	1	15	2	8	13	13	2	1	1	7	7	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P PM

Intersection #5: Mathilda Ave & San Aleso Ave



Street Name:	Mathilda Ave						San Aleso Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Mathilda Ave						San Aleso Ave					
	L	T	R	L	T	R	L	T	R	L	T	R
Base Vol:	22	1763	107	192	2833	13	42	7	23	82	2	56
Growth 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
Initial Bse:	22	1763	107	192	2833	13	42	7	23	82	2	56
Added Vol:	0	0	32	18	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	1763	139	210	2849	13	42	7	23	82	2	56
User 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
PHF 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
PHF Volume:	22	1763	139	210	2849	13	42	7	23	82	2	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	1763	139	210	2849	13	42	7	23	82	2	56
PCE 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
MLF 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
Final Volume:	22	1763	139	210	2849	13	42	7	23	82	2	56

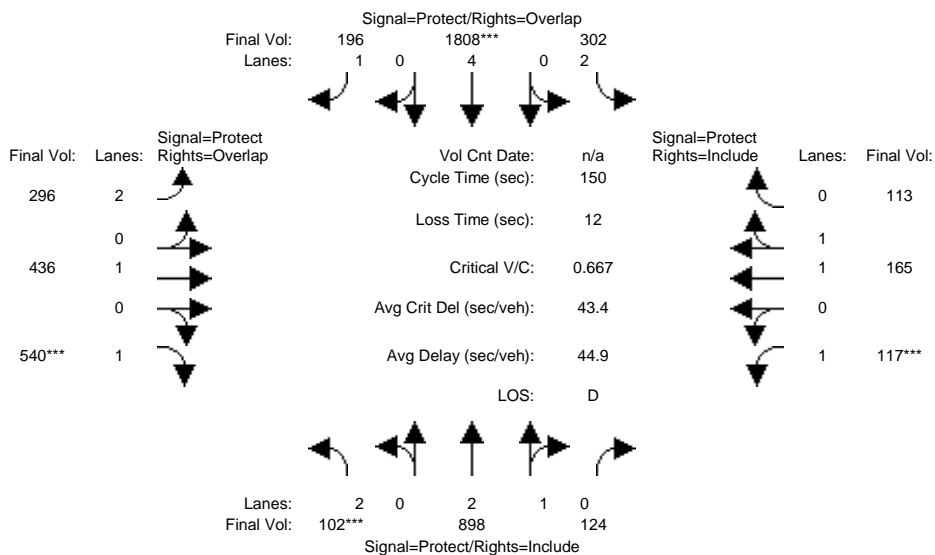
Saturation Flow Module:	Mathilda Ave						San Aleso Ave					
	L	T	R	L	T	R	L	T	R	L	T	R
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	1.00	3.00	1.00	1.00	3.98	0.02	1.00	0.23	0.77	0.59	0.01	0.40
Final Sat.:	1750	5700	1750	1750	7466	34	1750	420	1380	1025	25	700

Capacity Analysis Module:	Mathilda Ave						San Aleso Ave					
	L	T	R	L	T	R	L	T	R	L	T	R
Vol/Sat:	0.01	0.31	0.08	0.12	0.38	0.38	0.02	0.02	0.02	0.08	0.08	0.08
Crit Moves:	****			****						****		
Green Time:	13.0	85.6	85.6	33.2	106	105.9	22.1	22.1	22.1	22.1	22.1	22.1
Volume/Cap:	0.15	0.54	0.14	0.54	0.54	0.54	0.16	0.11	0.11	0.54	0.54	0.54
Uniform Del:	63.4	20.0	15.0	51.7	10.5	10.5	55.8	55.4	55.4	59.2	59.2	59.2
IncrcmntDel:	0.4	0.2	0.1	1.6	0.1	0.1	0.3	0.2	0.2	2.3	2.3	2.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	63.9	20.2	15.1	53.2	10.6	10.6	56.1	55.6	55.6	61.6	61.6	61.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.9	20.2	15.1	53.2	10.6	10.6	56.1	55.6	55.6	61.6	61.6	61.6
LOS by Move:	E	C+	B	D-	B+	B+	E+	E+	E+	E	E	E
HCM2kAvgQ:	1	16	3	9	15	15	2	1	1	7	7	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	102	898	124	302	1808	196	296	436	540	117	165	113
Base Vol:	102	898	124	302	1808	196	296	436	540	117	165	113
Growth 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
Initial Bse:	102	898	124	302	1808	196	296	436	540	117	165	113
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	898	124	302	1808	196	296	436	540	117	165	113
User 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
PHF 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
PHF Volume:	102	898	124	302	1808	196	296	436	540	117	165	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	898	124	302	1808	196	296	436	540	117	165	113
PCE 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
MLF 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
Final Volume:	102	898	124	302	1808	196	296	436	540	117	165	113

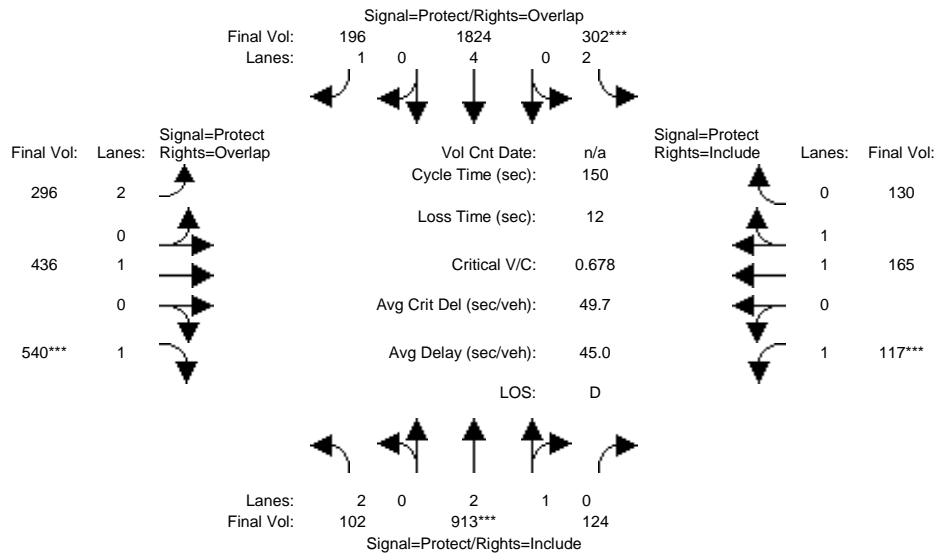
Saturation Flow Module:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95
Lanes:	2.00	2.62	0.38	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.16	0.84
Final Sat.:	3150	4920	679	3150	7600	1750	3150	1900	1750	1750	2195	1503

Capacity Analysis Module:	0.03	0.18	0.18	0.10	0.24	0.11	0.09	0.23	0.31	0.07	0.08	0.08
Vol/Sat:	0.03	0.18	0.18	0.10	0.24	0.11	0.09	0.23	0.31	0.07	0.08	0.08
Crit Moves:	****				****				****	****		
Green Time:	7.3	39.9	39.9	20.9	53.5	94.6	41.1	58.9	66.2	15.0	32.9	32.9
Volume/Cap:	0.67	0.69	0.69	0.69	0.67	0.18	0.34	0.58	0.70	0.67	0.34	0.34
Uniform Del:	70.2	49.5	49.5	61.4	40.7	11.5	43.6	35.9	33.8	65.1	49.4	49.4
IncrcmntDel:	10.7	1.4	1.4	4.5	0.6	0.1	0.2	1.2	2.9	9.4	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	80.9	50.8	50.8	65.9	41.4	11.6	43.9	37.1	36.7	74.5	49.7	49.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.9	50.8	50.8	65.9	41.4	11.6	43.9	37.1	36.7	74.5	49.7	49.7
LOS by Move:	F	D	D	E	D	B+	D	D+	D+	E	D	D
HCM2kAvgQ:	3	14	14	8	17	4	6	16	22	7	6	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P PM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L - T - R		L - T - R		L - T - R		L - T - R		L - T - R		L - T - R	
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	102	898	124	302	1808	196	296	436	540	117	165	113
Growth 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
Initial Bse:	102	898	124	302	1808	196	296	436	540	117	165	113
Added Vol:	0	15	0	0	16	0	0	0	0	0	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	102	913	124	302	1824	196	296	436	540	117	165	130
User 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
PHF 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
PHF Volume:	102	913	124	302	1824	196	296	436	540	117	165	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	913	124	302	1824	196	296	436	540	117	165	130
PCE 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
MLF 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
Final Volume:	102	913	124	302	1824	196	296	436	540	117	165	130

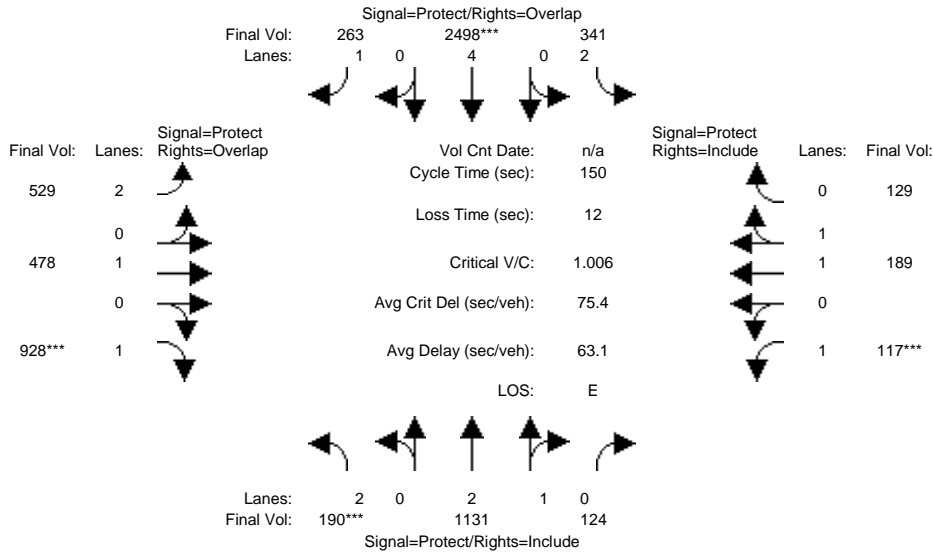
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95
Lanes:	2.00	2.63	0.37	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.09	0.91
Final Sat.:	3150	4929	670	3150	7600	1750	3150	1900	1750	1750	2068	1630

Capacity Analysis Module:												
Vol/Sat:	0.03	0.19	0.19	0.10	0.24	0.11	0.09	0.23	0.31	0.07	0.08	0.08
Crit Moves:	****			****			****			****		
Green Time:	10.1	41.0	41.0	21.2	52.0	91.3	39.3	57.9	68.0	14.8	33.4	33.4
Volume/Cap:	0.48	0.68	0.68	0.68	0.69	0.18	0.36	0.59	0.68	0.68	0.36	0.36
Uniform Del:	67.4	48.6	48.6	61.2	42.1	12.9	45.1	36.7	32.4	65.3	49.3	49.3
IncrcmntDel:	1.7	1.2	1.2	4.2	0.8	0.1	0.3	1.3	2.4	10.4	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	69.1	49.9	49.9	65.4	42.9	13.0	45.3	38.0	34.8	75.7	49.5	49.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.1	49.9	49.9	65.4	42.9	13.0	45.3	38.0	34.8	75.7	49.5	49.5
LOS by Move:	E	D	D	E	D	B	D	D+	C-	E-	D	D
HCM2kAvgQ:	3	14	14	8	18	4	7	16	21	7	6	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	190	1131	124	341	2498	263	529	478	928	117	189	129
Growth 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
Initial Bse:	190	1131	124	341	2498	263	529	478	928	117	189	129
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	190	1131	124	341	2498	263	529	478	928	117	189	129
User 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
PHF 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
PHF Volume:	190	1131	124	341	2498	263	529	478	928	117	189	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	190	1131	124	341	2498	263	529	478	928	117	189	129
PCE 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
MLF 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
Final Volume:	190	1131	124	341	2498	263	529	478	928	117	189	129

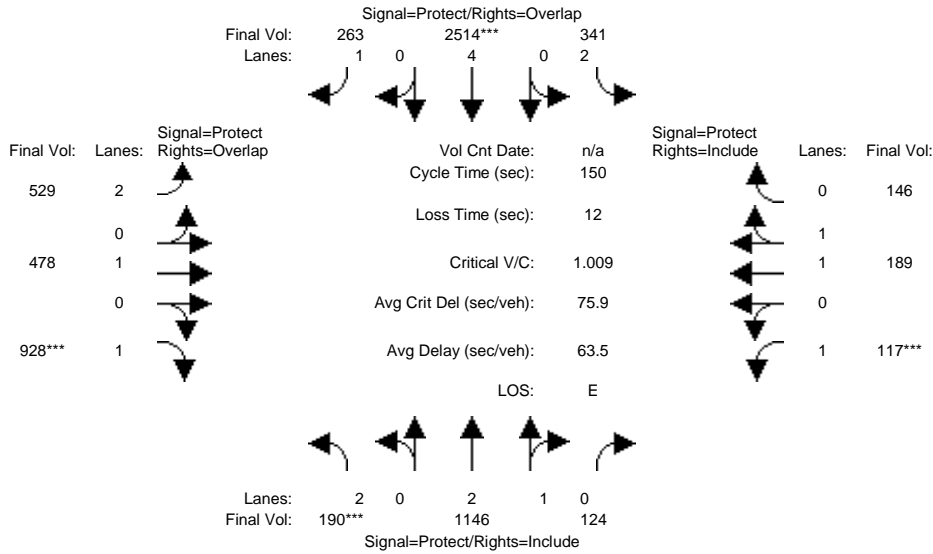
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95
Lanes:	2.00	2.69	0.31	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.17	0.83
Final Sat.:	3150	5046	553	3150	7600	1750	3150	1900	1750	1750	2198	1500

Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.22	0.11	0.33	0.15	0.17	0.25	0.53	0.07	0.09	0.09
Crit Moves:	****				****				****	****		
Green Time:	9.0	39.1	39.1	18.9	49.0	101.9	52.9	70.1	79.0	10.0	27.1	27.1
Volume/Cap:	1.01	0.86	0.86	0.86	1.01	0.22	0.48	0.54	1.01	1.01	0.48	0.48
Uniform Del:	70.5	52.8	52.8	64.3	50.5	9.1	37.8	28.5	35.5	70.0	55.1	55.1
IncrcmntDel:	67.1	5.4	5.4	17.0	19.6	0.1	0.3	0.7	31.2	85.2	0.5	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	137.7	58.2	58.2	81.3	70.1	9.2	38.1	29.1	66.7	155.2	55.6	55.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	137.7	58.2	58.2	81.3	70.1	9.2	38.1	29.1	66.7	155.2	55.6	55.6
LOS by Move:	F	E+	E+	F	E	A	D+	C	E	F	E+	E+
HCM2kAvgQ:	7	20	20	10	33	5	11	15	54	9	7	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P PM

Intersection #6: Mathilda Ave & Maude Ave



Street Name:	Mathilda Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	190	1131	124	341	2498	263	529	478	928	117	189	129
Growth 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
Initial Bse:	190	1131	124	341	2498	263	529	478	928	117	189	129
Added Vol:	0	15	0	0	16	0	0	0	0	0	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	190	1146	124	341	2514	263	529	478	928	117	189	146
User 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
PHF 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
PHF Volume:	190	1146	124	341	2514	263	529	478	928	117	189	146
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	190	1146	124	341	2514	263	529	478	928	117	189	146
PCE 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
MLF 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
Final Volume:	190	1146	124	341	2514	263	529	478	928	117	189	146

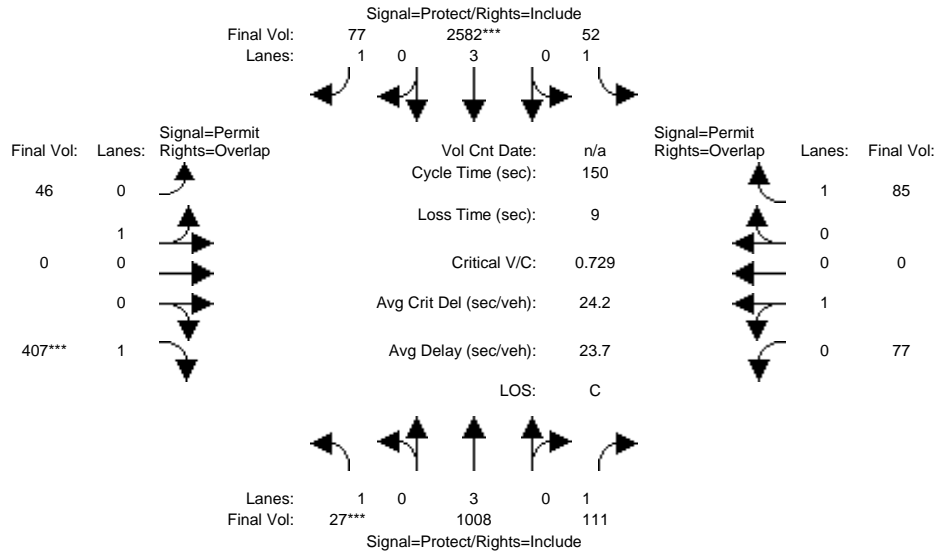
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95
Lanes:	2.00	2.70	0.30	2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.10	0.90
Final Sat.:	3150	5053	547	3150	7600	1750	3150	1900	1750	1750	2086	1612

Capacity Analysis Module:												
Vol/Sat:	0.06	0.23	0.23	0.11	0.33	0.15	0.17	0.25	0.53	0.07	0.09	0.09
Crit Moves:	****				****				****	****		
Green Time:	9.0	39.4	39.4	18.8	49.2	101.1	51.9	69.9	78.9	9.9	28.0	28.0
Volume/Cap:	1.01	0.86	0.86	0.86	1.01	0.22	0.49	0.54	1.01	1.01	0.49	0.49
Uniform Del:	70.5	52.8	52.8	64.4	50.4	9.4	38.6	28.6	35.6	70.0	54.6	54.6
IncrcmntDel:	67.8	5.6	5.6	17.6	20.1	0.1	0.3	0.7	31.8	85.9	0.5	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	138.3	58.3	58.3	82.0	70.6	9.5	38.9	29.3	67.4	155.9	55.1	55.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	138.3	58.3	58.3	82.0	70.6	9.5	38.9	29.3	67.4	155.9	55.1	55.1
LOS by Move:	F	E+	E+	F	E	A	D+	C	E	F	E+	E+
HCM2kAvgQ:	7	20	20	10	33	5	11	15	54	9	7	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Mathilda Ave NB			Mathilda Ave SB			Indio Ave EB			Indio Ave WB		
Base Vol:	27	1008	111	52	2582	77	46	0	407	77	0	85
Growth 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
Initial Bse:	27	1008	111	52	2582	77	46	0	407	77	0	85
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	1008	111	52	2582	77	46	0	407	77	0	85
User 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
PHF 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
PHF Volume:	27	1008	111	52	2582	77	46	0	407	77	0	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	1008	111	52	2582	77	46	0	407	77	0	85
PCE 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
MLF 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
Final Volume:	27	1008	111	52	2582	77	46	0	407	77	0	85

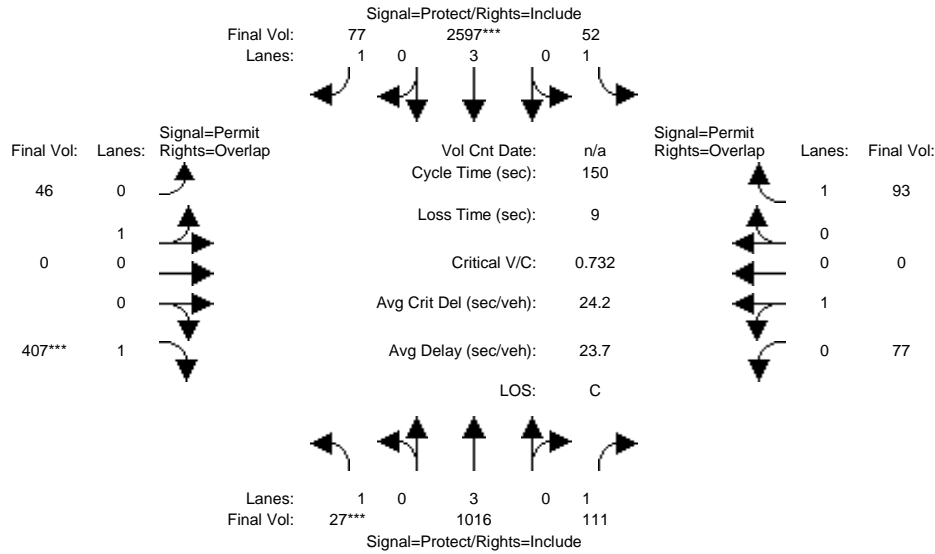
Saturation Flow Module:	Mathilda Ave NB			Mathilda Ave SB			Indio Ave EB			Indio Ave WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:	Mathilda Ave NB			Mathilda Ave SB			Indio Ave EB			Indio Ave WB		
Vol/Sat:	0.02	0.18	0.06	0.03	0.45	0.04	0.03	0.00	0.23	0.04	0.00	0.05
Crit Moves:	****				****				****			
Green Time:	7.0	80.7	80.7	21.3	95.0	95.0	39.0	0.0	46.0	39.0	0.0	60.3
Volume/Cap:	0.33	0.33	0.12	0.21	0.72	0.07	0.10	0.00	0.76	0.16	0.00	0.12
Uniform Del:	69.2	19.4	17.1	56.9	18.4	10.5	42.2	0.0	47.0	42.9	0.0	28.2
IncrcmntDel:	2.4	0.1	0.1	0.4	0.7	0.0	0.1	0.0	6.2	0.2	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	71.6	19.5	17.1	57.3	19.1	10.6	42.2	0.0	53.2	43.1	0.0	28.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.6	19.5	17.1	57.3	19.1	10.6	42.2	0.0	53.2	43.1	0.0	28.3
LOS by Move:	E	B-	B	E+	B-	B+	D	A	D-	D	A	C
HCM2kAvgQ:	1	8	3	2	26	1	2	0	19	3	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P PM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	27	1008	111	52	2582	77	46	0	407	77	0	85
Growth 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
Initial Bse:	27	1008	111	52	2582	77	46	0	407	77	0	85
Added Vol:	0	8	0	0	15	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	1016	111	52	2597	77	46	0	407	77	0	93
User 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
PHF 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
PHF Volume:	27	1016	111	52	2597	77	46	0	407	77	0	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	1016	111	52	2597	77	46	0	407	77	0	93
PCE 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
MLF 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
Final Volume:	27	1016	111	52	2597	77	46	0	407	77	0	93

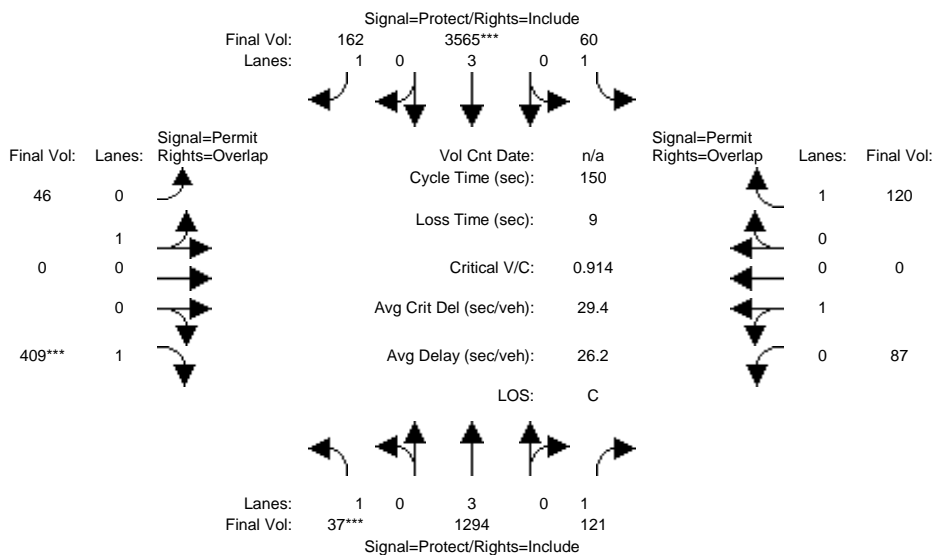
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.06	0.03	0.46	0.04	0.03	0.00	0.23	0.04	0.00	0.05
Crit Moves:	***				****				****			
Green Time:	7.0	81.0	81.0	21.2	95.2	95.2	38.8	0.0	45.8	38.8	0.0	60.0
Volume/Cap:	0.33	0.33	0.12	0.21	0.72	0.07	0.10	0.00	0.76	0.17	0.00	0.13
Uniform Del:	69.2	19.3	17.0	57.0	18.4	10.5	42.3	0.0	47.1	43.0	0.0	28.5
IncrcmntDel:	2.4	0.1	0.1	0.4	0.7	0.0	0.1	0.0	6.3	0.2	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	71.6	19.4	17.0	57.4	19.1	10.5	42.4	0.0	53.5	43.2	0.0	28.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.6	19.4	17.0	57.4	19.1	10.5	42.4	0.0	53.5	43.2	0.0	28.6
LOS by Move:	E	B-	B	E+	B-	B+	D	A	D-	D	A	C
HCM2kAvgQ:	1	8	3	2	26	1	2	0	19	3	0	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd PM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	37	1294	121	60	3565	162	46	0	409	87	0	120
Growth 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
Initial Bse:	37	1294	121	60	3565	162	46	0	409	87	0	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	1294	121	60	3565	162	46	0	409	87	0	120
User 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
PHF 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
PHF Volume:	37	1294	121	60	3565	162	46	0	409	87	0	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	1294	121	60	3565	162	46	0	409	87	0	120
PCE 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
MLF 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
Final Volume:	37	1294	121	60	3565	162	46	0	409	87	0	120

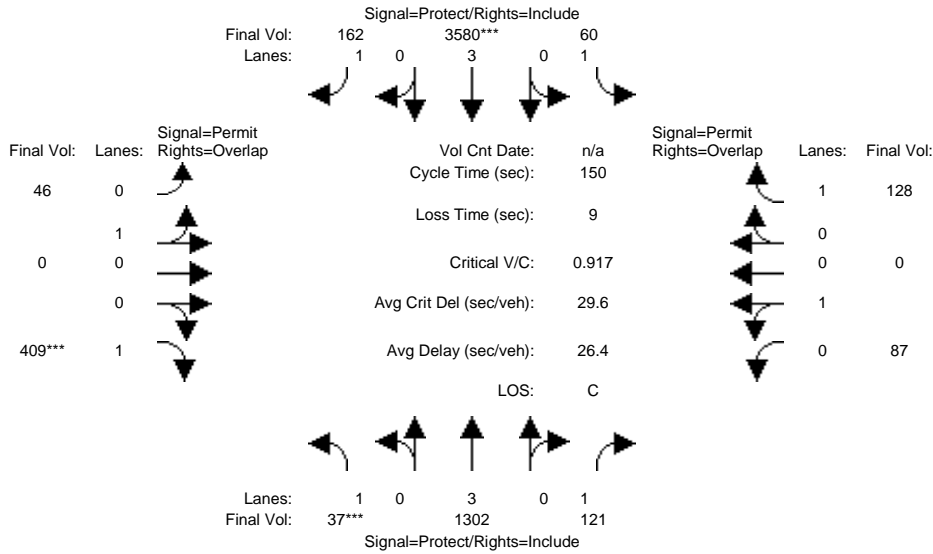
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.23	0.07	0.03	0.63	0.09	0.03	0.00	0.23	0.05	0.00	0.07
Crit Moves:	***				****				****			
Green Time:	7.0	91.4	91.4	18.8	103	103.2	30.8	0.0	37.8	30.8	0.0	49.6
Volume/Cap:	0.45	0.37	0.11	0.27	0.91	0.13	0.12	0.00	0.93	0.24	0.00	0.21
Uniform Del:	69.6	14.8	12.3	59.4	19.5	8.1	48.6	0.0	54.7	49.7	0.0	36.1
IncrcmntDel:	4.0	0.1	0.0	0.7	3.6	0.1	0.2	0.0	25.5	0.3	0.0	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	73.6	14.9	12.4	60.1	23.2	8.1	48.7	0.0	80.2	50.1	0.0	36.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.6	14.9	12.4	60.1	23.2	8.1	48.7	0.0	80.2	50.1	0.0	36.2
LOS by Move:	E	B	B	E	C	A	D	A	F	D	A	D+
HCM2kAvgQ:	2	10	2	2	42	3	2	0	24	3	0	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #7: Mathilda Ave & Indio Ave



Street Name:	Mathilda Ave						Indio Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	37	1294	121	60	3565	162	46	0	409	87	0	120
Growth 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
Initial Bse:	37	1294	121	60	3565	162	46	0	409	87	0	120
Added Vol:	0	8	0	0	15	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	1302	121	60	3580	162	46	0	409	87	0	128
User 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
PHF 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
PHF Volume:	37	1302	121	60	3580	162	46	0	409	87	0	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	1302	121	60	3580	162	46	0	409	87	0	128
PCE 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
MLF 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
Final Volume:	37	1302	121	60	3580	162	46	0	409	87	0	128

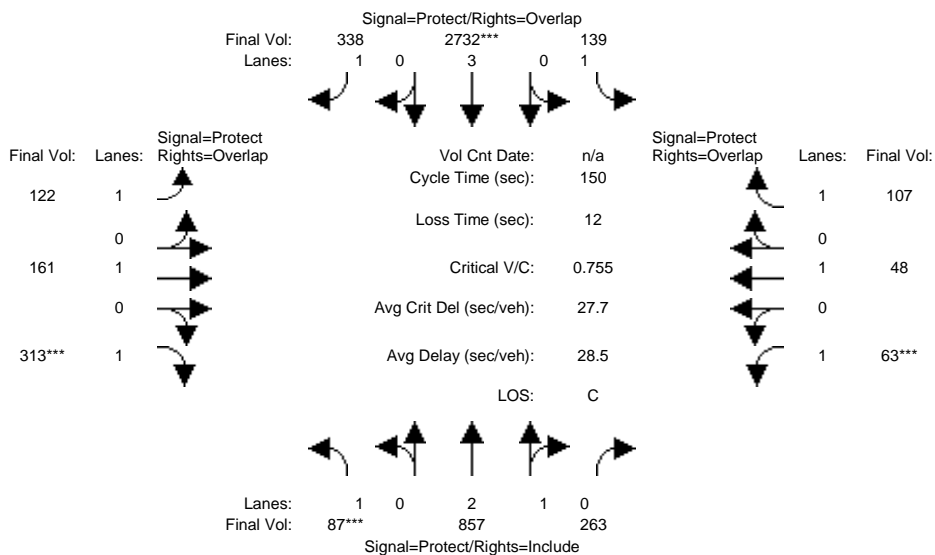
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	1750	5700	1750	1750	5700	1750	1800	0	1750	1800	0	1750

