APPENDIX 3.5

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APPENDIX A

Approved and Planned Projects List

Current List of Near-Term Development Projects
April 2011

PROJECT ADDRESS	TYPE OF USE	SIZE	UNITS OF MEASURE	OCCUPIED AS OF NOVEMBER 2010	STATUS AS OF APRIL 2011	TRAFFIC STUDY PREPARED	TRAFFIC CONSULTANT	PLANNER	INCLUDED IN 2009-10 CSA	PROJECT LOCATION
1283 Willow Road (Police/City Service Center)	Office Retail	3,800 5,096	sf sf	No	Under Construction Under Construction	No	Not applicable	Justin Murphy	Yes	East of U.S. 101
110 Linfield Drive (Taylor Morrison)	Residential	22	du	No	Under Construction, Partially Occupied	Yes	DKS	Justin Murphy Deanna Chow	Yes	West of U.S. 101
297 Terminal Avenue (Habitat for Humanity)	Residential Residential	22 -1	du du	No	Proposed New Construction Replace	No	Not applicable	Linda Heineck Deanna Chow	Yes	East of U.S. 101
1460 El Camino Real	Residential Office Commercial	16 26,800 -12,016	du sf sf	No	Approved New Construction Approved New Construction Replace	Yes	Hexagon	Deanna Chow	Yes	West Menlo/Downtown/El Camino Real
2122 Santa Cruz Avenue (Royal Oaks Subdivision)	Residential	7	du	Yes	Under Construction, Partially Occupied	Yes	TJKM	Deanna Chow	Yes	Sharon Heights/Sand Hill
580 Oak Grove (Derry)	Residential Commercial Commercial	108 24,925 -21,290	du sf sf	No	Proposed New Construction Proposed New Construction Replace (Partially occupied)	Yes	Hexagon	Thomas Rogers	Yes	West Menlo/Downtown/El Camino Real
1300 El Camino Real	Commercial	110,065	sf	No	Approved New Construction	Yes	Hexagon	Thomas Rogers	Yes	West Menlo/Downtown/El Camino Real
1906 El Camino	Medical Office	9,825	sf	No	Under Construction	Yes	DKS	Deanna Chow	Yes	West Menlo/Downtown/El Camino Real
1706 El Camino	Medical Office	10,166	sf	No	Approved New Construction	Yes	DKS	Deanna Chow	Yes	West Menlo/Downtown/El Camino Real
100-155 Constitution Drive & 100-190 Independence Drive (Menlo Gateway)	Office Health Club Restaurant Hotel *Hotel* Office Office	694,669 68,964 4,285 230 *173,436* -133,690 -63,360	sf sf sf rooms *sf* sf sf	No	Approved New Construction Approved New Construction Approved New Construction Approved New Construction *Approved New Construction* Replace on Constitution Site Replace on Independence Site	Yes	DKS	Justin Murphy	Yes	East of U.S. 101
2550 Sand Hill Road	Office	23,011	sf	No	Complete	Yes	TJKM	Deanna Chow	Yes	Sharon Heights/Sand Hill
389 El Camino	Residential Residential	26 4	du du	No	Proposed New Construction Replace	Yes	DKS	Deanna Chow	Yes	West Menlo/Downtown/El Camino Real
El Camino Real/Downtown Specific Plan	Retail Office Hotel Residential	91,800 240,820 380 680	sf sf rooms du	No	Proposed New Construction Proposed New Construction Proposed New Construction Proposed New Construction	In progress	Fehr & Peers	Thomas Rogers	No (Y long-range)	West Menlo/Downtown/El Camino Real

PROJECT ADDRESS	TYPE OF USE	SIZE	UNITS OF MEASURE	OCCUPIED AS OF NOVEMBER 2010	STATUS AS OF APRIL 2011	TRAFFIC STUDY PREPARED	TRAFFIC CONSULTANT	PLANNER	INCLUDED IN 2009-10 CSA	PROJECT LOCATION
Facebook West 312-314 Constitution Dr	Office	433,700	sf	No	Potential Development (No development application filed)	In progress	DKS	Justin Murphy	No	East of U.S. 101
Facebook East 1601 Willow Road	Office	n/a	n/a	Partially	Employee increase from 3,600 to 6,600 New trip cap of 15,000 daily & 2,600 two-hour peak period Various tenant improvements	In progress	DKS	Justin Murphy	No	East of U.S. 101
100 Middlefield	Office	8,936	sf	No	Under Construction	No	n/a	Deanna Chow	No	West of 101
2484 Sand Hill Road (Quadrus Bldg. 9)	Office	10,768 -1,798	sf sf	No	Proposed Construction	No	n/a	Deanna Chow	No	Sharon Heights/Sand Hill
Civic Center Gymnasium Rec Center Gymastics Center Gymnasium	Fitness	24,100 800 19,400 -17,400	sf sf sf sf	Yes No Yes	Constructed Constructed Proposed Construction Proposed Demolition	Yes	DKS	Megan Fisher	No	West Menlo/Downtown/El Camino Real

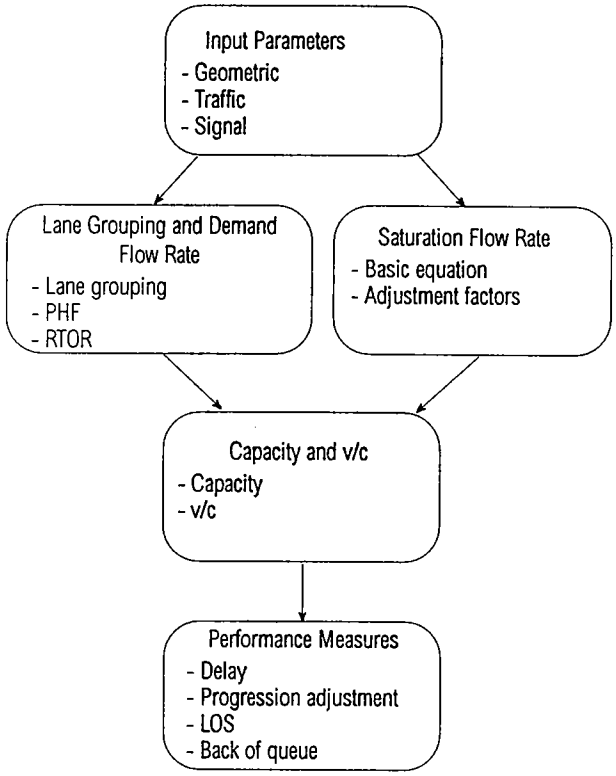
Notes:
Table includes all projects in City of Menlo Park that have filed a development application for 5 or more residential units or 5,000 sf or more of commercial.
Table does not include study session items where a development application has not been filed.
Table includes pending and approved projects that were not occupied when traffic counts were performed.
For residential projects, occupancy is based on date of final building inspection.
For commercial projects, occupancy is based on date of final building inspection of applicable tenant improvements.
Some projects involve the demolition of existing structures. Demolished buildings are only listed for projects that receive credit for traffic purposes.
Project location corresponds to the four categories in the CSA as follows from west to east: Sharon Heights/Sand Hill; West Menlo/Downtown/El Camino; West of US 101; and East of US 101.

APPENDIX B

Level of Service Definitions

utilization, and left-turn treatment alternatives. It is important to note that some of these configurations may be considered unacceptable by some operating agencies from a traffic safety point of view. The safety aspect of signalized intersections cannot be ignored, and the provision in this chapter of a capacity and LOS analysis methodology for a specific operational configuration does not imply an endorsement of the suitability for application of such a configuration.

EXHIBIT 16-1. SIGNALIZED INTERSECTION METHODOLOGY



LOS

The average control delay per vehicle is estimated for each lane group and aggregated for each approach and for the intersection as a whole. LOS is directly related to the control delay value. The criteria are listed in Exhibit 16-2.

LOS criteria

EXHIBIT 16-2. LOS CRITERIA FOR SIGNALIZED INTERSECTIONS

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	> 10–20
C	> 20–35
D	> 35–55
E	> 55–80
F	> 80

• Worksheet 8 is used to compute shared-lane capacities, if more than one movement shares the same minor-street approach.

• Worksheet 9 is not used, since the effect of flared minor-street approaches is generally not included.

• Worksheet 10 is not used, since the impedance and delay for the major through movements are not accounted for in a planning analysis.

• Worksheet 11 is used to compute capacity, delay, and LOS.

The detailed analysis procedure described earlier in this chapter is normally not used for design purposes. However, through iteration, the analyst can use a given set of traffic flow data to determine the number of lanes that would be required to produce a given level of service.

PART B. ALL-WAY STOP-CONTROLLED INTERSECTIONS

I. INTRODUCTION - PART B

Background and concepts for AWSC intersections are given in Chapter 10

This section of Chapter 17 presents procedures for analyzing all-way stop-controlled (AWSC) intersections (*1*). A glossary of symbols, including those used for AWSC intersections, is found in Chapter 6.

II. METHODOLOGY - PART B

LEVEL-OF-SERVICE CRITERIA

LOS thresholds for AWSC intersections differ from those for signalized intersections to reflect different driver expectations

The level-of-service criteria are given in Exhibit 17-22. The criteria for AWSC intersections have different threshold values than do those for signalized intersections primarily because drivers expect different levels of performance from distinct types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an AWSC intersection. Thus a higher level of control delay is acceptable at a signalized intersection for the same LOS.

EXHIBIT 17-22. LEVEL-OF-SERVICE CRITERIA FOR AWSC INTERSECTIONS

Level of Service	Control Delay (s/veh)
A	0–10
B	> 10–15
C	> 15–25
D	> 25–35
E	> 35–50
F	> 50

OVERVIEW OF METHODOLOGY

The methodology analyzes each intersection approach independently. The approach under study is called the subject approach. The opposing approach and the conflicting approaches create conflicts with vehicles on the subject approach.

AWSC intersections require drivers on all approaches to stop before proceeding into the intersection. While giving priority to the driver on the right is a recognized rule in

EXHIBIT 17-1. TWSC UNSIGNALIZED INTERSECTION METHODOLOGY

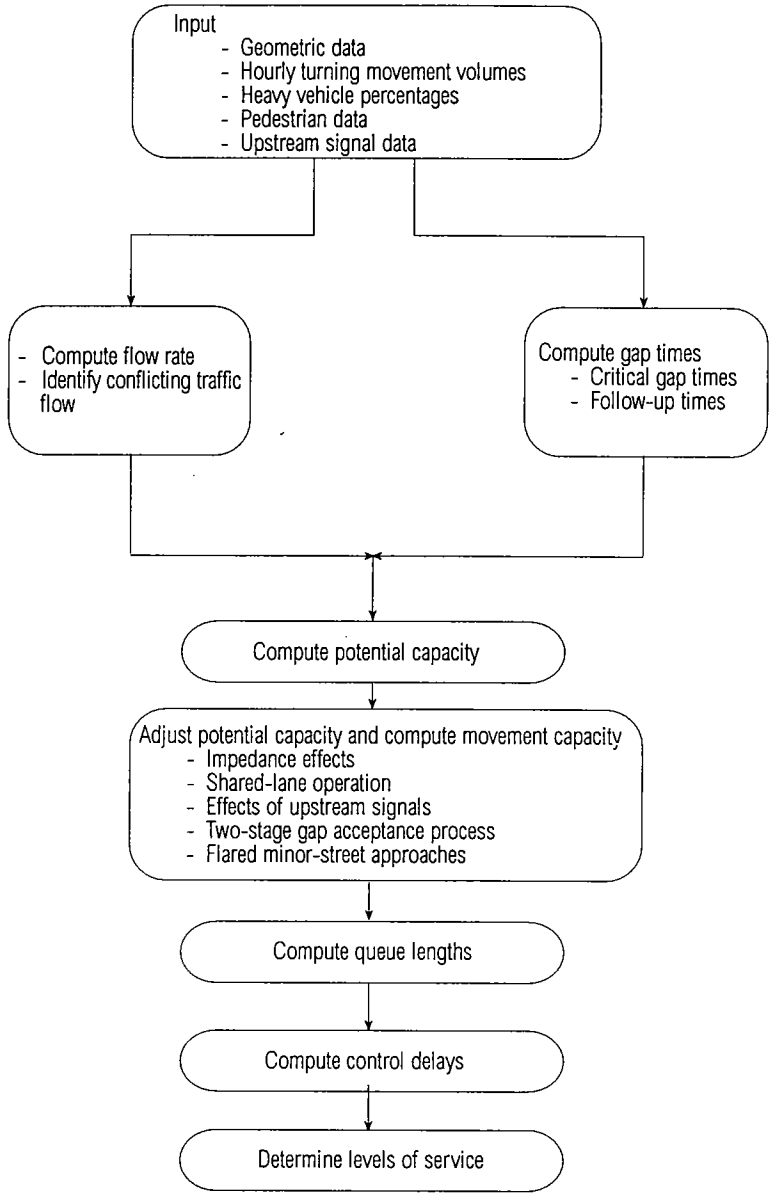


EXHIBIT 17-2. LEVEL-OF-SERVICE CRITERIA FOR TWSC INTERSECTIONS

Level of Service	Average Control Delay (s/veh)
A	0–10
B	> 10–15
C	> 15–25
D	> 25–35
E	> 35–50
F	> 50

APPENDIX C

Level of Service Calculations

Scenario Report

Scenario:	Existing AM
Command:	Existing_2009_AM
Volume:	AM_2009
Geometry:	AM
Impact Fee:	Default Impact Fee
Trip Generation:	Existing AM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing_AM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	C	21.5	0.738	C	21.5	0.738	+ 0.000 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	15.6	0.614	B	15.6	0.614	+ 0.000 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	20.0	0.828	C	20.0	0.828	+ 0.000 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.1	0.790	C	21.8	0.790	-2.367 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	26.7	0.655	B	15.7	0.655	-10.993 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.2	0.564	B	15.9	0.564	-0.290 D/V
# 7 Middlefield at Marsh (Town of	C	25.3	0.587	C	22.6	0.587	-2.617 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.2	0.586	C	27.2	0.586	+ 0.000 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.6	0.537	C	22.6	0.537	+ 0.000 D/V
# 10 Ivy Dr. & Willow Rd.	B	17.7	0.498	B	17.7	0.498	+ 0.000 D/V
# 11 O'Brien Dr. & Willow Rd.	B	14.8	0.446	B	14.8	0.446	+ 0.000 D/V
# 12 Newbridge St. & Willow Rd.	D	45.9	0.868	D	45.9	0.868	+ 0.000 D/V
# 13 Bay Rd. & Willow Rd.	B	19.5	0.667	B	19.5	0.667	+ 0.000 D/V
# 14 Durham St. & Willow Rd.	C	22.2	0.686	B	12.1	0.686	-10.090 D/V
# 15 Coleman Ave. & Willow Rd.	B	12.3	0.687	B	12.3	0.687	+ 0.054 D/V
# 16 Gilbert Ave. & Willow Rd.	B	13.5	0.637	B	12.9	0.637	-0.583 D/V
# 17 Middlefield Rd. & Willow Rd.	F	96.4	0.911	E	56.8	0.906	-39.536 D/V
# 18 Bayfront Exp. & University Ave	C	28.3	0.774	C	28.3	0.774	+ 0.000 D/V
# 19 O'Brien Dr. & University Ave.	A	6.2	0.527	A	6.2	0.527	+ 0.000 D/V
# 20 University & Kavanaugh	B	13.6	0.542	B	13.6	0.542	+ 0.000 D/V
# 21 University & Bay	C	26.8	0.616	C	26.8	0.616	+ 0.000 D/V
# 22 University & Runnymede	B	19.9	0.603	B	19.9	0.603	+ 0.000 D/V
# 23 University & Bell	A	8.1	0.236	A	8.1	0.236	+ 0.000 D/V
# 24 University & Donohoe	D	36.5	0.890	D	36.5	0.890	+ 0.000 D/V
# 25 NB 101 & Donohoe St	B	13.5	0.358	B	13.5	0.358	+ 0.000 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	16.8	0.618	B	16.8	0.618	+ 0.000 D/V
# 27 University Ave. & Woodland	D	36.0	0.857	D	36.0	0.857	+ 0.000 D/V
# 28 Middlefield Rd. & University A	C	33.2	0.706	C	33.2	0.706	+ 0.000 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.2	0.562	A	7.2	0.562	+ 0.000 D/V
# 30 Bayfront Exp. & Chilco St.	B	16.8	0.570	B	16.8	0.570	+ 0.000 D/V
# 31 Middlefield Rd. & Ravenswood A	C	21.5	0.583	C	21.5	0.583	-0.000 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.2	0.452	C	25.6	0.452	-2.650 D/V
# 33 Middlefield Rd and Lytton Ave	C	33.6	0.687	C	33.6	0.687	+ 0.000 D/V
# 34 Bayfront Expy. and Facebook We	A	1.1	0.495	A	1.1	0.495	+ 0.000 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.738
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 69 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	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:	2297	189	23		7	58	148		182	20	997		7	19	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:	2297	189	23		7	58	148		182	20	997		7	19	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:	2297	189	23		7	58	148		182	20	997		7	19	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2297	189	23		7	58	148		182	20	997		7	19	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	
FinalVolume:	2297	189	23		7	58	148		182	20	997		7	19	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.45	0.12	0.12		0.02	0.02	0.09		0.11	0.11	0.36		0.02	0.02	0.02	
Crit Moves:	****						****		****					****		
Green Time:	77.2	77.2	77.2		16.2	16.2	16.2		19.6	19.6	96.8		5.0	5.0	5.0	
Volume/Cap:	0.75	0.19	0.19		0.15	0.15	0.75		0.75	0.75	0.48		0.45	0.45	0.45	
Uniform Del:	19.4	12.1	12.1		50.8	50.8	55.0		52.9	52.9	6.6		61.1	61.1	61.1	
IncremntDel:	1.1	0.1	0.1		0.2	0.2	14.9		11.2	11.2	0.2		4.5	4.5	4.5	
InitQueuDel:	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:	20.4	12.2	12.2		50.9	50.9	69.9		64.1	64.1	6.8		65.7	65.7	65.7	
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:	20.4	12.2	12.2		50.9	50.9	69.9		64.1	64.1	6.8		65.7	65.7	65.7	
LOS by Move:	C	B	B		D	D	E		E	E	A		E	E	E	
HCM2kAvgQ:	23	4	4		1	1	7		8	8	9		2	2	2	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.614
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 36 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0	1	0	0	0	0	0	0	2	0	1	0	0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																			
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
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:	818	0	289		0	0	0		0	1138	506		0	821	1699	
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:	818	0	289		0	0	0		0	1138	506		0	821	1699	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	818	0	289		0	0	0		0	1138	0		0	821	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	818	0	289		0	0	0		0	1138	0		0	821	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	818	0	289		0	0	0		0	1138	0		0	821	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.24	0.00	0.18		0.00	0.00	0.00		0.00	0.32	0.00		0.00	0.23	0.00	
Crit Moves:	****									****						
Green Time:	31.1	0.0	31.1		0.0	0.0	0.0		0.0	41.9	0.0		0.0	41.9	0.0	
Volume/Cap:	0.61	0.00	0.47		0.00	0.00	0.00		0.00	0.61	0.00		0.00	0.44	0.00	
Uniform Del:	19.6	0.0	18.3		0.0	0.0	0.0		0.0	13.4	0.0		0.0	11.8	0.0	
IncremntDel:	0.9	0.0	0.6		0.0	0.0	0.0		0.0	0.6	0.0		0.0	0.2	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	20.5	0.0	18.9		0.0	0.0	0.0		0.0	14.0	0.0		0.0	12.0	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:	20.5	0.0	18.9		0.0	0.0	0.0		0.0	14.0	0.0		0.0	12.0	0.0	
LOS by Move:	C	A	B		A	A	A		A	B	A		A	B	A	
HCM2kAvgQ:	9	0	6		0	0	0		0	11	0		0	6	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.828
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 65 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0	0	2	0	0	0	1	0	0	2	0	1	0	0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																			
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	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:	0	0	0		879	0	558		0	834	583		0	1426	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:	0	0	0		879	0	558		0	834	583		0	1426	86	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		879	0	558		0	834	0		0	1426	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		879	0	558		0	834	0		0	1426	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		879	0	558		0	834	0		0	1426	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.26	0.00	0.35		0.00	0.24	0.00		0.00	0.40	0.00	
Crit Moves:							****							****		
Green Time:	0.0	0.0	0.0		34.1	0.0	34.1		0.0	38.9	0.0		0.0	38.9	0.0	
Volume/Cap:	0.00	0.00	0.00		0.60	0.00	0.83		0.00	0.48	0.00		0.00	0.83	0.00	
Uniform Del:	0.0	0.0	0.0		17.7	0.0	20.4		0.0	13.8	0.0		0.0	17.7	0.0	
IncremntDel:	0.0	0.0	0.0		0.7	0.0	8.4		0.0	0.2	0.0		0.0	3.5	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		18.4	0.0	28.8		0.0	14.0	0.0		0.0	21.1	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:	0.0	0.0	0.0		18.4	0.0	28.8		0.0	14.0	0.0		0.0	21.1	0.0	
LOS by Move:	A	A	A		B	A	C		A	B	A		A	C	A	
HCM2kAvgQ:	0	0	0		9	0	15		0	7	0		0	18	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.790
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0	1	0	0 2	0	1	0	0 1	1	0	2	1 0	2	0	1	1 0
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
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	3	49		222	18	3		15	1131	29		268	1416	280	
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	3	49		222	18	3		15	1131	29		268	1416	280	
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	3	49		222	18	3		15	1131	29		268	1416	280	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
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:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.92	0.08	1.00		1.00	2.92	0.08		2.00	1.67	0.33	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4936	127		3432	2880	569	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.13	0.13	0.00		0.01	0.23	0.23		0.08	0.49	0.49	
Crit Moves:		****				****			****					****		
Green Time:	4.0	4.0	4.0		12.5	12.5	12.5		4.0	36.9	36.9		12.6	45.5	45.5	
Volume/Cap:	0.34	0.34	0.35		0.86	0.86	0.01		0.17	0.50	0.50		0.50	0.86	0.86	
Uniform Del:	36.7	36.7	36.7		32.9	32.9	28.5		36.4	15.0	15.0		30.8	14.6	14.6	
IncremntDel:	2.2	2.2	1.5		23.3	23.3	0.0		0.9	0.2	0.2		0.7	4.3	4.3	
InitQueuDel:	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:	39.0	39.0	38.3		56.3	56.3	28.6		37.3	15.2	15.2		31.5	18.9	18.9	
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:	39.0	39.0	38.3		56.3	56.3	28.6		37.3	15.2	15.2		31.5	18.9	18.9	
LOS by Move:	D	D	D		E	E	C		D	B	B		C	B	B	
HCM2kAvgQ:	1	1	1		9	9	0		0	7	7		3	19	19	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.655
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: 31 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1	0	0	1 0	1	1	0	0 1	1	0	1	1 0	1	0	1	1 0
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
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	9	8		390	30	91		117	796	58		46	1141	323	
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	9	8		390	30	91		117	796	58		46	1141	323	
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	9	8		390	30	91		117	796	58		46	1141	323	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
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:	15	9	8		390	30	91		117	796	58		46	1141	323	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.90	0.90	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.86	0.14		1.00	1.56	0.44	
Final Sat.:	1769	916	814		3306	254	1583		1769	3265	238		1769	2666	755	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.12	0.12	0.06		0.07	0.24	0.24		0.03	0.43	0.43	
Crit Moves:		****				****			****					****		
Green Time:	4.0	4.0	4.0		13.9	13.9	13.9		7.8	48.2	48.2		9.9	50.3	50.3	
Volume/Cap:	0.17	0.20	0.20		0.68	0.68	0.33		0.68	0.40	0.40		0.21	0.68	0.68	
Uniform Del:	36.4	36.5	36.5		31.0	31.0	29.0		34.9	8.3	8.3		31.5	9.6	9.6	
IncremntDel:	0.9	1.1	1.1		3.1	3.1	0.7		10.5	0.1	0.1		0.5	0.9	0.9	
InitQueuDel:	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:	37.3	37.6	37.6		34.1	34.1	29.7		45.4	8.5	8.5		32.0	10.5	10.5	
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:	37.3	37.6	37.6		34.1	34.1	29.7		45.4	8.5	8.5		32.0	10.5	10.5	
LOS by Move:	D	D	D		C	C	C		D	A	A		C	B	B	
HCM2kAvgQ:	1	1	1		6	6	2		3	6	6		1	12	12	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.564
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 25 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	1	0	1 0	1	0	1	1 0
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177		112	28	5		2	665	66		264	982	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:	70	3	177		112	28	5		2	665	66		264	982	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:	70	3	177		112	28	5		2	665	66		264	982	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:	70	3	177		112	28	5		2	665	66		264	982	22	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	70	3	177		112	28	5		2	665	66		264	982	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	
FinalVolume:	70	3	177		112	28	5		2	665	66		264	982	22	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.79	0.79	0.79		0.59	0.59	0.59		0.87	0.87	0.87		0.93	0.93	0.93	
Lanes:	0.28	0.01	0.71		0.78	0.19	0.03		0.01	1.81	0.18		1.00	1.96	0.04	
Final Sat.:	423	18	1069		873	218	39		9	3016	299		1769	3450	77	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.13	0.13	0.13		0.22	0.22	0.22		0.15	0.28	0.28	
Crit Moves:		****								****			****			
Green Time:	23.5	23.5	23.5		23.5	23.5	23.5		31.3	31.3	31.3		21.2	52.5	52.5	
Volume/Cap:	0.56	0.56	0.56		0.44	0.44	0.44		0.56	0.56	0.56		0.56	0.43	0.43	
Uniform Del:	23.9	23.9	23.9		22.9	22.9	22.9		19.0	19.0	19.0		25.4	6.6	6.6	
IncremntDel:	1.7	1.7	1.7		0.9	0.9	0.9		0.6	0.6	0.6		1.6	0.1	0.1	
InitQueuDel:	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:	25.6	25.6	25.6		23.8	23.8	23.8		19.6	19.6	19.6		27.0	6.7	6.7	
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:	25.6	25.6	25.6		23.8	23.8	23.8		19.6	19.6	19.6		27.0	6.7	6.7	
LOS by Move:	C	C	C		C	C	C		B	B	B		C	A	A	
HCM2kAvgQ:	6	6	6		3	3	3		7	7	7		5	6	6	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.587
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 43 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0 1	1	0	1	0 0	0	0	0	0 0	1	0	0	0 1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397		342	367	0		0	0	0		463	0	169	
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	166	397		342	367	0		0	0	0		463	0	169	
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	166	397		342	367	0		0	0	0		463	0	169	
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	166	397		342	367	0		0	0	0		463	0	169	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	166	397		342	367	0		0	0	0		463	0	169	
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:	0	166	397		342	367	0		0	0	0		463	0	169	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.09	0.25		0.19	0.19	0.00		0.00	0.00	0.00		0.26	0.00	0.10	
Crit Moves:		****			****								****			
Green Time:	0.0	16.4	64.5		35.5	51.9	0.0		0.0	0.0	0.0		48.1	0.0	83.6	
Volume/Cap:	0.00	0.59	0.42		0.59	0.41	0.00		0.00	0.00	0.00		0.59	0.00	0.14	
Uniform Del:	0.0	43.7	12.5		31.1	19.0	0.0		0.0	0.0	0.0		23.4	0.0	3.5	
IncremntDel:	0.0	3.2	0.3		1.6	0.3	0.0		0.0	0.0	0.0		1.2	0.0	0.1	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	46.8	12.8		32.7	19.3	0.0		0.0	0.0	0.0		24.6	0.0	3.6	
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:	0.0	46.8	12.8		32.7	19.3	0.0		0.0	0.0	0.0		24.6	0.0	3.6	
LOS by Move:	A	D	B		C	B	A		A	A	A		C	A	A	
HCM2kAvgQ:	0	5	7		10	8	0		0	0	0		12	0	2	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 49 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0 1	2	0	3	0 1	1	1	1	0 2	1	0	2	0 1
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	1034	2108		6	13	677		92	84	34		379	3		6	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:	1034	2108		6	13	677		92	84	34		379	3		6	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:	1034	2108		6	13	677		92	84	34		379	3		6	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:	1034	2108		6	13	677		92	84	34		379	3		6	5
Reduct Vol:	0	0		0	0	0		0	0	0		0	0		0	0
Reduced Vol:	1034	2108		6	13	677		92	84	34		379	3		6	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	
FinalVolume:	1034	2108		6	13	677		92	84	34		379	3		6	5
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.03	0.83		0.90	1.03	0.83		0.90	0.90	0.88		0.93	0.93	0.83	
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		2.00	1.00	2.00		1.00	2.00	1.00	
Final Sat.:	3432	5846	1583		3432	5846	1583		3418	1709	3343		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.30	0.36	0.00		0.00	0.12	0.06		0.02	0.02	0.11		0.00	0.00	0.00	
Crit Moves:	****					****					****			****		
Green Time:	64.2	80.3	85.3		8.6	24.7	24.7		24.2	24.2	24.2		5.0	5.0	5.0	
Volume/Cap:	0.61	0.58	0.01		0.06	0.61	0.31		0.13	0.11	0.61		0.04	0.04	0.08	
Uniform Del:	23.8	14.9	7.7		56.9	48.3	45.3		44.2	44.0	48.6		60.2	60.2	60.3	
IncremntDel:	0.7	0.2	0.0		0.1	1.0	0.6		0.1	0.0	1.8		0.3	0.1	0.6	
InitQueuDel:	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:	24.5	15.1	7.7		57.0	49.3	45.9		44.2	44.0	50.4		60.5	60.3	60.9	
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:	24.5	15.1	7.7		57.0	49.3	45.9		44.2	44.0	50.4		60.5	60.3	60.9	
LOS by Move:	C	B	A		E	D	D		D	D	D		E	E	E	
HCM2kAvgQ:	15	18	0		0	9	3		1	1	8		0	0	0	