Capacity Analysis Module:												
Vol/Sat:	0.02	0.23	0.07	0.03	0.63	0.09	0.03	0.00	0.23	0.05	0.00	0.07
Crit Moves:	***				****				****			
Green Time:	7.0	91.5	91.5	18.7	103	103.3	30.7	0.0	37.7	30.7	0.0	49.5
Volume/Cap:	0.45	0.37	0.11	0.27	0.91	0.13	0.12	0.00	0.93	0.24	0.00	0.22
Uniform Del:	69.6	14.8	12.2	59.5	19.6	8.0	48.6	0.0	54.8	49.8	0.0	36.4
IncrcmntDel:	4.0	0.1	0.0	0.7	3.8	0.1	0.2	0.0	26.0	0.3	0.0	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Delay/Veh:	73.6	14.8	12.3	60.2	23.3	8.1	48.8	0.0	80.8	50.1	0.0	36.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.6	14.8	12.3	60.2	23.3	8.1	48.8	0.0	80.8	50.1	0.0	36.6
LOS by Move:	E	B	B	E	C	A	D	A	F	D	A	D+
HCM2kAvgQ:	2	10	2	2	43	3	2	0	24	4	0	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	87	857	263	139	2732	338	122	161	313	63	48	107
Growth 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
Initial Bse:	87	857	263	139	2732	338	122	161	313	63	48	107
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	857	263	139	2732	338	122	161	313	63	48	107
User 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
PHF 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
PHF Volume:	87	857	263	139	2732	338	122	161	313	63	48	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	857	263	139	2732	338	122	161	313	63	48	107
PCE 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
MLF 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
Final Volume:	87	857	263	139	2732	338	122	161	313	63	48	107

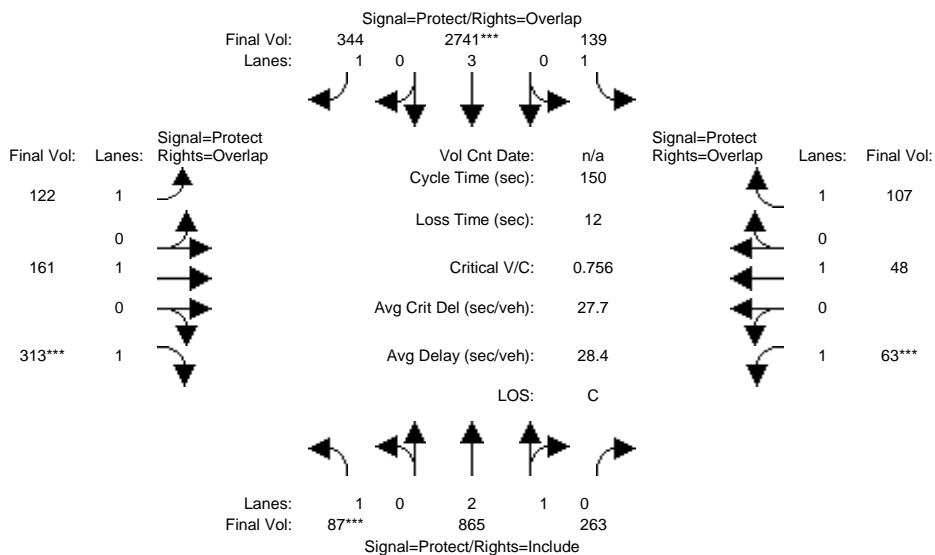
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.27	0.73	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4283	1314	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.08	0.48	0.19	0.07	0.08	0.18	0.04	0.03	0.06
Crit Moves:	****				****				****	****		
Green Time:	9.9	75.3	75.3	29.9	95.3	112.1	16.8	25.7	35.6	7.2	16.0	45.9
Volume/Cap:	0.75	0.40	0.40	0.40	0.75	0.26	0.62	0.50	0.75	0.75	0.24	0.20
Uniform Del:	68.9	23.3	23.3	52.2	19.2	5.9	63.6	56.3	53.2	70.6	61.4	38.4
IncrcmntDel:	24.2	0.1	0.1	0.8	0.9	0.1	6.1	1.2	7.7	31.7	0.6	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	93.1	23.4	23.4	53.0	20.1	6.0	69.7	57.5	60.9	102.3	62.0	38.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.1	23.4	23.4	53.0	20.1	6.0	69.7	57.5	60.9	102.3	62.0	38.6
LOS by Move:	F	C	C	D-	C+	A	E	E+	E	F	E	D+
HCM2kAvgQ:	6	11	11	6	29	5	7	7	16	5	2	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P PM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L - T - R		L - T - R		L - T - R		L - T - R		L - T - R		L - T - R	
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	87	857	263	139	2732	338	122	161	313	63	48	107
Growth 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
Initial Bse:	87	857	263	139	2732	338	122	161	313	63	48	107
Added Vol:	0	8	0	0	9	6	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	865	263	139	2741	344	122	161	313	63	48	107
User 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
PHF 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
PHF Volume:	87	865	263	139	2741	344	122	161	313	63	48	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	865	263	139	2741	344	122	161	313	63	48	107
PCE 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
MLF 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
Final Volume:	87	865	263	139	2741	344	122	161	313	63	48	107

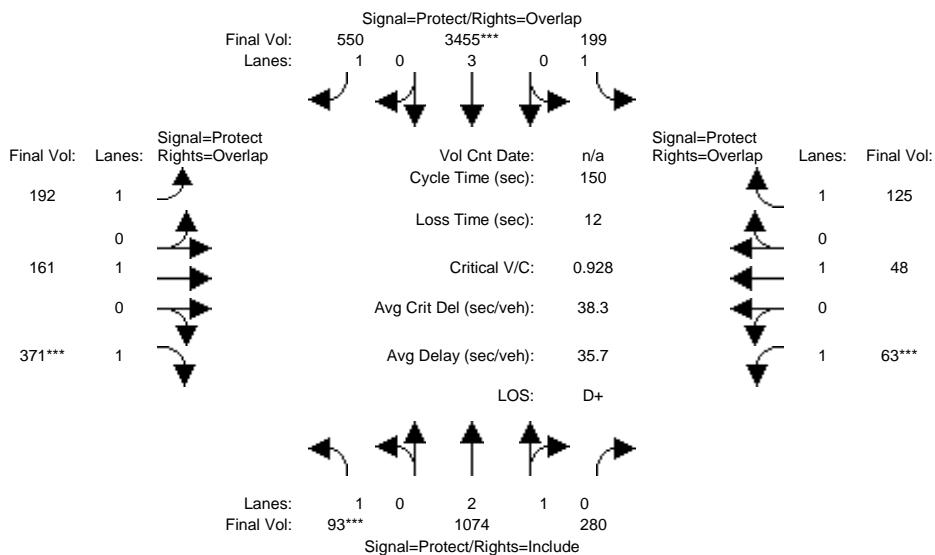
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.27	0.73	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4293	1305	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.08	0.48	0.20	0.07	0.08	0.18	0.04	0.03	0.06
Crit Moves:	***				****				****	****		
Green Time:	9.9	75.5	75.5	29.8	95.4	112.1	16.7	25.6	35.5	7.1	16.0	45.8
Volume/Cap:	0.76	0.40	0.40	0.40	0.76	0.26	0.62	0.50	0.76	0.76	0.24	0.20
Uniform Del:	68.9	23.2	23.2	52.4	19.2	6.0	63.6	56.3	53.2	70.6	61.4	38.6
IncrcmntDel:	24.5	0.1	0.1	0.8	0.9	0.1	6.2	1.2	7.8	32.1	0.6	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	93.4	23.3	23.3	53.1	20.1	6.1	69.8	57.5	61.0	102.7	62.0	38.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.4	23.3	23.3	53.1	20.1	6.1	69.8	57.5	61.0	102.7	62.0	38.8
LOS by Move:	F	C	C	D-	C+	A	E	E+	E	F	E	D+
HCM2kAvgQ:	6	11	11	6	29	5	7	7	16	5	2	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd PM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	93	1074	280	199	3455	550	192	161	371	63	48	125
Growth 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
Initial Bse:	93	1074	280	199	3455	550	192	161	371	63	48	125
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	93	1074	280	199	3455	550	192	161	371	63	48	125
User 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
PHF 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
PHF Volume:	93	1074	280	199	3455	550	192	161	371	63	48	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	1074	280	199	3455	550	192	161	371	63	48	125
PCE 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
MLF 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
Final Volume:	93	1074	280	199	3455	550	192	161	371	63	48	125

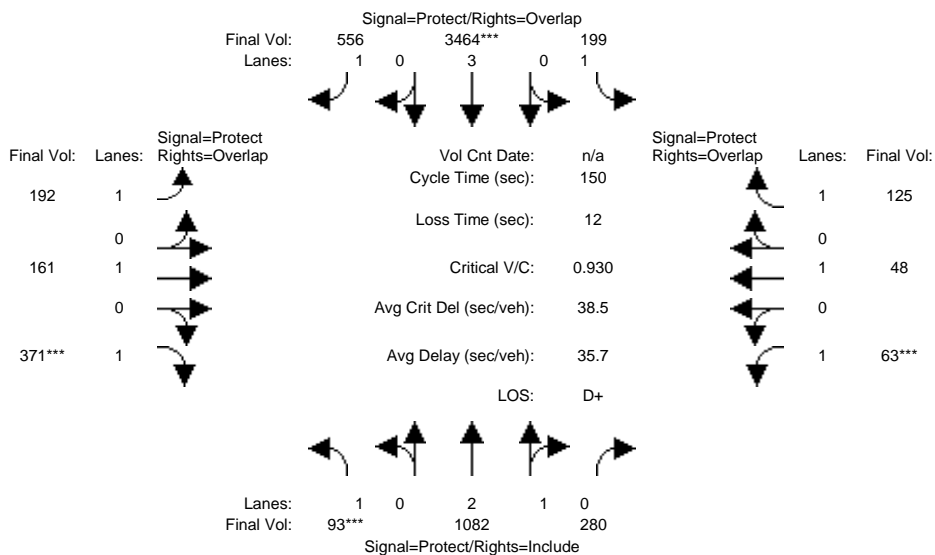
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.36	0.64	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4440	1158	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.24	0.11	0.61	0.31	0.11	0.08	0.21	0.04	0.03	0.07
Crit Moves:	***			****			****		****	****		
Green Time:	8.5	71.8	71.8	33.8	97.1	117.2	20.2	25.4	33.9	7.0	12.3	46.0
Volume/Cap:	0.94	0.51	0.51	0.51	0.94	0.40	0.82	0.50	0.94	0.77	0.31	0.23
Uniform Del:	70.5	26.9	26.9	50.8	23.7	5.2	63.1	56.5	57.0	70.7	64.9	38.8
IncrcmntDel:	69.9	0.2	0.2	1.1	5.5	0.2	19.3	1.2	29.6	35.4	1.1	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	140.4	27.0	27.0	51.9	29.2	5.4	82.5	57.7	86.6	106.1	66.0	39.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	140.4	27.0	27.0	51.9	29.2	5.4	82.5	57.7	86.6	106.1	66.0	39.0
LOS by Move:	F	C	C	D-	C	A	F	E+	F	F	E	D
HCM2kAvgQ:	7	14	14	8	46	8	11	7	22	5	2	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #8: Mathilda Ave & California Ave



Street Name:	Mathilda Ave						California Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	93	1074	280	199	3455	550	192	161	371	63	48	125
Growth 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
Initial Bse:	93	1074	280	199	3455	550	192	161	371	63	48	125
Added Vol:	0	8	0	0	9	6	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	93	1082	280	199	3464	556	192	161	371	63	48	125
User 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
PHF 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
PHF Volume:	93	1082	280	199	3464	556	192	161	371	63	48	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	1082	280	199	3464	556	192	161	371	63	48	125
PCE 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
MLF 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
Final Volume:	93	1082	280	199	3464	556	192	161	371	63	48	125

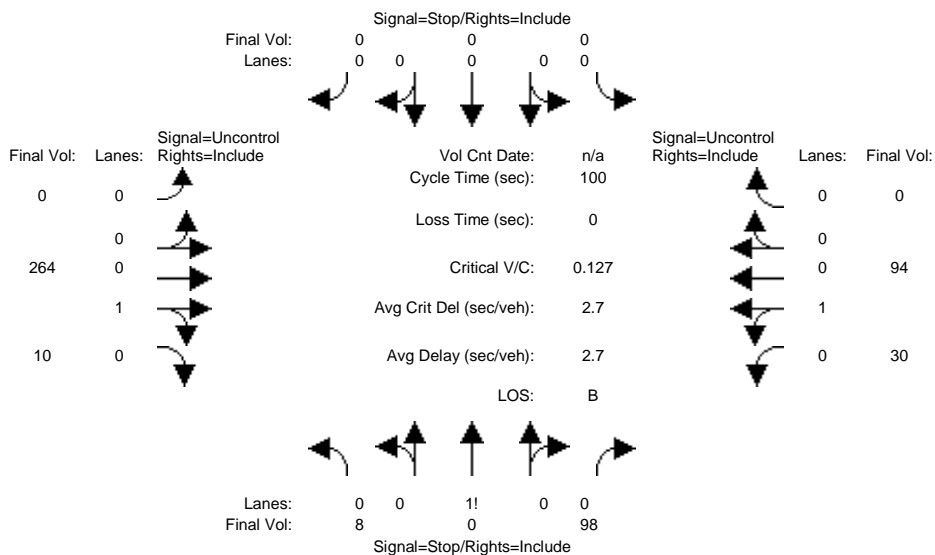
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.36	0.64	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	4447	1151	1750	5700	1750	1750	1900	1750	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.24	0.11	0.61	0.32	0.11	0.08	0.21	0.04	0.03	0.07
Crit Moves:	***			****			****		****	****		
Green Time:	8.5	72.0	72.0	33.6	97.1	117.3	20.1	25.4	33.9	7.0	12.2	45.9
Volume/Cap:	0.94	0.51	0.51	0.51	0.94	0.41	0.82	0.50	0.94	0.77	0.31	0.23
Uniform Del:	70.5	26.8	26.8	50.9	23.8	5.2	63.1	56.6	57.0	70.7	64.9	38.9
IncrcmntDel:	70.5	0.2	0.2	1.1	5.6	0.2	19.5	1.2	30.1	35.4	1.1	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	141.0	27.0	27.0	52.0	29.4	5.4	82.7	57.8	87.1	106.1	66.0	39.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	141.0	27.0	27.0	52.0	29.4	5.4	82.7	57.8	87.1	106.1	66.0	39.1
LOS by Move:	F	C	C	D-	C	A	F	E+	F	F	E	D
HCM2kAvgQ:	7	14	14	8	47	8	11	7	22	5	2	5

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 12 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	8 0 98	0 0 0 0	0 264 10	30 94 0
ApproachDel:	10.5	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=106]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=504]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

```

*****
Intersection #9 San Aleso Ave & Ahwanee Ave
*****
Future Volume Alternative: Peak Hour Warrant NOT Met
    
```

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	8 0 98	0 0 0 0	0 264 10	30 94 0

```

Major Street Volume:      398
Minor Approach Volume:    106
Minor Approach Volume Threshold: 465
    
```

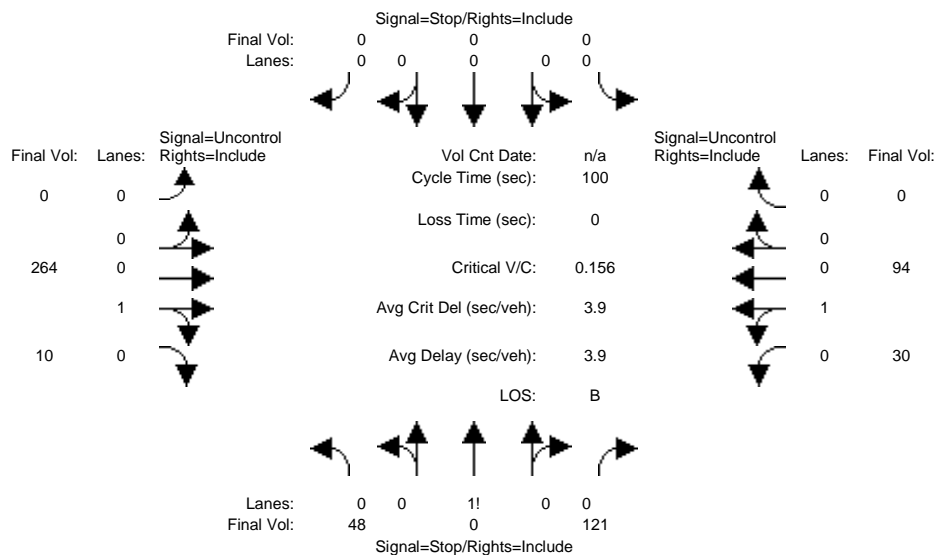
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table for Critical Gap Module with 13 columns and 2 rows: Critical Gp and FollowUpTim.

Table for Capacity Module with 13 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table for Level Of Service Module with 13 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	48	0	121	0	0	0	0	264	10	30	94	0
ApproachDel:	11.7			xxxxxxx			xxxxxxx			xxxxxxx		

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.5]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=169]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=567]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	48	0	121	0	0	0	0	264	10	30	94	0

```

Major Street Volume:          398
Minor Approach Volume:       169
Minor Approach Volume Threshold: 465
    
```

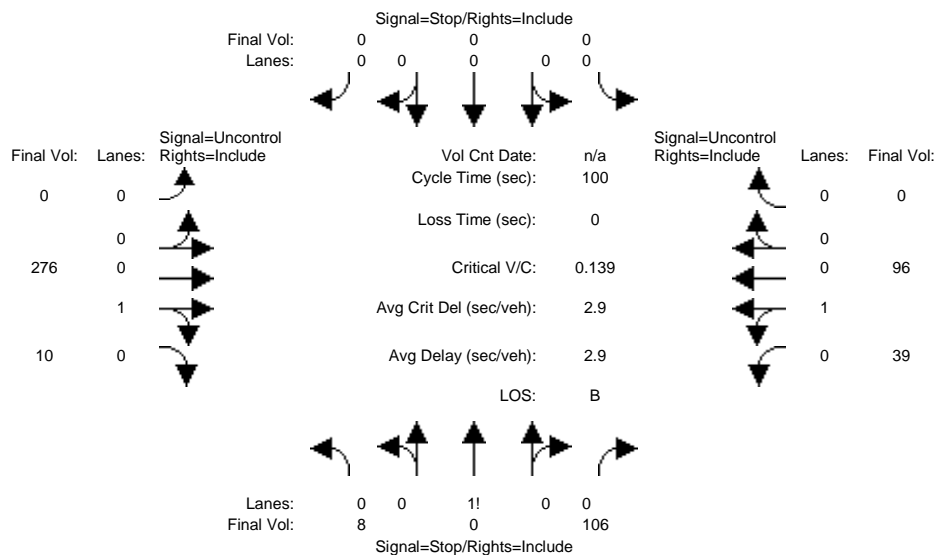
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUpTim.

Table with 13 columns representing movements and 4 rows of capacity data including Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of level of service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	8	0	106	0	0	0	0	276	10	39	96	0
ApproachDel:	10.7			xxxxxxx			xxxxxxx			xxxxxxx		

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=114]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=535]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	8	0	106	0	0	0	0	276	10	39	96	0

```

Major Street Volume:          421
Minor Approach Volume:       114
Minor Approach Volume Threshold: 450
    
```

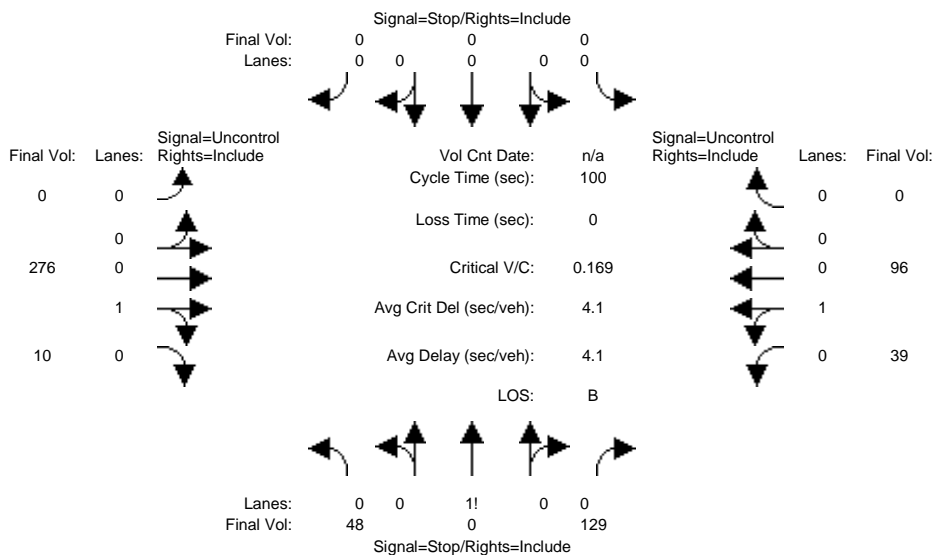
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #9: San Aleso Ave & Ahwanee Ave



Street Name: San Aleso Ave Ahwanee Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	8	0	106	0	0	0	0	276	10	39	96	0
Growth 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
Initial Bse:	8	0	106	0	0	0	0	276	10	39	96	0
Added Vol:	40	0	23	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	48	0	129	0	0	0	0	276	10	39	96	0
User 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
PHF 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
PHF Volume:	48	0	129	0	0	0	0	276	10	39	96	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	48	0	129	0	0	0	0	276	10	39	96	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	455	455	281	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	286	xxxx	xxxxx
Potent Cap.:	567	504	763	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1288	xxxx	xxxxx
Move Cap.:	553	489	763	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1288	xxxx	xxxxx
Volume/Cap:	0.09	0.00	0.17	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT			
Shared Cap.:	xxxx	692	xxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	12.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	12.0		xxxxxx			xxxxxx			xxxxxx			
ApproachLOS:		B		*			*		*		*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	48	0	129	0	0	0	0	276	10	39	96	0
ApproachDel:	12.0			xxxxxxx			xxxxxxx			xxxxxxx		

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.6]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=177]
    SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=598]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #9 San Aleso Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	48	0	129	0	0	0	0	276	10	39	96	0

```

Major Street Volume:          421
Minor Approach Volume:        177
Minor Approach Volume Threshold: 450
    
```

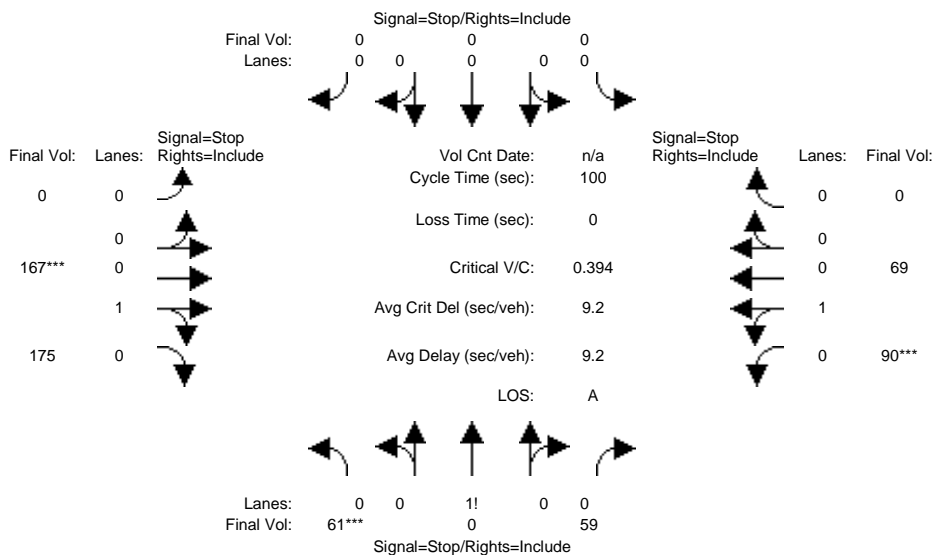
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Existing PM

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	61	0	59	0	0	0	0	167	175	90	69	0
Growth 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
Initial Bse:	61	0	59	0	0	0	0	167	175	90	69	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	0	59	0	0	0	0	167	175	90	69	0
User 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
PHF 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
PHF Volume:	61	0	59	0	0	0	0	167	175	90	69	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	0	59	0	0	0	0	167	175	90	69	0
PCE 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
MLF 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
FinalVolume:	61	0	59	0	0	0	0	167	175	90	69	0

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.51	0.00	0.49	0.00	0.00	0.00	0.00	0.49	0.51	0.57	0.43	0.00
Final Sat.:	360	0	348	0	0	0	0	424	444	427	327	0

Capacity Analysis Module:												
Vol/Sat:	0.17	xxxx	0.17	xxxx	xxxx	xxxx	xxxx	0.39	0.39	0.21	0.21	xxxx
Crit Moves:	****							****		****		
Delay/Veh:	8.6	0.0	8.6	0.0	0.0	0.0	0.0	9.6	9.6	8.8	8.8	0.0
Delay 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
AdjDel/Veh:	8.6	0.0	8.6	0.0	0.0	0.0	0.0	9.6	9.6	8.8	8.8	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:	8.6			xxxxxx				9.6			8.8	
Delay Adj:	1.00			xxxxxx				1.00			1.00	
ApprAdjDel:	8.6			xxxxxx				9.6			8.8	
LOS by Appr:	A			*				A			A	
AllWayAvgQ:	0.2	0.2	0.2	0.0	0.0	0.0	0.6	0.6	0.6	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound				
Movement:	L	T	R		L	T	R		L	T	R		L	T	R		
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign				
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Initial Vol:	61		0	59	0	0	0	0	0	0	167	175	90	69	0		0
Major Street Volume:					501												
Minor Approach Volume:					120												
Minor Approach Volume Threshold:					404												

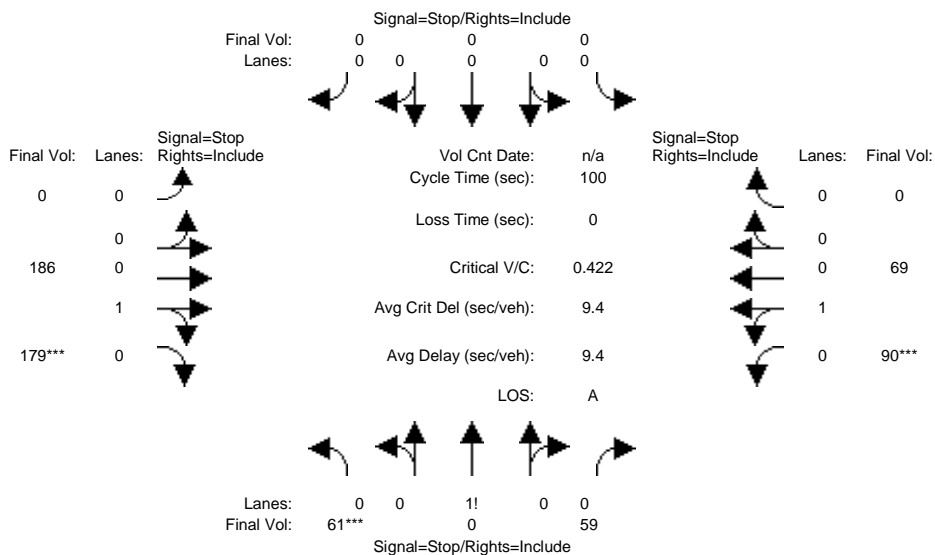
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Existing+P PM

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	61	0	59	0	0	0	0	167	175	90	69	0
Growth 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
Initial Bse:	61	0	59	0	0	0	0	167	175	90	69	0
Added Vol:	0	0	0	0	0	0	0	19	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	0	59	0	0	0	0	186	179	90	69	0
User 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
PHF 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
PHF Volume:	61	0	59	0	0	0	0	186	179	90	69	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	0	59	0	0	0	0	186	179	90	69	0
PCE 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
MLF 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
FinalVolume:	61	0	59	0	0	0	0	186	179	90	69	0

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.51	0.00	0.49	0.00	0.00	0.00	0.00	0.51	0.49	0.57	0.43	0.00
Final Sat.:	355	0	343	0	0	0	0	441	425	424	325	0

Capacity Analysis Module:												
Vol/Sat:	0.17	xxxx	0.17	xxxx	xxxx	xxxx	xxxx	0.42	0.42	0.21	0.21	xxxx
Crit Moves:	****								****	****		
Delay/Veh:	8.7	0.0	8.7	0.0	0.0	0.0	0.0	9.9	9.9	8.9	8.9	0.0
Delay 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
AdjDel/Veh:	8.7	0.0	8.7	0.0	0.0	0.0	0.0	9.9	9.9	8.9	8.9	0.0
LOS by Move:	A	*	A	*	*	*	*	A	A	A	A	*
ApproachDel:	8.7			xxxxxx				9.9			8.9	
Delay Adj:	1.00			xxxxxx				1.00			1.00	
ApprAdjDel:	8.7			xxxxxx				9.9			8.9	
LOS by Appr:	A			*				A			A	
AllWayAvgQ:	0.2	0.2	0.2	0.0	0.0	0.0	0.7	0.7	0.7	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0
Initial Vol:	61		0	59	0	0	0	0	0	186		179	90	69		0				
Major Street Volume:					524															
Minor Approach Volume:					120															
Minor Approach Volume Threshold:					392															

SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Bkgd PM

Intersection #10: Borregas Ave & Ahwanee Ave

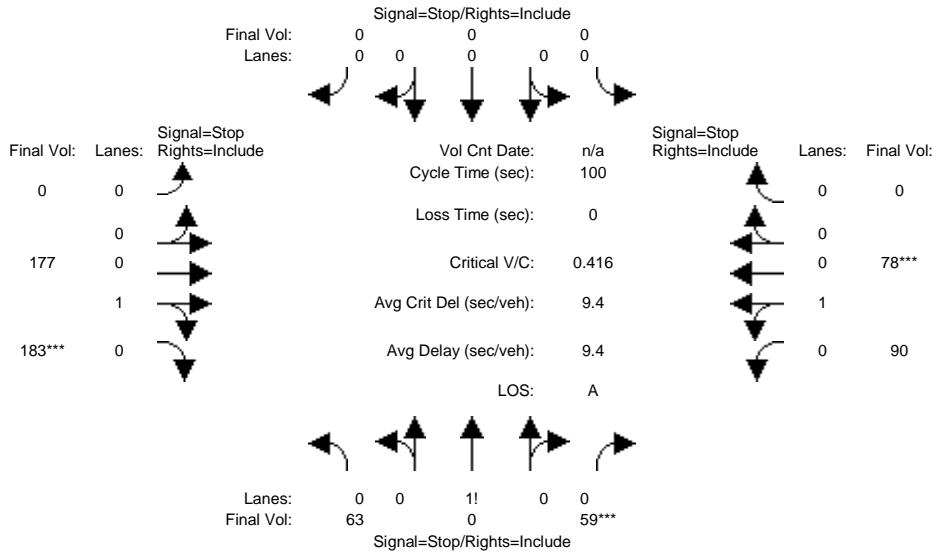


Table with columns for Street Name (Borregas Ave, Ahwanee Ave), Approach (North Bound, South Bound, East Bound, West Bound), and Movement (L, T, R). It lists Min. Green times for each movement.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for all movements.