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.537
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 42 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	1	1 0	1	0	1	1 0
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	18	13		26	71	19		72	115	415		52	56	1037		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:	18	13		26	71	19		72	115	415		52	56	1037		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:	18	13		26	71	19		72	115	415		52	56	1037		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:	18	13		26	71	19		72	115	415		52	56	1037		74
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	18	13		26	71	19		72	115	415		52	56	1037		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	
FinalVolume:	18	13		26	71	19		72	115	415		52	56	1037		74
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.83	0.83	0.83		0.78	0.78	0.78		0.93	0.92	0.92		0.93	0.92	0.92	
Lanes:	0.31	0.23	0.46		0.44	0.12	0.44		1.00	1.78	0.22		1.00	1.87	0.13	
Final Sat.:	498	360	719		648	173	657		1769	3090	387		1769	3269	233	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.04	0.04		0.11	0.11	0.11		0.07	0.13	0.13		0.03	0.32	0.32	
Crit Moves:						****			****					****		
Green Time:	26.5	26.5	26.5		26.5	26.5	26.5		15.7	71.9	71.9		20.6	76.8	76.8	
Volume/Cap:	0.18	0.18	0.18		0.54	0.54	0.54		0.54	0.24	0.24		0.20	0.54	0.54	
Uniform Del:	42.7	42.7	42.7		46.3	46.3	46.3		53.7	15.0	15.0		47.5	16.0	16.0	
IncremntDel:	0.3	0.3	0.3		1.9	1.9	1.9		2.7	0.1	0.1		0.4	0.3	0.3	
InitQueuDel:	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:	43.0	43.0	43.0		48.2	48.2	48.2		56.4	15.1	15.1		47.9	16.2	16.2	
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:	43.0	43.0	43.0		48.2	48.2	48.2		56.4	15.1	15.1		47.9	16.2	16.2	
LOS by Move:	D	D	D		D	D	D		E	B	B		D	B	B	
HCM2kAvgQ:	2	2	2		6	6	6		5	5	5		2	14	14	

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.498
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 39 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0	0	0	0 0	1!	0	0	1 0	2	0	0	0 0	1	1	0
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
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	0	0		1	0	186		82	652	0		0	1021	14	
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	0	0		1	0	186		82	652	0		0	1021	14	
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	0	0		1	0	186		82	652	0		0	1021	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
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:	0	0	0		1	0	186		82	652	0		0	1021	14	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.85	1.00	0.85		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.01	0.00	0.99		1.00	2.00	0.00		0.00	1.97	0.03	
Final Sat.:	0	0	0		9	0	1604		1769	3538	0		0	3483	48	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.12	0.00	0.12		0.05	0.18	0.00		0.00	0.29	0.29	
Crit Moves:					****				****					****		
Green Time:	0.0	0.0	0.0		30.3	0.0	30.3		12.1	88.7	0.0		0.0	76.6	76.6	
Volume/Cap:	0.00	0.00	0.00		0.50	0.00	0.50		0.50	0.27	0.00		0.00	0.50	0.50	
Uniform Del:	0.0	0.0	0.0		43.2	0.0	43.2		56.1	8.0	0.0		0.0	15.5	15.5	
IncremntDel:	0.0	0.0	0.0		1.0	0.0	1.0		2.4	0.1	0.0		0.0	0.2	0.2	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		44.3	0.0	44.3		58.4	8.1	0.0		0.0	15.7	15.7	
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:	0.0	0.0	0.0		44.3	0.0	44.3		58.4	8.1	0.0		0.0	15.7	15.7	
LOS by Move:	A	A	A		D	A	D		E	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		7	0	7		4	5	0		0	12	12	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.446
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.8
Optimal Cycle: 36 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1!	0	0	0 0	0	0	0	0 0	2	0	1	1 0	2	0	0
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	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:	130	0	67		0	0	0		0	697	250		102	1171	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:	130	0	67		0	0	0		0	697	250		102	1171	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:	130	0	67		0	0	0		0	697	250		102	1171	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	130	0	67		0	0	0		0	697	250		102	1171	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:	130	0	67		0	0	0		0	697	250		102	1171	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.49	0.00	0.51		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2553	0	868		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.08		0.00	0.00	0.00		0.00	0.20	0.16		0.06	0.33	0.00	
Crit Moves:			****						****					****		
Green Time:	22.5	0.0	22.5		0.0	0.0	0.0		0.0	74.7	74.7		21.8	96.5	0.0	
Volume/Cap:	0.29	0.00	0.45		0.00	0.00	0.00		0.00	0.34	0.28		0.34	0.45	0.00	
Uniform Del:	46.8	0.0	48.2		0.0	0.0	0.0		0.0	14.7	14.0		47.7	6.5	0.0	
IncremntDel:	0.2	0.0	0.7		0.0	0.0	0.0		0.0	0.1	0.2		0.7	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	47.1	0.0	48.9		0.0	0.0	0.0		0.0	14.8	14.2		48.4	6.6	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:	47.1	0.0	48.9		0.0	0.0	0.0		0.0	14.8	14.2		48.4	6.6	0.0	
LOS by Move:	D	A	D		A	A	A		A	B	B		D	A	A	
HCM2kAvgQ:	3	0	5		0	0	0		0	7	5		3	9	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 45.9
Optimal Cycle: 114 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0 1	0 1		1	0 1	0 1		1	0 2	1 0		1	0 1	1 0	
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
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:	350	111	36		28	178	384		148	826	155		28	1221	4	
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:	350	111	36		28	178	384		148	826	155		28	1221	4	
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:	350	111	36		28	178	384		148	826	155		28	1221	4	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
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:	350	111	36		28	178	384		148	826	155		28	1221	4	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.53	0.47		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4177	784		1769	3526	12	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.06	0.02		0.02	0.10	0.24		0.08	0.20	0.20		0.02	0.35	0.35	
Crit Moves:	****						****		****					****		
Green Time:	15.3	15.3	15.3		36.3	36.3	36.3		12.5	53.9	53.9		10.5	51.9	51.9	
Volume/Cap:	0.87	0.51	0.19		0.06	0.34	0.87		0.87	0.48	0.48		0.20	0.87	0.87	
Uniform Del:	56.4	53.8	51.8		34.3	37.3	44.6		57.9	27.8	27.8		55.8	35.9	35.9	
IncremntDel:	17.8	1.9	0.5		0.0	0.4	16.5		34.6	0.2	0.2		0.7	6.0	6.0	
InitQueuDel:	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	55.8	52.3		34.3	37.7	61.1		92.5	27.9	27.9		56.5	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:	74.2	55.8	52.3		34.3	37.7	61.1		92.5	27.9	27.9		56.5	41.9	41.9	
LOS by Move:	E	E	D		C	D	E		F	C	C		E	D	D	
HCM2kAvgQ:	10	5	1		1	6	17		8	10	10		1	25	25	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: 53 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0 0	0 0		1	0 0	0 1		1	0 2	0 0		0	0 2	0 1	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
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	0	0		361	0	75		64	1378	0		0	1114	319	
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	0	0		361	0	75		64	1378	0		0	1114	319	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		361	0	75		64	1378	0		0	1114	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		361	0	75		64	1378	0		0	1114	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		361	0	75		64	1378	0		0	1114	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.20	0.00	0.05		0.04	0.39	0.00		0.00	0.31	0.00	
Crit Moves:					****					****			****			
Green Time:	0.0	0.0	0.0		30.6	0.0	30.6		8.0	58.4	0.0		0.0	50.4	0.0	
Volume/Cap:	0.00	0.00	0.00		0.67	0.00	0.15		0.45	0.67	0.00		0.00	0.62	0.00	
Uniform Del:	0.0	0.0	0.0		30.3	0.0	25.3		43.9	14.2	0.0		0.0	18.0	0.0	
IncremntDel:	0.0	0.0	0.0		3.2	0.0	0.1		2.3	0.8	0.0		0.0	0.7	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		33.4	0.0	25.4		46.2	15.0	0.0		0.0	18.7	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	0.0	0.0		33.4	0.0	25.4		46.2	15.0	0.0		0.0	18.7	0.0	
LOS by Move:	A	A	A		C	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		11	0	2		2	16	0		0	13	0	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.686
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.1
Optimal Cycle: 44 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
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	16	125		38	2	2		12	1001	9		41	850	142	
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	16	125		38	2	2		12	1001	9		41	850	142	
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	16	125		38	2	2		12	1001	9		41	850	142	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
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:	62	16	125		38	2	2		12	1001	9		41	850	142	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.55	0.55	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.98	0.02		1.00	0.86	0.14	
Final Sat.:	1369	183	1431		987	52	1583		1769	3503	31		1769	1562	261	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.09	0.09		0.04	0.04	0.00		0.01	0.29	0.29		0.02	0.54	0.54	
Crit Moves:		****							****					****		
Green Time:	12.3	12.3	12.3		12.3	12.3	12.3		4.0	70.8	70.8		9.9	76.7	76.7	
Volume/Cap:	0.37	0.71	0.71		0.31	0.31	0.01		0.17	0.40	0.40		0.23	0.71	0.71	
Uniform Del:	40.3	42.1	42.1		40.0	40.0	38.5		46.4	6.0	6.0		41.5	6.0	6.0	
IncremntDel:	1.4	11.3	11.3		1.4	1.4	0.0		1.1	0.1	0.1		0.7	1.7	1.7	
InitQueuDel:	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:	41.6	53.4	53.4		41.4	41.4	38.5		47.5	6.1	6.1		42.2	7.7	7.7	
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:	41.6	53.4	53.4		41.4	41.4	38.5		47.5	6.1	6.1		42.2	7.7	7.7	
LOS by Move:	D	D	D		D	D	D		D	A	A		D	A	A	
HCM2kAvgQ:	2	6	6		1	1	0		1	7	7		1	16	16	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.3
Optimal Cycle: 44 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	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:	3	3	8		142	6	48		17	892	5		6	854	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:	3	3	8		142	6	48		17	892	5		6	854	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:	3	3	8		142	6	48		17	892	5		6	854	62	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	8		142	6	48		17	892	5		6	854	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	
FinalVolume:	3	3	8		142	6	48		17	892	5		6	854	62	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.87	0.87	0.87		0.73	0.73	0.73		0.21	0.98	0.98		0.22	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.93	0.07	
Final Sat.:	353	353	942		999	42	338		393	1850	10		410	1719	125	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.14	0.14	0.14		0.04	0.48	0.48		0.01	0.50	0.50	
Crit Moves:					****									****		
Green Time:	20.7	20.7	20.7		20.7	20.7	20.7		72.3	72.3	72.3		72.3	72.3	72.3	
Volume/Cap:	0.04	0.04	0.04		0.69	0.69	0.69		0.06	0.67	0.67		0.02	0.69	0.69	
Uniform Del:	31.7	31.7	31.7		36.7	36.7	36.7		4.0	7.4	7.4		3.9	7.6	7.6	
IncremntDel:	0.0	0.0	0.0		6.9	6.9	6.9		0.1	1.3	1.3		0.0	1.5	1.5	
InitQueuDel:	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:	31.8	31.8	31.8		43.5	43.5	43.5		4.1	8.7	8.7		3.9	9.1	9.1	
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:	31.8	31.8	31.8		43.5	43.5	43.5		4.1	8.7	8.7		3.9	9.1	9.1	
LOS by Move:	C	C	C		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	0	0	0		7	7	7		0	15	15		0	16	16	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.637
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 39 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	72		41	869	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:	101	85	122		31	41	7		4	794	72		41	869	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:	101	85	122		31	41	7		4	794	72		41	869	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:	101	85	122		31	41	7		4	794	72		41	869	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	101	85	122		31	41	7		4	794	72		41	869	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	
FinalVolume:	101	85	122		31	41	7		4	794	72		41	869	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.89	0.89		0.39	0.96	0.96		0.23	0.97	0.97		0.24	0.98	0.98	
Lanes:	1.00	0.41	0.59		1.00	0.85	0.15		1.00	0.92	0.08		1.00	0.99	0.01	
Final Sat.:	1357	697	1001		732	1555	266		445	1687	153		452	1849	11	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.12	0.12		0.04	0.03	0.03		0.01	0.47	0.47		0.09	0.47	0.47	
Crit Moves:		****								****						
Green Time:	19.1	19.1	19.1		19.1	19.1	19.1		73.9	73.9	73.9		73.9	73.9	73.9	
Volume/Cap:	0.39	0.64	0.64		0.22	0.14	0.14		0.01	0.64	0.64		0.12	0.64	0.64	
Uniform Del:	35.3	37.2	37.2		34.1	33.6	33.6		3.4	6.4	6.4		3.8	6.4	6.4	
IncremntDel:	1.0	4.2	4.2		0.8	0.2	0.2		0.0	1.0	1.0		0.2	1.0	1.0	
InitQueuDel:	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:	36.3	41.4	41.4		35.0	33.8	33.8		3.5	7.5	7.5		3.9	7.4	7.4	
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:	36.3	41.4	41.4		35.0	33.8	33.8		3.5	7.5	7.5		3.9	7.4	7.4	
LOS by Move:	D	D	D		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	3	7	7		1	1	1		0	14	14		0	14	14	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.906
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 56.8
Optimal Cycle: 115 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0	1	1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
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	342	245		408	322	10		16	166	117		420	64	494	
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	342	245		408	322	10		16	166	117		420	64	494	
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	342	245		408	322	10		16	166	117		420	64	494	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	67	342	242		408	322	10		16	166	117		420	64	494	
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:	67	342	242		408	322	10		16	166	117		420	64	494	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.65	1.31	0.04		1.00	1.00	1.00		1.74	0.26	1.00	
Final Sat.:	1769	3538	791		2841	2242	70		1769	1862	1583		3096	472	1583	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.10	0.31		0.14	0.14	0.14		0.01	0.09	0.07		0.14	0.14	0.31	
Crit Moves:			****				****			****					****	
Green Time:	43.9	43.9	43.9		20.6	20.6	20.6		12.8	12.8	12.8		44.8	44.8	44.8	
Volume/Cap:	0.11	0.29	0.91		0.91	0.91	0.91		0.09	0.91	0.75		0.39	0.39	0.91	
Uniform Del:	29.7	31.6	41.1		53.8	53.8	53.8		53.3	58.0	57.1		32.3	32.3	40.6	
IncremntDel:	0.1	0.1	31.7		13.7	13.7	13.7		0.2	41.0	18.4		0.2	0.2	18.8	
InitQueuDel:	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:	29.7	31.7	72.8		67.5	67.5	67.5		53.6	99.0	75.5		32.5	32.5	59.4	
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:	29.7	31.7	72.8		67.5	67.5	67.5		53.6	99.0	75.5		32.5	32.5	59.4	
LOS by Move:	C	C	E		E	E	E		D	F	E		C	C	E	
HCM2kAvgQ:	2	5	12		13	13	13		1	10	6		7	7	22	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.774
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 28.3
Optimal Cycle: 73 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0	0	884	188	179	0	429	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:	1541	2882	0	0	884	188	179	0	429	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:	1541	2882	0	0	884	188	179	0	429	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:	1541	2882	0	0	884	188	179	0	429	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1541	2882	0	0	884	188	179	0	429	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				
FinalVolume:	1541	2882	0	0	884	188	179	0	429	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.45	0.57	0.00	0.00	0.17	0.12	0.05	0.00	0.10	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green Time:	92.8	129	0.0	0.0	35.9	35.9	21.2	0.0	21.2	0.0	0.0	0.0				
Volume/Cap:	0.77	0.70	0.00	0.00	0.77	0.53	0.39	0.00	0.77	0.00	0.00	0.00				
Uniform Del:	25.6	7.0	0.0	0.0	58.2	54.6	63.5	0.0	67.1	0.0	0.0	0.0				
IncremntDel:	2.0	0.6	0.0	0.0	3.4	1.5	0.6	0.0	6.7	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	27.5	7.6	0.0	0.0	61.6	56.1	64.1	0.0	73.8	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:	27.5	7.6	0.0	0.0	61.6	56.1	64.1	0.0	73.8	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	E	E	E	A	E	A	A	A				
HCM2kAvgQ:	30	23	0	0	16	8	4	0	9	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.527
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.2
Optimal Cycle: 40 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	5	5	5	0	0	5	5				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0	22	0	22	68	526	0	0	1341	46				
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	0	0	22	0	22	68	526	0	0	1341	46				
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	0	0	22	0	22	68	526	0	0	1341	46				
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	0	0	22	0	22	68	526	0	0	1341	46				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	22	0	22	68	526	0	0	1341	46				
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:	0	0	0	22	0	22	68	526	0	0	1341	46				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.89	1.00	0.89	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.50	0.00	0.50	1.00	2.00	0.00	0.00	1.93	0.07				
Final Sat.:	0	0	0	848	0	848	1769	3538	0	0	3403	117				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.03	0.04	0.15	0.00	0.00	0.39	0.39				
Crit Moves:				****			****				****					
Green Time:	0.0	0.0	0.0	5.0	0.0	5.0	6.1	69.0	0.0	0.0	62.9	62.9				
Volume/Cap:	0.00	0.00	0.00	0.44	0.00	0.44	0.53	0.18	0.00	0.00	0.53	0.53				
Uniform Del:	0.0	0.0	0.0	38.7	0.0	38.7	38.1	1.8	0.0	0.0	4.8	4.8				
IncremntDel:	0.0	0.0	0.0	3.1	0.0	3.1	4.3	0.0	0.0	0.0	0.2	0.2				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	41.7	0.0	41.7	42.3	1.8	0.0	0.0	5.0	5.0				
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	0.0	0.0	41.7	0.0	41.7	42.3	1.8	0.0	0.0	5.0	5.0				
LOS by Move:	A	A	A	D	A	D	D	A	A	A	A	A				
HCM2kAvgQ:	0	0	0	2	0	2	2	2	0	0	9	9				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.542
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
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:	32	37	20		8	21	44		40	582	43		25	1302	25	
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:	32	37	20		8	21	44		40	582	43		25	1302	25	
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:	32	37	20		8	21	44		40	582	43		25	1302	25	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
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:	32	37	20		8	21	44		40	582	43		25	1302	25	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.91	0.91	0.91		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.36	0.42	0.22		0.11	0.29	0.60		1.00	1.86	0.14		1.00	1.96	0.04	
Final Sat.:	651	752	407		190	500	1047		1805	3328	246		1805	3531	68	
Capacity Analysis Module:																		
Vol/Sat:	0.05	0.05	0.05		0.04	0.04	0.04		0.02	0.17	0.17		0.01	0.37	0.37	
Crit Moves:	****					****			****					****		
Green Time:	9.0	8.3	8.3		8.3	7.7	7.7		5.0	56.3	56.3		16.1	67.3	67.3	
Volume/Cap:	0.55	0.59	0.59		0.50	0.55	0.55		0.44	0.31	0.31		0.09	0.55	0.55	
Uniform Del:	43.6	44.2	44.2		43.9	44.5	44.5		46.1	11.6	11.6		35.7	8.4	8.4	
IncremntDel:	3.9	6.1	6.1		2.8	4.7	4.7		3.4	0.1	0.1		0.1	0.3	0.3	
InitQueuDel:	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:	47.5	50.3	50.3		46.7	49.2	49.2		49.6	11.7	11.7		35.8	8.7	8.7	
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:	47.5	50.3	50.3		46.7	49.2	49.2		49.6	11.7	11.7		35.8	8.7	8.7	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	A	A	
HCM2kAvgQ:	3	4	4		3	3	3		1	5	5		1	11	11	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.616
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 26.8
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
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:	108	225	113		50	196	86		141	497	78		97	1115	49	
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:	108	225	113		50	196	86		141	497	78		97	1115	49	
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:	108	225	113		50	196	86		141	497	78		97	1115	49	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
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:	108	225	113		50	196	86		141	497	78		97	1115	49	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.73	0.27		1.00	1.92	0.08	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3058	480		1805	3437	151	
Capacity Analysis Module:																		
Vol/Sat:	0.06	0.12	0.07		0.03	0.10	0.05		0.08	0.16	0.16		0.05	0.32	0.32	
Crit Moves:		****			****				****					****		
Green Time:	8.8	19.1	19.1		5.0	15.3	15.3		12.6	48.8	48.8		16.1	52.3	52.3	
Volume/Cap:	0.68	0.62	0.37		0.55	0.68	0.35		0.62	0.33	0.33		0.33	0.62	0.62	
Uniform Del:	44.2	37.1	35.2		46.4	40.0	37.9		41.4	15.7	15.7		37.2	16.8	16.8	
IncremntDel:	11.0	3.3	0.7		7.3	6.3	0.9		5.2	0.1	0.1		0.7	0.6	0.6	
InitQueuDel:	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:	55.2	40.4	35.9		53.7	46.3	38.8		46.6	15.8	15.8		37.8	17.5	17.5	
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:	55.2	40.4	35.9		53.7	46.3	38.8		46.6	15.8	15.8		37.8	17.5	17.5	
LOS by Move:	E	D	D		D	D	D		D	B	B		D	B	B	
HCM2kAvgQ:	5	7	3		2	7	3		4	5	5		3	13	13	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.603
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 19.9
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	47	105	12	16	59	56	18	626	48	88	1246	61
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	105	12	16	59	56	18	626	48	88	1246	61
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	105	12	16	59	56	18	626	48	88	1246	61
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	105	12	16	59	56	18	626	48	88	1246	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	105	12	16	59	56	18	626	48	88	1246	61
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:	47	105	12	16	59	56	18	626	48	88	1246	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.98	0.98	0.98	0.94	0.94	0.94	0.95	0.94	0.94	0.95	0.94	0.94
Lanes:	0.29	0.64	0.07	0.12	0.45	0.43	1.00	1.86	0.14	1.00	1.91	0.09
Final Sat.:	532	1187	136	217	801	761	1805	3316	254	1805	3417	167
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.07	0.07	0.07	0.01	0.19	0.19	0.05	0.36	0.36
Crit Moves:	****				****		****				****	
Green Time:	14.1	14.1	14.1	11.7	11.7	11.7	5.0	49.9	49.9	13.2	58.2	58.2
Volume/Cap:	0.63	0.63	0.63	0.63	0.63	0.63	0.20	0.38	0.38	0.37	0.63	0.63
Uniform Del:	40.5	40.5	40.5	42.0	42.0	42.0	45.6	15.5	15.5	39.6	13.8	13.8
IncremntDel:	4.8	4.8	4.8	5.9	5.9	5.9	1.1	0.1	0.1	1.0	0.6	0.6
InitQueuDel:	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:	45.2	45.2	45.2	48.0	48.0	48.0	46.7	15.6	15.6	40.5	14.4	14.4
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:	45.2	45.2	45.2	48.0	48.0	48.0	46.7	15.6	15.6	40.5	14.4	14.4
LOS by Move:	D	D	D	D	D	D	D	B	B	D	B	B
HCM2kAvgQ:	6	6	6	5	5	5	1	7	7	2	14	14

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

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

Intersection #23 University & Bell

Cycle (sec): 100 Critical Vol./Cap.(X): 0.236
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.1
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	14	14	14	14	14	14	73	73	73	73	73	73
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	18	59	9	7	43	11	15	614	24	15	123	24
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:	18	59	9	7	43	11	15	614	24	15	123	24
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:	18	59	9	7	43	11	15	614	24	15	123	24
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:	18	59	9	7	43	11	15	614	24	15	123	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	59	9	7	43	11	15	614	24	15	123	24
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:	18	59	9	7	43	11	15	614	24	15	123	24
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.95	0.95	0.95	0.65	0.94	0.94	0.38	0.93	0.93
Lanes:	0.21	0.69	0.10	0.11	0.71	0.18	1.00	1.92	0.08	1.00	1.67	0.33
Final Sat.:	371	1216	185	207	1275	326	1241	3453	135	730	2948	575
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.03	0.03	0.03	0.01	0.18	0.18	0.02	0.04	0.04
Crit Moves:		****						****				
Green Time:	20.6	20.6	20.6	20.6	20.6	20.6	75.4	75.4	75.4	75.4	75.4	75.4
Volume/Cap:	0.24	0.24	0.24	0.16	0.16	0.16	0.02	0.24	0.24	0.03	0.06	0.06
Uniform Del:	33.1	33.1	33.1	32.6	32.6	32.6	3.1	3.7	3.7	3.1	3.2	3.2
IncremntDel:	0.3	0.3	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	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:	33.5	33.5	33.5	32.8	32.8	32.8	3.1	3.7	3.7	3.1	3.2	3.2
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:	33.5	33.5	33.5	32.8	32.8	32.8	3.1	3.7	3.7	3.1	3.2	3.2
LOS by Move:	C	C	C	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	2	2	2	0	3	3	0	1	1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.890
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.5
Optimal Cycle: 103 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1	1	1	0	1	0	1	2	0	2	0	1	1	0	1	1	0
Volume Module:																				
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
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:	362	437	328		11	124	383		117	352	283		49	1205	68	
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:	362	437	328		11	124	383		117	352	283		49	1205	68	
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:	362	437	328		11	124	383		117	352	283		49	1205	68	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
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:	362	437	328		11	124	383		117	352	283		49	1205	68	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.28	1.56	1.16		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.89	0.11	
Final Sat.:	2182	2634	1977		1805	1900	1615		3502	3610	1615		1805	3390	191	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.01	0.07	0.24		0.03	0.10	0.18		0.03	0.36	0.36	
Crit Moves:	****						****		****					****		
Green Time:	18.4	34.3	34.3		10.3	26.3	26.3		5.0	34.5	34.5		9.8	39.4	39.4	
Volume/Cap:	0.90	0.48	0.48		0.06	0.25	0.90		0.67	0.28	0.51		0.28	0.90	0.90	
Uniform Del:	39.9	25.9	25.9		40.4	29.1	35.6		46.7	23.8	26.0		41.8	28.5	28.5	
IncremntDel:	9.3	0.2	0.2		0.1	0.3	22.2		9.5	0.1	0.8		0.8	8.4	8.4	
InitQueuDel:	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:	49.3	26.0	26.0		40.6	29.3	57.8		56.2	23.9	26.8		42.6	36.9	36.9	
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:	49.3	26.0	26.0		40.6	29.3	57.8		56.2	23.9	26.8		42.6	36.9	36.9	
LOS by Move:	D	C	C		D	C	E		E	C	C		D	D	D	
HCM2kAvgQ:	10	7	7		0	3	15		3	4	7		1	21	21	

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.358
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 13.5
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0	2	1	0	0	0	2	0	0	2	0	0	0	1	0	0	0	0	1
Volume Module:																				
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	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:	0	837	8		0	451	0		365	0	140		0	0	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:	0	837	8		0	451	0		365	0	140		0	0	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:	0	837	8		0	451	0		365	0	140		0	0	113	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	837	8		0	451	0		365	0	140		0	0	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	
FinalVolume:	0	837	8		0	451	0		365	0	140		0	0	113	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	0.91	0.91		1.00	0.95	1.00		0.92	1.00	0.85		1.00	1.00	0.87	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5133	49		0	3610	0		3502	0	1615		0	0	1644	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.16	0.16		0.00	0.12	0.00		0.10	0.00	0.09		0.00	0.00	0.07	
Crit Moves:		****			****				****						****	
Green Time:	0.0	28.8	28.8		0.0	28.8	0.0		20.0	0.0	32.2		0.0	0.0	12.2	
Volume/Cap:	0.00	0.37	0.37		0.00	0.28	0.00		0.34	0.00	0.18		0.00	0.00	0.37	
Uniform Del:	0.0	12.0	12.0		0.0	11.5	0.0		17.4	0.0	9.1		0.0	0.0	23.1	
IncremntDel:	0.0	0.1	0.1		0.0	0.1	0.0		0.2	0.0	0.1		0.0	0.0	0.7	
InitQueuDel:	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		0.00	1.00	0.00		1.00	0.00	1.00		0.00	0.00	1.00	
Delay/Veh:	0.0	12.1	12.1		0.0	11.6	0.0		17.6	0.0	9.2		0.0	0.0	23.8	
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:	0.0	12.1	12.1		0.0	11.6	0.0		17.6	0.0	9.2		0.0	0.0	23.8	
LOS by Move:	A	B	B		A	B	A		B	A	A		A	A	C	
HCM2kAvgQ:	0	4	4		0	3	0		3	0	2		0	0	2	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.618
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8
Optimal Cycle: 81 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Protected		
Rights:		Include			Include			Ovl			Include	
Min. Green:	16	16	16	0	0	0	0	29	45	28	61	0
Lanes:	1 0	1! 0	1	0 0	0 0	0	0 0	2 0	2	2 0	2 0	0
Volume Module:												
Base Vol:	317	1	220	0	0	0	0	828	379	798	1527	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:	317	1	220	0	0	0	0	828	379	798	1527	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:	317	1	220	0	0	0	0	828	379	798	1527	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:	317	1	220	0	0	0	0	828	379	798	1527	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	317	1	220	0	0	0	0	828	379	798	1527	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:	317	1	220	0	0	0	0	828	379	798	1527	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00	1.00	1.00	0.95	0.75	0.92	0.95	1.00
Lanes:	1.58	0.01	1.41	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Final Sat.:	2584	6	2291	0	0	0	0	3610	2842	3502	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.17	0.10	0.00	0.00	0.00	0.00	0.23	0.13	0.23	0.42	0.00
Crit Moves:		****									****	
Green Time:	16.0	16.0	16.0	0.0	0.0	0.0	0.0	29.0	29.0	36.0	65.0	0.0
Volume/Cap:	0.65	0.88	0.51	0.00	0.00	0.00	0.00	0.67	0.39	0.54	0.55	0.00
Uniform Del:	31.9	33.6	31.0	0.0	0.0	0.0	0.0	23.9	21.3	18.3	4.1	0.0
IncremntDel:	1.9	13.9	0.4	0.0	0.0	0.0	0.0	1.5	0.3	0.4	0.2	0.0
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	33.8	47.5	31.4	0.0	0.0	0.0	0.0	25.4	21.5	18.7	4.3	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:	33.8	47.5	31.4	0.0	0.0	0.0	0.0	25.4	21.5	18.7	4.3	0.0
LOS by Move:	C	D	C	A	A	A	A	C	C	B	A	A
HCM2kAvgQ:	6	10	4	0	0	0	0	10	4	8	9	0

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.857
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.0
Optimal Cycle: 90 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:		Include			Include			Include			Include	
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	2 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	14	78	250	410	115	41	51	538	13	238	1506	420
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:	14	78	250	410	115	41	51	538	13	238	1506	420
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:	14	78	250	410	115	41	51	538	13	238	1506	420
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:	14	78	250	410	115	41	51	538	13	238	1506	420
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	78	250	410	115	41	51	538	13	238	1506	420
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:	14	78	250	410	115	41	51	538	13	238	1506	420
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.90	0.90	0.92	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.85
Lanes:	0.04	0.23	0.73	2.00	0.74	0.26	1.00	1.95	0.05	1.00	2.00	1.00
Final Sat.:	70	390	1249	3502	1346	480	1805	3511	85	1805	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.12	0.09	0.09	0.03	0.15	0.15	0.13	0.42	0.26
Crit Moves:		****		****			****				****	
Green Time:	25.4	22.9	22.9	13.4	10.9	10.9	5.0	28.3	28.3	24.4	47.7	47.7
Volume/Cap:	0.79	0.87	0.87	0.87	0.79	0.79	0.57	0.54	0.54	0.54	0.87	0.55
Uniform Del:	34.8	37.2	37.2	42.5	43.4	43.4	46.4	30.3	30.3	32.9	23.5	18.5
IncremntDel:	9.2	19.1	19.1	16.5	18.6	18.6	8.1	0.6	0.6	1.4	5.3	0.8
InitQueuDel:	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:	44.0	56.3	56.3	59.0	62.1	62.1	54.5	30.9	30.9	34.3	28.8	19.3
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:	44.0	56.3	56.3	59.0	62.1	62.1	54.5	30.9	30.9	34.3	28.8	19.3
LOS by Move:	D	E	E	E	E	E	D	C	C	C	C	B
HCM2kAvgQ:	12	13	13	9	7	7	2	8	8	6	23	9

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.706
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.2
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 1	0 1	0	0 1	0 1	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	37	264	51	92	391	62	15	228	24	73	584	95
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	264	51	92	391	62	15	228	24	73	584	95
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	264	51	92	391	62	15	228	24	73	584	95
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	264	51	92	391	62	15	228	24	73	584	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	264	51	92	391	62	15	228	24	73	584	95
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:	37	264	51	92	391	62	15	228	24	73	584	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.99	0.99	0.95	0.98	0.98
Lanes:	0.21	1.50	0.29	0.34	1.43	0.23	1.00	0.90	0.10	1.00	0.86	0.14
Final Sat.:	369	2635	509	594	2526	400	1805	1695	178	1805	1600	260
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.15	0.15	0.15	0.01	0.13	0.13	0.04	0.37	0.37
Crit Moves:		****		****			****				****	
Green Time:	13.6	13.6	13.6	21.0	21.0	21.0	5.0	39.7	39.7	14.8	49.5	49.5
Volume/Cap:	0.74	0.74	0.74	0.74	0.74	0.74	0.17	0.34	0.34	0.27	0.74	0.74
Uniform Del:	41.5	41.5	41.5	36.9	36.9	36.9	45.5	21.0	21.0	37.9	20.1	20.1
IncremntDel:	6.0	6.0	6.0	3.9	3.9	3.9	0.9	0.3	0.3	0.6	3.2	3.2
InitQueuDel:	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:	47.5	47.5	47.5	40.9	40.9	40.9	46.4	21.3	21.3	38.4	23.3	23.3
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:	47.5	47.5	47.5	40.9	40.9	40.9	46.4	21.3	21.3	38.4	23.3	23.3
LOS by Move:	D	D	D	D	D	D	D	C	C	D	C	C
HCM2kAvgQ:	7	7	7	8	8	8	1	5	5	2	17	17

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.562
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 39 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0
Lanes:	1 0	3 0	0	0 0	3 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM												
Base Vol:	45	2362	0	0	1034	31	103	0	6	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:	45	2362	0	0	1034	31	103	0	6	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:	45	2362	0	0	1034	31	103	0	6	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:	45	2362	0	0	1034	31	103	0	6	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	2362	0	0	1034	31	103	0	6	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
FinalVolume:	45	2362	0	0	1034	31	103	0	6	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.46	0.00	0.00	0.20	0.02	0.06	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green Time:	17.1	108	0.0	0.0	90.4	90.4	13.5	0.0	13.5	0.0	0.0	0.0
Volume/Cap:	0.19	0.56	0.00	0.00	0.29	0.03	0.56	0.00	0.04	0.00	0.00	0.00
Uniform Del:	50.3	3.6	0.0	0.0	7.6	6.1	55.5	0.0	52.4	0.0	0.0	0.0
IncremntDel:	0.4	0.2	0.0	0.0	0.0	0.0	3.9	0.0	0.1	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	50.7	3.8	0.0	0.0	7.6	6.2	59.4	0.0	52.5	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:	50.7	3.8	0.0	0.0	7.6	6.2	59.4	0.0	52.5	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	E	A	D	A	A	A
HCM2kAvgQ:	2	11	0	0	6	0	5	0	0	0	0	0

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.570
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8
Optimal Cycle: 40 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0		0	851	196	218	0	31	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:	146	2070	0		0	851	196	218	0	31	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:	146	2070	0		0	851	196	218	0	31	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:	146	2070	0		0	851	196	218	0	31	0	0	0			
Reduct Vol:	0	0	0		0	0	0	0	0	0	0	0	0			
Reduced Vol:	146	2070	0		0	851	196	218	0	31	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			
FinalVolume:	146	2070	0		0	851	196	218	0	31	0	0	0			
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00			
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00			
Final Sat.:	1769	5083	0		0	5083	1583	1769	0	1583	0	0	0			
Capacity Analysis Module:																
Vol/Sat:	0.08	0.41	0.00		0.00	0.17	0.12	0.12	0.00	0.02	0.00	0.00	0.00			
Crit Moves:		****			****			****								
Green Time:	30.7	92.9	0.0		0.0	62.2	62.2	28.1	0.0	28.1	0.0	0.0	0.0			
Volume/Cap:	0.35	0.57	0.00		0.00	0.35	0.26	0.57	0.00	0.09	0.00	0.00	0.00			
Uniform Del:	41.4	8.9	0.0		0.0	21.2	20.2	45.5	0.0	40.7	0.0	0.0	0.0			
IncremntDel:	0.5	0.2	0.0		0.0	0.1	0.2	2.0	0.0	0.1	0.0	0.0	0.0			
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00			
Delay/Veh:	41.9	9.2	0.0		0.0	21.3	20.4	47.6	0.0	40.8	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:	41.9	9.2	0.0		0.0	21.3	20.4	47.6	0.0	40.8	0.0	0.0	0.0			
LOS by Move:	D	A	A		A	C	C	D	A	D	A	A	A			
HCM2kAvgQ:	5	14	0		0	7	4	8	0	1	0	0	0			

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.583
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 27 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0		0	10	10		4	0	4		0	0	0	
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0		0	398	66	83	0	561	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:	464	366	0		0	398	66	83	0	561	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:	464	366	0		0	398	66	83	0	561	0	0	0			
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00			
PHF Volume:	464	366	0		0	398	66	83	0	0	0	0	0			
Reduct Vol:	0	0	0		0	0	0	0	0	0	0	0	0			
Reduced Vol:	464	366	0		0	398	66	83	0	0	0	0	0			
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00			
FinalVolume:	464	366	0		0	398	66	83	0	0	0	0	0			
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.93	0.98	1.00		1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00			
Lanes:	1.00	1.00	0.00		0.00	0.86	0.14	1.00	0.00	1.00	0.00	0.00	0.00			
Final Sat.:	1769	1862	0		0	1567	260	1769	0	1900	0	0	0			
Capacity Analysis Module:																
Vol/Sat:	0.26	0.20	0.00		0.00	0.25	0.25	0.05	0.00	0.00	0.00	0.00	0.00			
Crit Moves:	****					****		****								
Green Time:	54.0	106	0.0		0.0	52.3	52.3	9.7	0.0	0.0	0.0	0.0	0.0			
Volume/Cap:	0.58	0.22	0.00		0.00	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.00			
Uniform Del:	24.6	1.0	0.0		0.0	25.6	25.6	53.2	0.0	0.0	0.0	0.0	0.0			
IncremntDel:	1.1	0.1	0.0		0.0	1.1	1.1	6.0	0.0	0.0	0.0	0.0	0.0			
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00			
Delay/Veh:	25.7	1.0	0.0		0.0	26.7	26.7	59.2	0.0	0.0	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:	25.7	1.0	0.0		0.0	26.7	26.7	59.2	0.0	0.0	0.0	0.0	0.0			
LOS by Move:	C	A	A		A	C	C	E	A	A	A	A	A			
HCM2kAvgQ:	12	2	0		0	12	12	4	0	0	0	0	0			

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.452
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 22 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	709	68		3	3	3		123	53	241	
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	623	49		192	709	68		3	3	3		123	53	241	
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	623	49		192	709	68		3	3	3		123	53	241	
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	623	49		192	709	68		3	3	3		123	53	241	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	57	623	49		192	709	68		3	3	3		123	53	241	
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	623	49		192	709	68		3	3	3		123	53	241	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.51	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		976	861	861		1027	442	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.18	0.03		0.11	0.20	0.04		0.00	0.00	0.00		0.12	0.12	0.15	
Crit Moves:		****			****										****	
Green Time:	10.8	46.8	46.8		28.8	64.8	64.8		40.4	40.4	40.4		40.4	40.4	40.4	
Volume/Cap:	0.36	0.45	0.08		0.45	0.37	0.08		0.01	0.01	0.01		0.36	0.36	0.45	
Uniform Del:	51.4	27.1	23.1		38.9	15.9	13.3		26.5	26.5	26.5		30.0	30.0	31.1	
IncremntDel:	1.4	0.2	0.1		0.8	0.1	0.0		0.0	0.0	0.0		0.4	0.4	0.6	
InitQueuDel:	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:	52.7	27.4	23.1		39.6	16.0	13.3		26.5	26.5	26.5		30.4	30.4	31.7	
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:	52.7	27.4	23.1		39.6	16.0	13.3		26.5	26.5	26.5		30.4	30.4	31.7	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	2	9	1		6	8	1		0	0	0		5	5	7	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.6
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	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:	115	314	8		7	490	355		114	34	45		6	97	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:	115	314	8		7	490	355		114	34	45		6	97	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:	115	314	8		7	490	355		114	34	45		6	97	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	115	314	8		7	490	355		114	34	45		6	97	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	
FinalVolume:	115	314	8		7	490	355		114	34	45		6	97	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.27	0.73	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	503	1373	1615		27	1871	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.23	0.23	0.00		0.26	0.26	0.22		0.06	0.05	0.05		0.06	0.06	0.06	
Crit Moves:		****			****				****					****		
Green Time:	33.3	33.3	33.3		38.1	38.1	38.1		9.2	9.2	9.2		8.4	8.4	8.4	
Volume/Cap:	0.69	0.69	0.01		0.69	0.69	0.58		0.69	0.49	0.49		0.69	0.69	0.69	
Uniform Del:	28.8	28.8	22.3		25.9	25.9	24.5		44.0	43.2	43.2		44.6	44.6	44.6	
IncremntDel:	3.2	3.2	0.0		2.8	2.8	1.4		11.4	2.4	2.4		12.0	12.0	12.0	
InitQueuDel:	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:	32.0	32.0	22.4		28.7	28.7	25.9		55.4	45.6	45.6		56.5	56.5	56.5	
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:	32.0	32.0	22.4		28.7	28.7	25.9		55.4	45.6	45.6		56.5	56.5	56.5	
LOS by Move:	C	C	C		C	C	C		E	D	D		E	E	E	
HCM2kAvgQ:	11	11	0		14	14	9		5	3	3		5	5	5	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	120	Critical Vol./Cap.(X):	0.495
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.1
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		0	0	0	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0	0	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	1.00	1.00	1.00	1.00
Initial Bse:	0	2197	0	0	782	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	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	0	0	0	0
Initial Fut:	0	2197	0	0	782	0	0	0	0	0	0	0	0	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	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2313	0	0	823	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2313	0	0	823	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	2313	0	0	823	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.45	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****												
Green Time:	0.0	108	0.0	0.0	108	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.50	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	1.1	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	6	0	0	1	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Existing PM
Command:	Existing_2009_PM
Volume:	PM_2009
Geometry:	PM
Impact Fee:	Default Impact Fee
Trip Generation:	Existing PM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing_PM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	D	45.4	0.943	D	45.4	0.943	+ 0.000 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	12.9	0.815	B	12.9	0.815	+ 0.000 D/V
# 3 US 101 SB Ramps & Marsh Rd.	B	17.8	0.817	B	17.8	0.817	+ 0.000 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	B	19.4	0.685	B	18.5	0.685	-0.907 D/V
# 5 Bohannon/ Florence & Marsh Rd.	D	51.4	0.691	C	21.3	0.691	-30.036 D/V
# 6 Bay Rd. & Marsh Rd.	B	14.7	0.576	B	14.5	0.576	-0.201 D/V
# 7 Middlefield at Marsh (Town of	C	29.7	0.809	C	28.3	0.809	-1.462 D/V
# 8 Bayfront Exp. & Willow Rd.	D	43.1	0.916	D	43.1	0.916	+ 0.000 D/V
# 9 Hamilton Ave. & Willow Rd.	C	21.8	0.604	C	21.8	0.604	+ 0.000 D/V
# 10 Ivy Dr. & Willow Rd.	B	11.9	0.543	B	11.9	0.543	+ 0.000 D/V
# 11 O'Brien Dr. & Willow Rd.	A	9.7	0.546	A	9.7	0.546	+ 0.000 D/V
# 12 Newbridge St. & Willow Rd.	C	32.7	0.735	C	32.7	0.735	+ 0.000 D/V
# 13 Bay Rd. & Willow Rd.	B	19.5	0.730	B	19.5	0.730	+ 0.000 D/V
# 14 Durham St. & Willow Rd.	D	47.1	0.632	B	14.9	0.638	-32.204 D/V
# 15 Coleman Ave. & Willow Rd.	B	10.7	0.731	A	9.5	0.730	-1.143 D/V
# 16 Gilbert Ave. & Willow Rd.	B	11.7	0.653	A	9.5	0.653	-2.144 D/V
# 17 Middlefield Rd. & Willow Rd.	F	126.0	1.232	F	126.8	1.232	+ 0.822 D/V
# 18 Bayfront Exp. & University Ave	F	146.2	1.280	F	146.2	1.280	+ 0.000 D/V
# 19 O'Brien Dr. & University Ave.	B	12.7	0.667	B	12.7	0.667	+ 0.000 D/V
# 20 University & Kavanaugh	B	15.8	0.642	B	15.8	0.642	+ 0.000 D/V
# 21 University & Bay	C	32.5	0.805	C	32.5	0.805	+ 0.000 D/V
# 22 University & Runnymede	C	22.3	0.675	C	22.3	0.675	+ 0.000 D/V
# 23 University & Bell	A	7.5	0.528	A	7.5	0.528	+ 0.000 D/V
# 24 University & Donohoe	C	34.9	0.843	C	34.9	0.843	+ 0.000 D/V
# 25 NB 101 & Donohoe St	C	21.0	0.466	C	21.0	0.466	+ 0.000 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	21.3	0.509	C	21.3	0.509	+ 0.000 D/V
# 27 University Ave. & Woodland	D	44.4	0.860	D	44.4	0.860	+ 0.000 D/V
# 28 Middlefield Rd. & University A	C	32.6	0.537	C	32.6	0.537	+ 0.000 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	18.4	0.681	B	18.4	0.681	+ 0.000 D/V
# 30 Bayfront Exp. & Chilco St.	B	13.7	0.584	B	13.7	0.584	+ 0.000 D/V
# 31 Middlefield Rd. & Ravenswood A	C	25.5	0.717	C	25.1	0.717	-0.374 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	27.9	0.605	C	28.8	0.605	+ 0.857 D/V
# 33 Middlefield Rd and Lytton Ave	E	58.8	0.936	E	58.8	0.936	+ 0.000 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.505	A	1.3	0.505	+ 0.000 D/V

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

****
Intersection #1 Bayfront Exp. & Marsh Rd.
****

Cycle (sec): 140 Critical Vol./Cap.(X): 0.943
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 45.4
Optimal Cycle: 165 Level Of Service: D