Saturation Flow Module table showing Adjustment, Lanes, and Final Sat. values for all movements.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ for all movements.

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #10 Borregas Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	63 0 59	0 0 0	0 177 183	90 78 0
Major Street Volume:	528			
Minor Approach Volume:	122			
Minor Approach Volume Threshold:	390			

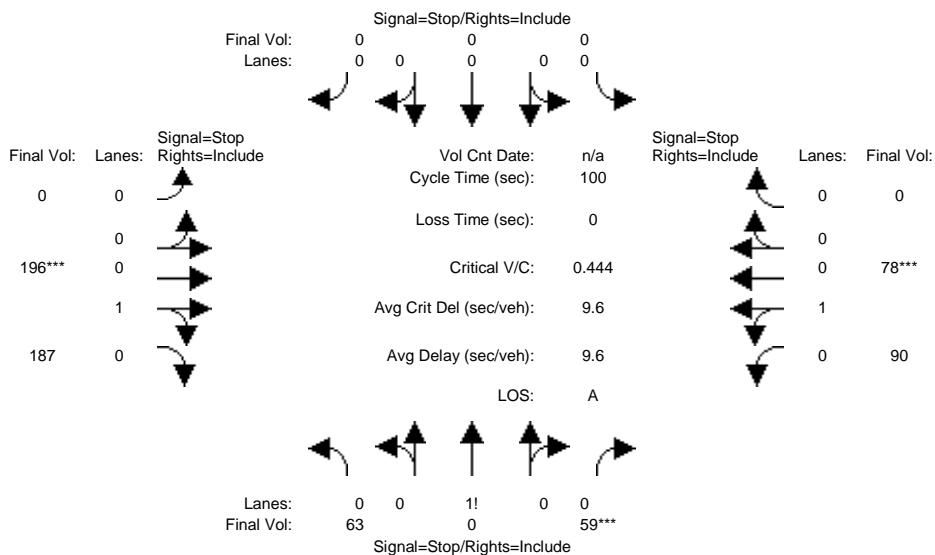
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Bkgd+P PM

Intersection #10: Borregas Ave & Ahwanee Ave



Street Name:	Borregas Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	63	0	59	0	0	0	0	177	183	90	78	0
Growth 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
Initial Bse:	63	0	59	0	0	0	0	177	183	90	78	0
Added Vol:	0	0	0	0	0	0	0	19	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	0	59	0	0	0	0	196	187	90	78	0
User 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
PHF 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
PHF Volume:	63	0	59	0	0	0	0	196	187	90	78	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	0	59	0	0	0	0	196	187	90	78	0
PCE 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
MLF 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
FinalVolume:	63	0	59	0	0	0	0	196	187	90	78	0

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.52	0.00	0.48	0.00	0.00	0.00	0.00	0.51	0.49	0.54	0.46	0.00
Final Sat.:	355	0	333	0	0	0	0	441	421	400	347	0

Capacity Analysis Module:												
Vol/Sat:	0.18	xxxx	0.18	xxxx	xxxx	xxxx	xxxx	0.44	0.44	0.23	0.23	xxxx
Crit Moves:			****					****				****
Delay/Veh:	8.8	0.0	8.8	0.0	0.0	0.0	0.0	10.2	10.2	9.0	9.0	0.0
Delay 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
AdjDel/Veh:	8.8	0.0	8.8	0.0	0.0	0.0	0.0	10.2	10.2	9.0	9.0	0.0
LOS by Move:	A	*	A	*	*	*	*	B	B	A	A	*
ApproachDel:	8.8			xxxxxx				10.2			9.0	
Delay Adj:	1.00			xxxxxx				1.00			1.00	
ApprAdjDel:	8.8			xxxxxx				10.2			9.0	
LOS by Appr:	A			*				B			A	
AllWayAvgQ:	0.2	0.2	0.2	0.0	0.0	0.0	0.7	0.7	0.7	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #10 Borregas Ave & Ahwanee Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0
Initial Vol:	63		0	59	0	0	0	0	0	196	187		90	78		0				
Major Street Volume:					551															
Minor Approach Volume:					122															
Minor Approach Volume Threshold:					378															

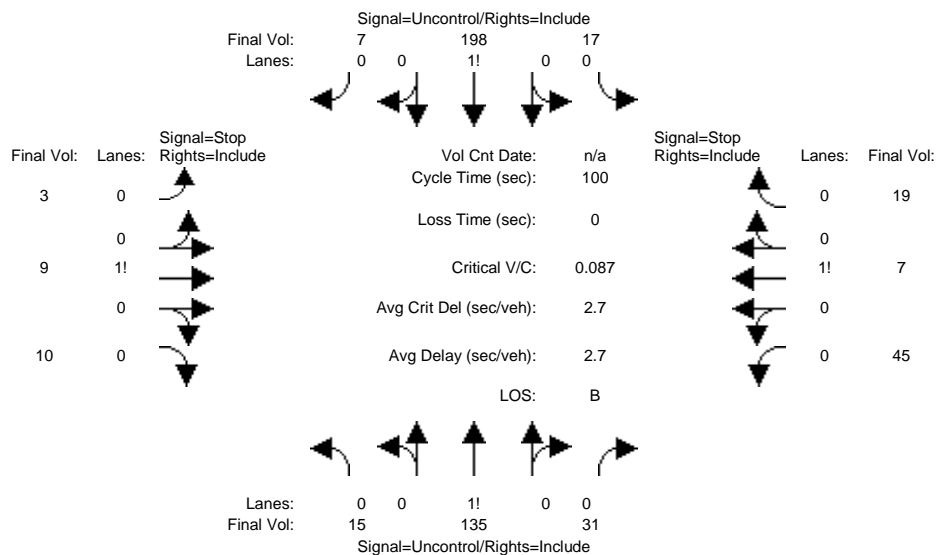
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	15	135	31	17	198	7	3	9	10	45	7	19
Growth 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
Initial Bse:	15	135	31	17	198	7	3	9	10	45	7	19
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	135	31	17	198	7	3	9	10	45	7	19
User 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
PHF 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
PHF Volume:	15	135	31	17	198	7	3	9	10	45	7	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	135	31	17	198	7	3	9	10	45	7	19

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	205	xxxx	xxxxxx	166	xxxx	xxxxxx	429	432	202	426	420	151
Potent Cap.:	1378	xxxx	xxxxxx	1424	xxxx	xxxxxx	540	520	844	543	528	901
Move Cap.:	1378	xxxx	xxxxxx	1424	xxxx	xxxxxx	514	508	844	520	516	901
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.02	0.01	0.09	0.01	0.02

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.6	xxxx	xxxxxx	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	621	xxxxxx	xxxx	586	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.1	xxxxxx	xxxxxx	0.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.0	xxxxxx	xxxxxx	12.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxxx		xxxxxxx					11.0			12.0	
ApproachLOS:	*		*					B			B	

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 135 31	17 198 7	3 9 10	45 7 19
ApproachDel:	xxxxxx	xxxxxx	11.0	12.0

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=22]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=496]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=71]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=496]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 135 31	17 198 7	3 9 10	45 7 19

Major Street Volume: 403
 Minor Approach Volume: 71
 Minor Approach Volume Threshold: 462

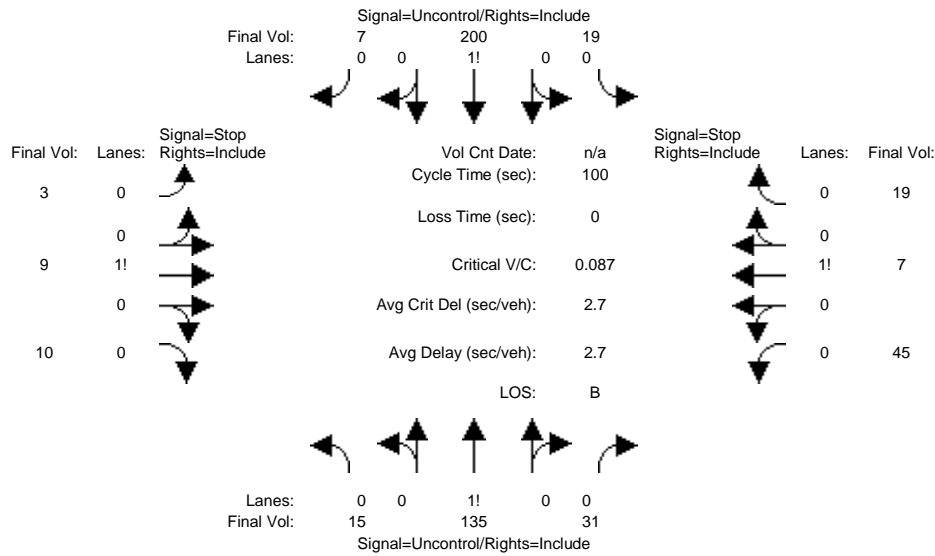
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 135 31	19 200 7	3 9 10	45 7 19
ApproachDel:	xxxxxx	xxxxxx	11.1	12.1

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=22]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=500]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=71]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=500]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 135 31	19 200 7	3 9 10	45 7 19

Major Street Volume: 407
 Minor Approach Volume: 71
 Minor Approach Volume Threshold: 459

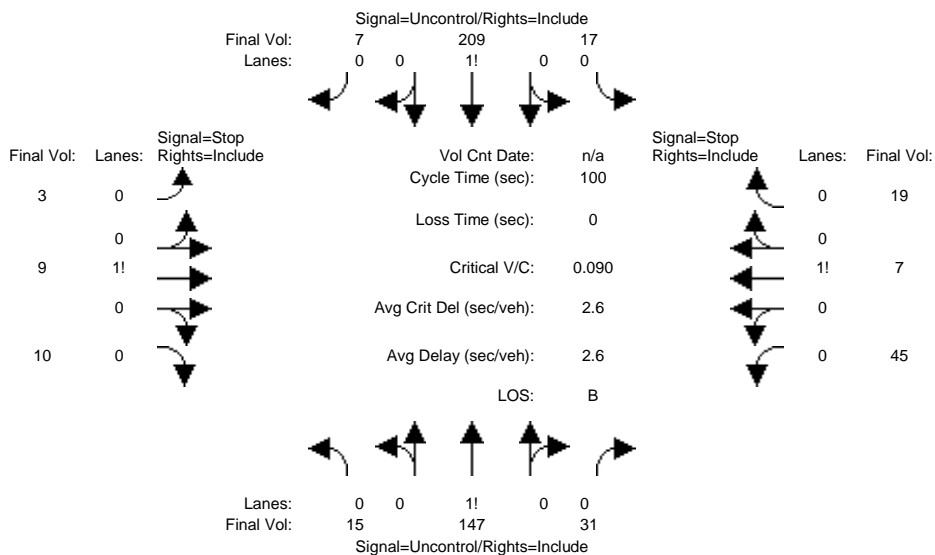
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing volume modules for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing critical gap modules. Rows include Critical Gap and FollowUpTime for each approach and movement.

Table with 12 columns representing capacity modules. Rows include Conflict Volume, Potent Capacity, Move Capacity, and Volume/Capacity for each approach and movement.

Table with 12 columns representing level of service modules. Rows include 2Way95thQ, Control Delay, LOS by Move, Shared Capacity, Shared Queue, Shrd ConDel, Shared LOS, Approach Delay, and Approach LOS for each approach and movement.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 147 31	17 209 7	3 9 10	45 7 19
ApproachDel:	xxxxxx	xxxxxx	11.2	12.2

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=22]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=519]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=71]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=519]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #11 Borregas Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 147 31	17 209 7	3 9 10	45 7 19

Major Street Volume: 426
 Minor Approach Volume: 71
 Minor Approach Volume Threshold: 447

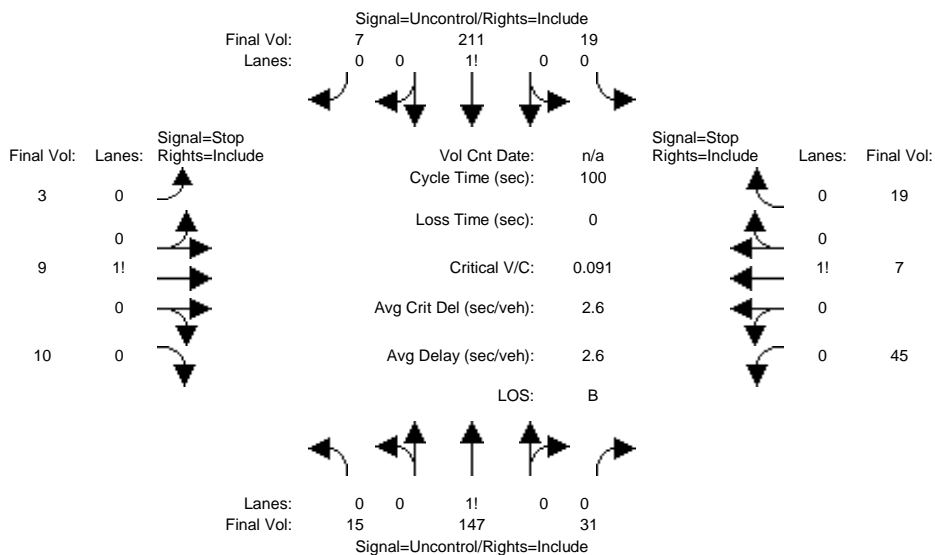
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #11: Borregas Ave & Duane Ave



Street Name: Borregas Ave Duane Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 12 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 12 columns representing movements and 4 rows of capacity data including Conflict Volume, Potent Capacity, Move Capacity, and Volume/Capacity.

Table with 12 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Delay, LOS by Move, Shared Capacity, Shared Queue, Shrd ConDel, Shared LOS, Approach Delay, and Approach LOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 147 31	19 211 7	3 9 10	45 7 19
ApproachDel:	xxxxxx	xxxxxx	11.2	12.3

Approach[eastbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=22]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=523]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=71]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=523]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #11 Borregas Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	15 147 31	19 211 7	3 9 10	45 7 19

Major Street Volume: 430
 Minor Approach Volume: 71
 Minor Approach Volume Threshold: 444

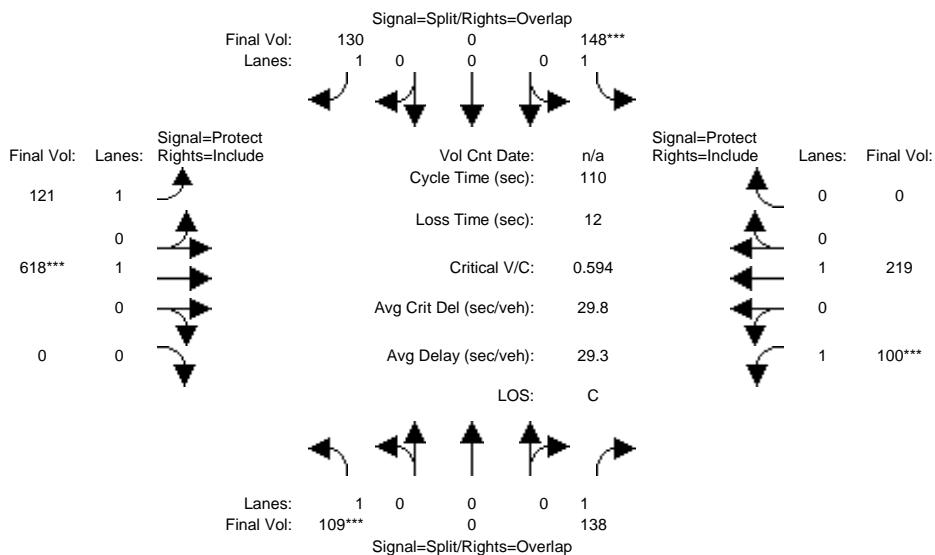
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	109	0	138	148	0	130	121	618	0	100	219	0
Growth 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
Initial Bse:	109	0	138	148	0	130	121	618	0	100	219	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	109	0	138	148	0	130	121	618	0	100	219	0
User 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
PHF 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
PHF Volume:	109	0	138	148	0	130	121	618	0	100	219	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	0	138	148	0	130	121	618	0	100	219	0
PCE 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
MLF 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
Final Volume:	109	0	138	148	0	130	121	618	0	100	219	0

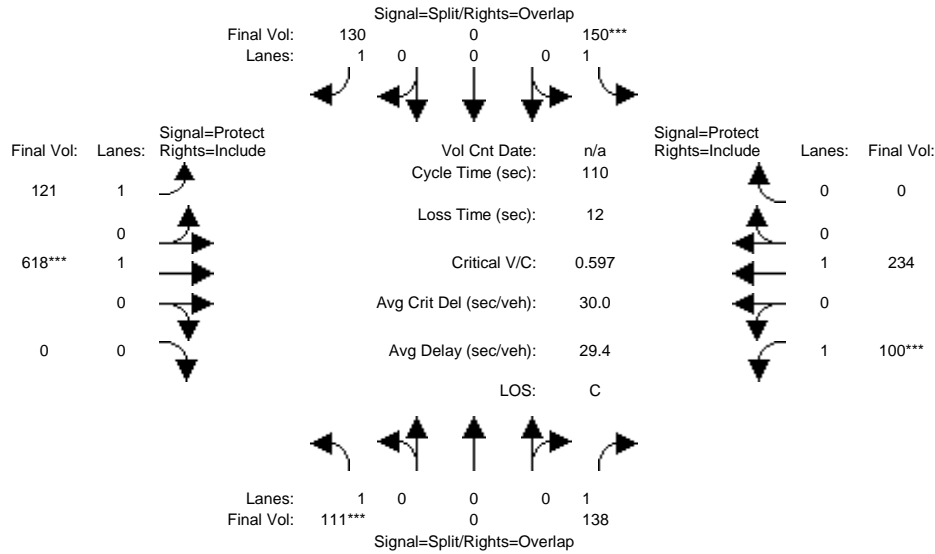
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.08	0.00	0.07	0.07	0.33	0.00	0.06	0.12	0.00
Crit Moves:	***			***			***			***		
Green Time:	11.5	0.0	22.1	15.7	0.0	42.2	26.5	60.2	0.0	10.6	44.3	0.0
Volume/Cap:	0.59	0.00	0.39	0.59	0.00	0.19	0.29	0.59	0.00	0.59	0.29	0.00
Uniform Del:	47.0	0.0	38.1	44.2	0.0	22.6	34.0	16.7	0.0	47.7	22.2	0.0
IncrcmntDel:	5.2	0.0	0.7	3.8	0.0	0.1	0.4	0.9	0.0	5.6	0.2	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	52.2	0.0	38.8	48.0	0.0	22.7	34.4	17.6	0.0	53.3	22.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.2	0.0	38.8	48.0	0.0	22.7	34.4	17.6	0.0	53.3	22.4	0.0
LOS by Move:	D-	A	D+	D	A	C+	C-	B	A	D-	C+	A
HCM2kAvgQ:	5	0	5	6	0	3	4	14	0	4	5	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	109	0	138	148	0	130	121	618	0	100	219	0
Growth 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
Initial Bse:	109	0	138	148	0	130	121	618	0	100	219	0
Added Vol:	2	0	0	2	0	0	0	0	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	111	0	138	150	0	130	121	618	0	100	234	0
User 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
PHF 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
PHF Volume:	111	0	138	150	0	130	121	618	0	100	234	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	0	138	150	0	130	121	618	0	100	234	0
PCE 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
MLF 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
Final Volume:	111	0	138	150	0	130	121	618	0	100	234	0

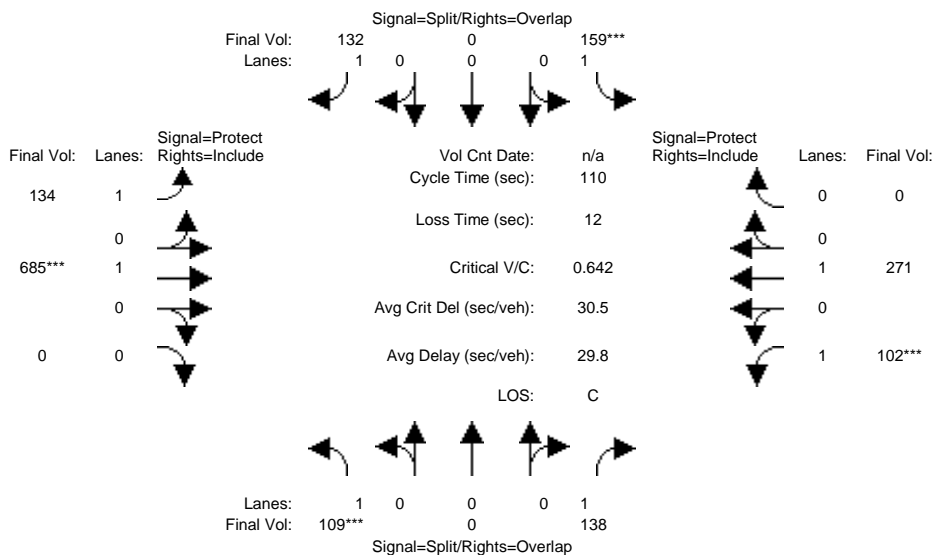
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.09	0.00	0.07	0.07	0.33	0.00	0.06	0.12	0.00
Crit Moves:	***			****			****			****		
Green Time:	11.7	0.0	22.2	15.8	0.0	41.2	25.3	60.0	0.0	10.5	45.2	0.0
Volume/Cap:	0.60	0.00	0.39	0.60	0.00	0.20	0.30	0.60	0.00	0.60	0.30	0.00
Uniform Del:	46.9	0.0	38.0	44.1	0.0	23.3	35.0	16.9	0.0	47.7	21.8	0.0
IncrcmntDel:	5.2	0.0	0.7	3.9	0.0	0.1	0.4	1.0	0.0	5.8	0.2	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	52.1	0.0	38.7	48.0	0.0	23.4	35.4	17.8	0.0	53.5	22.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.1	0.0	38.7	48.0	0.0	23.4	35.4	17.8	0.0	53.5	22.0	0.0
LOS by Move:	D-	A	D+	D	A	C	D+	B	A	D-	C+	A
HCM2kAvgQ:	5	0	5	6	0	3	4	14	0	4	5	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	109	0	138	159	0	132	134	685	0	102	271	0
Growth 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
Initial Bse:	109	0	138	159	0	132	134	685	0	102	271	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	109	0	138	159	0	132	134	685	0	102	271	0
User 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
PHF 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
PHF Volume:	109	0	138	159	0	132	134	685	0	102	271	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	0	138	159	0	132	134	685	0	102	271	0
PCE 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
MLF 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
FinalVolume:	109	0	138	159	0	132	134	685	0	102	271	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

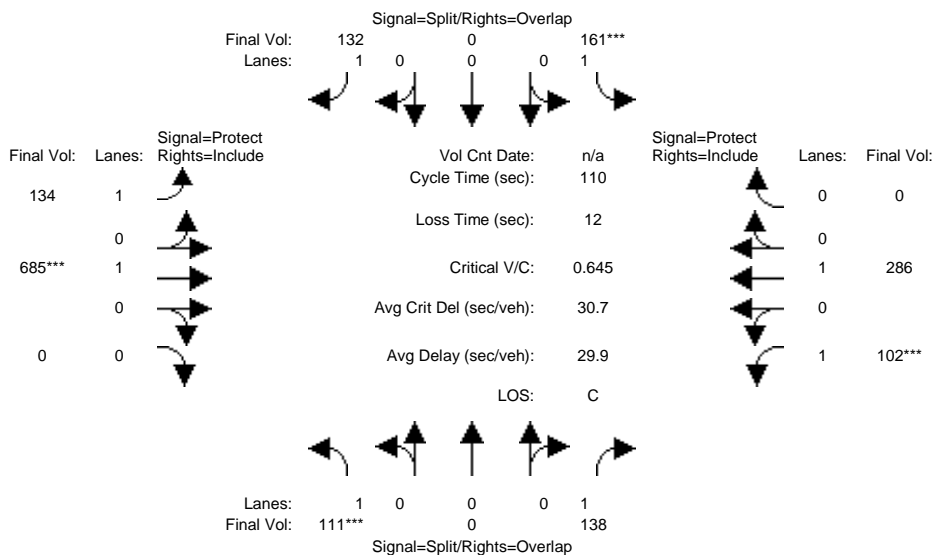
Capacity Analysis Module:

Vol/Sat:	0.06	0.00	0.08	0.09	0.00	0.08	0.08	0.36	0.00	0.06	0.14	0.00
Crit Moves:	***			***			***			***		
Green Time:	10.7	0.0	20.7	15.6	0.0	40.6	25.1	61.8	0.0	10.0	46.7	0.0
Volume/Cap:	0.64	0.00	0.42	0.64	0.00	0.20	0.34	0.64	0.00	0.64	0.34	0.00
Uniform Del:	47.8	0.0	39.4	44.6	0.0	23.7	35.5	16.5	0.0	48.3	21.2	0.0
IncrcmntDel:	8.1	0.0	0.9	5.6	0.0	0.2	0.5	1.3	0.0	8.6	0.2	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	55.9	0.0	40.3	50.2	0.0	23.8	36.0	17.9	0.0	56.9	21.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.9	0.0	40.3	50.2	0.0	23.8	36.0	17.9	0.0	56.9	21.5	0.0
LOS by Move:	E+	A	D	D	A	C	D+	B	A	E+	C+	A
HCM2kAvgQ:	5	0	5	7	0	3	4	16	0	5	6	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P PM

Intersection #12: Borregas Ave/Sunnyvale Ave & Maude Ave



Street Name:	Borregas Ave/Sunnyvale Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:

Base Vol:	109	0	138	159	0	132	134	685	0	102	271	0
Growth 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
Initial Bse:	109	0	138	159	0	132	134	685	0	102	271	0
Added Vol:	2	0	0	2	0	0	0	0	0	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	111	0	138	161	0	132	134	685	0	102	286	0
User 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
PHF 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
PHF Volume:	111	0	138	161	0	132	134	685	0	102	286	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	0	138	161	0	132	134	685	0	102	286	0
PCE 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
MLF 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
Final Volume:	111	0	138	161	0	132	134	685	0	102	286	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	1750	0	1750	1750	1900	0	1750	1900	0

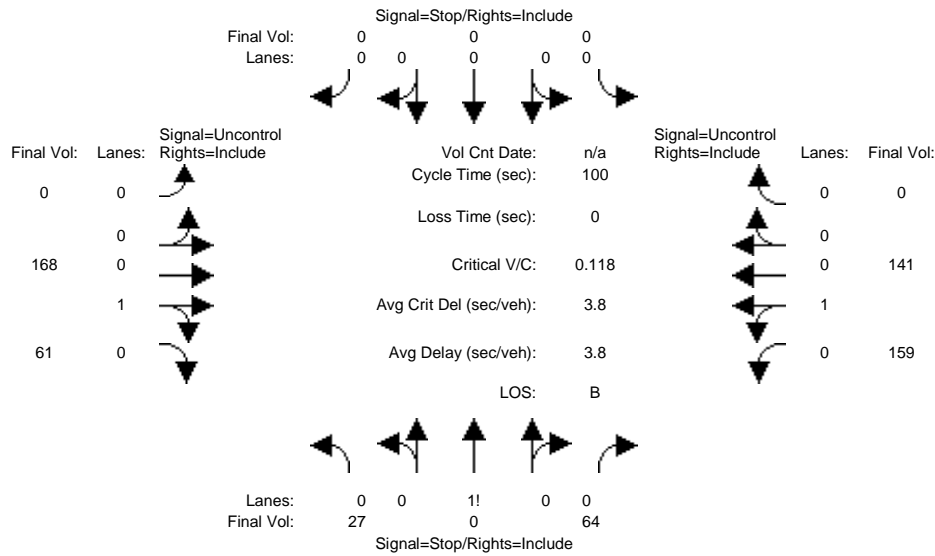
Capacity Analysis Module:

Vol/Sat:	0.06	0.00	0.08	0.09	0.00	0.08	0.08	0.36	0.00	0.06	0.15	0.00
Crit Moves:	***			****			****			****		
Green Time:	10.8	0.0	20.8	15.7	0.0	39.8	24.1	61.5	0.0	9.9	47.4	0.0
Volume/Cap:	0.64	0.00	0.42	0.64	0.00	0.21	0.35	0.64	0.00	0.64	0.35	0.00
Uniform Del:	47.7	0.0	39.3	44.5	0.0	24.2	36.3	16.7	0.0	48.3	21.0	0.0
IncrcmntDel:	8.1	0.0	0.9	5.7	0.0	0.2	0.6	1.4	0.0	8.8	0.3	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Delay/Veh:	55.9	0.0	40.1	50.2	0.0	24.4	36.9	18.1	0.0	57.1	21.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.9	0.0	40.1	50.2	0.0	24.4	36.9	18.1	0.0	57.1	21.2	0.0
LOS by Move:	E+	A	D	D	A	C	D+	B-	A	E+	C+	A
HCM2kAvgQ:	5	0	5	7	0	3	4	16	0	5	6	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing movements and 2 rows of critical gap data including Critical Gap and FollowUp Time.