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	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:	1184	49	7		0	346	186		139	40	1952		31	73	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:	1184	49	7		0	346	186		139	40	1952		31	73	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:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1184	49	7		0	346	186		139	40	1952		31	73	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	
FinalVolume:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.88	0.12		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.23	0.03	0.03		0.00	0.10	0.12		0.10	0.10	0.70		0.06	0.06	0.06	
Crit Moves:	****					****					****				****	
Green Time:	34.2	34.2	34.2		0.0	14.5	84.4		69.9	69.9	104.1		9.4	9.4	9.4	
Volume/Cap:	0.94	0.13	0.13		0.00	0.94	0.19		0.20	0.20	0.94		0.94	0.94	0.94	
Uniform Del:	52.0	41.3	41.3		0.0	62.3	12.5		19.5	19.5	15.4		65.0	65.0	65.0	
IncremntDel:	13.9	0.1	0.1		0.0	32.5	0.1		0.1	0.1	9.5		63.6	63.6	63.6	
InitQueuDel:	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:	65.9	41.4	41.4		0.0	94.8	12.6		19.6	19.6	24.9		128.7	129	128.7	
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:	65.9	41.4	41.4		0.0	94.8	12.6		19.6	19.6	24.9		128.7	129	128.7	
LOS by Move:	E	D	D		A	F	B		B	B	C		F	F	F	
HCM2kAvgQ:	19	2	2		0	11	3		4	4	42		8	8	8	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2 0	0	0	1	0 0	0	0	0	0 0	2	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
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:	493	0	213		0	0	0		0	2063	507		0	682	791	
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:	493	0	213		0	0	0		0	2063	507		0	682	791	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	493	0	213		0	0	0		0	2063	0		0	682	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	493	0	213		0	0	0		0	2063	0		0	682	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	493	0	213		0	0	0		0	2063	0		0	682	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.00	0.13		0.00	0.00	0.00		0.00	0.58	0.00		0.00	0.19	0.00	
Crit Moves:	****									****						
Green Time:	11.5	0.0	11.5		0.0	0.0	0.0		0.0	46.5	0.0		0.0	46.5	0.0	
Volume/Cap:	0.81	0.00	0.76		0.00	0.00	0.00		0.00	0.81	0.00		0.00	0.27	0.00	
Uniform Del:	25.7	0.0	25.5		0.0	0.0	0.0		0.0	6.3	0.0		0.0	3.2	0.0	
IncremntDel:	8.3	0.0	11.7		0.0	0.0	0.0		0.0	2.1	0.0		0.0	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	34.1	0.0	37.2		0.0	0.0	0.0		0.0	8.4	0.0		0.0	3.3	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:	34.1	0.0	37.2		0.0	0.0	0.0		0.0	8.4	0.0		0.0	3.3	0.0	
LOS by Move:	C	A	D		A	A	A		A	A	A		A	A	A	
HCM2kAvgQ:	7	0	6		0	0	0		0	17	0		0	2	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.817
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0 0	0	0	0	2 0	0	0	1	0 0	2	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
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	0	0		1355	0	453		0	1181	651		0	940	282	
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	0	0		1355	0	453		0	1181	651		0	940	282	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1355	0	453		0	1181	0		0	940	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1355	0	453		0	1181	0		0	940	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1355	0	453		0	1181	0		0	940	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.39	0.00	0.29		0.00	0.33	0.00		0.00	0.27	0.00	
Crit Moves:					****					****						
Green Time:	0.0	0.0	0.0		31.4	0.0	31.4		0.0	26.6	0.0		0.0	26.6	0.0	
Volume/Cap:	0.00	0.00	0.00		0.82	0.00	0.59		0.00	0.82	0.00		0.00	0.65	0.00	
Uniform Del:	0.0	0.0	0.0		14.3	0.0	12.1		0.0	17.1	0.0		0.0	15.5	0.0	
IncremntDel:	0.0	0.0	0.0		3.3	0.0	1.2		0.0	3.7	0.0		0.0	1.1	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		17.6	0.0	13.4		0.0	20.8	0.0		0.0	16.5	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:	0.0	0.0	0.0		17.6	0.0	13.4		0.0	20.8	0.0		0.0	16.5	0.0	
LOS by Move:	A	A	A		B	A	B		A	C	A		A	B	A	
HCM2kAvgQ:	0	0	0		15	0	7		0	14	0		0	9	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.685
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.5
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0	1	0	0 2	0	1	0	0 1	1	0	2	1 0	2	0	1	1 0

Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM

Base Vol:	28	15	267	254	9	2	42	1314	17	78	1109	214
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	15	267	254	9	2	42	1314	17	78	1109	214
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	15	267	254	9	2	42	1314	17	78	1109	214
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	15	267	254	9	2	42	1314	17	78	1109	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	15	267	254	9	2	42	1314	17	78	1109	214
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:	28	15	267	254	9	2	42	1314	17	78	1109	214

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.73	0.93	0.93	0.83	0.93	0.89	0.89	0.90	0.91	0.91
Lanes:	0.65	0.35	2.00	0.97	0.03	1.00	1.00	2.96	0.04	2.00	1.68	0.32
Final Sat.:	1174	629	2786	1716	61	1583	1769	5008	65	3432	2894	559

Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.10	0.15	0.15	0.00	0.02	0.26	0.26	0.02	0.38	0.38
Crit Moves:			****		****		****				****	
Green Time:	11.0	11.0	11.0	17.0	17.0	17.0	4.0	40.3	40.3	7.7	44.0	44.0
Volume/Cap:	0.17	0.17	0.70	0.70	0.70	0.01	0.47	0.52	0.52	0.24	0.70	0.70
Uniform Del:	30.5	30.5	32.9	29.1	29.1	24.8	37.0	13.3	13.3	33.4	13.1	13.1
IncremntDel:	0.3	0.3	5.5	5.6	5.6	0.0	4.0	0.2	0.2	0.4	1.2	1.2
InitQueuDel:	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:	30.8	30.8	38.5	34.7	34.7	24.8	41.0	13.5	13.5	33.8	14.3	14.3
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:	30.8	30.8	38.5	34.7	34.7	24.8	41.0	13.5	13.5	33.8	14.3	14.3
LOS by Move:	C	C	D	C	C	C	D	B	B	C	B	B
HCM2kAvgQ:	1	1	5	7	7	0	1	8	8	1	12	12

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 34 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1	0	0	1 0	1	1	0	0 1	1	0	1	1 0	1	0	1	1 0

Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm

Base Vol:	95	32	58	428	30	128	239	885	55	26	833	316
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:	95	32	58	428	30	128	239	885	55	26	833	316
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:	95	32	58	428	30	128	239	885	55	26	833	316
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:	95	32	58	428	30	128	239	885	55	26	833	316
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	32	58	428	30	128	239	885	55	26	833	316
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:	95	32	58	428	30	128	239	885	55	26	833	316

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.88	0.88	0.94	0.94	0.83	0.93	0.92	0.92	0.93	0.89	0.89
Lanes:	1.00	0.36	0.64	1.87	0.13	1.00	1.00	1.88	0.12	1.00	1.45	0.55
Final Sat.:	1769	598	1084	3323	233	1583	1769	3301	205	1769	2460	933

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.05	0.13	0.13	0.08	0.14	0.27	0.27	0.01	0.34	0.34
Crit Moves:	****			****			****				****	
Green Time:	6.2	6.2	6.2	14.9	14.9	14.9	15.6	46.2	46.2	8.6	39.2	39.2
Volume/Cap:	0.69	0.69	0.69	0.69	0.69	0.43	0.69	0.46	0.46	0.14	0.69	0.69
Uniform Del:	36.0	35.9	35.9	30.4	30.4	28.8	29.9	9.7	9.7	32.3	15.7	15.7
IncremntDel:	14.0	14.4	14.4	3.1	3.1	1.0	5.9	0.2	0.2	0.3	1.3	1.3
InitQueuDel:	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:	49.9	50.3	50.3	33.5	33.5	29.8	35.8	9.9	9.9	32.6	17.0	17.0
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:	49.9	50.3	50.3	33.5	33.5	29.8	35.8	9.9	9.9	32.6	17.0	17.0
LOS by Move:	D	D	D	C	C	C	D	A	A	C	B	B
HCM2kAvgQ:	4	4	4	7	7	3	6	7	7	1	11	11

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.576
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 26 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		6	6	6		4	6	6	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	1	0	1 0	1	0	1	1 0
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	57	8	180		55	31	3		5	819	90		200	891	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:	57	8	180		55	31	3		5	819	90		200	891	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:	57	8	180		55	31	3		5	819	90		200	891	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:	57	8	180		55	31	3		5	819	90		200	891	47	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	57	8	180		55	31	3		5	819	90		200	891	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	
FinalVolume:	57	8	180		55	31	3		5	819	90		200	891	47	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.81	0.81	0.81		0.72	0.72	0.72		0.87	0.87	0.87		0.93	0.92	0.92	
Lanes:	0.23	0.03	0.74		0.62	0.35	0.03		0.01	1.79	0.20		1.00	1.90	0.10	
Final Sat.:	359	50	1133		843	475	46		18	2973	327		1769	3337	176	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.16	0.16		0.07	0.07	0.07		0.28	0.28	0.28		0.11	0.27	0.27	
Crit Moves:		****								****			****			
Green Time:	22.1	22.1	22.1		22.1	22.1	22.1		38.2	38.2	38.2		15.7	53.9	53.9	
Volume/Cap:	0.58	0.58	0.58		0.24	0.24	0.24		0.58	0.58	0.58		0.58	0.40	0.40	
Uniform Del:	24.9	24.9	24.9		22.4	22.4	22.4		15.0	15.0	15.0		29.1	5.8	5.8	
IncremntDel:	1.9	1.9	1.9		0.3	0.3	0.3		0.5	0.5	0.5		2.4	0.1	0.1	
InitQueuDel:	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:	26.9	26.9	26.9		22.8	22.8	22.8		15.6	15.6	15.6		31.5	5.9	5.9	
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:	26.9	26.9	26.9		22.8	22.8	22.8		15.6	15.6	15.6		31.5	5.9	5.9	
LOS by Move:	C	C	C		C	C	C		B	B	B		C	A	A	
HCM2kAvgQ:	6	6	6		2	2	2		8	8	8		4	5	5	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.809
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 28.3
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0 1	1	0	1	0 0	0	0	0	0 0	1	0	0	0 1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.																
Base Vol:	0	426	548		408	269	0		0	0	0		515	0	447	
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	426	548		408	269	0		0	0	0		515	0	447	
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	426	548		408	269	0		0	0	0		515	0	447	
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	426	548		408	269	0		0	0	0		515	0	447	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	426	548		408	269	0		0	0	0		515	0	447	
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:	0	426	548		408	269	0		0	0	0		515	0	447	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.22	0.34		0.23	0.14	0.00		0.00	0.00	0.00		0.29	0.00	0.28	
Crit Moves:		****			****								****			
Green Time:	0.0	30.5	69.3		30.7	61.2	0.0		0.0	0.0	0.0		38.8	0.0	69.5	
Volume/Cap:	0.00	0.81	0.54		0.81	0.25	0.00		0.00	0.00	0.00		0.81	0.00	0.44	
Uniform Del:	0.0	37.0	11.4		36.9	12.6	0.0		0.0	0.0	0.0		32.3	0.0	10.3	
IncremntDel:	0.0	9.1	0.6		9.5	0.1	0.0		0.0	0.0	0.0		7.6	0.0	0.3	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	46.2	12.0		46.4	12.7	0.0		0.0	0.0	0.0		39.9	0.0	10.6	
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:	0.0	46.2	12.0		46.4	12.7	0.0		0.0	0.0	0.0		39.9	0.0	10.6	
LOS by Move:	A	D	B		D	B	A		A	A	A		D	A	B	
HCM2kAvgQ:	0	14	10		15	5	0		0	0	0		16	0	8	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.916
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 43.1
Optimal Cycle: 136 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM																				
Base Vol:	362	664	1		0	2199	108		36	13	1424		44	105	8					
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:	362	664	1		0	2199	108		36	13	1424		44	105	8					
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:	362	664	1		0	2199	108		36	13	1424		44	105	8					
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:	362	664	1		0	2199	108		36	13	1424		44	105	8					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	362	664	1		0	2199	108		36	13	1424		44	105	8					
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:	362	664	1		0	2199	108		36	13	1424		44	105	8					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.90	1.03	0.83		0.97	1.03	0.83		0.90	0.90	0.88		0.93	0.93	0.83					
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		2.00	1.00	2.00		1.00	2.00	1.00					
Final Sat.:	3432	5846	1583		3686	5846	1583		3414	1707	3343		1769	3538	1583					
Capacity Analysis Module:																				
Vol/Sat:	0.11	0.11	0.00		0.00	0.38	0.07		0.01	0.01	0.43		0.02	0.03	0.01					
Crit Moves:	****					****					****			****						
Green Time:	14.9	67.8	72.8		0.0	53.0	53.0		45.2	45.2	60.0		5.0	5.0	5.0					
Volume/Cap:	0.92	0.22	0.00		0.00	0.92	0.17		0.03	0.02	0.92		0.65	0.77	0.13					
Uniform Del:	57.0	16.8	12.6		0.0	36.6	24.5		28.0	27.9	32.8		61.6	61.9	60.4					
IncremntDel:	27.0	0.0	0.0		0.0	6.6	0.1		0.0	0.0	9.6		19.6	23.3	1.0					
InitQueuDel:	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:	84.1	16.8	12.6		0.0	43.2	24.6		28.0	27.9	42.4		81.2	85.3	61.4					
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:	84.1	16.8	12.6		0.0	43.2	24.6		28.0	27.9	42.4		81.2	85.3	61.4					
LOS by Move:	F	B	B		A	D	C		C	C	D		F	F	E					
HCM2kAvgQ:	11	5	0		0	33	3		0	0	32		3	4	0					

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.604
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 47 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM																				
Base Vol:	129	6	49		73	5	73		130	1351	5		20	553	67					
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:	129	6	49		73	5	73		130	1351	5		20	553	67					
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:	129	6	49		73	5	73		130	1351	5		20	553	67					
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:	129	6	49		73	5	73		130	1351	5		20	553	67					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	129	6	49		73	5	73		130	1351	5		20	553	67					
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:	129	6	49		73	5	73		130	1351	5		20	553	67					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.63	0.63	0.63		0.73	0.73	0.73		0.93	0.93	0.93		0.93	0.92	0.92					
Lanes:	0.70	0.03	0.27		0.49	0.03	0.48		1.00	1.99	0.01		1.00	1.78	0.22					
Final Sat.:	838	39	318		673	46	673		1769	3521	13		1769	3105	376					
Capacity Analysis Module:																				
Vol/Sat:	0.15	0.15	0.15		0.11	0.11	0.11		0.07	0.38	0.38		0.01	0.18	0.18					
Crit Moves:		****								****			****							
Green Time:	29.8	29.8	29.8		29.8	29.8	29.8		23.1	74.2	74.2		5.0	56.1	56.1					
Volume/Cap:	0.62	0.62	0.62		0.44	0.44	0.44		0.38	0.62	0.62		0.27	0.38	0.38					
Uniform Del:	40.1	40.1	40.1		38.0	38.0	38.0		42.2	14.2	14.2		55.7	20.7	20.7					
IncremntDel:	4.0	4.0	4.0		0.9	0.9	0.9		0.7	0.6	0.6		2.0	0.1	0.1					
InitQueuDel:	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:	44.1	44.1	44.1		38.9	38.9	38.9		42.9	14.7	14.7		57.7	20.9	20.9					
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:	44.1	44.1	44.1		38.9	38.9	38.9		42.9	14.7	14.7		57.7	20.9	20.9					
LOS by Move:	D	D	D		D	D	D		D	B	B		E	C	C					
HCM2kAvgQ:	7	7	7		5	5	5		4	16	16		1	7	7					

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.543
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 11.9
Optimal Cycle: 42 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	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:	0	0	0		10	0	122		98	1457	0		0	800	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:	0	0	0		10	0	122		98	1457	0		0	800	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:	0	0	0		10	0	122		98	1457	0		0	800	22	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		10	0	122		98	1457	0		0	800	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	
FinalVolume:	0	0	0		10	0	122		98	1457	0		0	800	22	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.85	1.00	0.85		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.08	0.00	0.92		1.00	2.00	0.00		0.00	1.95	0.05	
Final Sat.:	0	0	0		123	0	1500		1769	3538	0		0	3429	94	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.08	0.00	0.08		0.06	0.41	0.00		0.00	0.23	0.23	
Crit Moves:							****			****			****			
Green Time:	0.0	0.0	0.0		18.0	0.0	18.0		17.5	91.0	0.0		0.0	73.6	73.6	
Volume/Cap:	0.00	0.00	0.00		0.54	0.00	0.54		0.38	0.54	0.00		0.00	0.38	0.38	
Uniform Del:	0.0	0.0	0.0		47.2	0.0	47.2		46.4	5.9	0.0		0.0	11.7	11.7	
IncremntDel:	0.0	0.0	0.0		2.5	0.0	2.5		0.9	0.2	0.0		0.0	0.1	0.1	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		49.7	0.0	49.7		47.3	6.2	0.0		0.0	11.8	11.8	
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:	0.0	0.0	0.0		49.7	0.0	49.7		47.3	6.2	0.0		0.0	11.8	11.8	
LOS by Move:	A	A	A		D	A	D		D	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		5	0	5		4	12	0		0	8	8	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.546
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: 42 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	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:	120	0	35		0	0	0		0	1413	204		73	888	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:	120	0	35		0	0	0		0	1413	204		73	888	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:	120	0	35		0	0	0		0	1413	204		73	888	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	120	0	35		0	0	0		0	1413	204		73	888	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:	120	0	35		0	0	0		0	1413	204		73	888	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.63	0.00	0.37		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2826	0	638		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.00	0.05		0.00	0.00	0.00		0.00	0.40	0.13		0.04	0.25	0.00	
Crit Moves:			****							****			****			
Green Time:	12.1	0.0	12.1		0.0	0.0	0.0		0.0	87.9	87.9		9.1	96.9	0.0	
Volume/Cap:	0.42	0.00	0.55		0.00	0.00	0.00		0.00	0.55	0.18		0.55	0.31	0.00	
Uniform Del:	50.7	0.0	51.4		0.0	0.0	0.0		0.0	7.2	4.9		53.5	3.0	0.0	
IncremntDel:	0.8	0.0	2.2		0.0	0.0	0.0		0.0	0.2	0.1		4.6	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	51.5	0.0	53.6		0.0	0.0	0.0		0.0	7.4	5.0		58.1	3.0	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:	51.5	0.0	53.6		0.0	0.0	0.0		0.0	7.4	5.0		58.1	3.0	0.0	
LOS by Move:	D	A	D		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	3	0	4		0	0	0		0	12	2		3	4	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.735
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 73 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0 1	0 1		1	0 1	0 1		1	0 2	1 0		1	0 1	1 0	
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	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:	248	170	55		38	166	219		323	1436	339		102	975	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:	248	170	55		38	166	219		323	1436	339		102	975	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:	248	170	55		38	166	219		323	1436	339		102	975	34	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	248	170	55		38	166	219		323	1436	339		102	975	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	
FinalVolume:	248	170	55		38	166	219		323	1436	339		102	975	34	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.43	0.57		1.00	1.93	0.07	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	3993	943		1769	3401	119	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.09	0.03		0.02	0.09	0.14		0.18	0.36	0.36		0.06	0.29	0.29	
Crit Moves:		****				****			****					****		
Green Time:	14.9	14.9	25.5		14.5	14.5	44.3		29.8	66.0	66.0		10.6	46.8	46.8	
Volume/Cap:	0.58	0.74	0.16		0.18	0.74	0.37		0.74	0.65	0.65		0.65	0.74	0.74	
Uniform Del:	49.6	50.7	38.6		47.4	50.9	27.7		41.5	19.0	19.0		52.9	31.3	31.3	
IncremntDel:	2.0	11.6	0.2		0.4	11.9	0.4		6.4	0.6	0.6		9.6	2.1	2.1	
InitQueuDel:	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:	51.7	62.3	38.8		47.8	62.8	28.1		47.9	19.6	19.6		62.5	33.4	33.4	
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:	51.7	62.3	38.8		47.8	62.8	28.1		47.9	19.6	19.6		62.5	33.4	33.4	
LOS by Move:	D	E	D		D	E	C		D	B	B		E	C	C	
HCM2kAvgQ:	5	8	2		1	7	6		12	17	17		4	17	17	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.730
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0 0	0 0		1	0 0	0 1		1	0 2	0 0		0	0 2	0 1	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
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	0	0		416	0	54		40	1436	0		0	1061	255	
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	0	0		416	0	54		40	1436	0		0	1061	255	
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	0	0		416	0	54		40	1436	0		0	1061	255	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
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:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.24	0.00	0.03		0.02	0.41	0.00		0.00	0.30	0.16	
Crit Moves:					****					****			****			
Green Time:	0.0	0.0	0.0		29.0	0.0	29.0		7.8	50.0	0.0		0.0	42.2	42.2	
Volume/Cap:	0.00	0.00	0.00		0.73	0.00	0.11		0.26	0.73	0.00		0.00	0.64	0.34	
Uniform Del:	0.0	0.0	0.0		27.0	0.0	21.4		38.4	14.9	0.0		0.0	18.1	15.1	
IncremntDel:	0.0	0.0	0.0		4.8	0.0	0.1		0.9	1.4	0.0		0.0	0.8	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		31.8	0.0	21.5		39.3	16.4	0.0		0.0	19.0	15.4	
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:	0.0	0.0	0.0		31.8	0.0	21.5		39.3	16.4	0.0		0.0	19.0	15.4	
LOS by Move:	A	A	A		C	A	C		D	B	A		A	B	B	
HCM2kAvgQ:	0	0	0		12	0	1		1	17	0		0	12	5	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.638
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 39 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0	1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33	7	85		122	5	31		11	1125	10		90	818	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:	33	7	85		122	5	31		11	1125	10		90	818	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:	33	7	85		122	5	31		11	1125	10		90	818	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:	33	7	85		122	5	31		11	1125	10		90	818	51	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	33	7	85		122	5	31		11	1125	10		90	818	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	
FinalVolume:	33	7	85		122	5	31		11	1125	10		90	818	51	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.51	0.84	0.84		0.57	0.57	0.83		0.93	0.93	0.93		0.93	0.97	0.97	
Lanes:	1.00	0.08	0.92		0.96	0.04	1.00		1.00	1.98	0.02		1.00	0.94	0.06	
Final Sat.:	970	122	1481		1034	42	1583		1769	3503	31		1769	1737	108	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.06	0.06		0.12	0.12	0.02		0.01	0.32	0.32		0.05	0.47	0.47	
Crit Moves:						****			****					****		
Green Time:	18.8	18.8	18.8		18.8	18.8	18.8		4.0	68.3	68.3		10.8	75.2	75.2	
Volume/Cap:	0.19	0.32	0.32		0.66	0.66	0.11		0.16	0.49	0.49		0.49	0.66	0.66	
Uniform Del:	36.6	37.5	37.5		40.1	40.1	36.1		48.9	9.4	9.4		44.5	8.0	8.0	
IncremntDel:	0.5	0.6	0.6		8.1	8.1	0.2		1.1	0.2	0.2		2.1	1.2	1.2	
InitQueuDel:	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:	37.1	38.2	38.2		48.1	48.1	36.2		50.0	9.6	9.6		46.6	9.2	9.2	
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:	37.1	38.2	38.2		48.1	48.1	36.2		50.0	9.6	9.6		46.6	9.2	9.2	
LOS by Move:	D	D	D		D	D	D		D	A	A		D	A	A	
HCM2kAvgQ:	1	3	3		5	5	1		1	10	10		3	15	15	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.730
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 50 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0	0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
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	7		92	6	35		24	1083	6		5	795	109	
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	7		92	6	35		24	1083	6		5	795	109	
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	7		92	6	35		24	1083	6		5	795	109	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
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:	12	11	7		92	6	35		24	1083	6		5	795	109	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.87	0.87	0.87		0.73	0.73	0.73		0.25	0.98	0.98		0.18	0.96	0.96	
Lanes:	0.40	0.37	0.23		0.69	0.05	0.26		1.00	0.99	0.01		1.00	0.88	0.12	
Final Sat.:	659	604	384		956	62	364		482	1850	10		341	1608	220	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.10	0.10	0.10		0.05	0.59	0.59		0.01	0.49	0.49	
Crit Moves:						****				****						
Green Time:	13.8	13.8	13.8		13.8	13.8	13.8		84.2	84.2	84.2		84.2	84.2	84.2	
Volume/Cap:	0.14	0.14	0.14		0.73	0.73	0.73		0.06	0.73	0.73		0.02	0.62	0.62	
Uniform Del:	40.3	40.3	40.3		43.8	43.8	43.8		2.2	5.0	5.0		2.1	4.1	4.1	
IncremntDel:	0.3	0.3	0.3		14.0	14.0	14.0		0.1	1.9	1.9		0.0	0.8	0.8	
InitQueuDel:	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:	40.6	40.6	40.6		57.8	57.8	57.8		2.2	6.9	6.9		2.1	4.9	4.9	
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:	40.6	40.6	40.6		57.8	57.8	57.8		2.2	6.9	6.9		2.1	4.9	4.9	
LOS by Move:	D	D	D		E	E	E		A	A	A		A	A	A	
HCM2kAvgQ:	1	1	1		6	6	6		0	18	18		0	12	12	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 40 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
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:	92	31	75		29	30	4		4	969	36		37	832	17	
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:	92	31	75		29	30	4		4	969	36		37	832	17	
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:	92	31	75		29	30	4		4	969	36		37	832	17	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
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:	92	31	75		29	30	4		4	969	36		37	832	17	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.73	0.88	0.88		0.52	0.96	0.96		0.29	0.98	0.98		0.23	0.98	0.98	
Lanes:	1.00	0.29	0.71		1.00	0.88	0.12		1.00	0.96	0.04		1.00	0.98	0.02	
Final Sat.:	1378	487	1178		991	1613	215		547	1786	66		439	1819	37	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.06	0.06		0.03	0.02	0.02		0.01	0.54	0.54		0.08	0.46	0.46	
Crit Moves:	****									****						
Green Time:	10.7	10.7	10.7		10.7	10.7	10.7		87.3	87.3	87.3		87.3	87.3	87.3	
Volume/Cap:	0.65	0.62	0.62		0.29	0.18	0.18		0.01	0.65	0.65		0.10	0.55	0.55	
Uniform Del:	45.3	45.2	45.2		43.6	43.1	43.1		1.5	3.3	3.3		1.6	2.8	2.8	
IncremntDel:	10.4	7.0	7.0		1.6	0.5	0.5		0.0	1.0	1.0		0.1	0.4	0.4	
InitQueuDel:	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:	55.8	52.2	52.2		45.1	43.6	43.6		1.5	4.3	4.3		1.8	3.2	3.2	
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:	55.8	52.2	52.2		45.1	43.6	43.6		1.5	4.3	4.3		1.8	3.2	3.2	
LOS by Move:	E	D	D		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	4	4	4		1	1	1		0	13	13		0	9	9	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.232
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 126.8
Optimal Cycle: 200 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
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	438	491		477	413	19		36	170	158		382	95	410	
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	438	491		477	413	19		36	170	158		382	95	410	
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	438	491		477	413	19		36	170	158		382	95	410	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
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:	97	438	491		477	413	19		36	170	158		382	95	410	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.58	1.36	0.06		1.00	1.00	1.00		1.60	0.40	1.00	
Final Sat.:	1769	3538	791		2704	2341	108		1769	1862	1583		2866	713	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.12	0.62		0.18	0.18	0.18		0.02	0.09	0.10		0.13	0.13	0.26	
Crit Moves:			****				****				****				****	
Green Time:	65.5	65.5	65.5		18.6	18.6	18.6		10.5	10.5	10.5		27.3	27.3	27.3	
Volume/Cap:	0.11	0.25	1.23		1.23	1.23	1.23		0.25	1.13	1.23		0.63	0.63	1.23	
Uniform Del:	16.9	18.3	32.3		55.7	55.7	55.7		56.0	59.7	59.7		46.8	46.8	51.3	
IncremntDel:	0.1	0.1	124.3		115.8	116	115.8		0.9	111	154.5		1.8	1.8	127.7	
InitQueuDel:	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:	17.0	18.3	156.6		171.5	172	171.5		57.0	171	214.2		48.5	48.5	179.0	
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:	17.0	18.3	156.6		171.5	172	171.5		57.0	171	214.2		48.5	48.5	179.0	
LOS by Move:	B	B	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	5	33		23	23	23		2	12	12		9	9	28	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.280
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 146.2
Optimal Cycle: 200 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0	5	5	0	0
Lanes:	2	0	3	0	0	0	3	0	1	2	0	0	0	3	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0	0	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	1.00	1.00	1.00	1.00
Initial Bse:	377	968	0	0	3488	127	60	0	1667	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	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	0	0	0	0
Initial Fut:	377	968	0	0	3488	127	60	0	1667	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	377	968	0	0	3488	127	60	0	1667	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	377	968	0	0	3488	127	60	0	1667	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.11	0.19	0.00	0.00	0.69	0.08	0.02	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****				****							
Green Time:	12.9	93.3	0.0	0.0	80.4	80.4	46.7	0.0	46.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume/Cap:	1.28	0.31	0.00	0.00	1.28	0.15	0.06	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	68.6	13.3	0.0	0.0	34.8	17.6	36.2	0.0	51.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	149.7	0.1	0.0	0.0	129	0.1	0.0	0.0	132.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	218.3	13.3	0.0	0.0	164	17.6	36.2	0.0	183.8	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	218.3	13.3	0.0	0.0	164	17.6	36.2	0.0	183.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A	A	A	A	A
HCM2kAvgQ:	16	7	0	0	92	3	1	0	47	0	0	0	0	0	0	0

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.667
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 12.7
Optimal Cycle: 51 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	0	5	5	5	0	0	5	0	5	5	
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	120	0	99	20	1599	0	0	454	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:	0	0	0	120	0	99	20	1599	0	0	454	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:	0	0	0	120	0	99	20	1599	0	0	454	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:	0	0	0	120	0	99	20	1599	0	0	454	16				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	120	0	99	20	1599	0	0	454	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				
FinalVolume:	0	0	0	120	0	99	20	1599	0	0	454	16				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.55	0.00	0.45	1.00	2.00	0.00	0.00	1.93	0.07				
Final Sat.:	0	0	0	932	0	769	1769	3538	0	0	3400	120				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.13	0.01	0.45	0.00	0.00	0.13	0.13				
Crit Moves:				****				****		****						
Green Time:	0.0	0.0	0.0	16.4	0.0	16.4	17.6	57.6	0.0	0.0	40.0	40.0				
Volume/Cap:	0.00	0.00	0.00	0.67	0.00	0.67	0.05	0.67	0.00	0.00	0.28	0.28				
Uniform Del:	0.0	0.0	0.0	31.8	0.0	31.8	27.0	8.1	0.0	0.0	13.8	13.8				
IncremntDel:	0.0	0.0	0.0	5.2	0.0	5.2	0.1	0.7	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	36.9	0.0	36.9	27.1	8.8	0.0	0.0	13.9	13.9				
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:	0.0	0.0	0.0	36.9	0.0	36.9	27.1	8.8	0.0	0.0	13.9	13.9				
LOS by Move:	A	A	A	D	A	D	C	A	A	A	B	B				
HCM2kAvgQ:	0	0	0	7	0	7	0	13	0	0	4	4				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.642
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	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:	35	31	12		19	29	82		26	1579	19		18	527	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:	35	31	12		19	29	82		26	1579	19		18	527	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:	35	31	12		19	29	82		26	1579	19		18	527	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	35	31	12		19	29	82		26	1579	19		18	527	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	
FinalVolume:	35	31	12		19	29	82		26	1579	19		18	527	13	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.95	0.05	
Final Sat.:	816	723	280		252	385	1089		1805	3560	43		1805	3509	87	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.04	0.04		0.08	0.08	0.08		0.01	0.44	0.44		0.01	0.15	0.15	
Crit Moves:		****			****					****			****			
Green Time:	7.1	6.4	6.4		11.3	10.6	10.6		17.8	66.3	66.3		5.0	53.5	53.5	
Volume/Cap:	0.61	0.67	0.67		0.67	0.71	0.71		0.08	0.67	0.67		0.20	0.28	0.28	
Uniform Del:	45.1	45.8	45.8		42.6	43.2	43.2		34.3	10.2	10.2		45.6	12.7	12.7	
IncremntDel:	8.2	14.0	14.0		8.7	12.1	12.1		0.1	0.7	0.7		1.1	0.1	0.1	
InitQueuDel:	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:	53.3	59.7	59.7		51.2	55.3	55.3		34.4	10.9	10.9		46.7	12.8	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:	53.3	59.7	59.7		51.2	55.3	55.3		34.4	10.9	10.9		46.7	12.8	12.8	
LOS by Move:	D	E	E		D	E	E		C	B	B		D	B	B	
HCM2kAvgQ:	3	4	4		5	5	5		1	15	15		1	5	5	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.805
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 32.5
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
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	219	345		94	262	110		93	1291	87		119	540	49	
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	219	345		94	262	110		93	1291	87		119	540	49	
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	219	345		94	262	110		93	1291	87		119	540	49	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
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:	150	219	345		94	262	110		93	1291	87		119	540	49	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.87	0.13		1.00	1.83	0.17	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3352	226		1805	3270	297	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.12	0.21		0.05	0.14	0.07		0.05	0.39	0.39		0.07	0.17	0.17	
Crit Moves:			****		****					****			****			
Green Time:	12.2	26.5	26.5		6.5	20.8	20.8		13.3	47.8	47.8		8.2	42.7	42.7	
Volume/Cap:	0.66	0.44	0.81		0.81	0.66	0.33		0.39	0.81	0.81		0.81	0.39	0.39	
Uniform Del:	42.0	30.6	34.3		46.1	36.4	33.6		39.6	22.1	22.1		45.1	19.7	19.7	
IncremntDel:	3.0	0.4	10.7		32.2	4.2	0.6		1.0	2.9	2.9		26.6	0.2	0.2	
InitQueuDel:	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:	44.9	31.0	45.0		78.3	40.5	34.2		40.6	25.0	25.0		71.8	19.8	19.8	
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:	44.9	31.0	45.0		78.3	40.5	34.2		40.6	25.0	25.0		71.8	19.8	19.8	
LOS by Move:	D	C	D		E	D	C		D	C	C		E	B	B	
HCM2kAvgQ:	6	6	12		5	8	3		2	19	19		4	6	6	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.675
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.3
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	78	109	59		17	76	27		29	1264	78		44	793	17	
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	109	59		17	76	27		29	1264	78		44	793	17	
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	109	59		17	76	27		29	1264	78		44	793	17	
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	109	59		17	76	27		29	1264	78		44	793	17	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	78	109	59		17	76	27		29	1264	78		44	793	17	
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:	78	109	59		17	76	27		29	1264	78		44	793	17	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.96	0.96	0.96		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.32	0.44	0.24		0.14	0.64	0.22		1.00	1.88	0.12		1.00	1.96	0.04	
Final Sat.:	574	802	434		259	1159	412		1805	3370	208		1805	3524	76	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.14	0.14		0.07	0.07	0.07		0.02	0.38	0.38		0.02	0.23	0.23	
Crit Moves:	****					****				****			****			
Green Time:	19.8	19.8	19.8		9.6	9.6	9.6		10.8	54.6	54.6		5.0	48.8	48.8	
Volume/Cap:	0.69	0.69	0.69		0.69	0.69	0.69		0.15	0.69	0.69		0.49	0.46	0.46	
Uniform Del:	37.2	37.2	37.2		43.8	43.8	43.8		40.4	16.5	16.5		46.3	16.9	16.9	
IncremntDel:	5.5	5.5	5.5		10.9	10.9	10.9		0.4	1.0	1.0		4.1	0.2	0.2	
InitQueuDel:	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:	42.7	42.7	42.7		54.6	54.6	54.6		40.7	17.5	17.5		50.4	17.1	17.1	
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:	42.7	42.7	42.7		54.6	54.6	54.6		40.7	17.5	17.5		50.4	17.1	17.1	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	B	B	
HCM2kAvgQ:	8	8	8		5	5	5		1	16	16		1	8	8	

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.528
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.5
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18	18		18	18	18		64	64	64		64	64	64	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	60	83	38		11	68	22		42	1322	87		37	787	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:	60	83	38		11	68	22		42	1322	87		37	787	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:	60	83	38		11	68	22		42	1322	87		37	787	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:	60	83	38		11	68	22		42	1322	87		37	787	22	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	83	38		11	68	22		42	1322	87		37	787	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	
FinalVolume:	60	83	38		11	68	22		42	1322	87		37	787	22	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.94	0.94	0.94		0.32	0.94	0.94		0.15	0.95	0.95	
Lanes:	0.33	0.46	0.21		0.11	0.67	0.22		1.00	1.88	0.12		1.00	1.95	0.05	
Final Sat.:	544	752	344		195	1204	389		600	3357	221		287	3498	98	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.11	0.11		0.06	0.06	0.06		0.07	0.39	0.39		0.13	0.22	0.22	
Crit Moves:		****								****						
Green Time:	18.8	18.8	18.8		18.8	18.8	18.8		67.2	67.2	67.2		67.2	67.2	67.2	
Volume/Cap:	0.53	0.53	0.53		0.27	0.27	0.27		0.09	0.53	0.53		0.17	0.30	0.30	
Uniform Del:	31.6	31.6	31.6		29.8	29.8	29.8		3.1	4.8	4.8		3.3	3.7	3.7	
IncremntDel:	1.5	1.5	1.5		0.4	0.4	0.4		0.1	0.2	0.2		0.4	0.1	0.1	
InitQueuDel:	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:	33.2	33.2	33.2		30.2	30.2	30.2		3.2	5.0	5.0		3.7	3.8	3.8	
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:	33.2	33.2	33.2		30.2	30.2	30.2		3.2	5.0	5.0		3.7	3.8	3.8	
LOS by Move:	C	C	C		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	5	5	5		2	2	2		0	8	8		0	4	4	

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.843
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 34.9
Optimal Cycle: 86 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	1 1	0	1 1	1 0	1 0	1	1 0	1 1	0	2 0	1 1	0
Volume Module:												
Base Vol:	315	485	599	32	175	224	217	784	540	115	663	173
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:	315	485	599	32	175	224	217	784	540	115	663	173
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:	315	485	599	32	175	224	217	784	540	115	663	173
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:	315	485	599	32	175	224	217	784	540	115	663	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	485	599	32	175	224	217	784	540	115	663	173
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:	315	485	599	32	175	224	217	784	540	115	663	173
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.88	0.88	0.95	1.00	0.85	0.95	0.89	0.89	0.92	0.92	0.92
Lanes:	1.00	1.34	1.66	1.00	1.00	1.00	1.00	1.18	0.82	2.00	1.59	0.41
Final Sat.:	1671	2243	2770	1805	1900	1615	1805	2007	1383	3502	2774	724
Capacity Analysis Module:												
Vol/Sat:	0.19	0.22	0.22	0.02	0.09	0.14	0.12	0.39	0.39	0.03	0.24	0.24
Crit Moves:	****					****		****		****		
Green Time:	22.1	31.1	31.1	7.2	16.2	16.2	17.0	45.7	45.7	5.0	33.7	33.7
Volume/Cap:	0.85	0.70	0.70	0.25	0.57	0.85	0.71	0.85	0.85	0.66	0.71	0.71
Uniform Del:	37.4	30.3	30.3	43.8	38.6	40.7	39.2	24.2	24.2	46.7	28.8	28.8
IncremntDel:	4.6	1.1	1.1	1.0	2.5	22.9	7.5	4.9	4.9	8.8	2.0	2.0
InitQueuDel:	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:	42.1	31.4	31.4	44.8	41.1	63.7	46.6	29.1	29.1	55.4	30.9	30.9
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:	42.1	31.4	31.4	44.8	41.1	63.7	46.6	29.1	29.1	55.4	30.9	30.9
LOS by Move:	D	C	C	D	D	E	D	C	C	E	C	C
HCM2kAvgQ:	11	10	10	1	6	9	8	22	22	2	12	12

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.466
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.0
Optimal Cycle: 82 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	32	32	0	32	0	28	0	28	0	0	18
Lanes:	0 0	2 1	0	0 0	2 0	0	2 0	0 0	1	0 0	0 0	1
Volume Module:												
Base Vol:	0	802	19	0	783	0	765	0	277	0	0	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:	0	802	19	0	783	0	765	0	277	0	0	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:	0	802	19	0	783	0	765	0	277	0	0	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:	0	802	19	0	783	0	765	0	277	0	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	802	19	0	783	0	765	0	277	0	0	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
FinalVolume:	0	802	19	0	783	0	765	0	277	0	0	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	0.91	1.00	0.95	1.00	0.92	1.00	0.85	1.00	1.00	0.87
Lanes:	0.00	2.93	0.07	0.00	2.00	0.00	2.00	0.00	1.00	0.00	0.00	1.00
Final Sat.:	0	5052	120	0	3610	0	3502	0	1615	0	0	1644
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.16	0.00	0.22	0.00	0.22	0.00	0.17	0.00	0.00	0.01
Crit Moves:	****				****		****					****
Green Time:	0.0	33.9	33.9	0.0	33.9	0.0	34.1	0.0	52.1	0.0	0.0	18.0
Volume/Cap:	0.00	0.42	0.42	0.00	0.58	0.00	0.58	0.00	0.30	0.00	0.00	0.05
Uniform Del:	0.0	20.8	20.8	0.0	22.3	0.0	22.2	0.0	9.6	0.0	0.0	29.1
IncremntDel:	0.0	0.1	0.1	0.0	0.6	0.0	0.6	0.0	0.2	0.0	0.0	0.1
InitQueuDel:	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	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Delay/Veh:	0.0	20.9	20.9	0.0	23.0	0.0	22.8	0.0	9.8	0.0	0.0	29.1
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:	0.0	20.9	20.9	0.0	23.0	0.0	22.8	0.0	9.8	0.0	0.0	29.1
LOS by Move:	A	C	C	A	C	A	C	A	A	A	A	C
HCM2kAvgQ:	0	6	6	0	9	0	9	0	4	0	0	0

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.509
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 86 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Protected				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	18		18	18	0		0	0	0		39	57	21		64	0
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	305		1	439	0		0	0	0	1391		388	487		927	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:	305		1	439	0		0	0	0	1391		388	487		927	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:	305		1	439	0		0	0	0	1391		388	487		927	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:	305		1	439	0		0	0	0	1391		388	487		927	0
Reduct Vol:	0		0	0	0		0	0	0	0		0	0		0	0
Reduced Vol:	305		1	439	0		0	0	0	1391		388	487		927	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:	305		1	439	0		0	0	0	1391		388	487		927	0
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.86	0.86		0.86	1.00	1.00		1.00	1.00	0.95		0.75	0.92	0.95		1.00
Lanes:	1.41	0.01		1.58	0.00	0.00		0.00	0.00	2.00		2.00	2.00	2.00		0.00
Final Sat.:	2292		4	2585	0		0	0	0	3610		2842	3502	3610		0
Capacity Analysis Module:																
Vol/Sat:	0.13	0.23		0.17	0.00	0.00		0.00	0.00	0.39		0.14	0.14	0.26		0.00
Crit Moves:		****						****						****		
Green Time:	22.0	22.0		22.0	0.0	0.0		0.0	0.0	41.6		41.6	22.4	64.0		0.0
Volume/Cap:	0.54	0.94		0.69	0.00	0.00		0.00	0.00	0.83		0.30	0.56	0.36		0.00
Uniform Del:	29.6	33.3		30.9	0.0	0.0		0.0	0.0	21.2		15.1	29.5	5.1		0.0
IncremntDel:	0.5	18.5		2.0	0.0	0.0		0.0	0.0	3.8		0.1	0.8	0.1		0.0
InitQueuDel:	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	0.00		0.00	1.00	1.00		1.00	1.00	1.00		0.00
Delay/Veh:	30.1	51.9		33.0	0.0	0.0		0.0	25.0	15.2		30.3	5.1			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:	30.1	51.9		33.0	0.0	0.0		0.0	25.0	15.2		30.3	5.1			0.0
LOS by Move:	C	D		C	A	A		A	A	C		B	C	A		A
HCM2kAvgQ:	6	15		8	0	0		0	0	17		4	7	5		0

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 0.860
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 95 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5		5	5	5		5	5	5		5	5	5		5	5
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	16		87	274	612		119	34	28		809	9	274		800	327
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		87	274	612		119	34	28		809	9	274		800	327
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		87	274	612		119	34	28		809	9	274		800	327
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		87	274	612		119	34	28		809	9	274		800	327
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	16		87	274	612		119	34	28		809	9	274		800	327
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:	16		87	274	612		119	34	28		809	9	274		800	327
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.90	0.90		0.90	0.92	0.97		0.97	0.95	0.95		0.95	0.95	0.95		0.85
Lanes:	0.04	0.23		0.73	2.00	0.78		0.22	1.00	1.98		0.02	1.00	2.00		1.00
Final Sat.:	73		395	1243	3502	1429		408	1805	3563		40	1805	3610		1615
Capacity Analysis Module:																
Vol/Sat:	0.22	0.22		0.22	0.17	0.08		0.08	0.02	0.23		0.23	0.15	0.22		0.20
Crit Moves:		****			****					****			****			
Green Time:	36.7	28.2		28.2	22.4	13.9		13.9	8.2	29.0		29.0	19.4	40.2		40.2
Volume/Cap:	0.66	0.86		0.86	0.86	0.66		0.66	0.21	0.86		0.86	0.86	0.61		0.55
Uniform Del:	31.3	39.0		39.0	42.3	45.8		45.8	47.8	38.5		38.5	44.0	28.4		27.8
IncremntDel:	2.9	15.7		15.7	10.4	6.9		6.9	0.8	8.0		8.0	20.4	0.8		1.2
InitQueuDel:	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:	34.2	54.7		54.7	52.7	52.8		52.8	48.6	46.6		46.6	64.3	29.3		28.9
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:	34.2	54.7		54.7	52.7	52.8		52.8	48.6	46.6		46.6	64.3	29.3		28.9
LOS by Move:	C	D		D	D	D		D	D	D		D	E	C		C
HCM2kAvgQ:	12	15		15	13	6		6	1	17		17	10	11		9

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.537
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 32.6
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 1	0 1	0	0 1	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	30	377	86	82	384	76	59	328	23	71	442	88
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:	30	377	86	82	384	76	59	328	23	71	442	88
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:	30	377	86	82	384	76	59	328	23	71	442	88
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:	30	377	86	82	384	76	59	328	23	71	442	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	377	86	82	384	76	59	328	23	71	442	88
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:	30	377	86	82	384	76	59	328	23	71	442	88
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.94	0.94	0.95	0.93	0.93
Lanes:	0.12	1.53	0.35	0.30	1.42	0.28	1.00	1.87	0.13	1.00	1.67	0.33
Final Sat.:	213	2681	612	531	2486	492	1805	3340	234	1805	2935	584
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.15	0.15	0.15	0.03	0.10	0.10	0.04	0.15	0.15
Crit Moves:		****		****			****				****	
Green Time:	26.2	26.2	26.2	28.7	28.7	28.7	6.1	22.6	22.6	11.5	28.0	28.0
Volume/Cap:	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.43	0.43	0.34	0.54	0.54
Uniform Del:	31.7	31.7	31.7	30.0	30.0	30.0	45.6	33.2	33.2	40.8	30.5	30.5
IncremntDel:	0.6	0.6	0.6	0.6	0.6	0.6	5.2	0.4	0.4	1.0	0.6	0.6
InitQueuDel:	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:	32.4	32.4	32.4	30.6	30.6	30.6	50.8	33.6	33.6	41.7	31.1	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:	32.4	32.4	32.4	30.6	30.6	30.6	50.8	33.6	33.6	41.7	31.1	31.1
LOS by Move:	C	C	C	C	C	C	D	C	C	D	C	C
HCM2kAvgQ:	7	7	7	7	7	7	3	5	5	2	7	7

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.4
Optimal Cycle: 51 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0
Lanes:	1 0	3 0	0	0 0	3 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:5:00 - 6:00 AM												
Base Vol:	10	932	0	0	2235	16	334	0	76	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:	10	932	0	0	2235	16	334	0	76	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:	10	932	0	0	2235	16	334	0	76	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:	10	932	0	0	2235	16	334	0	76	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	932	0	0	2235	16	334	0	76	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
FinalVolume:	10	932	0	0	2235	16	334	0	76	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.18	0.00	0.00	0.44	0.01	0.19	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	5.0	86.2	0.0	0.0	81.2	81.2	34.8	0.0	34.8	0.0	0.0	0.0
Volume/Cap:	0.15	0.28	0.00	0.00	0.70	0.02	0.70	0.00	0.18	0.00	0.00	0.00
Uniform Del:	60.4	9.1	0.0	0.0	16.4	9.3	42.9	0.0	36.6	0.0	0.0	0.0
IncremntDel:	1.0	0.0	0.0	0.0	0.7	0.0	4.8	0.0	0.2	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	61.4	9.1	0.0	0.0	17.1	9.3	47.7	0.0	36.8	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:	61.4	9.1	0.0	0.0	17.1	9.3	47.7	0.0	36.8	0.0	0.0	0.0
LOS by Move:	E	A	A	A	B	A	D	A	D	A	A	A
HCM2kAvgQ:	0	5	0	0	20	0	13	0	2	0	0	0

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.584
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 41 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	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:	14	783	0	0	2126	160	190	0	186	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:	14	783	0	0	2126	160	190	0	186	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:	14	783	0	0	2126	160	190	0	186	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	14	783	0	0	2126	160	190	0	186	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				
FinalVolume:	14	783	0	0	2126	160	190	0	186	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.01	0.15	0.00	0.00	0.42	0.10	0.11	0.00	0.12	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green Time:	5.0	95.6	0.0	0.0	90.6	90.6	25.4	0.0	25.4	0.0	0.0	0.0				
Volume/Cap:	0.21	0.21	0.00	0.00	0.60	0.15	0.55	0.00	0.60	0.00	0.00	0.00				
Uniform Del:	60.6	5.4	0.0	0.0	10.3	6.7	47.1	0.0	47.6	0.0	0.0	0.0				
IncremntDel:	1.5	0.0	0.0	0.0	0.3	0.1	1.9	0.0	3.3	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	62.1	5.4	0.0	0.0	10.6	6.7	49.0	0.0	50.9	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:	62.1	5.4	0.0	0.0	10.6	6.7	49.0	0.0	50.9	0.0	0.0	0.0				
LOS by Move:	E	A	A	A	B	A	D	A	D	A	A	A				
HCM2kAvgQ:	1	4	0	0	16	2	7	0	8	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.717
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 38 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	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:	487	566	0	0	357	92	257	0	705	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:	487	566	0	0	357	92	257	0	705	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:	487	566	0	0	357	92	257	0	705	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	487	566	0	0	357	92	257	0	705	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				
FinalVolume:	487	566	0	0	357	92	257	0	705	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.80	0.20	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1439	371	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.28	0.30	0.00	0.00	0.25	0.25	0.15	0.00	0.45	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green Time:	46.0	87.5	0.0	0.0	41.5	41.5	28.5	0.0	74.5	0.0	0.0	0.0				
Volume/Cap:	0.72	0.42	0.00	0.00	0.72	0.72	0.61	0.00	0.72	0.00	0.00	0.00				
Uniform Del:	31.4	6.3	0.0	0.0	34.2	34.2	40.9	0.0	15.6	0.0	0.0	0.0				
IncremntDel:	3.7	0.2	0.0	0.0	4.0	4.0	2.7	0.0	2.6	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	35.1	6.5	0.0	0.0	38.1	38.1	43.5	0.0	18.1	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:	35.1	6.5	0.0	0.0	38.1	38.1	43.5	0.0	18.1	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	B	A	A	A				
HCM2kAvgQ:	15	8	0	0	14	14	9	0	18	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.605
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 28.8
Optimal Cycle: 28 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
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	761	127		356	628	36		75	76	62		73	8	266	
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	761	127		356	628	36		75	76	62		73	8	266	
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	761	127		356	628	36		75	76	62		73	8	266	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
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:	49	761	127		356	628	36		75	76	62		73	8	266	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.63	0.91	0.91		0.66	0.66	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1201	957	781		1128	124	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.22	0.08		0.20	0.18	0.02		0.06	0.08	0.08		0.06	0.06	0.17	
Crit Moves:		****			****										****	
Green Time:	13.1	42.7	42.7		39.9	69.6	69.6		33.4	33.4	33.4		33.4	33.4	33.4	
Volume/Cap:	0.25	0.60	0.23		0.60	0.31	0.04		0.22	0.29	0.29		0.23	0.23	0.60	
Uniform Del:	49.0	31.7	27.1		33.4	12.9	10.8		33.4	34.0	34.0		33.4	33.4	37.6	
IncremntDel:	0.7	0.8	0.2		1.8	0.1	0.0		0.3	0.3	0.3		0.3	0.3	2.4	
InitQueuDel:	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	32.6	27.3		35.2	13.0	10.9		33.7	34.3	34.3		33.8	33.8	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:	49.7	32.6	27.3		35.2	13.0	10.9		33.7	34.3	34.3		33.8	33.8	40.0	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	D	
HCM2kAvgQ:	2	12	3		10	6	1		2	4	4		2	2	9	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 0.936
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 58.8
Optimal Cycle: 136 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
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:	89	457	24		24	508	163		419	135	78		7	55	12	
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:	89	457	24		24	508	163		419	135	78		7	55	12	
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:	89	457	24		24	508	163		419	135	78		7	55	12	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
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:	89	457	24		24	508	163		419	135	78		7	55	12	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.16	0.84	1.00		0.05	0.95	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	307	1578	1615		86	1811	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.29	0.29	0.01		0.28	0.28	0.10		0.23	0.12	0.12		0.04	0.04	0.04	
Crit Moves:	****					****			****					****		
Green Time:	33.9	33.9	33.9		32.9	32.9	32.9		27.2	27.2	27.2		5.0	5.0	5.0	
Volume/Cap:	0.94	0.94	0.05		0.94	0.94	0.34		0.94	0.48	0.48		0.88	0.88	0.88	
Uniform Del:	37.0	37.0	26.7		37.6	37.6	30.1		40.6	35.4	35.4		52.2	52.2	52.2	
IncremntDel:	23.3	23.3	0.0		23.7	23.7	0.4		27.8	0.8	0.8		60.2	60.2	60.2	
InitQueuDel:	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:	60.3	60.3	26.7		61.3	61.3	30.5		68.4	36.2	36.2		112.4	112	112.4	
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:	60.3	60.3	26.7		61.3	61.3	30.5		68.4	36.2	36.2		112.4	112	112.4	
LOS by Move:	E	E	C		E	E	C		E	D	D		F	F	F	
HCM2kAvgQ:	20	20	1		22	22	4		18	6	6		5	5	5	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.505
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.3
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0 0	0	0	3	0 1	2	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	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	1.00	1.00	1.00	1.00
Initial Bse:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	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	0	0	0	0
Initial Fut:	0	708	0	0	2307	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.14	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****											
Green Time:	0.0	88.0	0.0	0.0	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.16	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	0.8	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.8	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.8	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2015 AM
Command:	Near Term I No Project AM "B"
Volume:	Near Term I No Project AM "B"
Geometry:	Near Term I No Project AM "B"
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term I No Project AM "B"
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term I No Project AM "B"