Table with 13 columns representing movements and 4 rows of capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	27	0	64	0	0	0	0	168	61	159	141	0
ApproachDel:	11.7			xxxxxxx			xxxxxxx			xxxxxxx		

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.3]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=91]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=3][total volume=620]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0
Initial Vol:	27	0	64	0	0	0	0	168	61	159	141	0

Major Street Volume: 529
 Minor Approach Volume: 91
 Minor Approach Volume Threshold: 389

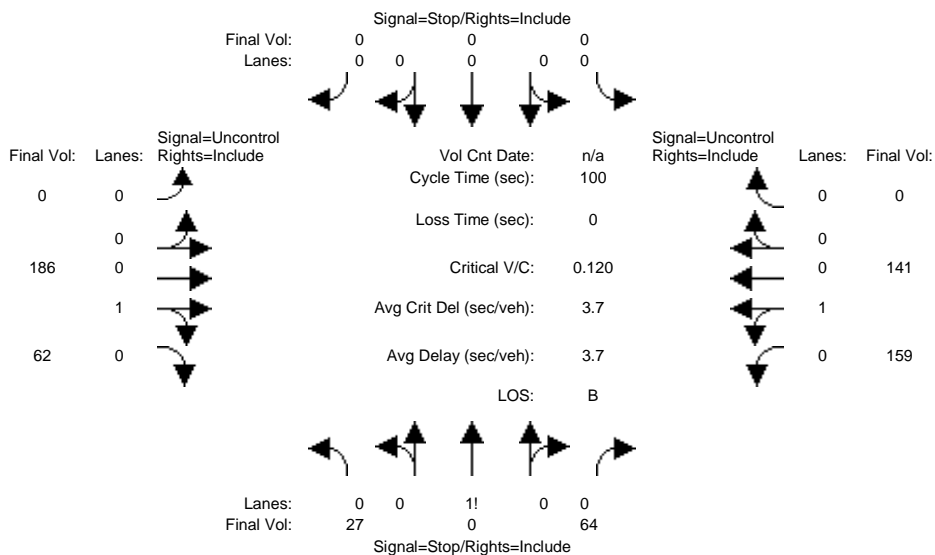
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	27	0	64	0	0	0	0	168	61	159	141	0
Growth 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
Initial Bse:	27	0	64	0	0	0	0	168	61	159	141	0
Added Vol:	0	0	0	0	0	0	0	18	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	0	64	0	0	0	0	186	62	159	141	0
User 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
PHF 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
PHF Volume:	27	0	64	0	0	0	0	186	62	159	141	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	27	0	64	0	0	0	0	186	62	159	141	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	676	676	217	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	248	xxxx	xxxxx
Potent Cap.:	422	378	828	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1330	xxxx	xxxxx
Move Cap.:	379	328	828	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1330	xxxx	xxxxx
Volume/Cap:	0.07	0.00	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	613	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	11.9			xxxxxxx			xxxxxxx		xxxxxxx		xxxxxxx	
ApproachLOS:		B			*			*			*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Initial Vol:	27		0		64	0		0		0	0		186		62	159		141		0
ApproachDel:	11.9				xxxxxxx				xxxxxxx				xxxxxxx							

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=91]
    FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=639]
    FAIL - Total volume less than 650 for intersection
        with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Initial Vol:	27		0		64	0		0		0	0		186		62	159		141		0

```

Major Street Volume:          548
Minor Approach Volume:       91
Minor Approach Volume Threshold: 380
    
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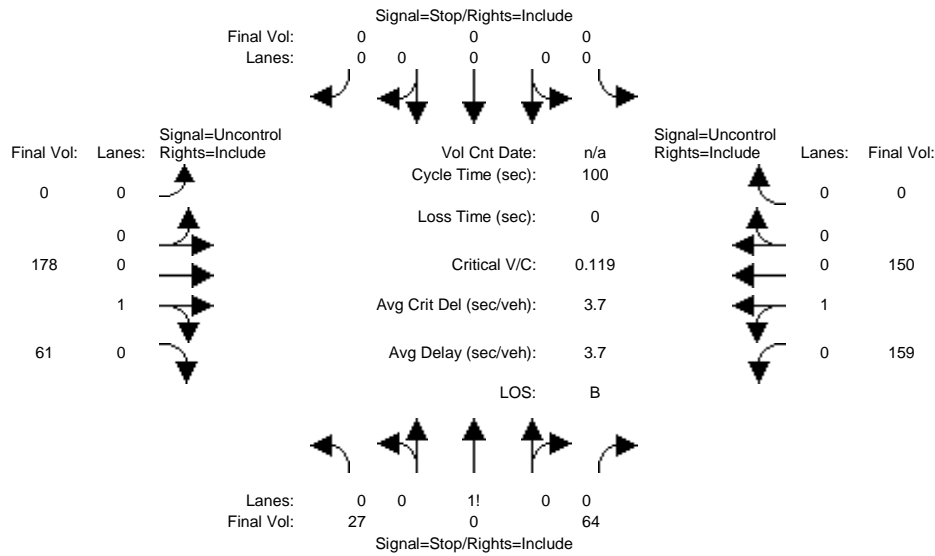
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for different movements and approaches. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with 13 columns representing critical gap modules. Rows include Critical Gap and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	27 0 64	0 0 0	0 178 61	159 150 0
ApproachDel:	11.8	xxxxxx	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.3]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=91]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=3][total volume=639]
 FAIL - Total volume less than 650 for intersection
 with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	27 0 64	0 0 0	0 178 61	159 150 0

Major Street Volume: 548
 Minor Approach Volume: 91
 Minor Approach Volume Threshold: 380

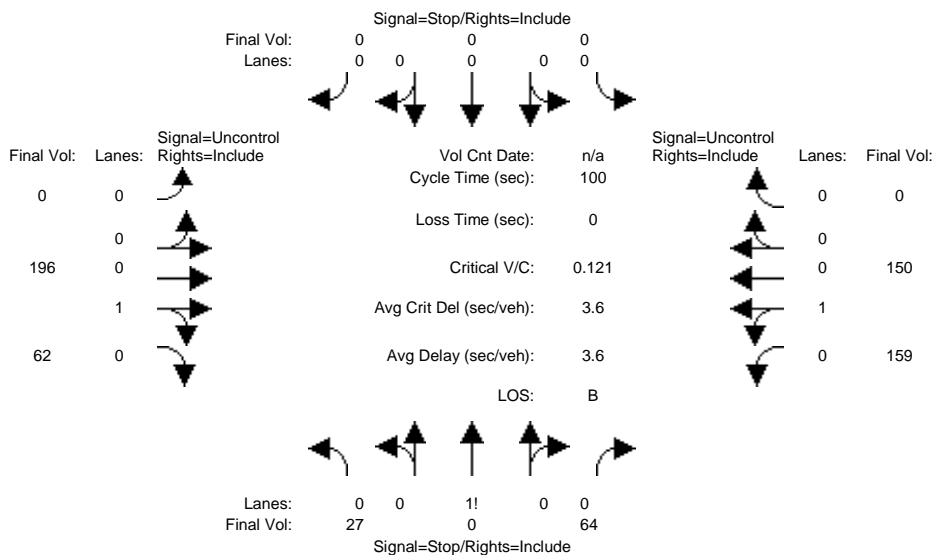
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #13: Morse Ave & Ahwanee Ave



Street Name: Morse Ave Ahwanee Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	Morse Ave			Morse Ave			Ahwanee Ave			Ahwanee Ave		
	L	T	R	L	T	R	L	T	R	L	T	R
Base Vol:	27	0	64	0	0	0	0	178	61	159	150	0
Growth 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
Initial Bse:	27	0	64	0	0	0	0	178	61	159	150	0
Added Vol:	0	0	0	0	0	0	0	18	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	0	64	0	0	0	0	196	62	159	150	0
User 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
PHF 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
PHF Volume:	27	0	64	0	0	0	0	196	62	159	150	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	27	0	64	0	0	0	0	196	62	159	150	0

Critical Gap Module:	Morse Ave			Morse Ave			Ahwanee Ave			Ahwanee Ave		
	L	T	R	L	T	R	L	T	R	L	T	R
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	Morse Ave			Morse Ave			Ahwanee Ave			Ahwanee Ave		
	L	T	R	L	T	R	L	T	R	L	T	R
Cnflct Vol:	695	695	227	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	258	xxxx	xxxxx
Potent Cap.:	411	368	817	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1318	xxxx	xxxxx
Move Cap.:	370	320	817	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1318	xxxx	xxxxx
Volume/Cap:	0.07	0.00	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	xxxx	xxxx

Level Of Service Module:	Morse Ave			Morse Ave			Ahwanee Ave			Ahwanee Ave		
	L	T	R	L	T	R	L	T	R	L	T	R
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Shared Cap.:	xxxx	601	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Shrd ConDel:	xxxxx	12.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	12.1			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B			*			*			*	

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	27 0 64	0 0 0	0 196 62	159 150 0
ApproachDel:	12.1	xxxxxx	xxxxxx	xxxxxx

```

Approach[northbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.3]
    FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=91]
    FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=3][total volume=658]
    SUCCEED - Total volume greater than or equal to 650 for intersection
                with less than four approaches.
    
```

SIGNAL WARRANT DISCLAIMER

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The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #13 Morse Ave & Ahwanee Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 0 1 0	0 1 0 0 0
Initial Vol:	27 0 64	0 0 0	0 196 62	159 150 0

```

Major Street Volume:          567
Minor Approach Volume:       91
Minor Approach Volume Threshold: 371
    