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	C	22.3	0.768	C	22.5	0.804	+ 0.145 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.0	0.638	C	33.3	0.997	+17.311 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	21.3	0.861	C	23.1	0.883	+ 1.775 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	27.4	0.822	C	24.4	0.843	-2.972 D/V
# 5 Bohannon/ Florence & Marsh Rd.	B	19.5	0.565	B	15.0	0.584	-4.586 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.5	0.586	B	16.2	0.646	-0.306 D/V
# 7 Middlefield at Marsh (Town of	C	26.2	0.610	C	24.8	0.691	-1.420 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.5	0.610	C	34.4	0.708	+ 6.851 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.9	0.559	C	21.1	0.577	-1.786 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.0	0.517	C	20.7	0.581	+ 2.709 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.0	0.464	B	14.1	0.512	-0.910 D/V
# 12 Newbridge St. & Willow Rd.	D	48.5	0.903	D	49.0	0.929	+ 0.500 D/V
# 13 Bay Rd. & Willow Rd.	C	20.0	0.694	B	20.0	0.744	-0.069 D/V
# 14 Durham St. & Willow Rd.	C	24.8	0.714	B	12.5	0.740	-12.311 D/V
# 15 Coleman Ave. & Willow Rd.	B	13.0	0.715	B	14.1	0.787	+ 1.087 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.0	0.663	B	14.9	0.759	+ 0.877 D/V
# 17 Middlefield Rd. & Willow Rd.	F	101.2	0.947	F	89.2	1.088	-11.990 D/V
# 18 Bayfront Exp. & University Ave	C	29.2	0.805	C	30.2	0.814	+ 0.980 D/V
# 19 O'Brien Dr. & University Ave.	A	6.4	0.548	A	6.3	0.554	-0.060 D/V
# 20 University & Kavanaugh	B	13.8	0.563	B	13.7	0.565	-0.157 D/V
# 21 University & Bay	C	27.7	0.661	C	27.4	0.662	-0.274 D/V
# 22 University & Runnymede	C	20.3	0.627	C	20.2	0.628	-0.142 D/V
# 23 University & Bell	A	7.6	0.246	A	7.4	0.264	-0.231 D/V
# 24 University & Donohoe	D	39.3	0.925	D	39.8	0.933	+ 0.560 D/V
# 25 NB 101 & Donohoe St	B	13.6	0.372	B	13.7	0.383	+ 0.129 D/V

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Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	17.1	0.642	B	17.3	0.645	+ 0.176 D/V
# 27 University Ave. & Woodland	D	38.7	0.891	D	38.9	0.894	+ 0.182 D/V
# 28 Middlefield Rd. & University A	C	34.3	0.734	D	38.1	0.796	+ 3.762 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.3	0.584	B	17.1	0.681	+ 9.818 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.0	0.593	B	19.2	0.617	+ 2.144 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.0	0.606	C	22.8	0.639	+ 0.800 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.5	0.470	C	25.4	0.478	-3.077 D/V
# 33 Middlefield Rd and Lytton Ave	C	34.7	0.714	D	38.9	0.799	+ 4.223 D/V
# 34 Bayfront Expy. and Facebook We	A	1.2	0.501	A	1.3	0.545	+ 0.101 D/V

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

****
Intersection #1 Bayfront Exp. & Marsh Rd.
****

Cycle (sec): 130 Critical Vol./Cap.(X): 0.804
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 84 Level Of Service: C

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	5	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	2389	197	24		7	60	154		189	21	1037		7	20	5	
Added Vol:	170	0	0		0	0	0		0	0	255		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2559	197	24		7	60	154		189	21	1292		7	20	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:	2559	197	24		7	60	154		189	21	1292		7	20	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2559	197	24		7	60	154		189	21	1292		7	20	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	
FinalVolume:	2559	197	24		7	60	154		189	21	1292		7	20	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.50	0.12	0.12		0.02	0.02	0.10		0.12	0.12	0.46		0.02	0.02	0.02	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.61	0.61	0.61		0.12	0.12	0.12		0.14	0.14	0.75		0.04	0.04	0.04	
Volume/Cap:	0.82	0.20	0.20		0.16	0.16	0.82		0.82	0.82	0.62		0.47	0.47	0.47	
Uniform Del:	20.0	11.4	11.4		51.5	51.5	55.9		54.0	54.0	7.5		61.2	61.2	61.2	
IncremntDel:	1.8	0.1	0.1		0.2	0.2	23.9		18.5	18.5	0.6		4.9	4.9	4.9	
InitQueuDel:	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:	21.8	11.5	11.5		51.7	51.7	79.8		72.5	72.5	8.1		66.1	66.1	66.1	
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:	21.8	11.5	11.5		51.7	51.7	79.8		72.5	72.5	8.1		66.1	66.1	66.1	
LOS by Move:	C	B	B		D	D	E		E	E	A		E	E	E	
HCM2kAvgQ:	29	4	4		1	1	8		10	10	14		2	2	2	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.997
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 33.3
Optimal Cycle: 175 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	1 1	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	851	0	301		0	0	0		0	1184	526		0	854	1767	
Added Vol:	2	0	394		0	0	0		2	406	0		0	141	29	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	853	0	695		0	0	0		2	1590	526		0	995	1796	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	853	0	695		0	0	0		2	1590	0		0	995	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	853	0	695		0	0	0		2	1590	0		0	995	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	853	0	695		0	0	0		2	1590	0		0	995	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3374	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.25	0.00	0.44		0.00	0.00	0.00		0.47	0.47	0.00		0.00	0.28	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.44	0.00	0.44		0.00	0.00	0.00		0.47	0.47	0.00		0.00	0.47	0.00	
Volume/Cap:	0.56	0.00	1.00		0.00	0.00	0.00		1.00	1.00	0.00		0.00	0.60	0.00	
Uniform Del:	16.7	0.0	22.3		0.0	0.0	0.0		21.1	21.1	0.0		0.0	15.5	0.0	
IncremntDel:	0.5	0.0	33.3		0.0	0.0	0.0		21.8	21.8	0.0		0.0	0.6	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	17.2	0.0	55.7		0.0	0.0	0.0		42.9	42.9	0.0		0.0	16.1	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:	17.2	0.0	55.7		0.0	0.0	0.0		42.9	42.9	0.0		0.0	16.1	0.0	
LOS by Move:	B	A	E		A	A	A		D	D	A		A	B	A	
HCM2kAvgQ:	9	0	25		0	0	0		29	29	0		0	10	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.883
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1
Optimal Cycle: 81 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0 0	0	0	2	0 0	0	1	0	0 2	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	86	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		914	0	580		0	867	606		0	1483	89	
Added Vol:	0	0	0		221	0	7		0	189	0		0	55	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1135	0	587		0	1056	606		0	1538	89	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1135	0	587		0	1056	0		0	1538	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1135	0	587		0	1056	0		0	1538	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1135	0	587		0	1056	0		0	1538	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.33	0.00	0.37		0.00	0.30	0.00		0.00	0.43	0.00	
Crit Moves:							****							****		
Green/Cycle:	0.00	0.00	0.00		0.42	0.00	0.42		0.00	0.49	0.00		0.00	0.49	0.00	
Volume/Cap:	0.00	0.00	0.00		0.79	0.00	0.88		0.00	0.61	0.00		0.00	0.88	0.00	
Uniform Del:	0.0	0.0	0.0		20.1	0.0	21.4		0.0	14.7	0.0		0.0	18.2	0.0	
IncremntDel:	0.0	0.0	0.0		3.0	0.0	13.3		0.0	0.6	0.0		0.0	5.7	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		23.1	0.0	34.7		0.0	15.3	0.0		0.0	24.0	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	0.0	0.0		23.1	0.0	34.7		0.0	15.3	0.0		0.0	24.0	0.0	
LOS by Move:	A	A	A		C	A	C		A	B	A		A	C	A	
HCM2kAvgQ:	0	0	0		14	0	17		0	10	0		0	22	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.843
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 24.4
Optimal Cycle: 84 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	28	3	51		231	19	3		16	1176	30		279	1473	291	
Added Vol:	0	0	0		0	0	0		0	189	0		0	62	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	28	3	51		231	19	3		16	1365	30		279	1535	291	
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	3	51		231	19	3		16	1365	30		279	1535	291	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	28	3	51		231	19	3		16	1365	30		279	1535	291	
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:	28	3	51		231	19	3		16	1365	30		279	1535	291	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.93	0.07	1.00		1.00	2.94	0.06		2.00	1.68	0.32	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4958	110		3432	2902	551	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.14	0.14	0.00		0.01	0.28	0.28		0.08	0.53	0.53	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.05	0.05	0.05		0.15	0.15	0.15		0.05	0.48	0.48		0.14	0.57	0.57	
Volume/Cap:	0.35	0.35	0.37		0.92	0.92	0.01		0.18	0.57	0.57		0.57	0.92	0.92	
Uniform Del:	36.7	36.7	36.8		33.5	33.5	28.8		36.4	14.9	14.9		32.1	15.5	15.5	
IncremntDel:	2.4	2.4	1.6		34.8	34.8	0.0		1.0	0.3	0.3		1.6	7.8	7.8	
InitQueuDel:	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:	39.1	39.1	38.4		68.3	68.3	28.8		37.4	15.2	15.2		33.7	23.3	23.3	
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:	39.1	39.1	38.4		68.3	68.3	28.8		37.4	15.2	15.2		33.7	23.3	23.3	
LOS by Move:	D	D	D		E	E	C		D	B	B		C	C	C	
HCM2kAvgQ:	1	1	1		10	10	0		1	9	9		4	26	26	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.584
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0
Optimal Cycle: 26 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	16	9	8		406	31	95		122	828	60		48	1187	336	
Added Vol:	0	0	0		0	0	0		0	189	0		0	62	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	16	9	8		406	31	95		122	1017	60		48	1249	336	
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	9	8		406	31	95		122	1017	60		48	1249	336	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	16	9	8		406	31	95		122	1017	60		48	1249	336	
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:	16	9	8		406	31	95		122	1017	60		48	1249	336	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	916	814		3306	254	1583		1769	3313	197		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.12	0.12	0.06		0.07	0.31	0.31		0.03	0.35	0.21	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.20	0.20	0.20		0.11	0.60	0.60		0.10	0.58	0.58	
Volume/Cap:	0.18	0.20	0.20		0.60	0.60	0.29		0.60	0.51	0.51		0.28	0.60	0.36	
Uniform Del:	36.4	36.5	36.5		29.0	29.0	27.0		33.7	9.3	9.3		33.5	10.7	8.8	
IncremntDel:	1.0	1.2	1.2		1.5	1.5	0.5		5.2	0.2	0.2		0.9	0.5	0.2	
InitQueuDel:	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:	37.4	37.6	37.6		30.4	30.4	27.6		38.9	9.5	9.5		34.3	11.2	9.1	
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:	37.4	37.6	37.6		30.4	30.4	27.6		38.9	9.5	9.5		34.3	11.2	9.1	
LOS by Move:	D	D	D		C	C	C		D	A	A		C	B	A	
HCM2kAvgQ:	1	1	1		6	6	2		4	8	8		1	11	5	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.646
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 30 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1! 0	0	0	0	1! 0	0	0	1	0	1	0	1	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177	112	28	5	2	665	66	264	982	22				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	73	3	184	116	29	5	2	692	69	275	1021	23				
Added Vol:	1	0	0	0	0	0	0	189	2	0	62	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	74	3	184	116	29	5	2	881	71	275	1083	23				
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:	74	3	184	116	29	5	2	881	71	275	1083	23				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	74	3	184	116	29	5	2	881	71	275	1083	23				
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:	74	3	184	116	29	5	2	881	71	275	1083	23				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.79	0.79	0.79	0.56	0.56	0.56	0.88	0.88	0.88	0.93	0.93	0.93				
Lanes:	0.28	0.01	0.71	0.78	0.19	0.03	0.01	1.84	0.15	1.00	1.96	0.04				
Final Sat.:	427	18	1065	816	204	36	7	3087	248	1769	3454	73				
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17	0.14	0.14	0.14	0.29	0.29	0.29	0.16	0.31	0.31				
Crit Moves:		****						****		****						
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.44	0.44	0.44	0.24	0.68	0.68				
Volume/Cap:	0.65	0.65	0.65	0.54	0.54	0.54	0.64	0.64	0.64	0.64	0.46	0.46				
Uniform Del:	26.0	26.0	26.0	25.1	25.1	25.1	17.4	17.4	17.4	27.3	5.9	5.9				
IncremntDel:	3.7	3.7	3.7	2.0	2.0	2.0	1.0	1.0	1.0	3.4	0.1	0.1				
InitQueuDel:	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:	29.7	29.7	29.7	27.1	27.1	27.1	18.4	18.4	18.4	30.7	6.0	6.0				
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:	29.7	29.7	29.7	27.1	27.1	27.1	18.4	18.4	18.4	30.7	6.0	6.0				
LOS by Move:	C	C	C	C	C	C	B	B	B	C	A	A				
HCM2kAvgQ:	7	7	7	4	4	4	10	10	10	7	7	7				

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 24.8
Optimal Cycle: 54 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397	342	367	0	0	0	0	0	463	0	169			
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	0	173	413	356	382	0	0	0	0	482	0	176				
Added Vol:	0	7	90	101	40	0	0	0	0	25	0	39				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	180	503	457	422	0	0	0	0	507	0	215				
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	180	503	457	422	0	0	0	0	507	0	215				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	180	503	457	422	0	0	0	0	507	0	215				
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:	0	180	503	457	422	0	0	0	0	507	0	215				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85				
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00				
Final Sat.:	0	1900	1615	1805	1900	0	0	0	0	1805	0	1615				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.09	0.31	0.25	0.22	0.00	0.00	0.00	0.00	0.28	0.00	0.13				
Crit Moves:		****		****						****						
Green/Cycle:	0.00	0.14	0.54	0.37	0.50	0.00	0.00	0.00	0.00	0.41	0.00	0.77				
Volume/Cap:	0.00	0.69	0.57	0.69	0.44	0.00	0.00	0.00	0.00	0.69	0.00	0.17				
Uniform Del:	0.0	45.3	16.7	29.6	17.5	0.0	0.0	0.0	0.0	27.0	0.0	3.3				
IncremntDel:	0.0	7.7	0.9	3.1	0.3	0.0	0.0	0.0	0.0	2.8	0.0	0.1				
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00				
Delay/Veh:	0.0	53.0	17.6	32.7	17.8	0.0	0.0	0.0	0.0	29.8	0.0	3.4				
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:	0.0	53.0	17.6	32.7	17.8	0.0	0.0	0.0	0.0	29.8	0.0	3.4				
LOS by Move:	A	D	B	C	B	A	A	A	A	C	A	A				
HCM2kAvgQ:	0	7	12	14	9	0	0	0	0	15	0	2				

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.708
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 34.4
Optimal Cycle: 64 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	2 0	3 0	1	2 0	3 0	1	1 1	1 0	2	1 0	2 0	1
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM												
Base Vol:	1034	2108	6	13	677	92	84	34	379	3	6	5
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	1075	2192	6	14	704	96	87	35	394	3	6	5
Added Vol:	22	195	14	254	42	0	0	483	2	13	16	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1097	2387	20	268	746	96	87	518	396	16	22	12
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:	1097	2387	20	268	746	96	87	518	396	16	22	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1097	2387	20	268	746	96	87	518	396	16	22	12
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:	1097	2387	20	268	746	96	87	518	396	16	22	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.92	0.92	0.88	0.93	0.93	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00
Final Sat.:	3432	5846	1583	3432	5846	1583	1757	3513	3343	1769	3538	1583
Capacity Analysis Module:												
Vol/Sat:	0.32	0.41	0.01	0.08	0.13	0.06	0.05	0.15	0.12	0.01	0.01	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.48	0.56	0.60	0.11	0.19	0.19	0.20	0.20	0.20	0.04	0.04	0.04
Volume/Cap:	0.67	0.73	0.02	0.73	0.67	0.32	0.25	0.73	0.59	0.24	0.16	0.20
Uniform Del:	26.2	21.3	10.6	56.2	48.9	45.4	43.5	48.5	46.9	60.6	60.5	60.6
IncremntDel:	1.1	0.9	0.0	7.2	1.6	0.6	0.1	3.3	1.3	1.8	0.6	1.6
InitQueuDel:	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:	27.3	22.1	10.6	63.5	50.5	46.0	43.6	51.8	48.3	62.4	61.0	62.2
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:	27.3	22.1	10.6	63.5	50.5	46.0	43.6	51.8	48.3	62.4	61.0	62.2
LOS by Move:	C	C	B	E	D	D	D	D	D	E	E	E
HCM2kAvgQ:	18	26	0	7	11	3	3	12	9	1	1	1

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.577
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.1
Optimal Cycle: 45 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am												
Base Vol:	18	13	26	71	19	72	115	415	52	56	1037	74
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	19	14	27	74	20	75	120	432	54	58	1078	77
Added Vol:	0	0	0	0	0	8	2	484	0	0	38	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	14	27	74	20	83	122	916	54	58	1116	77
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:	19	14	27	74	20	83	122	916	54	58	1116	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	14	27	74	20	83	122	916	54	58	1116	77
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:	19	14	27	74	20	83	122	916	54	58	1116	77
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.83	0.83	0.78	0.78	0.78	0.93	0.92	0.92	0.93	0.92	0.92
Lanes:	0.31	0.23	0.46	0.42	0.11	0.47	1.00	1.89	0.11	1.00	1.87	0.13
Final Sat.:	499	360	721	621	166	697	1769	3314	196	1769	3277	226
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.12	0.12	0.12	0.07	0.28	0.28	0.03	0.34	0.34
Crit Moves:					****		****				****	
Green/Cycle:	0.21	0.21	0.21	0.21	0.21	0.21	0.12	0.62	0.62	0.09	0.59	0.59
Volume/Cap:	0.18	0.18	0.18	0.58	0.58	0.58	0.58	0.44	0.44	0.38	0.58	0.58
Uniform Del:	42.6	42.6	42.6	46.5	46.5	46.5	54.2	12.8	12.8	56.1	16.5	16.5
IncremntDel:	0.3	0.3	0.3	2.7	2.7	2.7	3.9	0.1	0.1	1.6	0.4	0.4
InitQueuDel:	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:	42.9	42.9	42.9	49.2	49.2	49.2	58.1	12.9	12.9	57.6	17.0	17.0
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:	42.9	42.9	42.9	49.2	49.2	49.2	58.1	12.9	12.9	57.6	17.0	17.0
LOS by Move:	D	D	D	D	D	D	E	B	B	E	B	B
HCM2kAvgQ:	2	2	2	7	7	7	5	10	10	3	15	15

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.581
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 46 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	1	1	0
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																		
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		1	0	193		85	678	0		0	1062	15	
Added Vol:	0	0	0		67	0	6		7	420	0		0	41	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		68	0	199		92	1098	0		0	1103	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:	0	0	0		68	0	199		92	1098	0		0	1103	20	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		68	0	199		92	1098	0		0	1103	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	
FinalVolume:	0	0	0		68	0	199		92	1098	0		0	1103	20	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.87	1.00	0.87		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.25	0.00	0.75		1.00	2.00	0.00		0.00	1.97	0.03	
Final Sat.:	0	0	0		420	0	1232		1769	3538	0		0	3466	61	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.16	0.00	0.16		0.05	0.31	0.00		0.00	0.32	0.32	
Crit Moves:							****		****					****		
Green/Cycle:	0.00	0.00	0.00		0.28	0.00	0.28		0.09	0.64	0.00		0.00	0.55	0.55	
Volume/Cap:	0.00	0.00	0.00		0.58	0.00	0.58		0.58	0.49	0.00		0.00	0.58	0.58	
Uniform Del:	0.0	0.0	0.0		40.4	0.0	40.4		56.8	12.4	0.0		0.0	19.5	19.5	
IncremntDel:	0.0	0.0	0.0		1.9	0.0	1.9		5.4	0.2	0.0		0.0	0.5	0.5	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		42.3	0.0	42.3		62.2	12.6	0.0		0.0	20.0	20.0	
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	0.0	0.0		42.3	0.0	42.3		62.2	12.6	0.0		0.0	20.0	20.0	
LOS by Move:	A	A	A		D	A	D		E	B	A		A	B	B	
HCM2kAvgQ:	0	0	0		10	0	10		4	12	0		0	16	16	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.512
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 40 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1	0	1!	0	0	0	0	0	0	0	2	0	1	1	0	2	0	0
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																		
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	135	0	70		0	0	0		0	725	260		106	1218	0	
Added Vol:	10	0	0		0	0	0		0	427	2		0	46	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	145	0	70		0	0	0		0	1152	262		106	1264	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	70		0	0	0		0	1152	262		106	1264	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	145	0	70		0	0	0		0	1152	262		106	1264	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:	145	0	70		0	0	0		0	1152	262		106	1264	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.51	0.00	0.49		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2586	0	839		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.00	0.08		0.00	0.00	0.00		0.00	0.33	0.17		0.06	0.36	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.16	0.00	0.16		0.00	0.00	0.00		0.00	0.64	0.64		0.12	0.75	0.00	
Volume/Cap:	0.35	0.00	0.51		0.00	0.00	0.00		0.00	0.51	0.26		0.51	0.47	0.00	
Uniform Del:	48.3	0.0	49.7		0.0	0.0	0.0		0.0	12.8	10.3		53.9	6.2	0.0	
IncremntDel:	0.3	0.0	1.1		0.0	0.0	0.0		0.0	0.2	0.1		2.2	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	48.7	0.0	50.8		0.0	0.0	0.0		0.0	13.0	10.5		56.1	6.3	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:	48.7	0.0	50.8		0.0	0.0	0.0		0.0	13.0	10.5		56.1	6.3	0.0	
LOS by Move:	D	A	D		A	A	A		A	B	B		E	A	A	
HCM2kAvgQ:	4	0	6		0	0	0		0	13	4		5	10	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 49.0
Optimal Cycle: 150 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	364	115	37		29	185	399		154	859	161		29	1270	4	
Added Vol:	0	0	0		0	0	3		10	429	0		0	56	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	364	115	37		29	185	402		164	1288	161		29	1326	4	
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:	364	115	37		29	185	402		164	1288	161		29	1326	4	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	364	115	37		29	185	402		164	1288	161		29	1326	4	
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:	364	115	37		29	185	402		164	1288	161		29	1326	4	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.88	0.88		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.67	0.33		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4441	556		1769	3527	11	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.06	0.02		0.02	0.10	0.25		0.09	0.29	0.29		0.02	0.38	0.38	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.11	0.11	0.11		0.27	0.27	0.27		0.10	0.45	0.45		0.06	0.40	0.40	
Volume/Cap:	0.93	0.54	0.21		0.06	0.36	0.93		0.93	0.65	0.65		0.28	0.93	0.93	
Uniform Del:	57.1	54.4	52.2		34.9	38.1	46.0		58.1	28.2	28.2		58.5	36.9	36.9	
IncremntDel:	28.3	2.9	0.6		0.1	0.4	26.4		47.5	0.7	0.7		1.5	10.9	10.9	
InitQueuDel:	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:	85.3	57.2	52.8		34.9	38.5	72.4		105.6	28.9	28.9		60.0	47.8	47.8	
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:	85.3	57.2	52.8		34.9	38.5	72.4		105.6	28.9	28.9		60.0	47.8	47.8	
LOS by Move:	F	E	D		C	D	E		F	C	C		E	D	D	
HCM2kAvgQ:	11	5	1		1	6	20		10	17	17		1	31	31	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.744
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 63 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		375	0	78		67	1433	0		0	1159	332	
Added Vol:	0	0	0		2	0	0		0	154	0		0	45	3	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		377	0	78		67	1587	0		0	1204	335	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		377	0	78		67	1587	0		0	1204	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		377	0	78		67	1587	0		0	1204	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		377	0	78		67	1587	0		0	1204	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.21	0.00	0.05		0.04	0.45	0.00		0.00	0.34	0.00	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.29	0.00	0.29		0.08	0.60	0.00		0.00	0.53	0.00	
Volume/Cap:	0.00	0.00	0.00		0.74	0.00	0.17		0.49	0.74	0.00		0.00	0.65	0.00	
Uniform Del:	0.0	0.0	0.0		32.3	0.0	26.7		44.2	14.3	0.0		0.0	17.0	0.0	
IncremntDel:	0.0	0.0	0.0		5.9	0.0	0.2		2.7	1.5	0.0		0.0	0.8	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		38.2	0.0	26.9		47.0	15.7	0.0		0.0	17.8	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:	0.0	0.0	0.0		38.2	0.0	26.9		47.0	15.7	0.0		0.0	17.8	0.0	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		12	0	2		3	19	0		0	14	0	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.5
Optimal Cycle: 51 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1	0 0	1	0	0	1	0 0	1	1	0 1	1	0	1	0 0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	64	17	130		40	2	2		12	1041	9		43	884	148	
Added Vol:	0	0	0		0	0	0		0	154	0		0	45	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	64	17	130		40	2	2		12	1195	9		43	929	148	
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:	64	17	130		40	2	2		12	1195	9		43	929	148	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	64	17	130		40	2	2		12	1195	9		43	929	148	
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:	64	17	130		40	2	2		12	1195	9		43	929	148	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.50	0.50	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.98	0.02		1.00	0.86	0.14	
Final Sat.:	1367	183	1431		900	47	1583		1769	3507	27		1769	1573	250	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.09	0.09		0.04	0.04	0.00		0.01	0.34	0.34		0.02	0.59	0.59	
Crit Moves:		****							****					****		
Green/Cycle:	0.12	0.12	0.12		0.12	0.12	0.12		0.04	0.73	0.73		0.09	0.77	0.77	
Volume/Cap:	0.40	0.77	0.77		0.37	0.37	0.01		0.18	0.47	0.47		0.28	0.77	0.77	
Uniform Del:	40.8	42.7	42.7		40.6	40.6	38.9		46.4	5.7	5.7		42.9	6.4	6.4	
IncremntDel:	1.6	16.8	16.8		2.1	2.1	0.0		1.2	0.1	0.1		1.0	2.6	2.6	
InitQueuDel:	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:	42.4	59.5	59.5		42.7	42.7	38.9		47.6	5.8	5.8		43.9	9.0	9.0	
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:	42.4	59.5	59.5		42.7	42.7	38.9		47.6	5.8	5.8		43.9	9.0	9.0	
LOS by Move:	D	E	E		D	D	D		D	A	A		D	A	A	
HCM2kAvgQ:	2	6	6		2	2	0		1	8	8		1	20	20	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.787
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 59 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0	0 1!	0	0	0	0 1!	0	0	1	0 0	1	0	1	0 0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	62	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	3	3	8		148	6	50		18	928	5		6	888	64	
Added Vol:	0	0	0		0	0	0		0	154	0		0	45	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	3	8		148	6	50		18	1082	5		6	933	64	
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:	3	3	8		148	6	50		18	1082	5		6	933	64	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	8		148	6	50		18	1082	5		6	933	64	
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:	3	3	8		148	6	50		18	1082	5		6	933	64	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.18	0.98	0.98		0.14	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.94	0.06	
Final Sat.:	352	352	939		999	42	338		348	1851	9		268	1724	119	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.15	0.15	0.15		0.05	0.58	0.58		0.02	0.54	0.54	
Crit Moves:						****				****						
Green/Cycle:	0.19	0.19	0.19		0.19	0.19	0.19		0.74	0.74	0.74		0.74	0.74	0.74	
Volume/Cap:	0.05	0.05	0.05		0.79	0.79	0.79		0.07	0.79	0.79		0.03	0.73	0.73	
Uniform Del:	33.3	33.3	33.3		38.7	38.7	38.7		3.5	8.0	8.0		3.4	7.2	7.2	
IncremntDel:	0.1	0.1	0.1		14.8	14.8	14.8		0.1	3.1	3.1		0.1	2.0	2.0	
InitQueuDel:	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:	33.3	33.3	33.3		53.5	53.5	53.5		3.6	11.1	11.1		3.5	9.3	9.3	
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:	33.3	33.3	33.3		53.5	53.5	53.5		3.6	11.1	11.1		3.5	9.3	9.3	
LOS by Move:	C	C	C		D	D	D		A	B	B		A	A	A	
HCM2kAvgQ:	0	0	0		8	8	8		0	22	22		0	18	18	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.759
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 54 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1	0 0	1	0	1	0 0	1	0	1	0 0	1	0	1	0 0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	72		41	869	5	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	105	88	127		32	43	7		4	826	75		43	904	5	
Added Vol:	11	0	19		0	0	0		0	135	8		4	41	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	88	146		32	43	7		4	961	83		47	945	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:	116	88	146		32	43	7		4	961	83		47	945	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	88	146		32	43	7		4	961	83		47	945	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	
FinalVolume:	116	88	146		32	43	7		4	961	83		47	945	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.89	0.89		0.31	0.96	0.96		0.21	0.97	0.97		0.16	0.98	0.98	
Lanes:	1.00	0.38	0.62		1.00	0.85	0.15		1.00	0.92	0.08		1.00	0.99	0.01	
Final Sat.:	1354	637	1052		590	1555	266		393	1694	146		313	1850	10	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.14	0.14		0.05	0.03	0.03		0.01	0.57	0.57		0.15	0.51	0.51	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.47	0.76	0.76		0.30	0.15	0.15		0.01	0.76	0.76		0.20	0.68	0.68	
Uniform Del:	36.5	38.8	38.8		35.3	34.3	34.3		3.2	7.4	7.4		3.8	6.5	6.5	
IncremntDel:	1.4	10.4	10.4		1.6	0.2	0.2		0.0	2.5	2.5		0.4	1.4	1.4	
InitQueuDel:	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:	37.9	49.2	49.2		36.9	34.5	34.5		3.2	9.9	9.9		4.2	7.9	7.9	
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:	37.9	49.2	49.2		36.9	34.5	34.5		3.2	9.9	9.9		4.2	7.9	7.9	
LOS by Move:	D	D	D		D	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	4	9	9		1	1	1		0	20	20		1	16	16	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.088
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 89.2
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1	0 2	0	1	1	1 0	1	0	1	0 1	0	1	1	1 0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	70	356	255		424	335	10		17	173	122		437	67	514	
Added Vol:	15	9	86		48	7	0		0	8	10		16	18	19	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	85	365	341		472	342	10		17	181	132		453	85	533	
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	365	341		472	342	10		17	181	132		453	85	533	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	85	365	338		472	342	10		17	181	132		453	85	533	
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:	85	365	338		472	342	10		17	181	132		453	85	533	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.72	1.24	0.04		1.00	1.00	1.00		1.69	0.31	1.00	
Final Sat.:	1769	3538	791		2949	2134	65		1769	1862	1583		3012	563	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.10	0.43		0.16	0.16	0.16		0.01	0.10	0.08		0.15	0.15	0.34	
Crit Moves:			****		****					****					****	
Green/Cycle:	0.39	0.39	0.39		0.15	0.15	0.15		0.09	0.09	0.09		0.31	0.31	0.31	
Volume/Cap:	0.12	0.26	1.09		1.09	1.09	1.09		0.11	1.09	0.93		0.49	0.49	1.09	
Uniform Del:	25.2	26.7	39.5		55.4	55.4	55.4		54.4	59.2	58.8		36.5	36.5	44.9	
IncremntDel:	0.1	0.1	76.5		59.1	59.1	59.1		0.3	95.2	55.6		0.3	0.3	66.5	
InitQueuDel:	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	26.8	116.0		114.5	115	114.5		54.7	154	114.4		36.8	36.8	111.4	
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:	25.3	26.8	116.0		114.5	115	114.5		54.7	154	114.4		36.8	36.8	111.4	
LOS by Move:	C	C	F		F	F	F		D	F	F		D	D	F	
HCM2kAvgQ:	2	5	21		18	18	18		1	12	8		9	9	31	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.814
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 30.2
Optimal Cycle: 84 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	3	0	1	2	0	0	0	3	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0	0	884	188	179	0	429	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	1603	2997	0	0	919	196	186	0	446	0	0	0				
Added Vol:	10	335	0	0	53	4	63	0	2	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	1613	3332	0	0	972	200	249	0	448	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:	1613	3332	0	0	972	200	249	0	448	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1613	3332	0	0	972	200	249	0	448	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				
FinalVolume:	1613	3332	0	0	972	200	249	0	448	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.47	0.66	0.00	0.00	0.19	0.13	0.07	0.00	0.11	0.00	0.00	0.00				
Crit Moves:		****		****					****							
Green/Cycle:	0.57	0.81	0.00	0.00	0.23	0.23	0.13	0.00	0.13	0.00	0.00	0.00				
Volume/Cap:	0.82	0.81	0.00	0.00	0.82	0.54	0.55	0.00	0.81	0.00	0.00	0.00				
Uniform Del:	27.6	8.8	0.0	0.0	58.2	53.8	65.0	0.0	67.5	0.0	0.0	0.0				
IncremntDel:	2.9	1.3	0.0	0.0	4.7	1.6	1.5	0.0	9.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	30.5	10.1	0.0	0.0	62.9	55.5	66.5	0.0	76.6	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:	30.5	10.1	0.0	0.0	62.9	55.5	66.5	0.0	76.6	0.0	0.0	0.0				
LOS by Move:	C	B	A	A	E	E	E	A	E	A	A	A				
HCM2kAvgQ:	34	35	0	0	18	9	6	0	10	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.554
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.3
Optimal Cycle: 41 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	0	5	5	5	0	0	5	5			
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0	22	0	22	68	526	0	0	1341	46				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	0	0	0	23	0	23	71	547	0	0	1395	48				
Added Vol:	0	0	0	2	0	0	0	63	0	0	4	10				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	25	0	23	71	610	0	0	1399	58				
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	0	0	25	0	23	71	610	0	0	1399	58				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	25	0	23	71	610	0	0	1399	58				
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:	0	0	0	25	0	23	71	610	0	0	1399	58				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.89	1.00	0.89	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.52	0.00	0.48	1.00	2.00	0.00	0.00	1.92	0.08				
Final Sat.:	0	0	0	884	0	813	1769	3538	0	0	3377	140				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.03	0.04	0.17	0.00	0.00	0.41	0.41				
Crit Moves:				****			****				****					
Green/Cycle:	0.00	0.00	0.00	0.06	0.00	0.06	0.07	0.81	0.00	0.00	0.74	0.74				
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.48	0.56	0.21	0.00	0.00	0.56	0.56				
Uniform Del:	0.0	0.0	0.0	38.7	0.0	38.7	38.2	1.8	0.0	0.0	4.9	4.9				
IncremntDel:	0.0	0.0	0.0	3.6	0.0	3.6	5.5	0.0	0.0	0.0	0.3	0.3				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	42.3	0.0	42.3	43.7	1.9	0.0	0.0	5.2	5.2				
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:	0.0	0.0	0.0	42.3	0.0	42.3	43.7	1.9	0.0	0.0	5.2	5.2				
LOS by Move:	A	A	A	D	A	D	D	A	A	A	A	A				
HCM2kAvgQ:	0	0	0	2	0	2	3	2	0	0	9	9				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.565
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	33	38	21		8	22	46		42	605	45		26	1354	26	
Added Vol:	0	0	0		0	0	0		0	63	0		0	4	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	33	38	21		8	22	46		42	668	45		26	1358	26	
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:	33	38	21		8	22	46		42	668	45		26	1358	26	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	33	38	21		8	22	46		42	668	45		26	1358	26	
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:	33	38	21		8	22	46		42	668	45		26	1358	26	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.91	0.91	0.91		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.36	0.42	0.22		0.11	0.29	0.60		1.00	1.87	0.13		1.00	1.96	0.04	
Final Sat.:	651	752	407		190	500	1047		1805	3353	224		1805	3532	68	
Capacity Analysis Module:																		
Vol/Sat:	0.05	0.05	0.05		0.04	0.04	0.04		0.02	0.20	0.20		0.01	0.38	0.38	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.08	0.08		0.08	0.08	0.08		0.05	0.58	0.58		0.15	0.67	0.67	
Volume/Cap:	0.57	0.61	0.61		0.53	0.57	0.57		0.46	0.34	0.34		0.10	0.57	0.57	
Uniform Del:	43.7	44.2	44.2		44.0	44.6	44.6		46.2	11.1	11.1		37.1	8.6	8.6	
IncremntDel:	4.8	7.0	7.0		3.8	5.8	5.8		3.7	0.1	0.1		0.2	0.3	0.3	
InitQueuDel:	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:	48.5	51.2	51.2		47.9	50.4	50.4		49.9	11.2	11.2		37.2	9.0	9.0	
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:	48.5	51.2	51.2		47.9	50.4	50.4		49.9	11.2	11.2		37.2	9.0	9.0	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	A	A	
HCM2kAvgQ:	4	4	4		3	3	3		2	6	6		1	12	12	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.662
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	112	234	118		52	204	89		147	517	81		101	1160	51	
Added Vol:	0	0	0		0	0	0		0	63	0		0	4	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	112	234	118		52	204	89		147	580	81		101	1164	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:	112	234	118		52	204	89		147	580	81		101	1164	51	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	112	234	118		52	204	89		147	580	81		101	1164	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	
FinalVolume:	112	234	118		52	204	89		147	580	81		101	1164	51	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.75	0.25		1.00	1.92	0.08	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3110	435		1805	3438	151	
Capacity Analysis Module:																		
Vol/Sat:	0.06	0.12	0.07		0.03	0.11	0.06		0.08	0.19	0.19		0.06	0.34	0.34	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.18	0.18		0.07	0.16	0.16		0.12	0.49	0.49		0.15	0.51	0.51	
Volume/Cap:	0.66	0.68	0.40		0.39	0.66	0.34		0.66	0.38	0.38		0.38	0.66	0.66	
Uniform Del:	43.8	38.1	36.1		44.2	39.3	37.2		41.9	16.1	16.1		38.6	18.1	18.1	
IncremntDel:	9.4	5.3	0.9		1.9	5.3	0.8		7.3	0.1	0.1		0.9	0.9	0.9	
InitQueuDel:	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:	53.1	43.4	37.0		46.0	44.6	38.0		49.2	16.3	16.3		39.5	19.0	19.0	
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:	53.1	43.4	37.0		46.0	44.6	38.0		49.2	16.3	16.3		39.5	19.0	19.0	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	B	B	
HCM2kAvgQ:	5	8	4		2	7	3		6	7	7		3	15	15	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.628
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	47	105	12	16	59	56	18	626	48	88	1246	61
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	49	109	12	17	61	58	19	651	50	92	1296	63
Added Vol:	0	0	0	0	0	0	0	63	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	109	12	17	61	58	19	714	50	92	1300	63
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	109	12	17	61	58	19	714	50	92	1300	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	109	12	17	61	58	19	714	50	92	1300	63
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:	49	109	12	17	61	58	19	714	50	92	1300	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.98	0.98	0.98	0.94	0.94	0.94	0.95	0.94	0.94	0.95	0.94	0.94
Lanes:	0.29	0.64	0.07	0.12	0.45	0.43	1.00	1.87	0.13	1.00	1.91	0.09
Final Sat.:	532	1187	136	217	801	761	1805	3340	234	1805	3418	167
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.08	0.08	0.08	0.01	0.21	0.21	0.05	0.38	0.38
Crit Moves:	****				****		****				****	
Green/Cycle:	0.14	0.14	0.14	0.12	0.12	0.12	0.05	0.51	0.51	0.12	0.58	0.58
Volume/Cap:	0.65	0.65	0.65	0.65	0.65	0.65	0.21	0.42	0.42	0.42	0.65	0.65
Uniform Del:	40.7	40.7	40.7	42.2	42.2	42.2	45.6	15.2	15.2	40.7	14.1	14.1
IncremntDel:	5.8	5.8	5.8	7.2	7.2	7.2	1.1	0.2	0.2	1.3	0.8	0.8
InitQueuDel:	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:	46.5	46.5	46.5	49.4	49.4	49.4	46.7	15.4	15.4	42.0	14.8	14.8
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:	46.5	46.5	46.5	49.4	49.4	49.4	46.7	15.4	15.4	42.0	14.8	14.8
LOS by Move:	D	D	D	D	D	D	D	B	B	D	B	B
HCM2kAvgQ:	6	6	6	5	5	5	1	8	8	3	15	15

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap.(X): 0.264
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	14	14	14	14	14	14	73	73	73	73	73	73
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	18	59	9	7	43	11	15	614	24	15	123	24
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	19	61	9	7	45	11	16	639	25	16	128	25
Added Vol:	0	0	0	0	0	0	0	63	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	61	9	7	45	11	16	702	25	16	132	25
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:	19	61	9	7	45	11	16	702	25	16	132	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	61	9	7	45	11	16	702	25	16	132	25
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:	19	61	9	7	45	11	16	702	25	16	132	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.95	0.95	0.95	0.65	0.95	0.95	0.35	0.93	0.93
Lanes:	0.21	0.69	0.10	0.11	0.71	0.18	1.00	1.93	0.07	1.00	1.68	0.32
Final Sat.:	370	1213	185	207	1273	326	1227	3469	123	663	2963	561
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.04	0.04	0.04	0.01	0.20	0.20	0.02	0.04	0.04
Crit Moves:		****						****				
Green/Cycle:	0.19	0.19	0.19	0.19	0.19	0.19	0.77	0.77	0.77	0.77	0.77	0.77
Volume/Cap:	0.27	0.27	0.27	0.19	0.19	0.19	0.02	0.26	0.26	0.03	0.06	0.06
Uniform Del:	32.9	32.9	32.9	32.3	32.3	32.3	2.6	3.2	3.2	2.6	2.7	2.7
IncremntDel:	0.4	0.4	0.4	0.3	0.3	0.3	0.0	0.1	0.1	0.0	0.0	0.0
InitQueuDel:	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:	33.3	33.3	33.3	32.6	32.6	32.6	2.6	3.2	3.2	2.6	2.7	2.7
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:	33.3	33.3	33.3	32.6	32.6	32.6	2.6	3.2	3.2	2.6	2.7	2.7
LOS by Move:	C	C	C	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	2	2	2	0	3	3	0	1	1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.933
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.8
Optimal Cycle: 126 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1 0	1	1	1	0 1	0	1	2	0 2	0	1	1	0 1	1	0
Volume Module:																
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	376	454	341		11	129	398		122	366	294		51	1253	71	
Added Vol:	0	0	35		0	0	0		0	28	0		0	4	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	376	454	376		11	129	398		122	394	294		51	1257	71	
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:	376	454	376		11	129	398		122	394	294		51	1257	71	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	376	454	376		11	129	398		122	394	294		51	1257	71	
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:	376	454	376		11	129	398		122	394	294		51	1257	71	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.25	1.50	1.25		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.89	0.11	
Final Sat.:	2114	2552	2112		1805	1900	1615		3502	3610	1615		1805	3390	191	
Capacity Analysis Module:																
Vol/Sat:	0.18	0.18	0.18		0.01	0.07	0.25		0.03	0.11	0.18		0.03	0.37	0.37	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.19	0.35	0.35		0.10	0.26	0.26		0.05	0.35	0.35		0.10	0.39	0.39	
Volume/Cap:	0.95	0.51	0.51		0.06	0.26	0.95		0.69	0.32	0.53		0.30	0.95	0.95	
Uniform Del:	40.1	25.7	25.7		40.9	29.3	36.3		46.7	24.0	26.1		42.1	29.4	29.4	
IncremntDel:	14.4	0.2	0.2		0.2	0.3	30.7		11.5	0.1	0.9		1.0	13.4	13.4	
InitQueuDel:	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:	54.5	25.9	25.9		41.1	29.6	67.0		58.2	24.1	27.0		43.1	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:	54.5	25.9	25.9		41.1	29.6	67.0		58.2	24.1	27.0		43.1	42.9	42.9	
LOS by Move:	D	C	C		D	C	E		E	C	C		D	D	D	
HCM2kAvgQ:	14	8	8		0	3	17		3	5	8		2	26	26	

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.383
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0 2	1	0	0	0 2	0	0	2	0 0	0	1	0	0 0	0	1
Volume Module:																
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	113	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	870	8		0	469	0		380	0	146		0	0	118	
Added Vol:	0	0	0		0	0	0		35	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	870	8		0	469	0		415	0	146		0	0	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:	0	870	8		0	469	0		415	0	146		0	0	118	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	870	8		0	469	0		415	0	146		0	0	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	
FinalVolume:	0	870	8		0	469	0		415	0	146		0	0	118	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	0.91	0.91		1.00	0.95	1.00		0.92	1.00	0.85		1.00	1.00	0.87	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5133	49		0	3610	0		3502	0	1615		0	0	1644	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.17	0.17		0.00	0.13	0.00		0.12	0.00	0.09		0.00	0.00	0.07	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.00	0.44	0.44		0.00	0.44	0.00		0.31	0.00	0.50		0.00	0.00	0.19	
Volume/Cap:	0.00	0.38	0.38		0.00	0.29	0.00		0.38	0.00	0.18		0.00	0.00	0.38	
Uniform Del:	0.0	12.2	12.2		0.0	11.6	0.0		17.6	0.0	9.1		0.0	0.0	23.2	
IncremntDel:	0.0	0.1	0.1		0.0	0.1	0.0		0.2	0.0	0.1		0.0	0.0	0.8	
InitQueuDel:	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		0.00	1.00	0.00		1.00	0.00	1.00		0.00	0.00	1.00	
Delay/Veh:	0.0	12.3	12.3		0.0	11.7	0.0		17.8	0.0	9.2		0.0	0.0	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:	0.0	12.3	12.3		0.0	11.7	0.0		17.8	0.0	9.2		0.0	0.0	24.0	
LOS by Move:	A	B	B		A	B	A		B	A	A		A	A	C	
HCM2kAvgQ:	0	5	5		0	3	0		4	0	2		0	0	2	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.645
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 84 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	16		16	16	0		0	0	0		29	45	28		61	0
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	317		1	220	0		0	0	0	828	379	798	1527			0
Growth Adj:	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	1.04	1.04	1.04			1.04
Initial Bse:	330		1	229	0		0	0	861	394	830	1588				0
Added Vol:	0		0	0	0		0	0	28	6	2	10				0
PasserByVol:	0		0	0	0		0	0	0	0	0	0				0
Initial Fut:	330		1	229	0		0	0	889	400	832	1598				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:	330		1	229	0		0	0	889	400	832	1598				0
Reduct Vol:	0		0	0	0		0	0	0	0	0	0				0
Reduced Vol:	330		1	229	0		0	0	889	400	832	1598				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:	330		1	229	0		0	0	889	400	832	1598				0
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900	1900	1900	1900			1900
Adjustment:	0.86	0.86		0.86	1.00	1.00		1.00	0.95	0.75	0.92	0.95	1.00			
Lanes:	1.58	0.01		1.41	0.00	0.00		0.00	2.00	2.00	2.00	2.00	0.00			
Final Sat.:	2584		6	2291	0		0	0	3610	2842	3502	3610				0
Capacity Analysis Module:																
Vol/Sat:	0.13	0.17		0.10	0.00	0.00		0.00	0.25	0.14	0.24	0.44	0.00			
Crit Moves:		****										****				
Green/Cycle:	0.19	0.19		0.19	0.00	0.00		0.00	0.34	0.34	0.42	0.76	0.00			
Volume/Cap:	0.68	0.92		0.53	0.00	0.00		0.00	0.72	0.41	0.56	0.58	0.00			
Uniform Del:	32.1	33.8		31.1	0.0	0.0		0.0	24.5	21.5	18.5	4.2	0.0			
IncremntDel:	2.3	18.5		0.5	0.0	0.0		0.0	2.1	0.3	0.5	0.3	0.0			
InitQueuDel:	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	0.00		0.00	1.00	1.00	1.00	1.00	0.00			
Delay/Veh:	34.4	52.3		31.6	0.0	0.0		0.0	26.6	21.8	19.0	4.5	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			
AdjDel/Veh:	34.4	52.3		31.6	0.0	0.0		0.0	26.6	21.8	19.0	4.5	0.0			
LOS by Move:	C	D		C	A	A		A	A	C	B	A	A			
HCM2kAvgQ:	6	11		5	0	0		0	12	5	9	10	0			