```

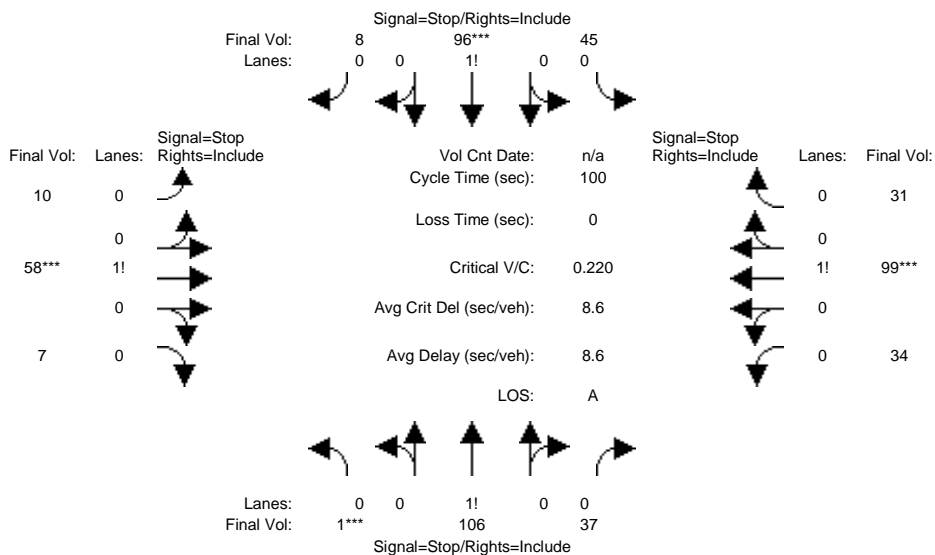
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Existing PM

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	1	106	37	45	96	8	10	58	7	34	99	31
Growth 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
Initial Bse:	1	106	37	45	96	8	10	58	7	34	99	31
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	106	37	45	96	8	10	58	7	34	99	31
User 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
PHF 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
PHF Volume:	1	106	37	45	96	8	10	58	7	34	99	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	106	37	45	96	8	10	58	7	34	99	31
PCE 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
MLF 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
FinalVolume:	1	106	37	45	96	8	10	58	7	34	99	31

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.73	0.26	0.30	0.65	0.05	0.13	0.78	0.09	0.21	0.60	0.19
Final Sat.:	5	564	197	223	477	40	95	553	67	155	450	141

Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.19	0.20	0.20	0.20	0.10	0.10	0.10	0.22	0.22	0.22
Crit Moves:	****				****			****			****	
Delay/Veh:	8.4	8.4	8.4	8.7	8.7	8.7	8.2	8.2	8.2	8.8	8.8	8.8
Delay 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
AdjDel/Veh:	8.4	8.4	8.4	8.7	8.7	8.7	8.2	8.2	8.2	8.8	8.8	8.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.4			8.7			8.2			8.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.4			8.7			8.2			8.8	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #14 Morse Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0
Initial Vol:	1	106	37	45	96	8	10	58	7	34	99	31
Major Street Volume:				293								
Minor Approach Volume:				164								
Minor Approach Volume Threshold:				547								

SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Existing+P PM

Intersection #14: Morse Ave & Duane Ave

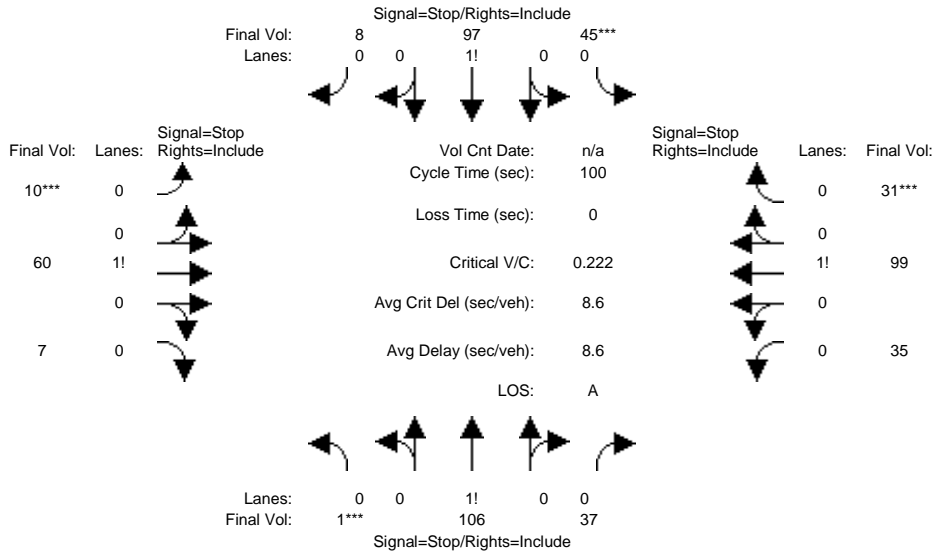


Table with columns for Street Name (Morse Ave, Duane Ave), Approach (North Bound, South Bound, East Bound, West Bound), and Movement (L, T, R). Rows include Min. Green and Volume Module data.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for all movements.

Saturation Flow Module table showing Adjustment, Lanes, and Final Sat for all movements.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ for all movements.

Note: Queue reported is the number of cars per lane.
Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 Morse Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Lanes:	0	0	1!	0	0	0	0	0	1!	0	0	0
Initial Vol:	1	106	37	45	97	8	10	60	7	35	99	31
Major Street Volume:				294								
Minor Approach Volume:				165								
Minor Approach Volume Threshold:				546								

SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM 4-Way Stop (Future Volume Alternative)
Bkgd PM

Intersection #14: Morse Ave & Duane Ave

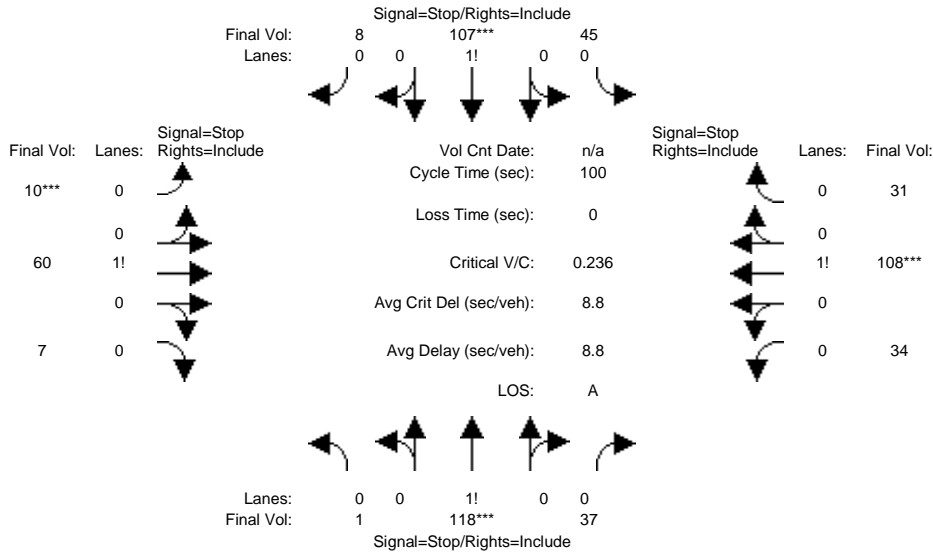


Table with columns for Street Name (Morse Ave, Duane Ave), Approach (North Bound, South Bound, East Bound, West Bound), and Movement (L, T, R). Includes Min. Green values.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for all movements.

Saturation Flow Module table showing Adjustment, Lanes, and Final Sat values for all movements.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ values.

Note: Queue reported is the number of cars per lane.
Peak Hour Volume Signal Warrant Report [Urban]

Intersection #14 Morse Ave & Duane Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	1 118 37	45 107 8	10 60 7	34 108 31
Major Street Volume:	316			
Minor Approach Volume:	173			
Minor Approach Volume Threshold:	527			

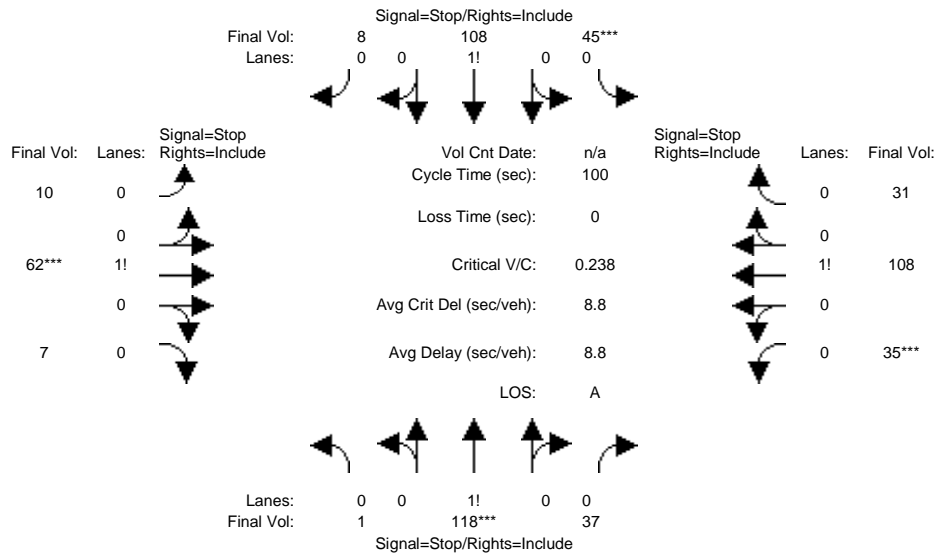
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Level Of Service Computation Report
 2000 HCM 4-Way Stop (Future Volume Alternative)
 Bkgd+P PM

Intersection #14: Morse Ave & Duane Ave



Street Name:	Morse Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0

Volume Module:												
Base Vol:	1	118	37	45	107	8	10	60	7	34	108	31
Growth 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
Initial Bse:	1	118	37	45	107	8	10	60	7	34	108	31
Added Vol:	0	0	0	0	1	0	0	2	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	118	37	45	108	8	10	62	7	35	108	31
User 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
PHF 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
PHF Volume:	1	118	37	45	108	8	10	62	7	35	108	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	118	37	45	108	8	10	62	7	35	108	31
PCE 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
MLF 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
FinalVolume:	1	118	37	45	108	8	10	62	7	35	108	31

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.75	0.24	0.28	0.67	0.05	0.13	0.78	0.09	0.20	0.62	0.18
Final Sat.:	5	569	178	204	489	36	88	549	62	147	455	130

Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.21	0.22	0.22	0.22	0.11	0.11	0.11	0.24	0.24	0.24
Crit Moves:	****			****			****			****		
Delay/Veh:	8.7	8.7	8.7	8.9	8.9	8.9	8.4	8.4	8.4	9.0	9.0	9.0
Delay 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
AdjDel/Veh:	8.7	8.7	8.7	8.9	8.9	8.9	8.4	8.4	8.4	9.0	9.0	9.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.7			8.9			8.4			9.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.7			8.9			8.4			9.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #14 Morse Ave & Duane Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	1 118 37	45 108 8	10 62 7	35 108 31
Major Street Volume:	317			
Minor Approach Volume:	174			
Minor Approach Volume Threshold:	526			

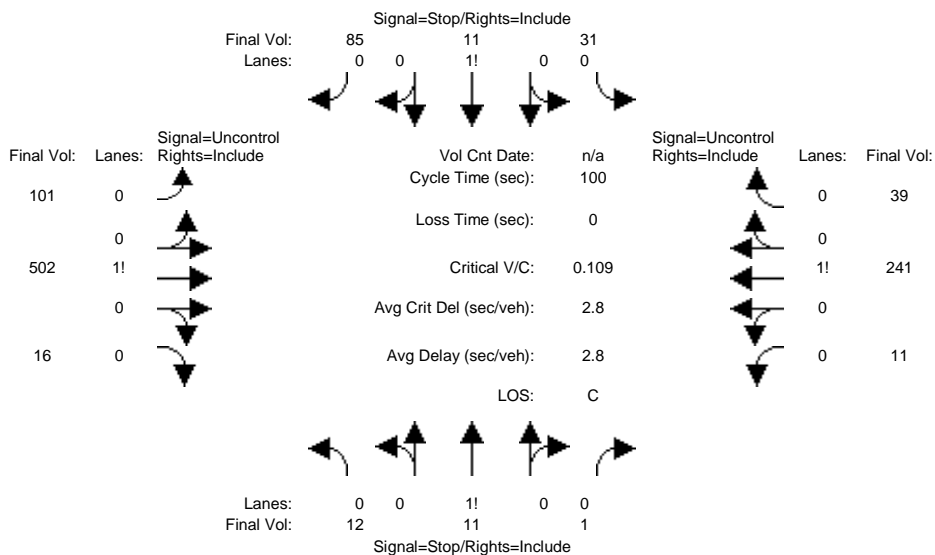
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing volume modules for each approach and movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing critical gap modules. Rows include Critical Gap and FollowUpTim.

Table with 13 columns representing capacity modules. Rows include Cnflct Vol, Potent Cap., Move Cap., Total Cap, and Volume/Cap.

Table with 13 columns representing level of service modules. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 85	101 502 16	11 241 39
ApproachDel:	16.2	13.5	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=24]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1061]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.5]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=127]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1061]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 85	101 502 16	11 241 39

Major Street Volume: 910
 Minor Approach Volume: 127
 Minor Approach Volume Threshold: 245

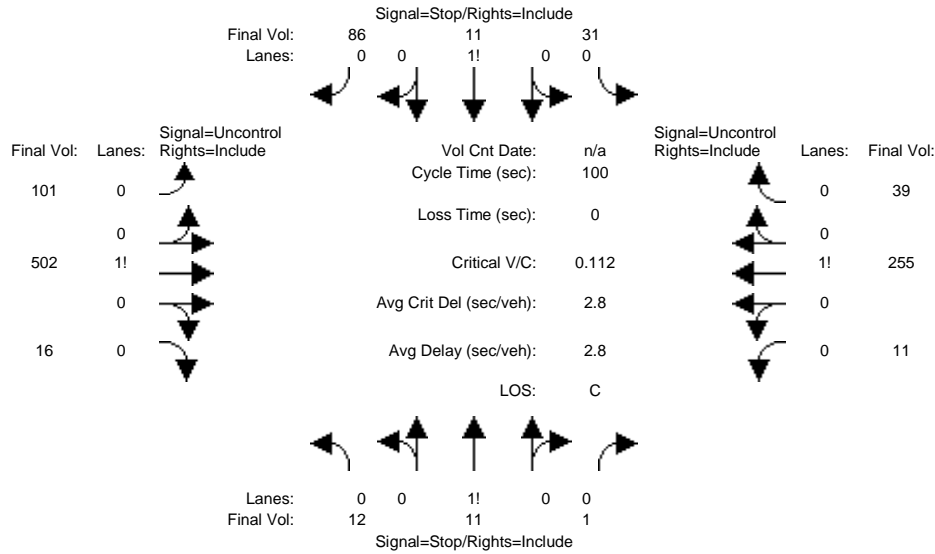
SIGNAL WARRANT DISCLAIMER

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Level Of Service Computation Report
 2000 HCM Unsignalized (Future Volume Alternative)
 Existing+P PM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	11	1	31	11	85	101	502	16	11	241	39
Growth 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
Initial Bse:	12	11	1	31	11	85	101	502	16	11	241	39
Added Vol:	0	0	0	0	0	1	0	0	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	11	1	31	11	86	101	502	16	11	255	39
User 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
PHF 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
PHF Volume:	12	11	1	31	11	86	101	502	16	11	255	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	11	1	31	11	86	101	502	16	11	255	39

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1057	1028	510	1015	1017	275	294	xxxx	xxxxx	518	xxxx	xxxxx
Potent Cap.:	205	236	567	219	240	769	1279	xxxx	xxxxx	1058	xxxx	xxxxx
Move Cap.:	162	214	567	195	217	769	1279	xxxx	xxxxx	1058	xxxx	xxxxx
Total Cap:	321	352	xxxxx	335	353	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.04	0.03	0.00	0.09	0.03	0.11	0.08	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	8.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	341	xxxxx	xxxx	543	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	16.4	xxxxx	xxxxx	13.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	B	*	*	*	*	*	*	*
ApproachDel:	16.4			13.7			xxxxxxx			xxxxxxx		
ApproachLOS:		C			B			*			*	

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 86	101 502 16	11 255 39
ApproachDel:	16.4	13.7	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=24]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1076]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.5]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=128]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1076]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 86	101 502 16	11 255 39

Major Street Volume: 924
 Minor Approach Volume: 128
 Minor Approach Volume Threshold: 240

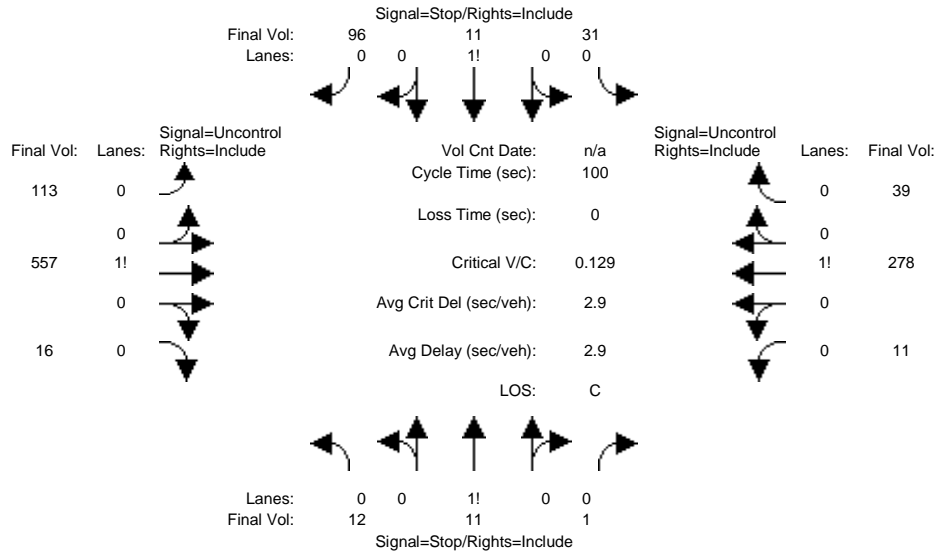
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level of Service Computation Report
 2000 HCM Unsignalized (Future Volume Alternative)
 Bkgd PM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:

Base Vol:	12	11	1	31	11	96	113	557	16	11	278	39
Growth 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
Initial Bse:	12	11	1	31	11	96	113	557	16	11	278	39
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	11	1	31	11	96	113	557	16	11	278	39
User 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
PHF 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
PHF Volume:	12	11	1	31	11	96	113	557	16	11	278	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	11	1	31	11	96	113	557	16	11	278	39

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1164	1130	565	1117	1119	298	317	xxxx	xxxxxx	573	xxxx	xxxxxx
Potent Cap.:	173	205	528	186	209	747	1255	xxxx	xxxxxx	1010	xxxx	xxxxxx
Move Cap.:	132	184	528	163	187	747	1255	xxxx	xxxxxx	1010	xxxx	xxxxxx
Total Cap:	285	320	xxxxxx	297	320	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.04	0.03	0.00	0.10	0.03	0.13	0.09	xxxx	xxxx	0.01	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.3	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	8.2	xxxx	xxxxxx	8.6	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	306	xxxxxx	xxxx	516	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.3	xxxxxx	xxxxxx	1.1	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	17.8	xxxxxx	xxxxxx	14.5	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	C	*	*	B	*	*	*	*	*	*	*
ApproachDel:		17.8			14.5		xxxxxxx			xxxxxxx		
ApproachLOS:		C			B		*			*		*

Note: Queue reported is the number of cars per lane.
 Peak Hour Delay Signal Warrant Report

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 96	113 557 16	11 278 39
ApproachDel:	17.8	14.5	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=24]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1176]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.6]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=138]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1176]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 96	113 557 16	11 278 39

Major Street Volume: 1014
 Minor Approach Volume: 138
 Minor Approach Volume Threshold: 216

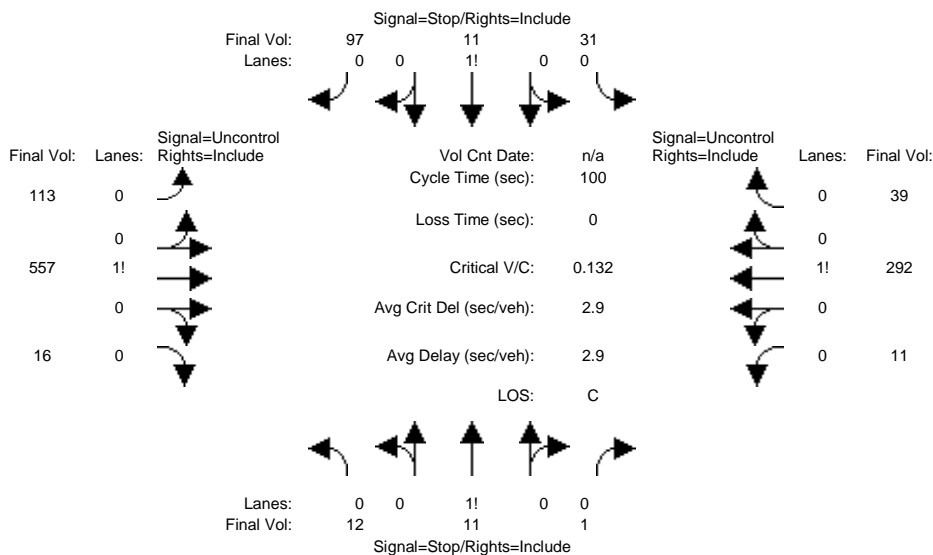
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #15: Morse Ave & Maude Ave



Street Name: Morse Ave Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing traffic movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with 12 columns representing traffic movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing traffic movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Total Cap, Volume/Cap.

Table with 12 columns representing traffic movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #15 Morse Ave & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 97	113 557 16	11 292 39
ApproachDel:	17.9	14.6	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=24]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1191]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[southbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.6]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=139]
 SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1191]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #15 Morse Ave & Maude Ave

 Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	12 11 1	31 11 97	113 557 16	11 292 39

Major Street Volume: 1028
 Minor Approach Volume: 139
 Minor Approach Volume Threshold: 212

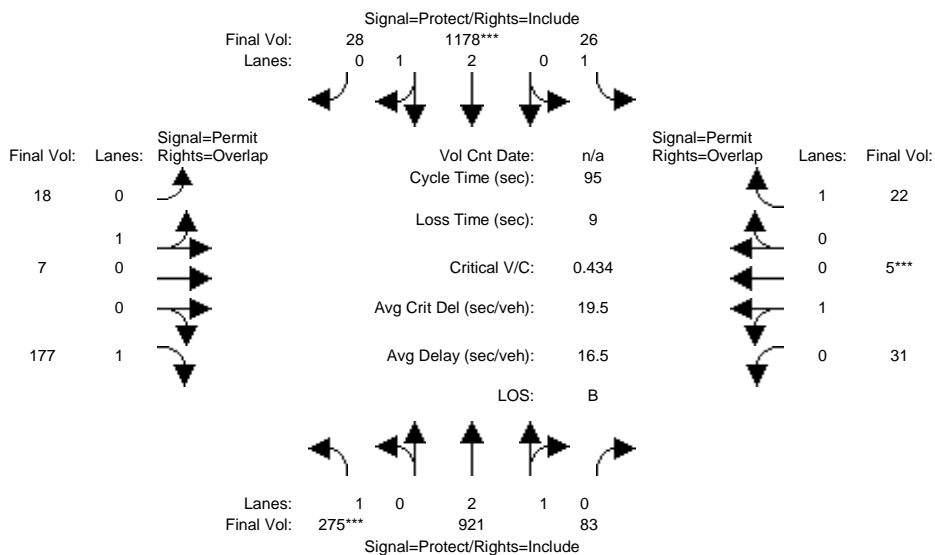
SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	275	921	83	26	1178	28	18	7	177	31	5	22
Growth 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
Initial Bse:	275	921	83	26	1178	28	18	7	177	31	5	22
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	275	921	83	26	1178	28	18	7	177	31	5	22
User 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
PHF 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
PHF Volume:	275	921	83	26	1178	28	18	7	177	31	5	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	275	921	83	26	1178	28	18	7	177	31	5	22
PCE 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
MLF 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
Final Volume:	275	921	83	26	1178	28	18	7	177	31	5	22

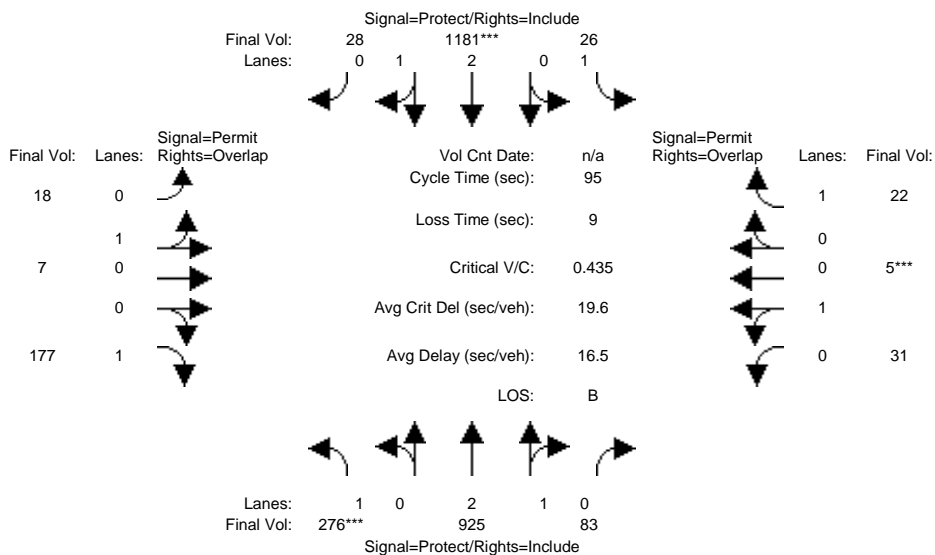
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.74	0.26	1.00	2.93	0.07	0.72	0.28	1.00	0.86	0.14	1.00
Final Sat.:	1750	5136	463	1750	5470	130	1296	504	1750	1550	250	1750

Capacity Analysis Module:												
Vol/Sat:	0.16	0.18	0.18	0.01	0.22	0.22	0.01	0.01	0.10	0.02	0.02	0.01
Crit Moves:	****				****					****		
Green Time:	32.1	53.9	53.9	22.1	43.9	43.9	10.0	10.0	42.1	10.0	10.0	32.1
Volume/Cap:	0.47	0.32	0.32	0.06	0.47	0.47	0.13	0.13	0.23	0.19	0.19	0.04
Uniform Del:	24.7	10.9	10.9	28.4	17.5	17.5	38.6	38.6	16.4	38.8	38.8	21.1
IncrcmntDel:	0.6	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.5	0.5	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	25.3	10.9	10.9	28.4	17.6	17.6	38.9	38.9	16.6	39.3	39.3	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.3	10.9	10.9	28.4	17.6	17.6	38.9	38.9	16.6	39.3	39.3	21.1
LOS by Move:	C	B+	B+	C	B	B	D+	D+	B	D	D	C+
HCM2kAvgQ:	7	5	5	1	8	8	1	1	3	1	1	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P PM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	275	921	83	26	1178	28	18	7	177	31	5	22
Growth 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
Initial Bse:	275	921	83	26	1178	28	18	7	177	31	5	22
Added Vol:	1	4	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	276	925	83	26	1181	28	18	7	177	31	5	22
User 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
PHF 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
PHF Volume:	276	925	83	26	1181	28	18	7	177	31	5	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	276	925	83	26	1181	28	18	7	177	31	5	22
PCE 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
MLF 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
Final Volume:	276	925	83	26	1181	28	18	7	177	31	5	22

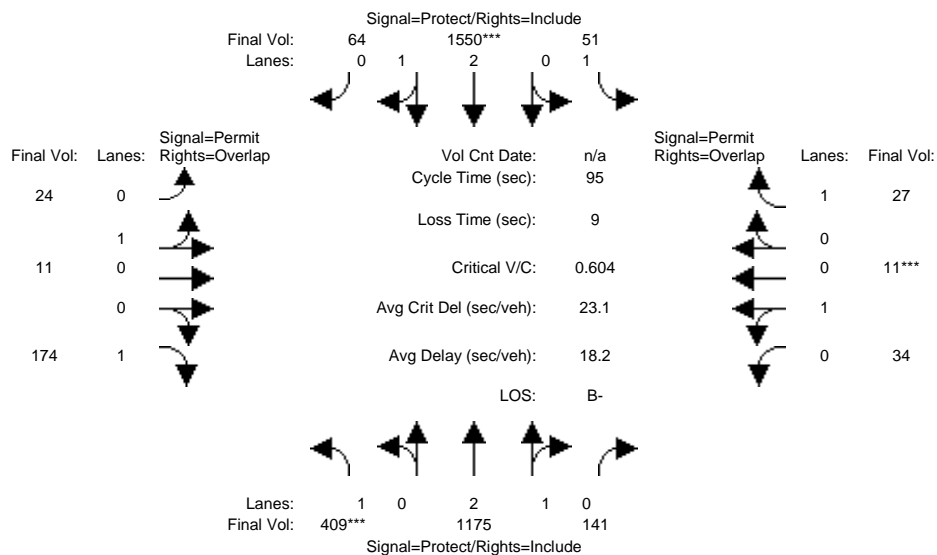
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.74	0.26	1.00	2.93	0.07	0.72	0.28	1.00	0.86	0.14	1.00
Final Sat.:	1750	5138	461	1750	5470	130	1296	504	1750	1550	250	1750

Capacity Analysis Module:												
Vol/Sat:	0.16	0.18	0.18	0.01	0.22	0.22	0.01	0.01	0.10	0.02	0.02	0.01
Crit Moves:	****				****						****	
Green Time:	32.1	53.9	53.9	22.1	43.9	43.9	10.0	10.0	42.1	10.0	10.0	32.1
Volume/Cap:	0.47	0.32	0.32	0.06	0.47	0.47	0.13	0.13	0.23	0.19	0.19	0.04
Uniform Del:	24.7	10.8	10.8	28.4	17.5	17.5	38.6	38.6	16.4	38.8	38.8	21.1
IncrcmntDel:	0.6	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.5	0.5	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	25.3	10.9	10.9	28.5	17.6	17.6	38.9	38.9	16.5	39.3	39.3	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.3	10.9	10.9	28.5	17.6	17.6	38.9	38.9	16.5	39.3	39.3	21.1
LOS by Move:	C	B+	B+	C	B	B	D+	D+	B	D	D	C+
HCM2kAvgQ:	7	5	5	1	8	8	1	1	3	1	1	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	409	1175	141	51	1550	64	24	11	174	34	11	27
Growth 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
Initial Bse:	409	1175	141	51	1550	64	24	11	174	34	11	27
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	409	1175	141	51	1550	64	24	11	174	34	11	27
User 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
PHF 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
PHF Volume:	409	1175	141	51	1550	64	24	11	174	34	11	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	409	1175	141	51	1550	64	24	11	174	34	11	27
PCE 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
MLF 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
Final Volume:	409	1175	141	51	1550	64	24	11	174	34	11	27

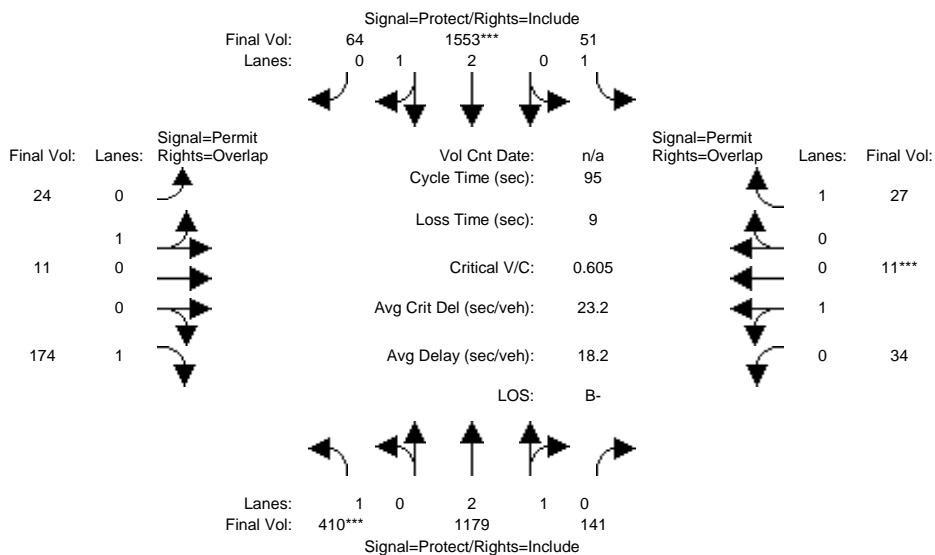
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.67	0.33	1.00	2.88	0.12	0.69	0.31	1.00	0.76	0.24	1.00
Final Sat.:	1750	4999	600	1750	5378	222	1234	566	1750	1360	440	1750

Capacity Analysis Module:												
Vol/Sat:	0.23	0.24	0.24	0.03	0.29	0.29	0.02	0.02	0.10	0.03	0.03	0.02
Crit Moves:	****				****					****		
Green Time:	34.0	57.9	57.9	18.1	42.0	42.0	10.0	10.0	44.0	10.0	10.0	28.1
Volume/Cap:	0.65	0.39	0.39	0.15	0.65	0.65	0.18	0.18	0.21	0.24	0.24	0.05
Uniform Del:	25.5	9.5	9.5	32.0	20.8	20.8	38.8	38.8	15.2	39.0	39.0	23.9
IncrcmntDel:	2.5	0.1	0.1	0.2	0.6	0.6	0.5	0.5	0.1	0.6	0.6	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	28.0	9.6	9.6	32.2	21.4	21.4	39.3	39.3	15.3	39.7	39.7	23.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.0	9.6	9.6	32.2	21.4	21.4	39.3	39.3	15.3	39.7	39.7	23.9
LOS by Move:	C	A	A	C-	C+	C+	D	D	B	D	D	C
HCM2kAvgQ:	11	6	6	1	13	13	1	1	3	1	1	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #16: Fair Oaks Ave & Weddell Ave



Street Name:	Fair Oaks Ave						Weddell Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	409	1175	141	51	1550	64	24	11	174	34	11	27
Growth 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
Initial Bse:	409	1175	141	51	1550	64	24	11	174	34	11	27
Added Vol:	1	4	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	410	1179	141	51	1553	64	24	11	174	34	11	27
User 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
PHF 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
PHF Volume:	410	1179	141	51	1553	64	24	11	174	34	11	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	410	1179	141	51	1553	64	24	11	174	34	11	27
PCE 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
MLF 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
Final Volume:	410	1179	141	51	1553	64	24	11	174	34	11	27

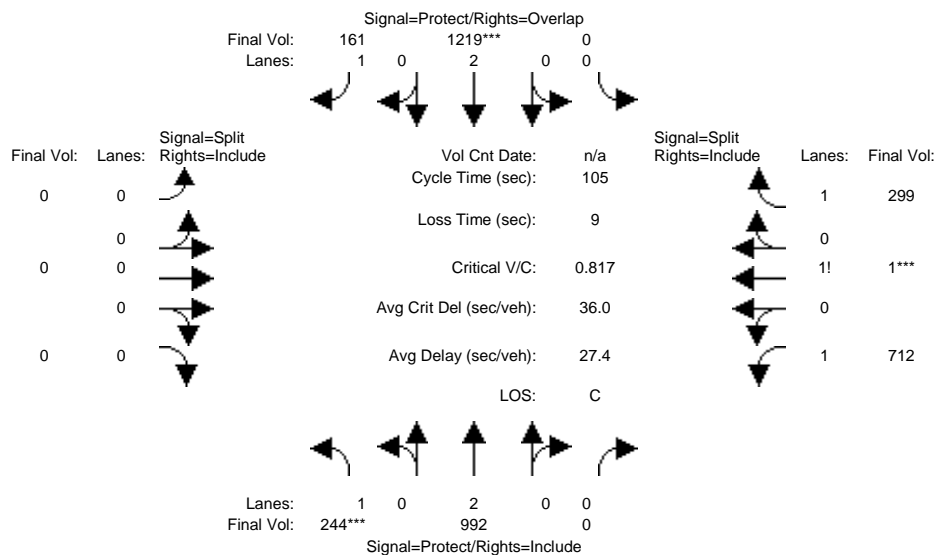
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.67	0.33	1.00	2.88	0.12	0.69	0.31	1.00	0.76	0.24	1.00
Final Sat.:	1750	5001	598	1750	5378	222	1234	566	1750	1360	440	1750

Capacity Analysis Module:												
Vol/Sat:	0.23	0.24	0.24	0.03	0.29	0.29	0.02	0.02	0.10	0.03	0.03	0.02
Crit Moves:	****				****					****		
Green Time:	34.0	57.9	57.9	18.1	42.0	42.0	10.0	10.0	44.0	10.0	10.0	28.1
Volume/Cap:	0.65	0.39	0.39	0.15	0.65	0.65	0.18	0.18	0.21	0.24	0.24	0.05
Uniform Del:	25.5	9.5	9.5	32.1	20.8	20.8	38.8	38.8	15.2	39.0	39.0	23.9
IncrcmntDel:	2.5	0.1	0.1	0.2	0.6	0.6	0.5	0.5	0.1	0.6	0.6	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	28.0	9.6	9.6	32.3	21.5	21.5	39.3	39.3	15.3	39.7	39.7	24.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.0	9.6	9.6	32.3	21.5	21.5	39.3	39.3	15.3	39.7	39.7	24.0
LOS by Move:	C	A	A	C-	C+	C+	D	D	B	D	D	C
HCM2kAvgQ:	11	6	6	1	13	13	1	1	3	1	1	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	244	992	0	0	1219	161	0	0	0	712	1	299
Growth 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
Initial Bse:	244	992	0	0	1219	161	0	0	0	712	1	299
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	244	992	0	0	1219	161	0	0	0	712	1	299
User 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
PHF 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
PHF Volume:	244	992	0	0	1219	161	0	0	0	712	1	299
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	244	992	0	0	1219	161	0	0	0	712	1	299
PCE 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
MLF 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
Final Volume:	244	992	0	0	1219	161	0	0	0	712	1	299

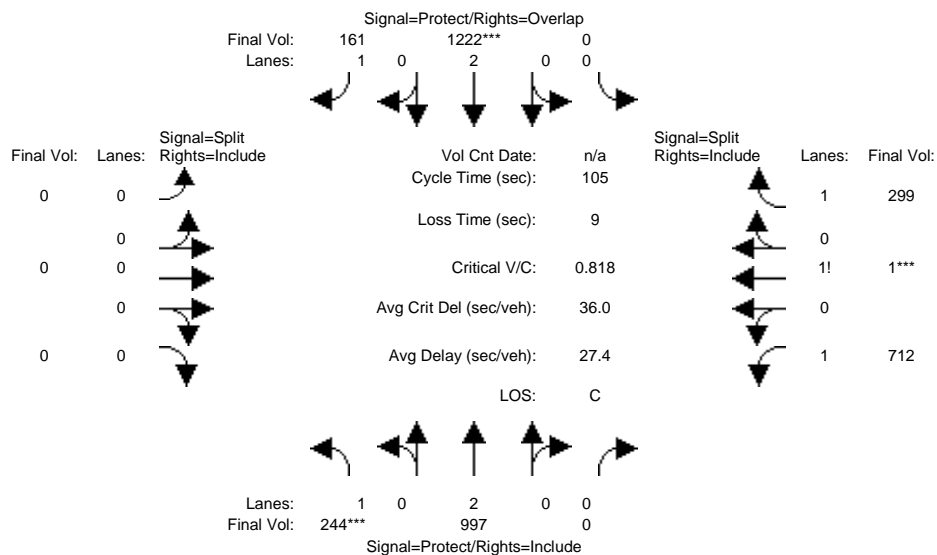
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.70	0.01	1.29
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	3017	3	2272

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.14	0.26	0.00	0.00	0.32	0.09	0.00	0.00	0.00	0.24	0.29	0.13
Crit Moves:	****			****						****		
Green Time:	17.9	59.2	0.0	0.0	41.2	41.2	0.0	0.0	0.0	36.8	36.8	36.8
Volume/Cap:	0.82	0.46	0.00	0.00	0.82	0.23	0.00	0.00	0.00	0.67	0.82	0.38
Uniform Del:	42.0	13.5	0.0	0.0	28.5	21.3	0.0	0.0	0.0	29.0	31.0	25.5
IncrcmntDel:	15.9	0.2	0.0	0.0	3.6	0.2	0.0	0.0	0.0	1.2	4.3	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	57.9	13.7	0.0	0.0	32.1	21.5	0.0	0.0	0.0	30.2	35.4	25.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.9	13.7	0.0	0.0	32.1	21.5	0.0	0.0	0.0	30.2	35.4	25.6
LOS by Move:	E+	B	A	A	C-	C+	A	A	A	C	D+	C
HCM2kAvgQ:	11	9	0	0	18	4	0	0	0	13	18	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P PM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	244	992	0	0	1219	161	0	0	0	712	1	299
Growth 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
Initial Bse:	244	992	0	0	1219	161	0	0	0	712	1	299
Added Vol:	0	5	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	244	997	0	0	1222	161	0	0	0	712	1	299
User 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
PHF 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
PHF Volume:	244	997	0	0	1222	161	0	0	0	712	1	299
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	244	997	0	0	1222	161	0	0	0	712	1	299
PCE 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
MLF 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
Final Volume:	244	997	0	0	1222	161	0	0	0	712	1	299

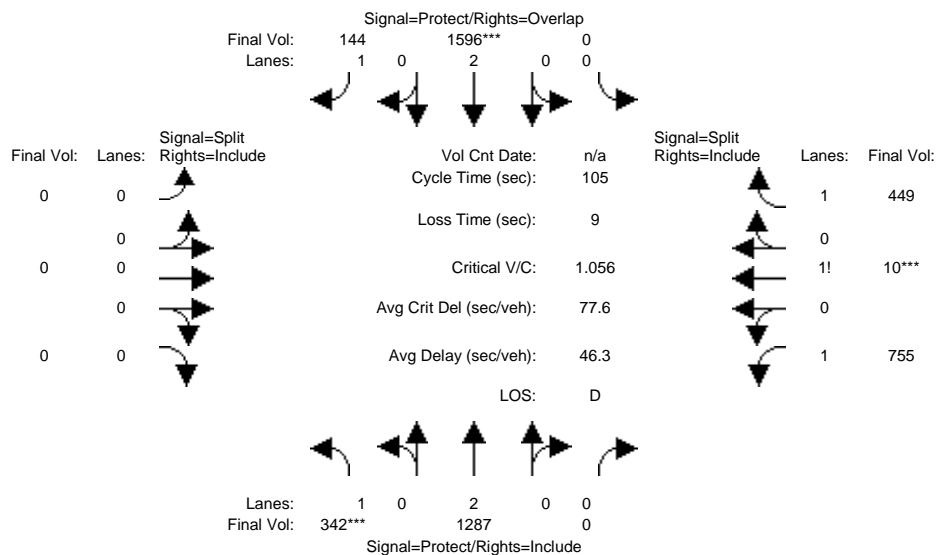
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.93	0.95	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.70	0.01	1.29
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	3017	3	2272

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.14	0.26	0.00	0.00	0.32	0.09	0.00	0.00	0.00	0.24	0.29	0.13
Crit Moves:	****				****						****	
Green Time:	17.9	59.2	0.0	0.0	41.3	41.3	0.0	0.0	0.0	36.8	36.8	36.8
Volume/Cap:	0.82	0.47	0.00	0.00	0.82	0.23	0.00	0.00	0.00	0.67	0.82	0.38
Uniform Del:	42.0	13.5	0.0	0.0	28.5	21.3	0.0	0.0	0.0	29.0	31.0	25.5
IncrcmntDel:	16.0	0.2	0.0	0.0	3.7	0.2	0.0	0.0	0.0	1.2	4.4	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	58.0	13.7	0.0	0.0	32.1	21.5	0.0	0.0	0.0	30.2	35.4	25.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.0	13.7	0.0	0.0	32.1	21.5	0.0	0.0	0.0	30.2	35.4	25.6
LOS by Move:	E+	B	A	A	C-	C+	A	A	A	C	D+	C
HCM2kAvgQ:	11	9	0	0	18	4	0	0	0	13	18	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd PM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	342	1287	0	0	1596	144	0	0	0	755	10	449
Growth 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
Initial Bse:	342	1287	0	0	1596	144	0	0	0	755	10	449
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	342	1287	0	0	1596	144	0	0	0	755	10	449
User 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
PHF 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
PHF Volume:	342	1287	0	0	1596	144	0	0	0	755	10	449
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	342	1287	0	0	1596	144	0	0	0	755	10	449
PCE 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
MLF 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
Final Volume:	342	1287	0	0	1596	144	0	0	0	755	10	449

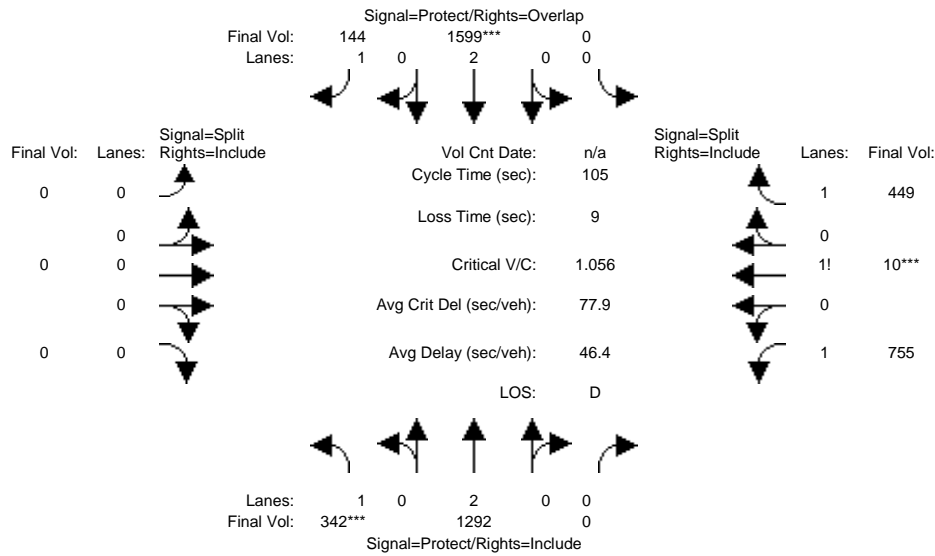
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.62	0.01	1.37
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2829	29	2392

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.20	0.34	0.00	0.00	0.42	0.08	0.00	0.00	0.00	0.27	0.35	0.19
Crit Moves:	****			****						****		
Green Time:	19.4	61.2	0.0	0.0	41.8	41.8	0.0	0.0	0.0	34.8	34.8	34.8
Volume/Cap:	1.06	0.58	0.00	0.00	1.06	0.21	0.00	0.00	0.00	0.81	1.06	0.57
Uniform Del:	42.8	13.8	0.0	0.0	31.6	20.7	0.0	0.0	0.0	32.0	35.1	28.9
IncrcmntDel:	65.4	0.4	0.0	0.0	39.4	0.1	0.0	0.0	0.0	3.3	42.5	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	108.2	14.2	0.0	0.0	71.0	20.9	0.0	0.0	0.0	35.3	77.6	29.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	108.2	14.2	0.0	0.0	71.0	20.9	0.0	0.0	0.0	35.3	77.6	29.3
LOS by Move:	F	B	A	A	E	C+	A	A	A	D+	E-	C
HCM2kAvgQ:	19	13	0	0	33	3	0	0	0	17	31	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #17: Fair Oaks Ave & US 101 NB



Street Name:	Fair Oaks Ave						US 101 NB					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	342	1287	0	0	1596	144	0	0	0	755	10	449
Growth 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
Initial Bse:	342	1287	0	0	1596	144	0	0	0	755	10	449
Added Vol:	0	5	0	0	3	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	342	1292	0	0	1599	144	0	0	0	755	10	449
User 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
PHF 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
PHF Volume:	342	1292	0	0	1599	144	0	0	0	755	10	449
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	342	1292	0	0	1599	144	0	0	0	755	10	449
PCE 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
MLF 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
Final Volume:	342	1292	0	0	1599	144	0	0	0	755	10	449

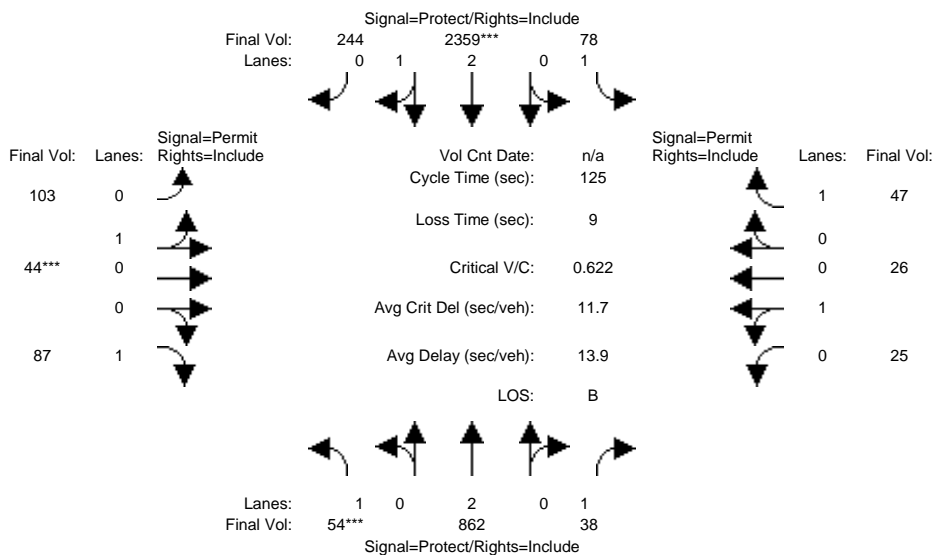
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.62	0.01	1.37
Final Sat.:	1750	3800	0	0	3800	1750	0	0	0	2829	29	2392

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.20	0.34	0.00	0.00	0.42	0.08	0.00	0.00	0.00	0.27	0.35	0.19
Crit Moves:	****			****						****		
Green Time:	19.4	61.2	0.0	0.0	41.8	41.8	0.0	0.0	0.0	34.8	34.8	34.8
Volume/Cap:	1.06	0.58	0.00	0.00	1.06	0.21	0.00	0.00	0.00	0.81	1.06	0.57
Uniform Del:	42.8	13.8	0.0	0.0	31.6	20.7	0.0	0.0	0.0	32.0	35.1	28.9
IncrcmntDel:	65.7	0.4	0.0	0.0	39.7	0.1	0.0	0.0	0.0	3.3	42.8	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	108.5	14.2	0.0	0.0	71.3	20.9	0.0	0.0	0.0	35.3	77.9	29.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	108.5	14.2	0.0	0.0	71.3	20.9	0.0	0.0	0.0	35.3	77.9	29.3
LOS by Move:	F	B	A	A	E	C+	A	A	A	D+	E-	C
HCM2kAvgQ:	19	13	0	0	33	3	0	0	0	17	31	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	54	862	38	78	2359	244	103	44	87	25	26	47
Growth 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
Initial Bse:	54	862	38	78	2359	244	103	44	87	25	26	47
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	862	38	78	2359	244	103	44	87	25	26	47
User 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
PHF 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
PHF Volume:	54	862	38	78	2359	244	103	44	87	25	26	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	862	38	78	2359	244	103	44	87	25	26	47
PCE 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
MLF 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
Final Volume:	54	862	38	78	2359	244	103	44	87	25	26	47

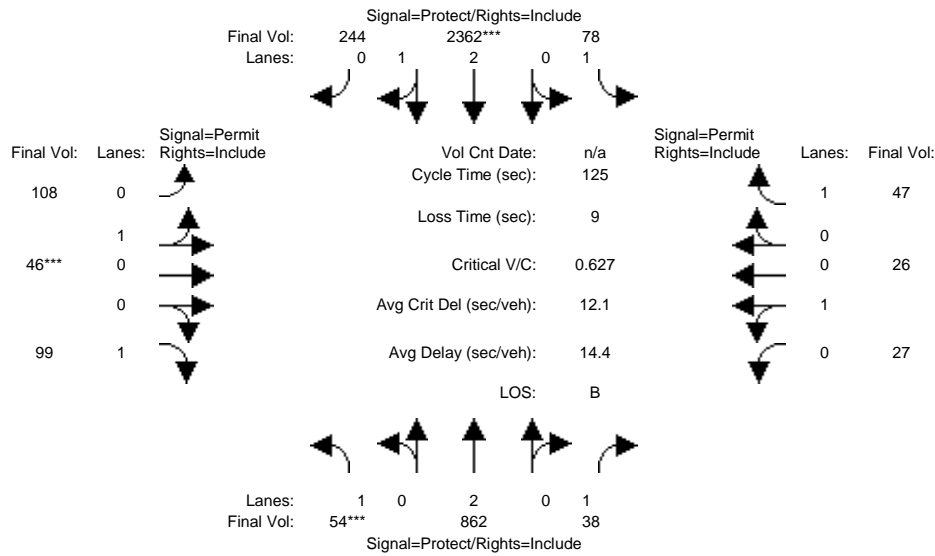
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.71	0.29	0.70	0.30	1.00	0.49	0.51	1.00
Final Sat.:	1750	3800	1750	1750	5074	525	1261	539	1750	882	918	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.02	0.04	0.46	0.46	0.08	0.08	0.05	0.03	0.03	0.03
Crit Moves:	***				****			****				
Green Time:	7.0	80.0	80.0	19.7	92.7	92.7	16.3	16.3	16.3	16.3	16.3	16.3
Volume/Cap:	0.55	0.35	0.03	0.28	0.63	0.63	0.63	0.63	0.38	0.22	0.22	0.21
Uniform Del:	57.5	10.5	8.3	46.4	7.8	7.8	51.5	51.5	49.7	48.7	48.7	48.6
IncrcmntDel:	6.6	0.1	0.0	0.6	0.3	0.3	5.3	5.3	1.1	0.5	0.5	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	64.1	10.6	8.3	46.9	8.1	8.1	56.8	56.8	50.8	49.1	49.1	49.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.1	10.6	8.3	46.9	8.1	8.1	56.8	56.8	50.8	49.1	49.1	49.0
LOS by Move:	E	B+	A	D	A	A	E+	E+	D	D	D	D
HCM2kAvgQ:	2	7	1	3	16	16	7	7	4	2	2	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	54	862	38	78	2359	244	103	44	87	25	26	47
Growth 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
Initial Bse:	54	862	38	78	2359	244	103	44	87	25	26	47
Added Vol:	0	0	0	0	3	0	5	2	12	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	862	38	78	2362	244	108	46	99	27	26	47
User 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
PHF 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
PHF Volume:	54	862	38	78	2362	244	108	46	99	27	26	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	862	38	78	2362	244	108	46	99	27	26	47
PCE 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
MLF 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
Final Volume:	54	862	38	78	2362	244	108	46	99	27	26	47

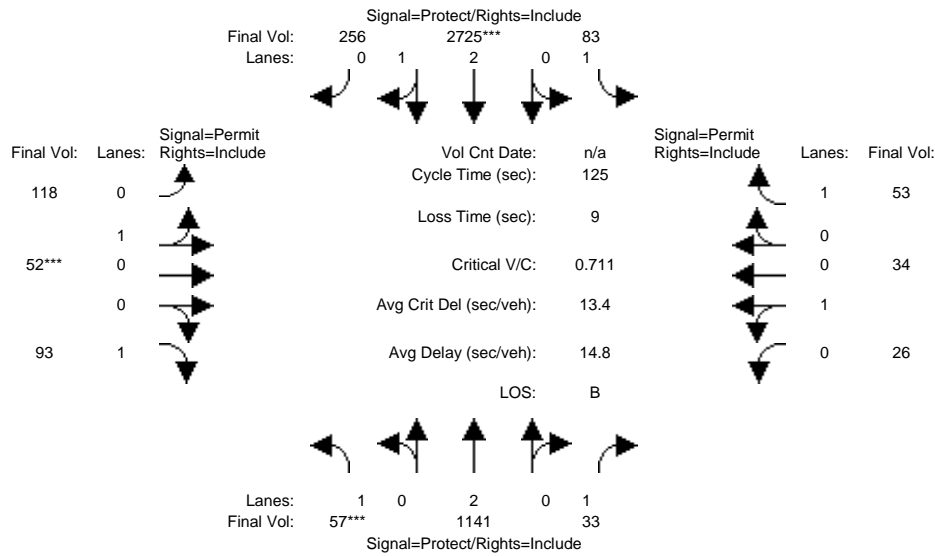
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.71	0.29	0.70	0.30	1.00	0.51	0.49	1.00
Final Sat.:	1750	3800	1750	1750	5075	524	1262	538	1750	917	883	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.02	0.04	0.47	0.47	0.09	0.09	0.06	0.03	0.03	0.03
Crit Moves:	***				****			****				
Green Time:	7.0	79.5	79.5	19.6	92.1	92.1	16.9	16.9	16.9	16.9	16.9	16.9
Volume/Cap:	0.55	0.36	0.03	0.28	0.63	0.63	0.63	0.63	0.42	0.22	0.22	0.20
Uniform Del:	57.5	10.7	8.5	46.5	8.1	8.1	51.1	51.1	49.5	48.1	48.1	48.0
IncrcmntDel:	6.6	0.1	0.0	0.6	0.3	0.3	5.3	5.3	1.2	0.5	0.5	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	64.1	10.8	8.5	47.1	8.4	8.4	56.4	56.4	50.7	48.6	48.6	48.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.1	10.8	8.5	47.1	8.4	8.4	56.4	56.4	50.7	48.6	48.6	48.4
LOS by Move:	E	B+	A	D	A	A	E+	E+	D	D	D	D
HCM2kAvgQ:	2	7	1	3	17	17	7	7	4	2	2	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	57	1141	33	83	2725	256	118	52	93	26	34	53
Growth 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
Initial Bse:	57	1141	33	83	2725	256	118	52	93	26	34	53
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	1141	33	83	2725	256	118	52	93	26	34	53
User 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
PHF 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
PHF Volume:	57	1141	33	83	2725	256	118	52	93	26	34	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	1141	33	83	2725	256	118	52	93	26	34	53
PCE 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
MLF 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
Final Volume:	57	1141	33	83	2725	256	118	52	93	26	34	53

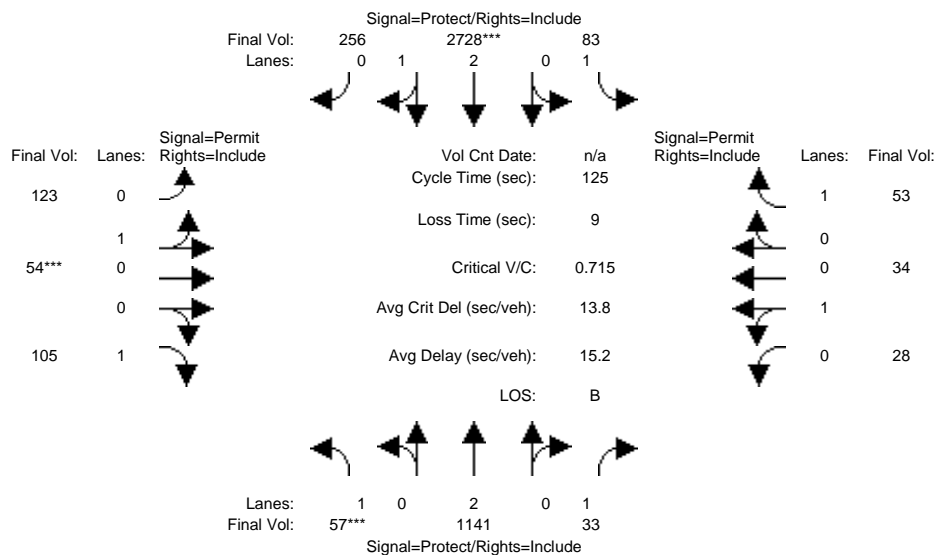
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.73	0.27	0.69	0.31	1.00	0.43	0.57	1.00
Final Sat.:	1750	3800	1750	1750	5118	481	1249	551	1750	780	1020	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.30	0.02	0.05	0.53	0.53	0.09	0.09	0.05	0.03	0.03	0.03
Crit Moves:	****				****			****				
Green Time:	7.0	83.9	83.9	15.7	92.6	92.6	16.4	16.4	16.4	16.4	16.4	16.4
Volume/Cap:	0.58	0.45	0.03	0.38	0.72	0.72	0.72	0.72	0.40	0.25	0.25	0.23
Uniform Del:	57.6	9.6	6.9	50.2	9.0	9.0	52.1	52.1	49.8	48.8	48.8	48.6
IncrcmntDel:	8.6	0.1	0.0	1.1	0.6	0.6	10.2	10.2	1.2	0.6	0.6	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	66.1	9.8	6.9	51.3	9.6	9.6	62.3	62.3	51.0	49.4	49.4	49.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.1	9.8	6.9	51.3	9.6	9.6	62.3	62.3	51.0	49.4	49.4	49.1
LOS by Move:	E	A	A	D-	A	A	E	E	D	D	D	D
HCM2kAvgQ:	2	10	0	3	22	22	8	8	4	2	2	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #18: Fair Oaks Ave & Ahwanee Ave



Street Name:	Fair Oaks Ave						Ahwanee Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	57	1141	33	83	2725	256	118	52	93	26	34	53
Growth 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
Initial Bse:	57	1141	33	83	2725	256	118	52	93	26	34	53
Added Vol:	0	0	0	0	3	0	5	2	12	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	1141	33	83	2728	256	123	54	105	28	34	53
User 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
PHF 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
PHF Volume:	57	1141	33	83	2728	256	123	54	105	28	34	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	1141	33	83	2728	256	123	54	105	28	34	53
PCE 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
MLF 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
Final Volume:	57	1141	33	83	2728	256	123	54	105	28	34	53

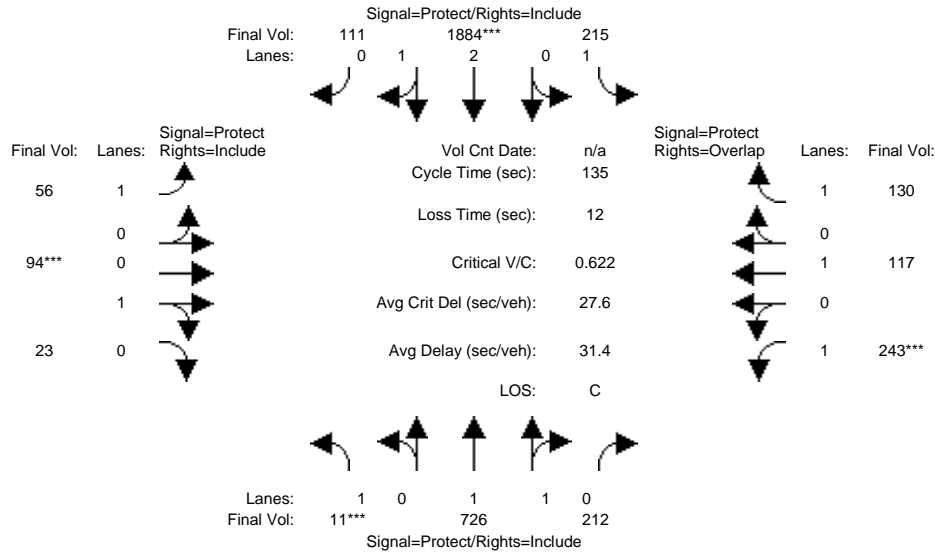
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	2.00	1.00	1.00	2.73	0.27	0.69	0.31	1.00	0.45	0.55	1.00
Final Sat.:	1750	3800	1750	1750	5119	480	1251	549	1750	813	987	1750

Capacity Analysis Module:												
Vol/Sat:	0.03	0.30	0.02	0.05	0.53	0.53	0.10	0.10	0.06	0.03	0.03	0.03
Crit Moves:	***				****			****				
Green Time:	7.0	83.5	83.5	15.6	92.0	92.0	17.0	17.0	17.0	17.0	17.0	17.0
Volume/Cap:	0.58	0.45	0.03	0.38	0.72	0.72	0.72	0.72	0.44	0.25	0.25	0.22
Uniform Del:	57.6	9.9	7.0	50.3	9.3	9.3	51.8	51.8	49.7	48.3	48.3	48.1
IncrcmntDel:	8.6	0.1	0.0	1.1	0.7	0.7	10.2	10.2	1.3	0.5	0.5	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	66.1	10.0	7.0	51.4	10.0	10.0	62.0	62.0	51.0	48.9	48.9	48.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.1	10.0	7.0	51.4	10.0	10.0	62.0	62.0	51.0	48.9	48.9	48.6
LOS by Move:	E	A	A	D-	A	A	E	E	D	D	D	D
HCM2kAvgQ:	2	10	0	3	22	22	8	8	4	2	2	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	11	726	212	215	1884	111	56	94	23	243	117	130
Growth 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
Initial Bse:	11	726	212	215	1884	111	56	94	23	243	117	130
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	726	212	215	1884	111	56	94	23	243	117	130
User 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
PHF 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
PHF Volume:	11	726	212	215	1884	111	56	94	23	243	117	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	726	212	215	1884	111	56	94	23	243	117	130
PCE 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
MLF 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
Final Volume:	11	726	212	215	1884	111	56	94	23	243	117	130

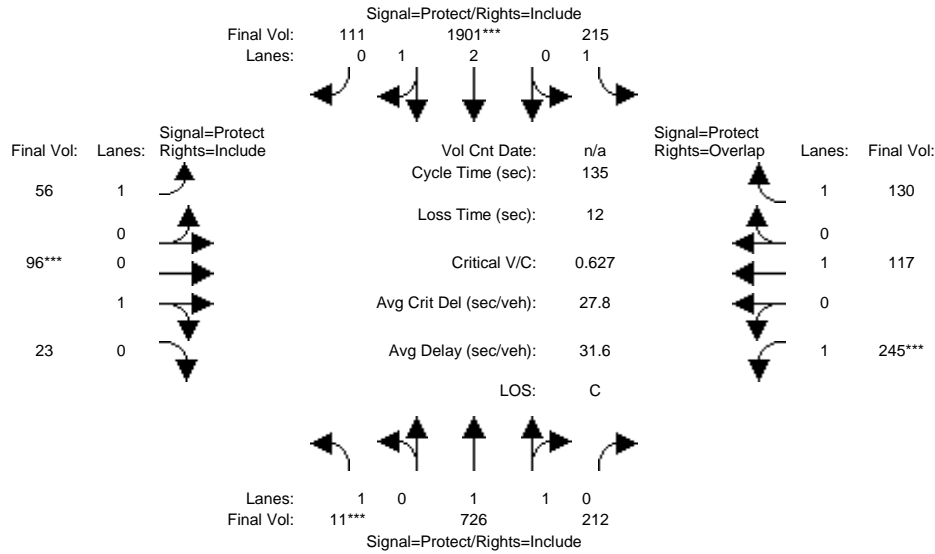
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.54	0.46	1.00	2.83	0.17	1.00	0.80	0.20	1.00	1.00	1.00
Final Sat.:	1750	2863	836	1750	5288	312	1750	1446	354	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.25	0.25	0.12	0.36	0.36	0.03	0.07	0.07	0.14	0.06	0.07
Crit Moves:	****				****			****		****		
Green Time:	7.0	54.4	54.4	26.4	73.8	73.8	17.4	13.5	13.5	28.8	24.8	51.2
Volume/Cap:	0.12	0.63	0.63	0.63	0.65	0.65	0.25	0.65	0.65	0.65	0.33	0.20
Uniform Del:	61.1	32.2	32.2	49.8	21.6	21.6	52.9	58.5	58.5	48.5	47.9	28.1
IncrcmntDel:	0.6	0.9	0.9	3.7	0.5	0.5	0.6	8.3	8.3	4.1	0.6	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	61.7	33.1	33.1	53.6	22.1	22.1	53.5	66.8	66.8	52.6	48.5	28.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.7	33.1	33.1	53.6	22.1	22.1	53.5	66.8	66.8	52.6	48.5	28.2
LOS by Move:	E	C-	C-	D-	C+	C+	D-	E	E	D-	D	C
HCM2kAvgQ:	0	16	16	9	19	19	2	6	6	11	4	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P PM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	11	726	212	215	1884	111	56	94	23	243	117	130
Growth 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
Initial Bse:	11	726	212	215	1884	111	56	94	23	243	117	130
Added Vol:	0	0	0	0	17	0	0	2	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	726	212	215	1901	111	56	96	23	245	117	130
User 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
PHF 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
PHF Volume:	11	726	212	215	1901	111	56	96	23	245	117	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	726	212	215	1901	111	56	96	23	245	117	130
PCE 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
MLF 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
Final Volume:	11	726	212	215	1901	111	56	96	23	245	117	130

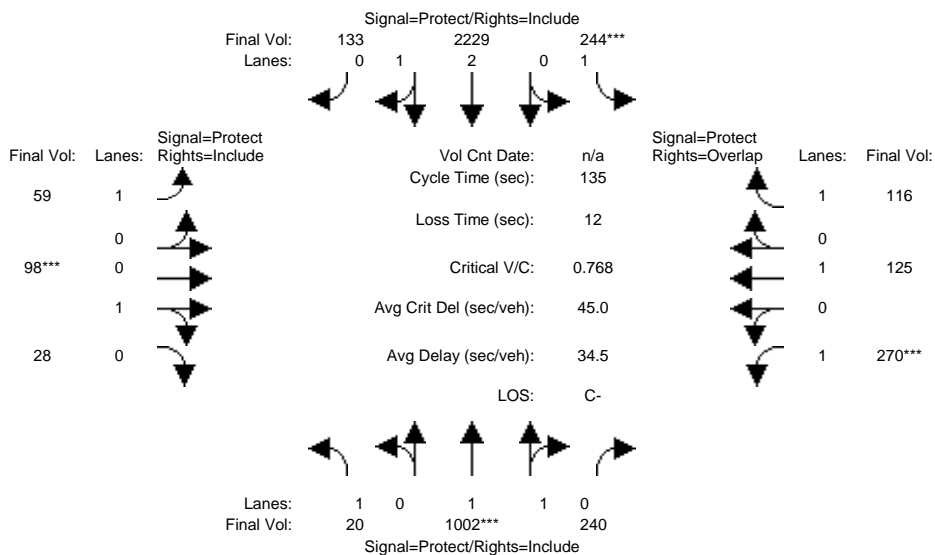
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.54	0.46	1.00	2.83	0.17	1.00	0.81	0.19	1.00	1.00	1.00
Final Sat.:	1750	2863	836	1750	5291	309	1750	1452	348	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.25	0.25	0.12	0.36	0.36	0.03	0.07	0.07	0.14	0.06	0.07
Crit Moves:	****				****			****		****		
Green Time:	7.0	54.4	54.4	26.3	73.7	73.7	17.4	13.6	13.6	28.7	24.9	51.2
Volume/Cap:	0.12	0.63	0.63	0.63	0.66	0.66	0.25	0.66	0.66	0.66	0.33	0.20
Uniform Del:	61.1	32.3	32.3	49.9	21.7	21.7	52.9	58.5	58.5	48.6	47.9	28.1
IncrcmntDel:	0.6	0.9	0.9	3.7	0.5	0.5	0.6	8.6	8.6	4.3	0.6	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	61.7	33.1	33.1	53.6	22.2	22.2	53.5	67.1	67.1	52.9	48.4	28.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.7	33.1	33.1	53.6	22.2	22.2	53.5	67.1	67.1	52.9	48.4	28.2
LOS by Move:	E	C-	C-	D-	C+	C+	D-	E	E	D-	D	C
HCM2kAvgQ:	0	16	16	9	19	19	2	6	6	11	4	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	20	1002	240	244	2229	133	59	98	28	270	125	116
Base Vol:	20	1002	240	244	2229	133	59	98	28	270	125	116
Growth 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
Initial Bse:	20	1002	240	244	2229	133	59	98	28	270	125	116
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1002	240	244	2229	133	59	98	28	270	125	116
User 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
PHF 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
PHF Volume:	20	1002	240	244	2229	133	59	98	28	270	125	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	1002	240	244	2229	133	59	98	28	270	125	116
PCE 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
MLF 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
Final Volume:	20	1002	240	244	2229	133	59	98	28	270	125	116

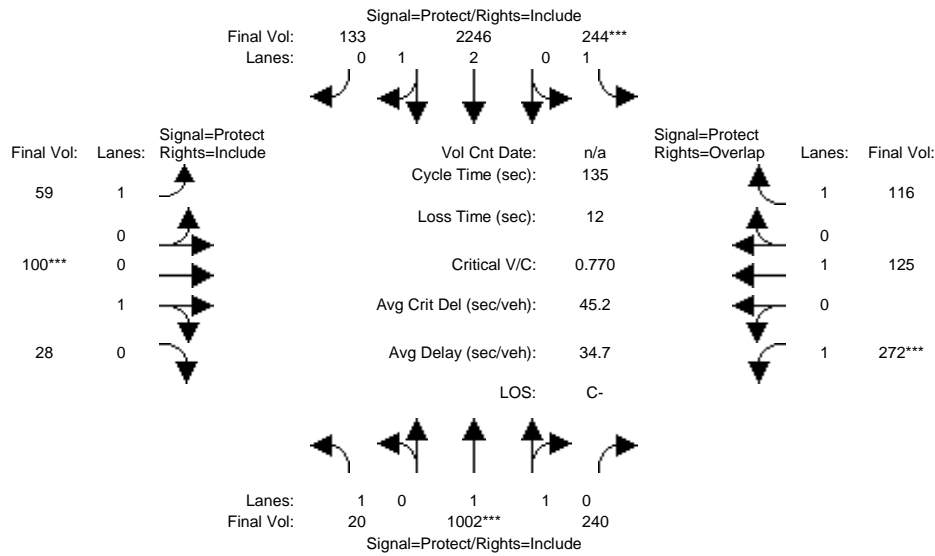
Saturation Flow Module:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.60	0.40	1.00	2.82	0.18	1.00	0.78	0.22	1.00	1.00	1.00
Final Sat.:	1750	2984	715	1750	5284	315	1750	1400	400	1750	1900	1750

Capacity Analysis Module:	0.01	0.34	0.34	0.14	0.42	0.42	0.03	0.07	0.07	0.15	0.07	0.07
Vol/Sat:	0.01	0.34	0.34	0.14	0.42	0.42	0.03	0.07	0.07	0.15	0.07	0.07
Crit Moves:	****			****			****			****		
Green Time:	9.1	59.0	59.0	24.5	74.4	74.4	16.2	12.3	12.3	27.1	23.2	47.7
Volume/Cap:	0.17	0.77	0.77	0.77	0.77	0.77	0.28	0.77	0.77	0.77	0.38	0.19
Uniform Del:	59.3	32.2	32.2	52.5	23.5	23.5	54.1	59.9	59.9	51.0	49.6	30.2
IncrcmntDel:	0.7	2.3	2.3	10.8	1.2	1.2	0.7	19.4	19.4	9.8	0.8	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	60.0	34.5	34.5	63.3	24.7	24.7	54.8	79.4	79.4	60.8	50.3	30.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.0	34.5	34.5	63.3	24.7	24.7	54.8	79.4	79.4	60.8	50.3	30.4
LOS by Move:	E	C-	C-	E	C	C	D-	E-	E-	E	D	C
HCM2kAvgQ:	1	23	23	10	25	25	3	7	7	13	5	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #19: Fair Oaks Ave & Duane Ave



Street Name:	Fair Oaks Ave						Duane Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	20	1002	240	244	2229	133	59	98	28	270	125	116
Growth 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
Initial Bse:	20	1002	240	244	2229	133	59	98	28	270	125	116
Added Vol:	0	0	0	0	17	0	0	2	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1002	240	244	2246	133	59	100	28	272	125	116
User 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
PHF 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
PHF Volume:	20	1002	240	244	2246	133	59	100	28	272	125	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	1002	240	244	2246	133	59	100	28	272	125	116
PCE 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
MLF 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
Final Volume:	20	1002	240	244	2246	133	59	100	28	272	125	116

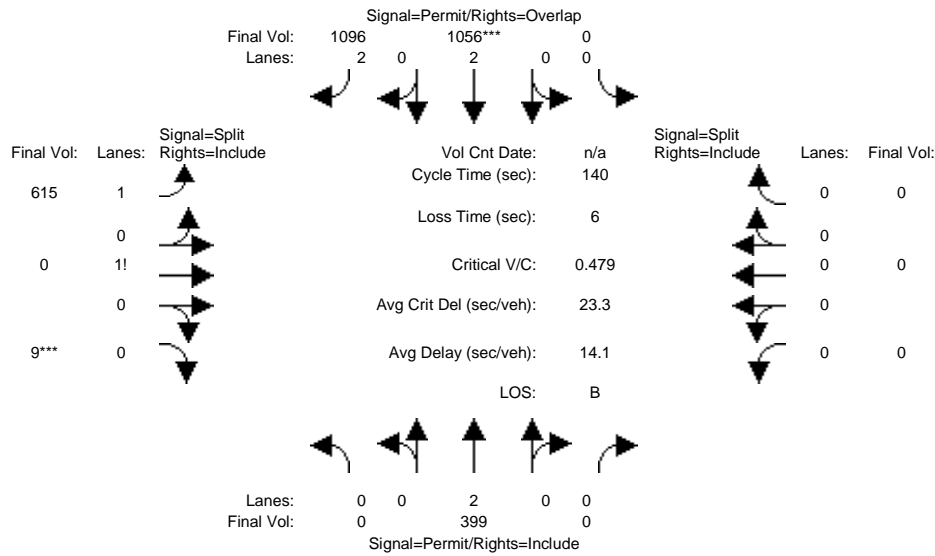
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	1.60	0.40	1.00	2.83	0.17	1.00	0.78	0.22	1.00	1.00	1.00
Final Sat.:	1750	2984	715	1750	5287	313	1750	1406	394	1750	1900	1750

Capacity Analysis Module:												
Vol/Sat:	0.01	0.34	0.34	0.14	0.42	0.42	0.03	0.07	0.07	0.16	0.07	0.07
Crit Moves:	****			****			****			****		
Green Time:	9.1	58.9	58.9	24.4	74.2	74.2	16.4	12.5	12.5	27.2	23.4	47.8
Volume/Cap:	0.17	0.77	0.77	0.77	0.77	0.77	0.28	0.77	0.77	0.77	0.38	0.19
Uniform Del:	59.4	32.3	32.3	52.6	23.8	23.8	54.0	59.9	59.9	50.9	49.4	30.2
IncrcmntDel:	0.7	2.3	2.3	11.0	1.3	1.3	0.7	19.5	19.5	9.9	0.7	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	60.1	34.7	34.7	63.6	25.0	25.0	54.7	79.4	79.4	60.9	50.2	30.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.1	34.7	34.7	63.6	25.0	25.0	54.7	79.4	79.4	60.9	50.2	30.3
LOS by Move:	E	C-	C-	E	C	C	D-	E-	E-	E	D	C
HCM2kAvgQ:	1	23	23	10	25	25	3	7	7	13	5	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	399	0	0	1056	1096	615	0	9	0	0	0
Growth 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
Initial Bse:	0	399	0	0	1056	1096	615	0	9	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	399	0	0	1056	1096	615	0	9	0	0	0
User 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
PHF 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
PHF Volume:	0	399	0	0	1056	1096	615	0	9	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	399	0	0	1056	1096	615	0	9	0	0	0
PCE 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
MLF 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
Final Volume:	0	399	0	0	1056	1096	615	0	9	0	0	0

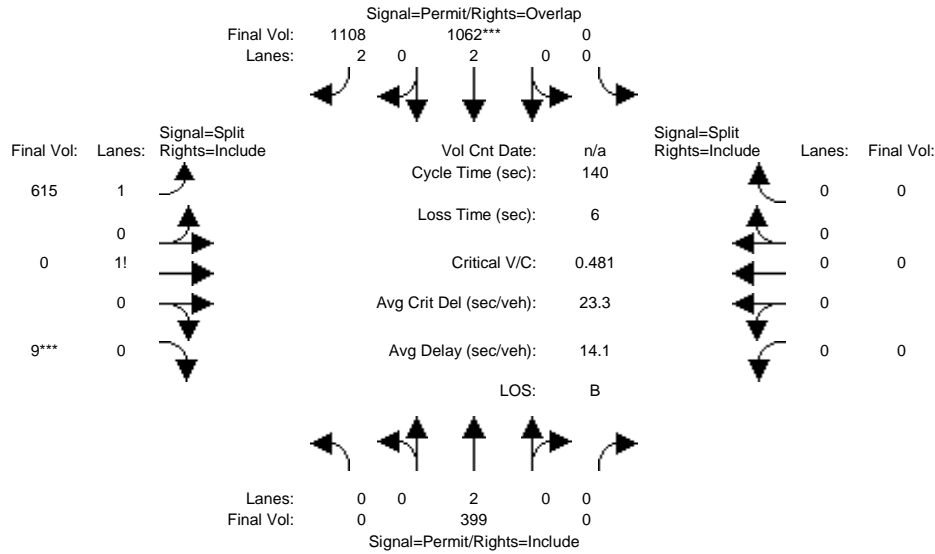
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3450	0	50	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.11	0.00	0.00	0.28	0.35	0.18	0.00	0.18	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	81.2	0.0	0.0	81.2	134.0	52.8	0.0	52.8	0.0	0.0	0.0
Volume/Cap:	0.00	0.18	0.00	0.00	0.48	0.36	0.47	0.00	0.48	0.00	0.00	0.00
Uniform Del:	0.0	13.8	0.0	0.0	17.1	0.2	33.0	0.0	33.1	0.0	0.0	0.0
IncrcmntDel:	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.0	0.3	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	13.8	0.0	0.0	17.3	0.3	33.3	0.0	33.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	13.8	0.0	0.0	17.3	0.3	33.3	0.0	33.4	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	A	C-	A	C-	A	A	A
HCM2kAvgQ:	0	4	0	0	13	2	10	0	11	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Base Vol:	0	399	0	0	1056	1096	615	0	9	0	0	0
Growth 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
Initial Bse:	0	399	0	0	1056	1096	615	0	9	0	0	0
Added Vol:	0	0	0	0	6	12	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	399	0	0	1062	1108	615	0	9	0	0	0
User 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
PHF 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
PHF Volume:	0	399	0	0	1062	1108	615	0	9	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	399	0	0	1062	1108	615	0	9	0	0	0
PCE 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
MLF 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
Final Volume:	0	399	0	0	1062	1108	615	0	9	0	0	0

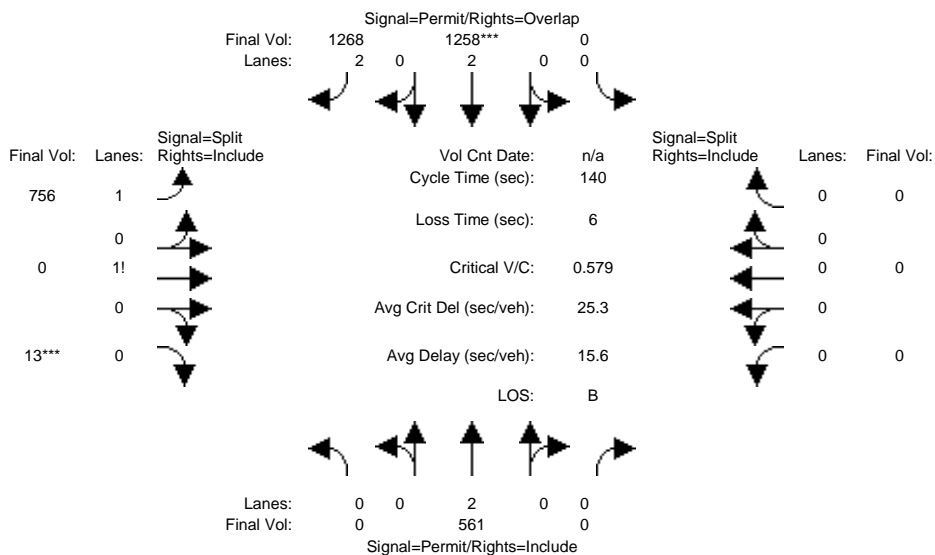
Saturation Flow Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3450	0	50	0	0	0

Capacity Analysis Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Wolfe Rd EB			Wolfe Rd WB		
Vol/Sat:	0.00	0.11	0.00	0.00	0.28	0.35	0.18	0.00	0.18	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	81.4	0.0	0.0	81.4	134.0	52.6	0.0	52.6	0.0	0.0	0.0
Volume/Cap:	0.00	0.18	0.00	0.00	0.48	0.37	0.47	0.00	0.48	0.00	0.00	0.00
Uniform Del:	0.0	13.7	0.0	0.0	17.0	0.2	33.2	0.0	33.3	0.0	0.0	0.0
IncrcmntDel:	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.0	0.3	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	13.8	0.0	0.0	17.2	0.3	33.4	0.0	33.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	13.8	0.0	0.0	17.2	0.3	33.4	0.0	33.6	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	A	C-	A	C-	A	A	A
HCM2kAvgQ:	0	4	0	0	13	2	10	0	11	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	561	0	0	1258	1268	756	0	13	0	0	0
Growth 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
Initial Bse:	0	561	0	0	1258	1268	756	0	13	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	561	0	0	1258	1268	756	0	13	0	0	0
User 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
PHF 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
PHF Volume:	0	561	0	0	1258	1268	756	0	13	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	561	0	0	1258	1268	756	0	13	0	0	0
PCE 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
MLF 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
Final Volume:	0	561	0	0	1258	1268	756	0	13	0	0	0

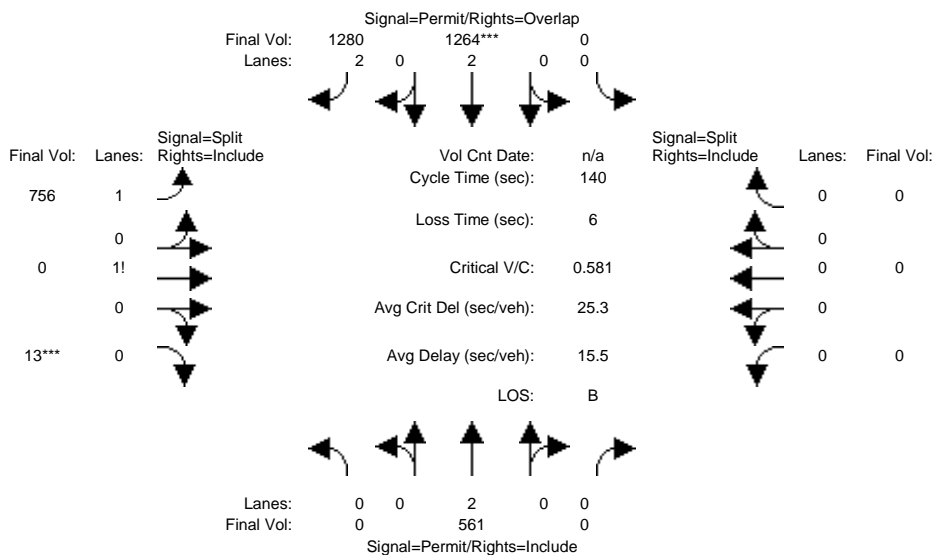
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3442	0	58	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.00	0.00	0.33	0.40	0.22	0.00	0.22	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	80.0	0.0	0.0	80.0	134.0	54.0	0.0	54.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.26	0.00	0.00	0.58	0.42	0.57	0.00	0.58	0.00	0.00	0.00
Uniform Del:	0.0	15.1	0.0	0.0	19.2	0.2	33.9	0.0	34.0	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.4	0.1	0.6	0.0	0.6	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	15.1	0.0	0.0	19.6	0.3	34.4	0.0	34.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.1	0.0	0.0	19.6	0.3	34.4	0.0	34.7	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B-	A	C-	A	C-	A	A	A
HCM2kAvgQ:	0	6	0	0	16	3	13	0	14	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #20: Fair Oaks Ave & Wolfe Rd



Street Name:	Fair Oaks Ave						Wolfe Rd					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	10	0	0	10	10	10	0	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	0	561	0	0	1258	1268	756	0	13	0	0	0
Growth 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
Initial Bse:	0	561	0	0	1258	1268	756	0	13	0	0	0
Added Vol:	0	0	0	0	6	12	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	561	0	0	1264	1280	756	0	13	0	0	0
User 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
PHF 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
PHF Volume:	0	561	0	0	1264	1280	756	0	13	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	561	0	0	1264	1280	756	0	13	0	0	0
PCE 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
MLF 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
Final Volume:	0	561	0	0	1264	1280	756	0	13	0	0	0

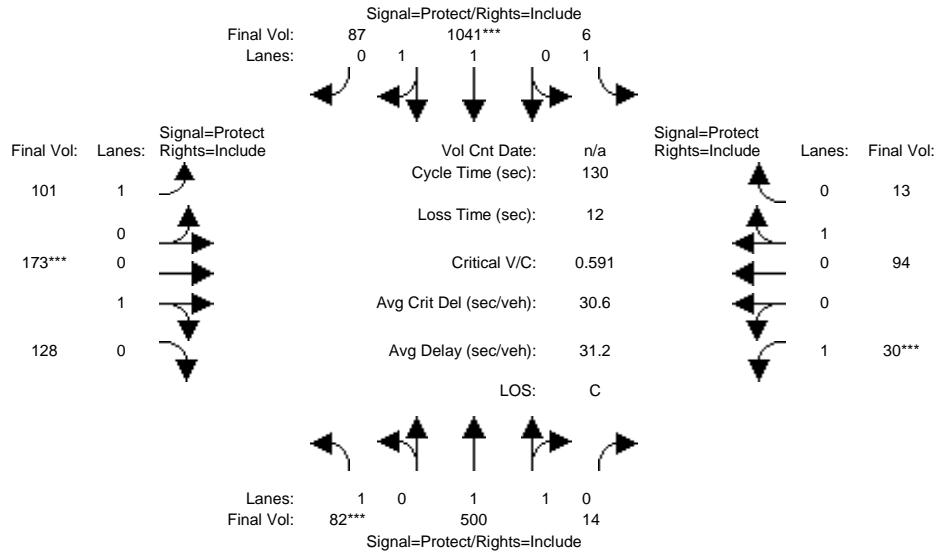
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	2.00	1.97	0.00	0.03	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	3150	3442	0	58	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.00	0.00	0.33	0.41	0.22	0.00	0.22	0.00	0.00	0.00
Crit Moves:					****				****			
Green Time:	0.0	80.2	0.0	0.0	80.2	134.0	53.8	0.0	53.8	0.0	0.0	0.0
Volume/Cap:	0.00	0.26	0.00	0.00	0.58	0.42	0.57	0.00	0.58	0.00	0.00	0.00
Uniform Del:	0.0	15.0	0.0	0.0	19.2	0.2	34.0	0.0	34.1	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.4	0.1	0.6	0.0	0.7	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	15.1	0.0	0.0	19.6	0.3	34.6	0.0	34.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.1	0.0	0.0	19.6	0.3	34.6	0.0	34.8	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B-	A	C-	A	C-	A	A	A
HCM2kAvgQ:	0	6	0	0	16	3	13	0	14	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Maude Ave EB			Maude Ave WB		
Base Vol:	82	500	14	6	1041	87	101	173	128	30	94	13
Growth 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
Initial Bse:	82	500	14	6	1041	87	101	173	128	30	94	13
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	500	14	6	1041	87	101	173	128	30	94	13
User 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
PHF 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
PHF Volume:	82	500	14	6	1041	87	101	173	128	30	94	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	500	14	6	1041	87	101	173	128	30	94	13
PCE 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
MLF 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
Final Volume:	82	500	14	6	1041	87	101	173	128	30	94	13

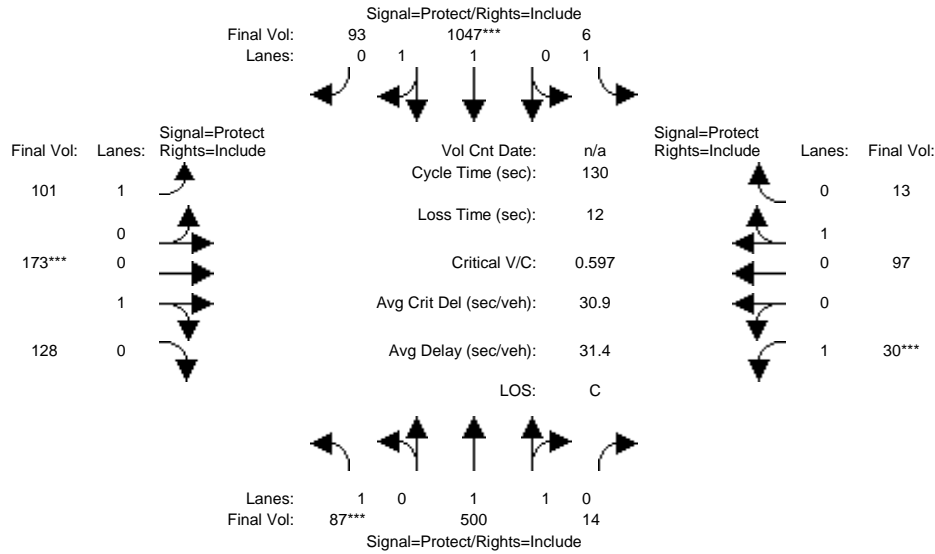
Saturation Flow Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Maude Ave EB			Maude Ave WB		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.94	0.06	1.00	1.84	0.16	1.00	0.57	0.43	1.00	0.88	0.12
Final Sat.:	1750	3599	101	1750	3414	285	1750	1035	765	1750	1581	219

Capacity Analysis Module:	Fair Oaks Ave NB			Fair Oaks Ave SB			Maude Ave EB			Maude Ave WB		
Vol/Sat:	0.05	0.14	0.14	0.00	0.30	0.30	0.06	0.17	0.17	0.02	0.06	0.06
Crit Moves:	***			****			****			****		
Green Time:	10.0	54.2	54.2	21.0	65.2	65.2	18.3	35.8	35.8	7.0	24.4	24.4
Volume/Cap:	0.61	0.33	0.33	0.02	0.61	0.61	0.41	0.61	0.61	0.32	0.32	0.32
Uniform Del:	58.1	25.7	25.7	45.8	23.2	23.2	50.9	41.0	41.0	59.2	45.6	45.6
IncrcmntDel:	7.8	0.1	0.1	0.0	0.6	0.6	1.1	2.2	2.2	2.0	0.5	0.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	65.9	25.8	25.8	45.9	23.8	23.8	52.0	43.2	43.2	61.2	46.1	46.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.9	25.8	25.8	45.9	23.8	23.8	52.0	43.2	43.2	61.2	46.1	46.1
LOS by Move:	E	C	C	D	C	C	D-	D	D	E	D	D
HCM2kAvgQ:	4	7	7	0	16	16	4	11	11	2	4	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P PM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	82	500	14	6	1041	87	101	173	128	30	94	13
Growth 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
Initial Bse:	82	500	14	6	1041	87	101	173	128	30	94	13
Added Vol:	5	0	0	0	6	6	0	0	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	500	14	6	1047	93	101	173	128	30	97	13
User 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
PHF 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
PHF Volume:	87	500	14	6	1047	93	101	173	128	30	97	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	500	14	6	1047	93	101	173	128	30	97	13
PCE 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
MLF 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
Final Volume:	87	500	14	6	1047	93	101	173	128	30	97	13

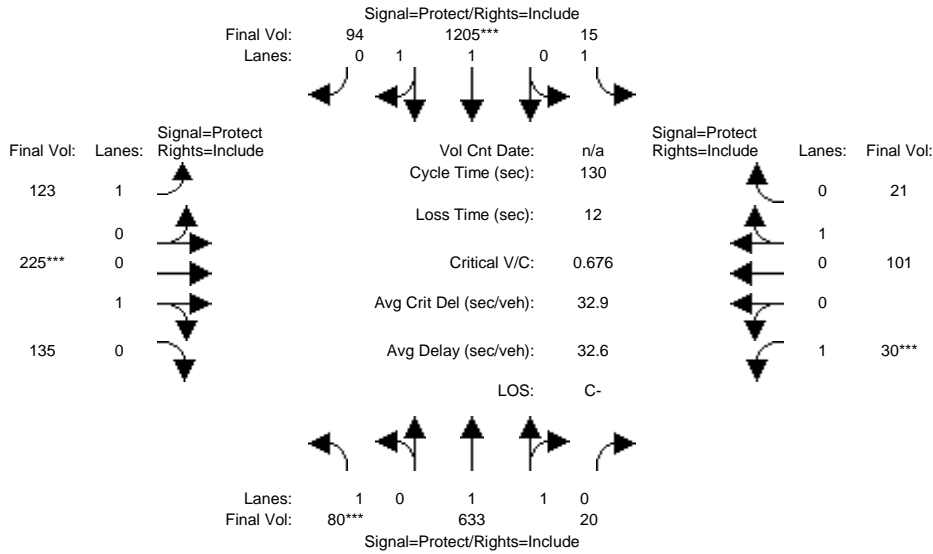
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.94	0.06	1.00	1.83	0.17	1.00	0.57	0.43	1.00	0.88	0.12
Final Sat.:	1750	3599	101	1750	3398	302	1750	1035	765	1750	1587	213

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.05	0.14	0.14	0.00	0.31	0.31	0.06	0.17	0.17	0.02	0.06	0.06
Crit Moves:	***			****			****			****		
Green Time:	10.5	54.5	54.5	21.1	65.1	65.1	18.2	35.4	35.4	7.0	24.2	24.2
Volume/Cap:	0.61	0.33	0.33	0.02	0.61	0.61	0.41	0.61	0.61	0.32	0.33	0.33
Uniform Del:	57.8	25.4	25.4	45.7	23.4	23.4	51.1	41.4	41.4	59.2	45.9	45.9
IncrcmntDel:	7.9	0.1	0.1	0.0	0.6	0.6	1.1	2.3	2.3	2.0	0.6	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	65.6	25.6	25.6	45.8	24.0	24.0	52.2	43.7	43.7	61.2	46.4	46.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.6	25.6	25.6	45.8	24.0	24.0	52.2	43.7	43.7	61.2	46.4	46.4
LOS by Move:	E	C	C	D	C	C	D-	D	D	E	D	D
HCM2kAvgQ:	5	7	7	0	16	16	4	12	12	2	4	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd PM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	80	633	20	15	1205	94	123	225	135	30	101	21
Growth 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
Initial Bse:	80	633	20	15	1205	94	123	225	135	30	101	21
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	633	20	15	1205	94	123	225	135	30	101	21
User 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
PHF 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
PHF Volume:	80	633	20	15	1205	94	123	225	135	30	101	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	633	20	15	1205	94	123	225	135	30	101	21
PCE 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
MLF 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
Final Volume:	80	633	20	15	1205	94	123	225	135	30	101	21

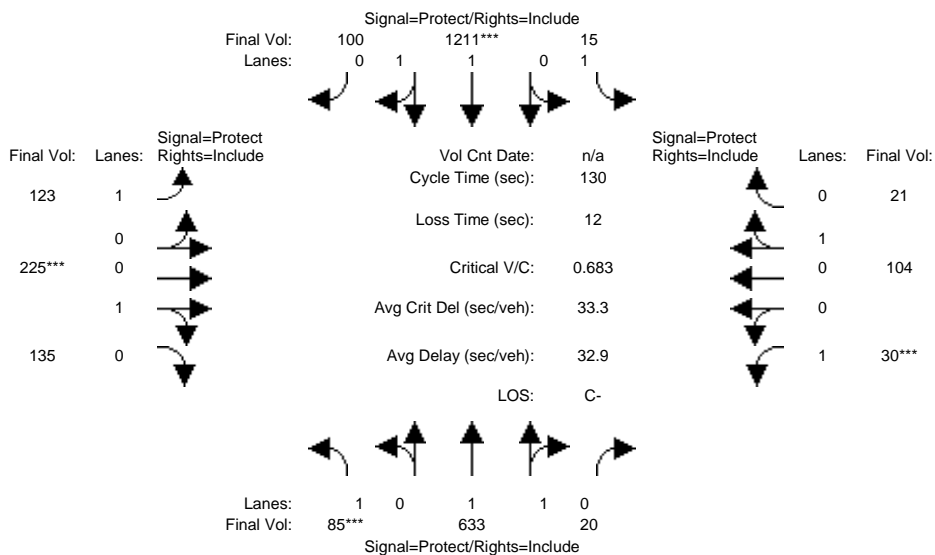
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.94	0.06	1.00	1.85	0.15	1.00	0.62	0.38	1.00	0.83	0.17
Final Sat.:	1750	3587	113	1750	3432	268	1750	1125	675	1750	1490	310

Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.01	0.35	0.35	0.07	0.20	0.20	0.02	0.07	0.07
Crit Moves:	***				***		***			***		
Green Time:	8.5	56.5	56.5	17.3	65.3	65.3	21.1	37.2	37.2	7.0	23.1	23.1
Volume/Cap:	0.70	0.41	0.41	0.06	0.70	0.70	0.43	0.70	0.70	0.32	0.38	0.38
Uniform Del:	59.5	25.2	25.2	49.3	24.8	24.8	49.1	41.4	41.4	59.2	47.2	47.2
IncrcmntDel:	17.4	0.2	0.2	0.1	1.2	1.2	1.1	4.2	4.2	2.0	0.8	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	76.9	25.4	25.4	49.4	26.0	26.0	50.1	45.6	45.6	61.2	47.9	47.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.9	25.4	25.4	49.4	26.0	26.0	50.1	45.6	45.6	61.2	47.9	47.9
LOS by Move:	E-	C	C	D	C	C	D	D	D	E	D	D
HCM2kAvgQ:	5	9	9	1	20	20	5	14	14	2	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd+P PM

Intersection #21: Fair Oaks Ave & Maude Ave



Street Name:	Fair Oaks Ave						Maude Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	80	633	20	15	1205	94	123	225	135	30	101	21
Growth 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
Initial Bse:	80	633	20	15	1205	94	123	225	135	30	101	21
Added Vol:	5	0	0	0	6	6	0	0	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	633	20	15	1211	100	123	225	135	30	104	21
User 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
PHF 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
PHF Volume:	85	633	20	15	1211	100	123	225	135	30	104	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	633	20	15	1211	100	123	225	135	30	104	21
PCE 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
MLF 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
Final Volume:	85	633	20	15	1211	100	123	225	135	30	104	21

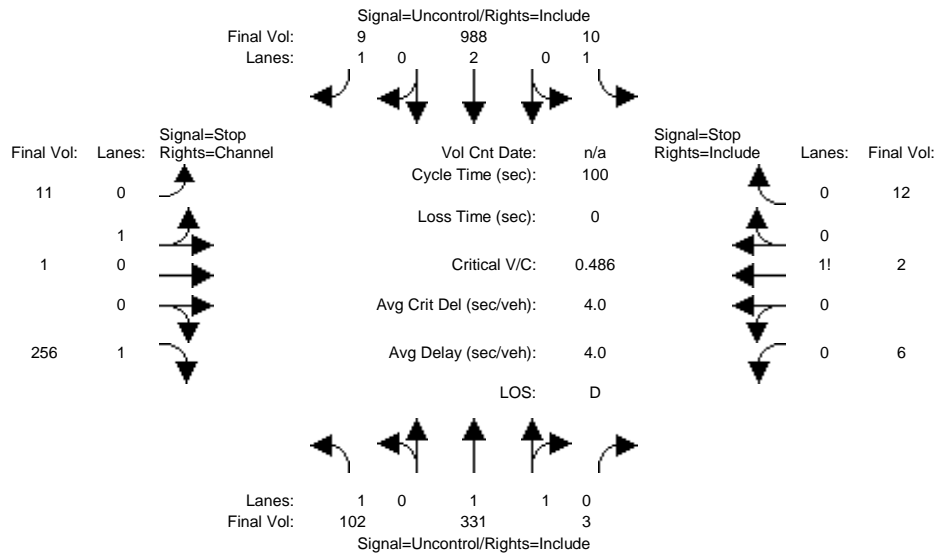
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Lanes:	1.00	1.94	0.06	1.00	1.84	0.16	1.00	0.62	0.38	1.00	0.83	0.17
Final Sat.:	1750	3587	113	1750	3418	282	1750	1125	675	1750	1498	302

Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.01	0.35	0.35	0.07	0.20	0.20	0.02	0.07	0.07
Crit Moves:	***				***		***			***		
Green Time:	8.9	56.8	56.8	17.3	65.2	65.2	20.9	36.8	36.8	7.0	22.9	22.9
Volume/Cap:	0.71	0.40	0.40	0.06	0.71	0.71	0.44	0.71	0.71	0.32	0.39	0.39
Uniform Del:	59.2	25.0	25.0	49.2	25.0	25.0	49.2	41.7	41.7	59.2	47.4	47.4
IncrcmntDel:	17.4	0.2	0.2	0.1	1.3	1.3	1.1	4.5	4.5	2.0	0.8	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	76.7	25.2	25.2	49.4	26.3	26.3	50.3	46.2	46.2	61.2	48.2	48.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.7	25.2	25.2	49.4	26.3	26.3	50.3	46.2	46.2	61.2	48.2	48.2
LOS by Move:	E-	C	C	D	C	C	D	D	D	E	D	D
HCM2kAvgQ:	5	9	9	1	20	20	5	14	14	2	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing traffic movements and rows for Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume).

Table for Critical Gap Module with 12 columns and 2 rows (Critical Gp, FollowUpTim).

Table for Capacity Module with 12 columns and 4 rows (Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.).

Table for Level Of Service Module with 12 columns and 10 rows (2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	102 331 3	10 988 9	11 1 256	6 2 12
ApproachDel:	xxxxxx	xxxxxx	19.6	26.6

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=1.5]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=268]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1731]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.1]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=20]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1731]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	102 331 3	10 988 9	11 1 256	6 2 12

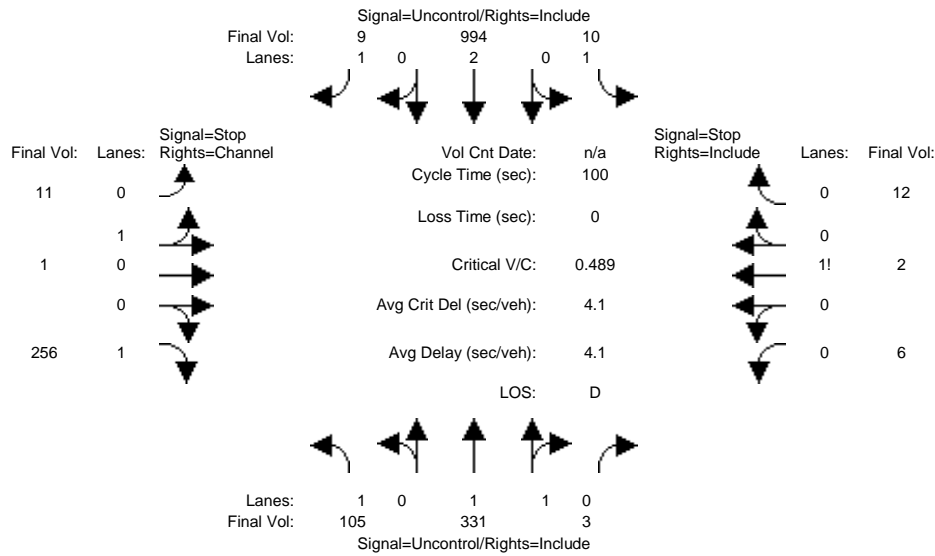
Major Street Volume: 1443
 Minor Approach Volume: 268
 Minor Approach Volume Threshold: 216

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+P PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 13 columns representing different movements and 10 rows of volume data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Table with 13 columns representing different movements and 2 rows of critical gap and follow-up time data.

Table with 13 columns representing different movements and 4 rows of capacity data including Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with 13 columns representing different movements and 10 rows of Level of Service data including 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	105 331 3	10 994 9	11 1 256	6 2 12
ApproachDel:	xxxxxx	xxxxxx	19.8	27.1

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=1.5]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=268]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1740]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.2]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=20]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=1740]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	105 331 3	10 994 9	11 1 256	6 2 12

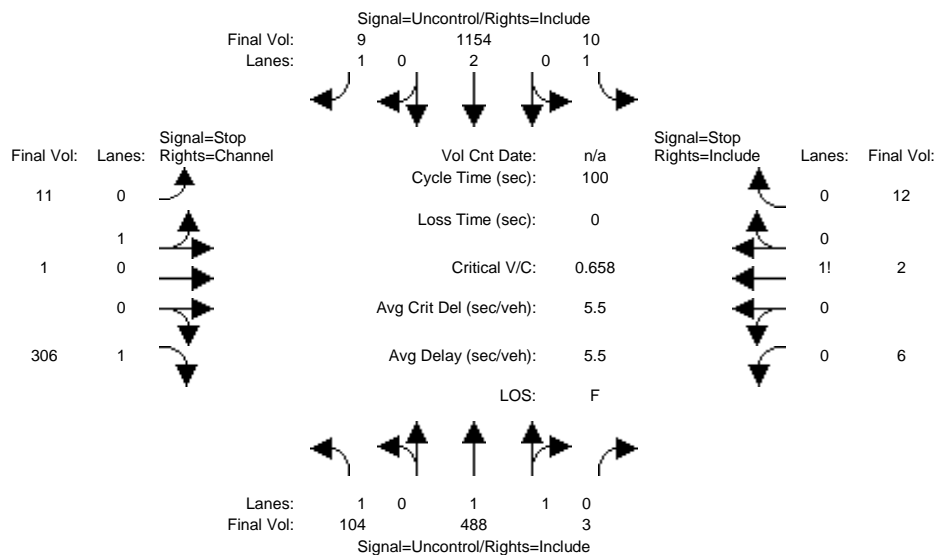
Major Street Volume: 1452
 Minor Approach Volume: 268
 Minor Approach Volume Threshold: 214

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing movements and 12 rows representing volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table with 12 columns representing movements and 12 rows representing critical gap metrics: Critical Gap, FollowUpTim.

Table with 12 columns representing movements and 12 rows representing capacity metrics: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table with 12 columns representing movements and 12 rows representing level of service metrics: 2Way95thQ, Control Del, LOS by Move, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	104 488 3	10 1154 9	11 1 306	6 2 12
ApproachDel:	xxxxxx	xxxxxx	28.6	55.1

Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=2.5]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=318]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=2106]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.3]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=20]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=2106]
 SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	104 488 3	10 1154 9	11 1 306	6 2 12

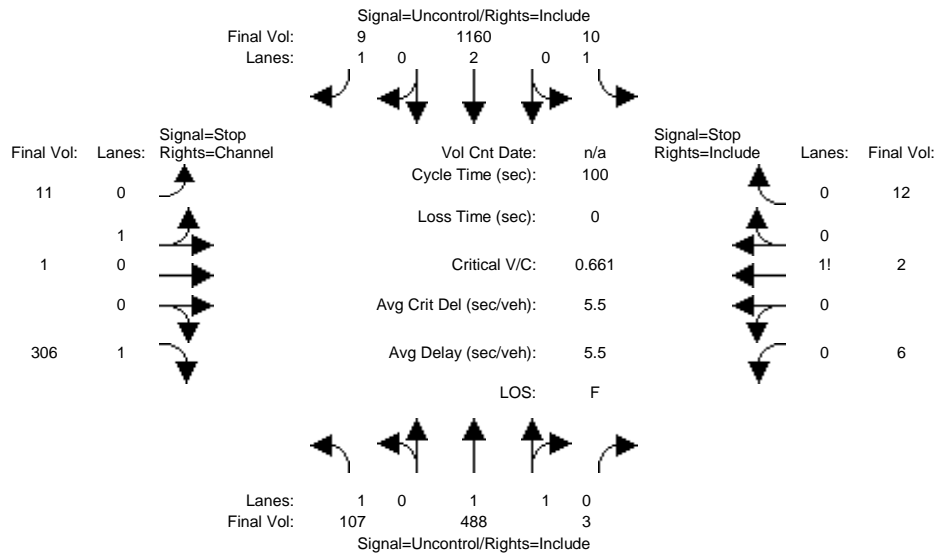
Major Street Volume: 1768
 Minor Approach Volume: 318
 Minor Approach Volume Threshold: 129 [less than minimum of 150]

SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Bkgd+P PM

Intersection #22: Wolfe Rd & Maude Ave



Street Name: Wolfe Rd Maude Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with 12 columns representing different approaches and movements. Rows include Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume) and Critical Gap Module (Critical Gp, FollowUpTim).

Table with 12 columns representing different approaches and movements. Rows include Capacity Module (Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.) and Level Of Service Module (2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

Table with 12 columns representing different approaches and movements. Rows include Capacity Module (Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.) and Level Of Service Module (2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

Table with 12 columns representing different approaches and movements. Rows include Capacity Module (Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.) and Level Of Service Module (2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS).

Note: Queue reported is the number of cars per lane.
Peak Hour Delay Signal Warrant Report

Intersection #22 Wolfe Rd & Maude Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	107 488 3	10 1160 9	11 1 306	6 2 12
ApproachDel:	xxxxxx	xxxxxx	28.9	56.8

-----|-----|-----|-----|-----|
 Approach[eastbound][lanes=2][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=2.6]
 FAIL - Vehicle-hours less than 5 for two or more lane approach.
 Signal Warrant Rule #2: [approach volume=318]
 SUCCEED - Approach volume >= 150 for two or more lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=2115]
 SUCCEED - Total volume greater than or equal to 800 for intersection
 with four or more approaches.

-----|-----|-----|-----|-----|
 Approach[westbound][lanes=1][control=Stop Sign]
 Signal Warrant Rule #1: [vehicle-hours=0.3]
 FAIL - Vehicle-hours less than 4 for one lane approach.
 Signal Warrant Rule #2: [approach volume=20]
 FAIL - Approach volume less than 100 for one lane approach.
 Signal Warrant Rule #3: [approach count=4][total volume=2115]
 SUCCEED - Total volume greater than or equal to 800 for intersection
 with four or more approaches.

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #22 Wolfe Rd & Maude Ave

 Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 2 0 1	0 1 0 0 1	0 0 1! 0 0
Initial Vol:	107 488 3	10 1160 9	11 1 306	6 2 12

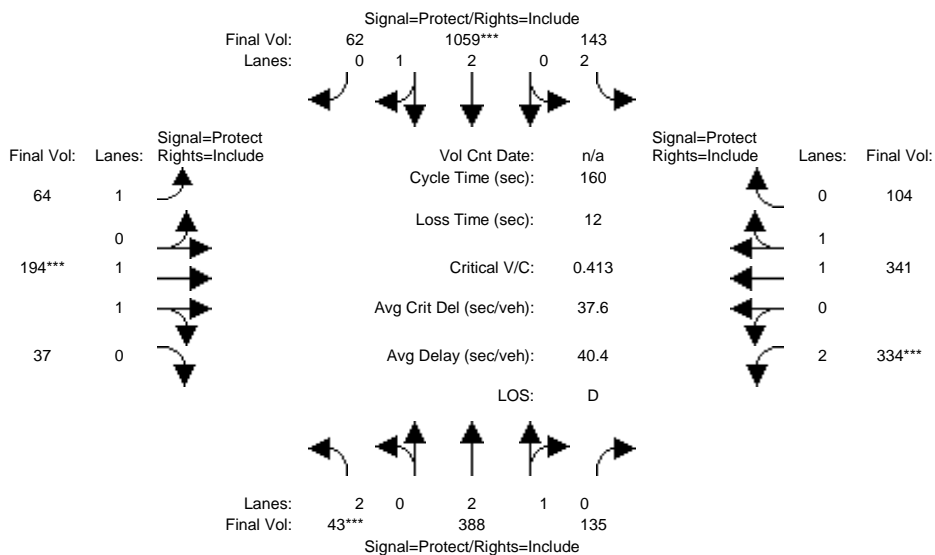
-----|-----|-----|-----|-----|
 Major Street Volume: 1777
 Minor Approach Volume: 318
 Minor Approach Volume Threshold: 127 [less than minimum of 150]

-----|-----|-----|-----|-----|
 SIGNAL WARRANT DISCLAIMER
 This peak hour signal warrant analysis should be considered solely as an
 "indicator" of the likelihood of an unsignalized intersection warranting
 a traffic signal in the future. Intersections that exceed this warrant
 are probably more likely to meet one or more of the other volume based
 signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace
 a rigorous and complete traffic signal warrant analysis by the responsible
 jurisdiction. Consideration of the other signal warrants, which is beyond
 the scope of this software, may yield different results.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	43	388	135	143	1059	62	64	194	37	334	341	104
Growth 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
Initial Bse:	43	388	135	143	1059	62	64	194	37	334	341	104
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	388	135	143	1059	62	64	194	37	334	341	104
User 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
PHF 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
PHF Volume:	43	388	135	143	1059	62	64	194	37	334	341	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	388	135	143	1059	62	64	194	37	334	341	104
PCE 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
MLF 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
Final Volume:	43	388	135	143	1059	62	64	194	37	334	341	104

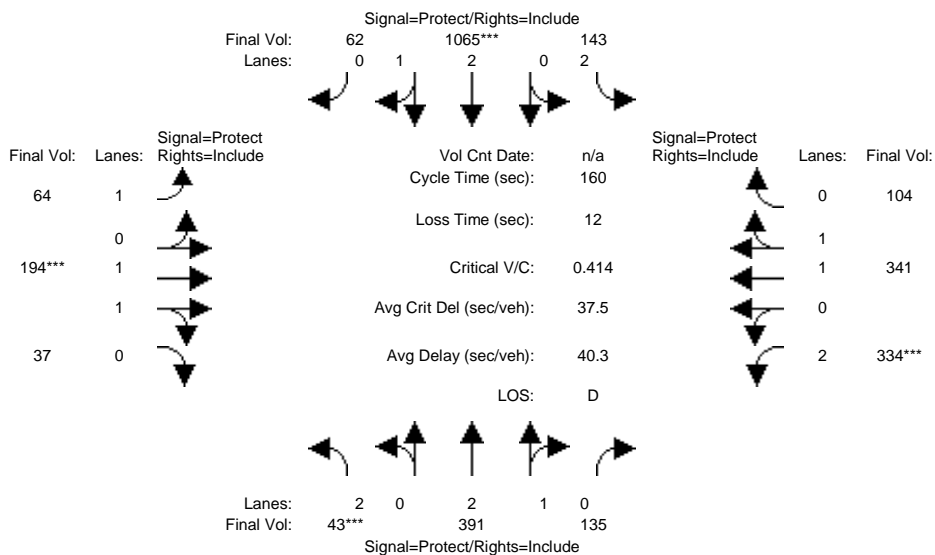
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.98	0.95
Lanes:	2.00	2.20	0.80	2.00	2.83	0.17	1.00	1.67	0.33	2.00	1.52	0.48
Final Sat.:	3150	4153	1445	3150	5290	310	1750	3107	593	3150	2835	865

Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.05	0.20	0.20	0.04	0.06	0.06	0.11	0.12	0.12
Crit Moves:	****				****			****		****		
Green Time:	7.0	56.2	56.2	27.3	76.6	76.6	17.2	23.9	23.9	40.6	47.3	47.3
Volume/Cap:	0.31	0.27	0.27	0.27	0.42	0.42	0.34	0.42	0.42	0.42	0.41	0.41
Uniform Del:	74.2	37.1	37.1	57.6	27.2	27.2	66.2	61.8	61.8	49.9	45.2	45.2
IncrcmntDel:	1.3	0.1	0.1	0.3	0.1	0.1	1.1	0.5	0.5	0.4	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	75.5	37.2	37.2	57.9	27.3	27.3	67.2	62.3	62.3	50.2	45.4	45.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.5	37.2	37.2	57.9	27.3	27.3	67.2	62.3	62.3	50.2	45.4	45.4
LOS by Move:	E-	D+	D+	E+	C	C	E	E	E	D	D	D
HCM2kAvgQ:	1	6	6	3	12	12	3	5	5	8	9	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing+P PM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	43	388	135	143	1059	62	64	194	37	334	341	104
Growth 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
Initial Bse:	43	388	135	143	1059	62	64	194	37	334	341	104
Added Vol:	0	3	0	0	6	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	391	135	143	1065	62	64	194	37	334	341	104
User 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
PHF 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
PHF Volume:	43	391	135	143	1065	62	64	194	37	334	341	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	391	135	143	1065	62	64	194	37	334	341	104
PCE 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
MLF 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
Final Volume:	43	391	135	143	1065	62	64	194	37	334	341	104

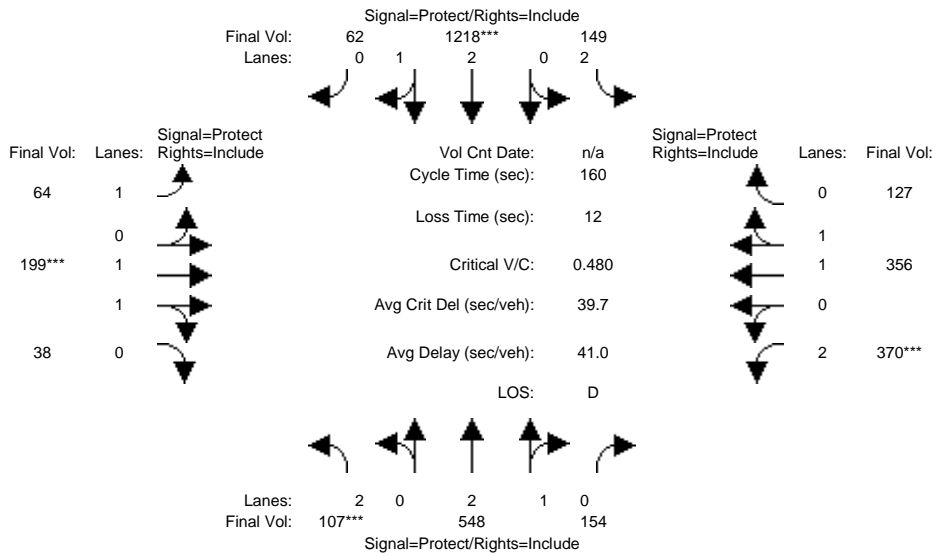
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.98	0.95
Lanes:	2.00	2.20	0.80	2.00	2.83	0.17	1.00	1.67	0.33	2.00	1.52	0.48
Final Sat.:	3150	4161	1437	3150	5292	308	1750	3107	593	3150	2835	865

Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.05	0.20	0.20	0.04	0.06	0.06	0.11	0.12	0.12
Crit Moves:	****				****			****		****		
Green Time:	7.0	56.5	56.5	27.3	76.8	76.8	17.1	23.8	23.8	40.4	47.1	47.1
Volume/Cap:	0.31	0.27	0.27	0.27	0.42	0.42	0.34	0.42	0.42	0.42	0.41	0.41
Uniform Del:	74.2	37.0	37.0	57.7	27.1	27.1	66.2	61.8	61.8	50.0	45.3	45.3
IncrcmntDel:	1.3	0.1	0.1	0.3	0.1	0.1	1.1	0.5	0.5	0.4	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	75.5	37.0	37.0	57.9	27.2	27.2	67.3	62.3	62.3	50.3	45.5	45.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	75.5	37.0	37.0	57.9	27.2	27.2	67.3	62.3	62.3	50.3	45.5	45.5
LOS by Move:	E-	D+	D+	E+	C	C	E	E	E	D	D	D
HCM2kAvgQ:	1	6	6	3	12	12	3	5	5	8	9	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:												
Base Vol:	107	548	154	149	1218	62	64	199	38	370	356	127
Growth 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
Initial Bse:	107	548	154	149	1218	62	64	199	38	370	356	127
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	107	548	154	149	1218	62	64	199	38	370	356	127
User 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
PHF 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
PHF Volume:	107	548	154	149	1218	62	64	199	38	370	356	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	548	154	149	1218	62	64	199	38	370	356	127
PCE 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
MLF 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
Final Volume:	107	548	154	149	1218	62	64	199	38	370	356	127

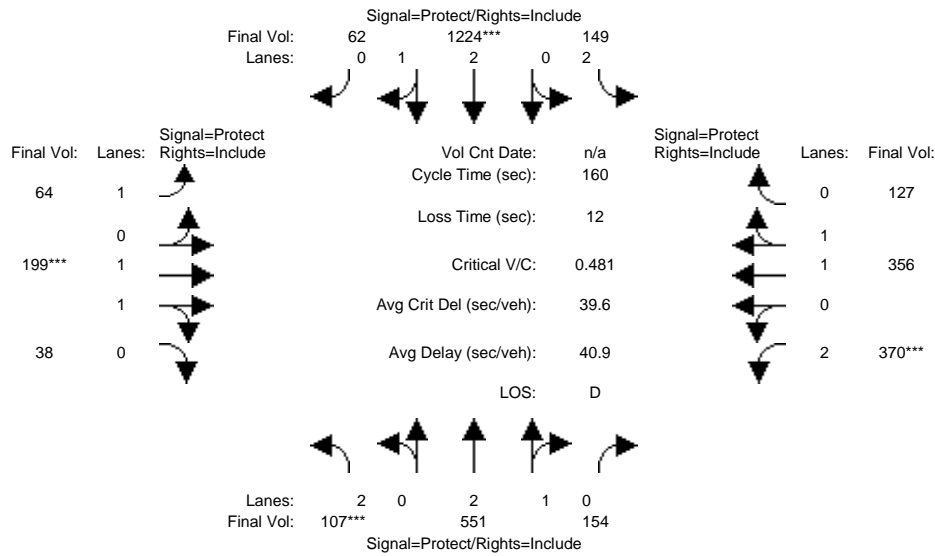
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.98	0.95
Lanes:	2.00	2.32	0.68	2.00	2.85	0.15	1.00	1.67	0.33	2.00	1.46	0.54
Final Sat.:	3150	4370	1228	3150	5328	271	1750	3106	593	3150	2726	973

Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.05	0.23	0.23	0.04	0.06	0.06	0.12	0.13	0.13
Crit Moves:	***				****			****		****		
Green Time:	11.3	63.5	63.5	24.0	76.2	76.2	15.2	21.4	21.4	39.1	45.3	45.3
Volume/Cap:	0.48	0.32	0.32	0.32	0.48	0.48	0.39	0.48	0.48	0.48	0.46	0.46
Uniform Del:	71.5	33.2	33.2	60.7	28.5	28.5	68.0	64.2	64.2	51.7	47.3	47.3
IncrcmntDel:	1.6	0.1	0.1	0.4	0.1	0.1	1.5	0.7	0.7	0.5	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	73.1	33.3	33.3	61.1	28.6	28.6	69.5	64.9	64.9	52.2	47.6	47.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.1	33.3	33.3	61.1	28.6	28.6	69.5	64.9	64.9	52.2	47.6	47.6
LOS by Move:	E	C-	C-	E	C	C	E	E	E	D-	D	D
HCM2kAvgQ:	3	8	8	4	14	14	4	6	6	9	10	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #23: Wolfe Rd & Arques Ave



Street Name:	Wolfe Rd						Arques Ave					
	North Bound			South Bound			East Bound			West Bound		
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Wolfe Rd			South Wolfe Rd			East Arques Ave			West Arques Ave		
Base Vol:	107	548	154	149	1218	62	64	199	38	370	356	127
Growth 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
Initial Bse:	107	548	154	149	1218	62	64	199	38	370	356	127
Added Vol:	0	3	0	0	6	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	107	551	154	149	1224	62	64	199	38	370	356	127
User 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
PHF 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
PHF Volume:	107	551	154	149	1224	62	64	199	38	370	356	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	551	154	149	1224	62	64	199	38	370	356	127
PCE 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
MLF 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
Final Volume:	107	551	154	149	1224	62	64	199	38	370	356	127

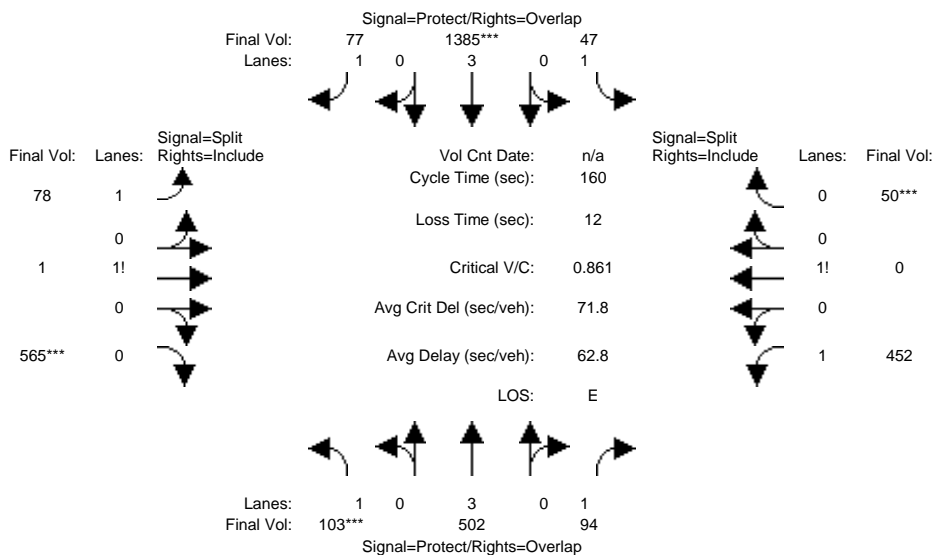
Saturation Flow Module:	North Wolfe Rd			South Wolfe Rd			East Arques Ave			West Arques Ave		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.83	0.98	0.95	0.92	0.98	0.95	0.83	0.98	0.95
Lanes:	2.00	2.32	0.68	2.00	2.85	0.15	1.00	1.67	0.33	2.00	1.46	0.54
Final Sat.:	3150	4375	1223	3150	5330	270	1750	3106	593	3150	2726	973

Capacity Analysis Module:	North Wolfe Rd			South Wolfe Rd			East Arques Ave			West Arques Ave		
Vol/Sat:	0.03	0.13	0.13	0.05	0.23	0.23	0.04	0.06	0.06	0.12	0.13	0.13
Crit Moves:	***			****			****			****		
Green Time:	11.3	63.7	63.7	23.9	76.4	76.4	15.1	21.3	21.3	39.1	45.2	45.2
Volume/Cap:	0.48	0.32	0.32	0.32	0.48	0.48	0.39	0.48	0.48	0.48	0.46	0.46
Uniform Del:	71.5	33.1	33.1	60.7	28.4	28.4	68.1	64.2	64.2	51.8	47.4	47.4
IncrcmntDel:	1.6	0.1	0.1	0.4	0.1	0.1	1.5	0.7	0.7	0.5	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay 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
Delay/Veh:	73.2	33.2	33.2	61.1	28.5	28.5	69.6	65.0	65.0	52.3	47.7	47.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.2	33.2	33.2	61.1	28.5	28.5	69.6	65.0	65.0	52.3	47.7	47.7
LOS by Move:	E	C-	C-	E	C	C	E	E	E	D-	D	D
HCM2kAvgQ:	3	8	8	4	14	14	4	6	6	9	10	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	103	502	94	47	1385	77	78	1	565	452	0	50
Growth 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
Initial Bse:	103	502	94	47	1385	77	78	1	565	452	0	50
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	502	94	47	1385	77	78	1	565	452	0	50
User 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
PHF 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
PHF Volume:	103	502	94	47	1385	77	78	1	565	452	0	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	502	94	47	1385	77	78	1	565	452	0	50
PCE 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
MLF 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
Final Volume:	103	502	94	47	1385	77	78	1	565	452	0	50

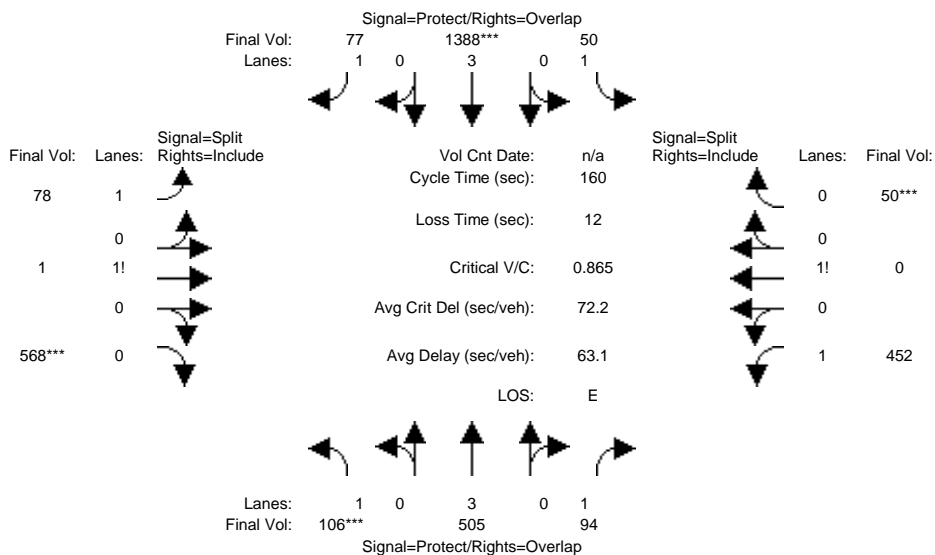
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.06	0.01	0.93	1.82	0.00	0.18
Final Sat.:	1750	5700	1750	1750	5700	1750	1866	3	1678	3183	0	317

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.09	0.05	0.03	0.24	0.04	0.04	0.34	0.34	0.14	0.00	0.16
Crit Moves:	***			****					****			****
Green Time:	21.0	42.0	69.2	21.0	41.8	99.8	58.0	58.0	58.0	27.2	0.0	27.2
Volume/Cap:	0.45	0.34	0.12	0.20	0.93	0.07	0.12	0.93	0.93	0.84	0.00	0.93
Uniform Del:	64.1	47.7	27.3	62.0	57.6	11.8	33.9	49.0	49.0	64.3	0.0	65.5
IncrcmntDel:	1.4	0.1	0.1	0.4	10.5	0.0	0.0	18.9	18.9	10.0	0.0	22.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	65.5	47.9	27.3	62.5	68.2	11.9	33.9	68.0	68.0	74.3	0.0	88.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.5	47.9	27.3	62.5	68.2	11.9	33.9	68.0	68.0	74.3	0.0	88.1
LOS by Move:	E	D	C	E	E	B+	C-	E	E	E	A	F
HCM2kAvgQ:	5	7	3	2	24	2	2	34	34	15	0	18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing+P PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	103	502	94	47	1385	77	78	1	565	452	0	50
Growth 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
Initial Bse:	103	502	94	47	1385	77	78	1	565	452	0	50
Added Vol:	3	3	0	3	3	0	0	0	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	505	94	50	1388	77	78	1	568	452	0	50
User 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
PHF 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
PHF Volume:	106	505	94	50	1388	77	78	1	568	452	0	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	505	94	50	1388	77	78	1	568	452	0	50
PCE 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
MLF 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
Final Volume:	106	505	94	50	1388	77	78	1	568	452	0	50

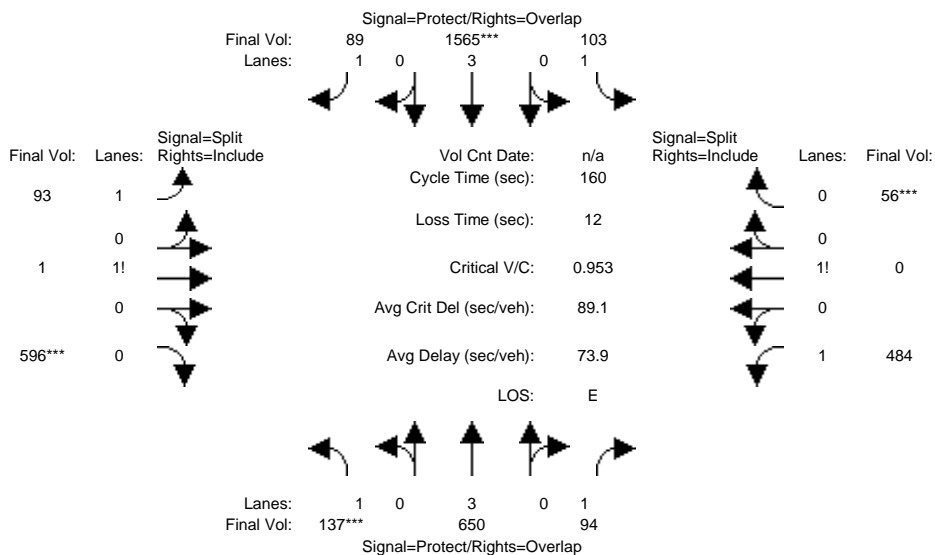
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.06	0.01	0.93	1.82	0.00	0.18
Final Sat.:	1750	5700	1750	1750	5700	1750	1865	3	1679	3183	0	317

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.09	0.05	0.03	0.24	0.04	0.04	0.34	0.34	0.14	0.00	0.16
Crit Moves:	***			****					****			****
Green Time:	21.0	42.1	69.1	21.0	41.8	99.9	58.1	58.1	58.1	27.1	0.0	27.1
Volume/Cap:	0.46	0.34	0.12	0.22	0.93	0.07	0.12	0.93	0.93	0.84	0.00	0.93
Uniform Del:	64.3	47.7	27.3	62.1	57.7	11.8	33.9	49.0	49.0	64.4	0.0	65.6
IncrcmntDel:	1.5	0.1	0.1	0.5	10.9	0.0	0.0	19.4	19.4	10.2	0.0	23.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	65.7	47.8	27.3	62.6	68.6	11.8	33.9	68.4	68.4	74.6	0.0	88.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.7	47.8	27.3	62.6	68.6	11.8	33.9	68.4	68.4	74.6	0.0	88.7
LOS by Move:	E	D	C	E	E	B+	C-	E	E	E	A	F
HCM2kAvgQ:	6	7	3	2	24	2	2	34	34	15	0	18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Bkgd PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	137	650	94	103	1565	89	93	1	596	484	0	56
Growth 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
Initial Bse:	137	650	94	103	1565	89	93	1	596	484	0	56
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	137	650	94	103	1565	89	93	1	596	484	0	56
User 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
PHF 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
PHF Volume:	137	650	94	103	1565	89	93	1	596	484	0	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	137	650	94	103	1565	89	93	1	596	484	0	56
PCE 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
MLF 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
Final Volume:	137	650	94	103	1565	89	93	1	596	484	0	56

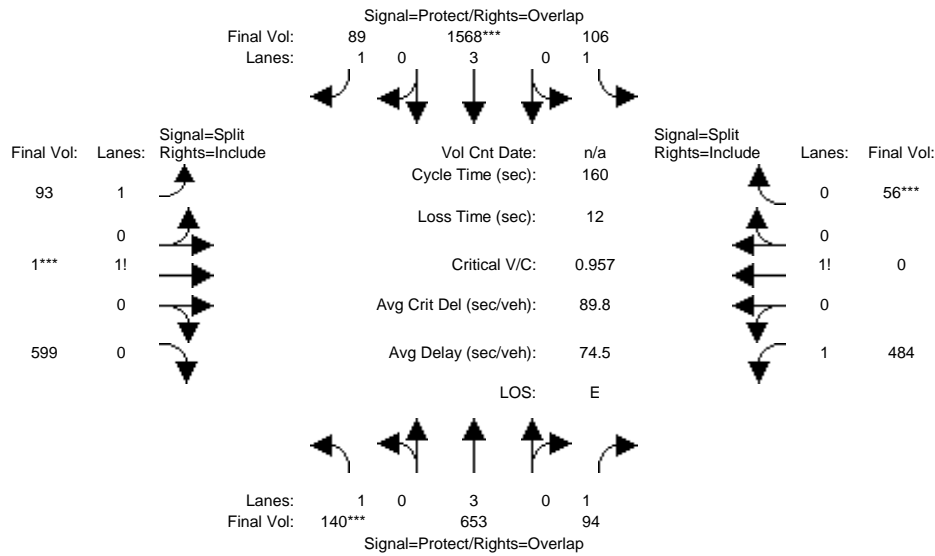
Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.07	0.01	0.92	1.81	0.00	0.19
Final Sat.:	1750	5700	1750	1750	5700	1750	1880	3	1664	3171	0	329

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.08	0.11	0.05	0.06	0.27	0.05	0.05	0.36	0.36	0.15	0.00	0.17
Crit Moves:	****			****					****			****
Green Time:	21.0	42.5	69.4	21.0	43.4	100.1	56.6	56.6	56.6	26.9	0.0	26.9
Volume/Cap:	0.60	0.43	0.12	0.45	1.01	0.08	0.14	1.01	1.01	0.91	0.00	1.01
Uniform Del:	65.5	48.7	27.1	64.1	58.3	11.8	35.1	51.7	51.7	65.3	0.0	66.5
IncrcmntDel:	4.2	0.2	0.1	1.4	25.8	0.0	0.0	37.4	37.4	17.6	0.0	41.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	69.7	48.9	27.2	65.5	84.1	11.9	35.1	89.1	89.1	82.9	0.0	108.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.7	48.9	27.2	65.5	84.1	11.9	35.1	89.1	89.1	82.9	0.0	108.5
LOS by Move:	E	D	C	E	F	B+	D+	F	F	F	A	F
HCM2kAvgQ:	8	9	3	5	30	2	3	40	40	17	0	21

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Bkgd+P PM

Intersection #24: Wolfe Rd & Central Expwy Ramps



Street Name:	Wolfe Rd						Central Expwy Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	137	650	94	103	1565	89	93	1	596	484	0	56
Growth 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
Initial Bse:	137	650	94	103	1565	89	93	1	596	484	0	56
Added Vol:	3	3	0	3	3	0	0	0	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	653	94	106	1568	89	93	1	599	484	0	56
User 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
PHF 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
PHF Volume:	140	653	94	106	1568	89	93	1	599	484	0	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	653	94	106	1568	89	93	1	599	484	0	56
PCE 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
MLF 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
Final Volume:	140	653	94	106	1568	89	93	1	599	484	0	56

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	1.07	0.01	0.92	1.81	0.00	0.19
Final Sat.:	1750	5700	1750	1750	5700	1750	1879	3	1664	3171	0	329

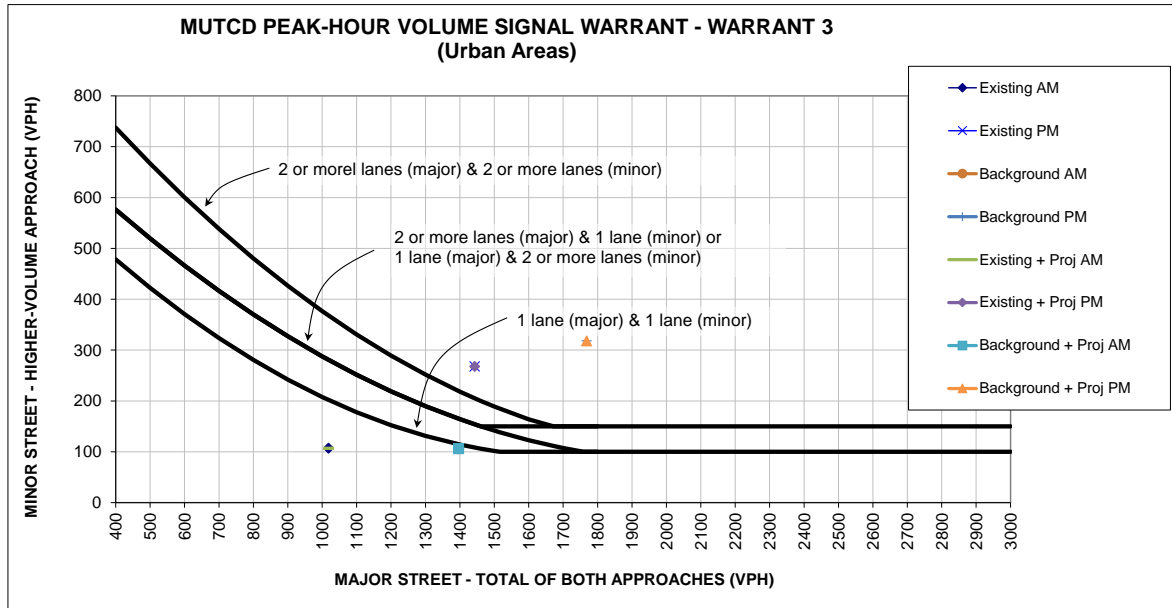
Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.08	0.11	0.05	0.06	0.28	0.05	0.05	0.36	0.36	0.15	0.00	0.17
Crit Moves:	****			****			****			****		
Green Time:	21.0	42.1	69.0	21.0	43.4	100.1	56.8	56.8	56.8	26.9	0.0	26.9
Volume/Cap:	0.61	0.44	0.12	0.46	1.01	0.08	0.14	1.01	1.01	0.91	0.00	1.01
Uniform Del:	65.6	49.0	27.4	64.3	58.3	11.8	35.0	51.6	51.6	65.4	0.0	66.6
IncrcmntDel:	4.7	0.2	0.1	1.5	26.6	0.0	0.0	38.1	38.1	18.0	0.0	42.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Delay/Veh:	70.3	49.2	27.4	65.7	84.9	11.8	35.1	89.7	89.7	83.4	0.0	109.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.3	49.2	27.4	65.7	84.9	11.8	35.1	89.7	89.7	83.4	0.0	109.3
LOS by Move:	E	D	C	E	F	B+	D+	F	F	F	A	F
HCM2kAvgQ:	8	9	3	5	30	2	3	40	40	17	0	21

Note: Queue reported is the number of cars per lane.

Appendix D
Signal Warrants

824 San Aleso Summit School TIA

22 . Wolfe Rd & Maude Ave



Source: Figure 4C-3 of the Manual on Uniform Traffic Control and Devices (MUTCD) 2014 Edition from California Department of Transportation (Caltrans).
 * 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

		AM Peak Hour							
		Existing Approach Lanes		Existing AM	Background AM	Existing + Proj AM	Background + Proj AM		
		2 or	One More						
Major Street - Both Approaches	Wolfe Rd		X	1018	1396	1018	1396		
Minor Street - Highest Approach	Maude Ave		X	368	220	368	220		
Minimum warrant threshold for minor street volume									
Difference between warrant threshold & minor street volume									
Warrant Met?				No	No	No	No		

		PM Peak Hour							
		Existing Approach Lanes		Existing PM	Background PM	Existing + Proj PM	Background + Proj PM		
		2 or	One More						
Major Street - Both Approaches	Wolfe Rd		X	1443	1768	1443	1768		
Minor Street - Highest Approach	Maude Ave		X	268	318	268	318		
Minimum warrant threshold for minor street volume									
Difference between warrant threshold & minor street volume									
Warrant Met?				Yes	Yes	Yes	Yes		