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.894
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 105 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5		5	5	5		5	5	5		5	5	5		5	5
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	14	78		250	410	115		41	51	538		13	238	1506		420
Growth Adj:	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	1.04	1.04	1.04	1.04		1.04
Initial Bse:	15	81		260	426	120		43	53	560		14	248	1566		437
Added Vol:	0	0		0	0	0		0	0	35		0	0	10		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	15	81		260	426	120		43	53	595		14	248	1576		437
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		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		1.00
PHF Volume:	15	81		260	426	120		43	53	595		14	248	1576		437
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	15	81		260	426	120		43	53	595		14	248	1576		437
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		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		1.00
FinalVolume:	15	81		260	426	120		43	53	595		14	248	1576		437
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900	1900	1900	1900			1900
Adjustment:	0.90	0.90		0.90	0.92	0.96		0.96	0.95	0.95	0.95	0.95	0.95			0.85
Lanes:	0.04	0.23		0.73	2.00	0.74		0.26	1.00	1.96		0.04	1.00	2.00		1.00
Final Sat.:	70	390		1249	3502	1346		480	1805	3519		80	1805	3610		1615
Capacity Analysis Module:																
Vol/Sat:	0.21	0.21		0.21	0.12	0.09		0.09	0.03	0.17		0.17	0.14	0.44		0.27
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.23		0.23	0.13	0.11		0.11	0.05	0.29		0.29	0.24	0.48		0.48
Volume/Cap:	0.82	0.91		0.91	0.91	0.82		0.82	0.59	0.58		0.58	0.58	0.91		0.57
Uniform Del:	35.2	37.6		37.6	42.8	43.6		43.6	46.5	30.2		30.2	33.8	24.1		18.6
IncremntDel:	11.9	25.3		25.3	22.1	23.3		23.3	9.7	0.8		0.8	2.0	7.8		1.0
InitQueuDel:	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:	47.1	62.9		62.9	64.9	66.9		66.9	56.2	31.0		31.0	35.7	32.0		19.6
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:	47.1	62.9		62.9	64.9	66.9		66.9	56.2	31.0		31.0	35.7	32.0		19.6
LOS by Move:	D	E		E	E	E		E	E	C		C	D	C		B
HCM2kAvgQ:	13	15		15	10	7		7	3	9		9	7	28		10

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.796
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.1
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0
Volume Module:																	
Base Vol:	37	264	51		92	391	62		15	228	24		73	584	95		
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		
Initial Bse:	38	275	53		96	407	64		16	237	25		76	607	99		
Added Vol:	0	87	24		6	26	1		15	5	0		2	0	9		
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0		
Initial Fut:	38	362	77		102	433	65		31	242	25		78	607	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:	38	362	77		102	433	65		31	242	25		78	607	108		
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0		
Reduced Vol:	38	362	77		102	433	65		31	242	25		78	607	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		
FinalVolume:	38	362	77		102	433	65		31	242	25		78	607	108		
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		
Adjustment:	0.92	0.92	0.92		0.93	0.93	0.93		0.95	0.99	0.99		0.95	0.98	0.98		
Lanes:	0.16	1.52	0.32		0.34	1.44	0.22		1.00	0.91	0.09		1.00	0.85	0.15		
Final Sat.:	283	2660	567		597	2542	385		1805	1698	175		1805	1576	280		
Capacity Analysis Module:																	
Vol/Sat:	0.14	0.14	0.14		0.17	0.17	0.17		0.02	0.14	0.14		0.04	0.39	0.39		
Crit Moves:		****			****				****					****			
Green/Cycle:	0.17	0.17	0.17		0.21	0.21	0.21		0.05	0.38	0.38		0.13	0.47	0.47		
Volume/Cap:	0.82	0.82	0.82		0.82	0.82	0.82		0.34	0.37	0.37		0.32	0.82	0.82		
Uniform Del:	40.3	40.3	40.3		37.9	37.9	37.9		45.9	22.2	22.2		39.1	23.0	23.0		
IncremntDel:	9.3	9.3	9.3		7.5	7.5	7.5		2.2	0.3	0.3		0.8	6.4	6.4		
InitQueuDel:	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	49.6	49.6		45.4	45.4	45.4		48.1	22.5	22.5		39.9	29.4	29.4		
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:	49.6	49.6	49.6		45.4	45.4	45.4		48.1	22.5	22.5		39.9	29.4	29.4		
LOS by Move:	D	D	D		D	D	D		D	C	C		D	C	C		
HCM2kAvgQ:	10	10	10		12	12	12		1	6	6		2	21	21		

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.1
Optimal Cycle: 51 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM																	
Base Vol:	45	2362	0		0	1034	31		103	0	6		0	0	0		
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		
Initial Bse:	47	2456	0		0	1075	32		107	0	6		0	0	0		
Added Vol:	94	17	0		0	255	0		153	0	21		0	0	0		
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0		
Initial Fut:	141	2473	0		0	1330	32		260	0	27		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:	141	2473	0		0	1330	32		260	0	27		0	0	0		
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0		
Reduced Vol:	141	2473	0		0	1330	32		260	0	27		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		
FinalVolume:	141	2473	0		0	1330	32		260	0	27		0	0	0		
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00		
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00		
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0		
Capacity Analysis Module:																	
Vol/Sat:	0.08	0.49	0.00		0.00	0.26	0.02		0.15	0.00	0.02		0.00	0.00	0.00		
Crit Moves:		****			****				****								
Green/Cycle:	0.17	0.71	0.00		0.00	0.55	0.55		0.22	0.00	0.22		0.00	0.00	0.00		
Volume/Cap:	0.48	0.68	0.00		0.00	0.48	0.04		0.68	0.00	0.08		0.00	0.00	0.00		
Uniform Del:	49.0	10.3	0.0		0.0	18.0	13.6		46.8	0.0	40.7		0.0	0.0	0.0		
IncremntDel:	1.2	0.5	0.0		0.0	0.1	0.0		4.9	0.0	0.1		0.0	0.0	0.0		
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00		
Delay/Veh:	50.3	10.8	0.0		0.0	18.1	13.6		51.8	0.0	40.8		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:	50.3	10.8	0.0		0.0	18.1	13.6		51.8	0.0	40.8		0.0	0.0	0.0		
LOS by Move:	D	B	A		A	B	B		D	A	D		A	A	A		
HCM2kAvgQ:	5	20	0		0	12	1		11	0	1		0	0	0		

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.617
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 44 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0	0	851	196	218	0	31	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	152	2153	0	0	885	204	227	0	32	0	0	0				
Added Vol:	94	109	0	0	275	1	2	0	21	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	246	2262	0	0	1160	205	229	0	53	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:	246	2262	0	0	1160	205	229	0	53	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	246	2262	0	0	1160	205	229	0	53	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				
FinalVolume:	246	2262	0	0	1160	205	229	0	53	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.14	0.44	0.00	0.00	0.23	0.13	0.13	0.00	0.03	0.00	0.00	0.00				
Crit Moves:		****		****			****									
Green/Cycle:	0.27	0.72	0.00	0.00	0.45	0.45	0.21	0.00	0.21	0.00	0.00	0.00				
Volume/Cap:	0.51	0.62	0.00	0.00	0.51	0.29	0.62	0.00	0.16	0.00	0.00	0.00				
Uniform Del:	39.9	9.1	0.0	0.0	25.6	22.7	46.6	0.0	42.0	0.0	0.0	0.0				
IncremntDel:	0.9	0.3	0.0	0.0	0.2	0.2	3.1	0.0	0.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	40.8	9.4	0.0	0.0	25.8	23.0	49.8	0.0	42.3	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:	40.8	9.4	0.0	0.0	25.8	23.0	49.8	0.0	42.3	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	C	C	D	A	D	A	A	A				
HCM2kAvgQ:	8	17	0	0	12	5	9	0	2	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.639
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 30 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0	0	10	10	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0	0	398	66	83	0	561	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	483	381	0	0	414	69	86	0	583	0	0	0				
Added Vol:	2	22	0	0	47	2	7	0	7	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	485	403	0	0	461	71	93	0	590	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	485	403	0	0	461	71	93	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	485	403	0	0	461	71	93	0	0	0	0	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	485	403	0	0	461	71	93	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1585	243	1769	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.27	0.22	0.00	0.00	0.29	0.29	0.05	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.43	0.88	0.00	0.00	0.46	0.46	0.08	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.64	0.24	0.00	0.00	0.64	0.64	0.64	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	27.0	1.0	0.0	0.0	25.1	25.1	53.3	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	1.8	0.1	0.0	0.0	1.7	1.7	9.1	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	28.8	1.1	0.0	0.0	26.8	26.8	62.4	0.0	0.0	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:	28.8	1.1	0.0	0.0	26.8	26.8	62.4	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	C	E	A	A	A	A	A				
HCM2kAvgQ:	14	2	0	0	15	15	4	0	0	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.478
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 22 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	709	68		3	3	3		123	53	241	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	59	648	51		200	737	71		3	3	3		128	55	251	
Added Vol:	0	23	0		1	53	0		0	0	0		0	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	59	671	51		201	790	71		3	3	3		128	55	252	
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:	59	671	51		201	790	71		3	3	3		128	55	252	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	59	671	51		201	790	71		3	3	3		128	55	252	
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:	59	671	51		201	790	71		3	3	3		128	55	252	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.50	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		953	861	861		1025	442	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.19	0.03		0.11	0.22	0.04		0.00	0.00	0.00		0.12	0.12	0.16	
Crit Moves:		****			****										****	
Green/Cycle:	0.08	0.40	0.40		0.24	0.55	0.55		0.33	0.33	0.33		0.33	0.33	0.33	
Volume/Cap:	0.41	0.48	0.08		0.48	0.41	0.08		0.01	0.01	0.01		0.38	0.38	0.48	
Uniform Del:	52.2	26.9	22.6		39.4	15.6	12.6		26.8	26.8	26.8		30.5	30.5	31.8	
IncremntDel:	1.8	0.3	0.1		0.9	0.1	0.0		0.0	0.0	0.0		0.5	0.5	0.7	
InitQueuDel:	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:	54.1	27.2	22.6		40.2	15.7	12.7		26.8	26.8	26.8		31.0	31.0	32.5	
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:	54.1	27.2	22.6		40.2	15.7	12.7		26.8	26.8	26.8		31.0	31.0	32.5	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	3	10	1		7	9	1		0	0	0		5	5	8	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.799
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	5	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	120	327	8		7	510	369		119	35	47		6	101	5	
Added Vol:	0	110	0		0	33	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	120	437	8		7	543	369		119	35	47		6	101	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:	120	437	8		7	543	369		119	35	47		6	101	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	120	437	8		7	543	369		119	35	47		6	101	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	
FinalVolume:	120	437	8		7	543	369		119	35	47		6	101	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.22	0.78	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	404	1475	1615		25	1873	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.30	0.30	0.01		0.29	0.29	0.23		0.07	0.05	0.05		0.06	0.06	0.06	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.37	0.37	0.37		0.36	0.36	0.36		0.08	0.08	0.08		0.07	0.07	0.07	
Volume/Cap:	0.80	0.80	0.01		0.80	0.80	0.63		0.80	0.57	0.57		0.80	0.80	0.80	
Uniform Del:	28.1	28.1	19.9		28.6	28.6	26.3		45.1	44.2	44.2		45.5	45.5	45.5	
IncremntDel:	6.5	6.5	0.0		6.6	6.6	2.2		25.5	5.6	5.6		26.7	26.7	26.7	
InitQueuDel:	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:	34.6	34.6	19.9		35.2	35.2	28.5		70.6	49.8	49.8		72.2	72.2	72.2	
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:	34.6	34.6	19.9		35.2	35.2	28.5		70.6	49.8	49.8		72.2	72.2	72.2	
LOS by Move:	C	C	B		D	D	C		E	D	D		E	E	E	
HCM2kAvgQ:	17	17	0		17	17	10		6	3	3		5	5	5	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.545
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.3
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	2285	0	0	813	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	203	0	0	296	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2488	0	0	1109	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	2488	0	0	1109	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2488	0	0	1109	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	2488	0	0	1109	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.48	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****												
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.55	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	1.4	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	7	0	0	2	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2015 PM
Command:	Near Term I No Project PM "B"
Volume:	Near Term I No Project PM "B"
Geometry:	Near Term I No Project PM "B"
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term I No Project PM "B"
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term I No Project PM "B"

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	D	52.4	0.980	D	52.1	0.990	-0.301 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	14.1	0.847	C	27.7	1.011	+13.608 D/V
# 3 US 101 SB Ramps & Marsh Rd.	B	19.0	0.849	C	21.5	0.880	+ 2.533 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	20.5	0.712	B	19.4	0.788	-1.121 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	26.5	0.605	C	20.8	0.681	-5.722 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.0	0.600	B	14.4	0.618	-0.668 D/V
# 7 Middlefield at Marsh (Town of	C	31.8	0.841	C	34.0	0.910	+ 2.148 D/V
# 8 Bayfront Exp. & Willow Rd.	D	47.7	0.953	E	72.1	1.057	+24.433 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.3	0.630	C	22.2	0.645	-0.087 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.2	0.565	B	13.2	0.588	+ 1.022 D/V
# 11 O'Brien Dr. & Willow Rd.	A	9.9	0.567	A	9.5	0.584	-0.385 D/V
# 12 Newbridge St. & Willow Rd.	C	33.7	0.765	D	35.5	0.858	+ 1.825 D/V
# 13 Bay Rd. & Willow Rd.	C	20.1	0.760	C	20.5	0.779	+ 0.395 D/V
# 14 Durham St. & Willow Rd.	D	49.4	0.660	B	15.8	0.731	-33.633 D/V
# 15 Coleman Ave. & Willow Rd.	B	11.5	0.760	B	11.0	0.790	-0.464 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.2	0.675	B	11.1	0.735	-1.150 D/V
# 17 Middlefield Rd. & Willow Rd.	F	133.4	1.281	F	160.0	1.352	+26.554 D/V
# 18 Bayfront Exp. & University Ave	F	164.8	1.332	F	184.1	1.391	+19.224 D/V
# 19 O'Brien Dr. & University Ave.	B	13.0	0.694	B	13.4	0.702	+ 0.368 D/V
# 20 University & Kavanaugh	B	16.2	0.668	B	16.1	0.670	-0.105 D/V
# 21 University & Bay	C	34.0	0.838	C	33.9	0.839	-0.102 D/V
# 22 University & Runnymede	C	22.9	0.702	C	22.8	0.704	-0.076 D/V
# 23 University & Bell	A	7.7	0.550	A	7.7	0.551	-0.040 D/V
# 24 University & Donohoe	D	36.6	0.877	D	36.7	0.878	+ 0.162 D/V
# 25 NB 101 & Donohoe St	C	21.3	0.484	C	21.3	0.485	+ 0.025 D/V

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Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	25.4	0.529	C	25.3	0.537	-0.081 D/V
# 27 University Ave. & Woodland	D	47.1	0.894	D	47.4	0.900	+ 0.303 D/V
# 28 Middlefield Rd. & University A	C	32.9	0.559	C	33.8	0.608	+ 0.887 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.0	0.709	F	81.8	1.111	+62.851 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.0	0.607	B	18.6	0.711	+ 4.510 D/V
# 31 Middlefield Rd. & Ravenswood A	C	26.6	0.746	C	26.7	0.761	+ 0.072 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.3	0.629	C	29.2	0.641	+ 0.842 D/V
# 33 Middlefield Rd and Lytton Ave	E	65.8	0.973	F	86.1	1.060	+20.255 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.526	A	1.4	0.567	+ 0.106 D/V

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

****
Intersection #1 Bayfront Exp. & Marsh Rd.
****

Cycle (sec): 140 Critical Vol./Cap.(X): 0.990
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 52.1
Optimal Cycle: 180 Level Of Service: D

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	1231	51	7		0	360	193		145	42	2030		32	76	11	
Added Vol:	757	0	0		0	0	0		0	0	23		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1988	51	7		0	360	193		145	42	2053		32	76	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:	1988	51	7		0	360	193		145	42	2053		32	76	11	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1988	51	7		0	360	193		145	42	2053		32	76	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	
FinalVolume:	1988	51	7		0	360	193		145	42	2053		32	76	11	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.87	0.13		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.39	0.03	0.03		0.00	0.10	0.12		0.10	0.10	0.74		0.07	0.07	0.07	
Crit Moves:	****					****					****				****	
Green/Cycle:	0.39	0.39	0.39		0.00	0.10	0.46		0.35	0.35	0.74		0.07	0.07	0.07	
Volume/Cap:	0.99	0.08	0.08		0.00	0.99	0.27		0.29	0.29	0.99		0.99	0.99	0.99	
Uniform Del:	42.4	26.9	26.9		0.0	62.7	23.5		32.5	32.5	17.3		65.3	65.3	65.3	
IncremntDel:	17.6	0.0	0.0		0.0	44.3	0.2		0.3	0.3	17.3		78.4	78.4	78.4	
InitQueuDel:	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:	60.0	26.9	26.9		0.0	107	23.7		32.8	32.8	34.6		143.7	144	143.7	
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:	60.0	26.9	26.9		0.0	107	23.7		32.8	32.8	34.6		143.7	144	143.7	
LOS by Move:	E	C	C		A	F	C		C	C	C		F	F	F	
HCM2kAvgQ:	35	2	2		0	12	5		6	6	55		8	8	8	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.011
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 27.7
Optimal Cycle: 161 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2 0	0	0	1	0 0	0	0	0	0 1	1	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	513	0	222		0	0	0		0	2146	527		0	709	823	
Added Vol:	0	0	160		0	0	0		3	85	0		0	607	149	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	513	0	382		0	0	0		3	2231	527		0	1316	972	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	513	0	382		0	0	0		3	2231	0		0	1316	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	513	0	382		0	0	0		3	2231	0		0	1316	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	513	0	382		0	0	0		3	2231	0		0	1316	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		5	3374	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.00	0.24		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.37	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.24	0.00	0.24		0.00	0.00	0.00		0.65	0.65	0.00		0.00	0.65	0.00	
Volume/Cap:	0.63	0.00	1.01		0.00	0.00	0.00		1.01	1.01	0.00		0.00	0.57	0.00	
Uniform Del:	22.2	0.0	24.8		0.0	0.0	0.0		11.2	11.2	0.0		0.0	6.2	0.0	
IncremntDel:	1.5	0.0	49.1		0.0	0.0	0.0		21.9	21.9	0.0		0.0	0.3	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	23.7	0.0	73.9		0.0	0.0	0.0		33.1	33.1	0.0		0.0	6.5	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:	23.7	0.0	73.9		0.0	0.0	0.0		33.1	33.1	0.0		0.0	6.5	0.0	
LOS by Move:	C	A	E		A	A	A		C	C	A		A	A	A	
HCM2kAvgQ:	6	0	14		0	0	0		34	34	0		0	8	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.880
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0 0	0	0	0	2 0	0	0	1	0 0	2	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		1409	0	471		0	1228	677		0	978	293	
Added Vol:	0	0	0		49	0	8		0	46	0		0	248	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1458	0	479		0	1274	677		0	1226	293	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1458	0	479		0	1274	0		0	1226	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1458	0	479		0	1274	0		0	1226	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1458	0	479		0	1274	0		0	1226	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.42	0.00	0.30		0.00	0.36	0.00		0.00	0.35	0.00	
Crit Moves:					****					****						
Green/Cycle:	0.00	0.00	0.00		0.48	0.00	0.48		0.00	0.41	0.00		0.00	0.41	0.00	
Volume/Cap:	0.00	0.00	0.00		0.88	0.00	0.63		0.00	0.88	0.00		0.00	0.85	0.00	
Uniform Del:	0.0	0.0	0.0		15.1	0.0	12.5		0.0	17.7	0.0		0.0	17.3	0.0	
IncremntDel:	0.0	0.0	0.0		5.8	0.0	1.7		0.0	6.6	0.0		0.0	4.8	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		20.9	0.0	14.1		0.0	24.3	0.0		0.0	22.2	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:	0.0	0.0	0.0		20.9	0.0	14.1		0.0	24.3	0.0		0.0	22.2	0.0	
LOS by Move:	A	A	A		C	A	B		A	C	A		A	C	A	
HCM2kAvgQ:	0	0	0		17	0	8		0	16	0		0	15	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.788
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM																
Base Vol:	28	15	267		254	9	2		42	1314	17		78	1109	214	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	29	16	278		264	9	2		44	1367	18		81	1153	223	
Added Vol:	0	0	0		0	0	0		0	48	0		0	255	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	29	16	278		264	9	2		44	1415	18		81	1408	223	
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	16	278		264	9	2		44	1415	18		81	1408	223	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	29	16	278		264	9	2		44	1415	18		81	1408	223	
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:	29	16	278		264	9	2		44	1415	18		81	1408	223	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.73		0.93	0.93	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.65	0.35	2.00		0.97	0.03	1.00		1.00	2.96	0.04		2.00	1.73	0.27	
Final Sat.:	1174	629	2786		1716	61	1583		1769	5010	63		3432	2994	473	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.10		0.15	0.15	0.00		0.02	0.28	0.28		0.02	0.47	0.47	
Crit Moves:			****			****			****					****		
Green/Cycle:	0.12	0.12	0.12		0.19	0.19	0.19		0.05	0.54	0.54		0.10	0.58	0.58	
Volume/Cap:	0.20	0.20	0.80		0.80	0.80	0.01		0.49	0.52	0.52		0.25	0.80	0.80	
Uniform Del:	31.5	31.5	34.1		30.9	30.9	26.2		37.0	11.8	11.8		33.5	13.0	13.0	
IncremntDel:	0.4	0.4	12.9		13.0	13.0	0.0		4.3	0.2	0.2		0.4	2.4	2.4	
InitQueuDel:	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:	31.9	31.9	47.0		44.0	44.0	26.2		41.3	12.0	12.0		33.9	15.5	15.5	
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:	31.9	31.9	47.0		44.0	44.0	26.2		41.3	12.0	12.0		33.9	15.5	15.5	
LOS by Move:	C	C	D		D	D	C		D	B	B		C	B	B	
HCM2kAvgQ:	1	1	6		9	9	0		2	9	9		1	19	19	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 20.8
Optimal Cycle: 33 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm																
Base Vol:	95	32	58		428	30	128		239	885	55		26	833	316	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	99	33	60		445	31	133		249	920	57		27	866	329	
Added Vol:	0	0	0		0	0	0		0	48	0		0	255	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	99	33	60		445	31	133		249	968	57		27	1121	329	
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:	99	33	60		445	31	133		249	968	57		27	1121	329	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	99	33	60		445	31	133		249	968	57		27	1121	329	
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:	99	33	60		445	31	133		249	968	57		27	1121	329	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.88	0.88		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.36	0.64		1.87	0.13	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	598	1084		3323	233	1583		1769	3314	196		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.13	0.13	0.08		0.14	0.29	0.29		0.02	0.32	0.21	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.08	0.08	0.08		0.20	0.20	0.20		0.21	0.57	0.57		0.10	0.47	0.47	
Volume/Cap:	0.68	0.68	0.68		0.68	0.68	0.43		0.68	0.51	0.51		0.16	0.68	0.45	
Uniform Del:	35.7	35.7	35.7		29.8	29.8	28.2		29.3	10.3	10.3		33.0	16.7	14.4	
IncremntDel:	12.5	12.9	12.9		2.8	2.8	0.9		5.2	0.2	0.2		0.4	1.2	0.4	
InitQueuDel:	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:	48.2	48.5	48.5		32.6	32.6	29.1		34.5	10.5	10.5		33.5	17.9	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:	48.2	48.5	48.5		32.6	32.6	29.1		34.5	10.5	10.5		33.5	17.9	14.9	
LOS by Move:	D	D	D		C	C	C		C	B	B		C	B	B	
HCM2kAvgQ:	4	4	4		7	7	3		7	8	8		1	12	6	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.618
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.4
Optimal Cycle: 28 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	4	6	6
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	1 0	1 1	0
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM												
Base Vol:	57	8	180	55	31	3	5	819	90	200	891	47
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	59	8	187	57	32	3	5	852	94	208	927	49
Added Vol:	2	0	0	0	0	0	0	48	2	0	255	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	8	187	57	32	3	5	900	96	208	1182	49
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	8	187	57	32	3	5	900	96	208	1182	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	8	187	57	32	3	5	900	96	208	1182	49
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	8	187	57	32	3	5	900	96	208	1182	49
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.81	0.81	0.70	0.70	0.70	0.87	0.87	0.87	0.93	0.93	0.93
Lanes:	0.24	0.03	0.73	0.62	0.35	0.03	0.01	1.80	0.19	1.00	1.92	0.08
Final Sat.:	366	50	1119	817	461	45	17	2980	317	1769	3377	140
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.07	0.07	0.07	0.30	0.30	0.30	0.12	0.35	0.35
Crit Moves:		****						****		****		
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.49	0.49	0.49	0.19	0.68	0.68
Volume/Cap:	0.62	0.62	0.62	0.26	0.26	0.26	0.62	0.62	0.62	0.62	0.52	0.52
Uniform Del:	25.5	25.5	25.5	22.9	22.9	22.9	15.0	15.0	15.0	29.7	6.3	6.3
IncremntDel:	2.8	2.8	2.8	0.4	0.4	0.4	0.7	0.7	0.7	3.4	0.2	0.2
InitQueuDel:	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:	28.3	28.3	28.3	23.2	23.2	23.2	15.7	15.7	15.7	33.1	6.5	6.5
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:	28.3	28.3	28.3	23.2	23.2	23.2	15.7	15.7	15.7	33.1	6.5	6.5
LOS by Move:	C	C	C	C	C	C	B	B	B	C	A	A
HCM2kAvgQ:	6	6	6	2	2	2	10	10	10	6	8	8

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.910
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 34.0
Optimal Cycle: 116 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	0	6	6	5	6	0	0	0	0	6	0	6
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.												
Base Vol:	0	426	548	408	269	0	0	0	0	515	0	447
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	443	570	424	280	0	0	0	0	536	0	465
Added Vol:	0	26	39	11	7	0	0	0	0	76	0	182
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	469	609	435	287	0	0	0	0	612	0	647
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	469	609	435	287	0	0	0	0	612	0	647
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	469	609	435	287	0	0	0	0	612	0	647
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:	0	469	609	435	287	0	0	0	0	612	0	647
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1615	1805	1900	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.38	0.24	0.15	0.00	0.00	0.00	0.00	0.34	0.00	0.40
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.27	0.64	0.27	0.54	0.00	0.00	0.00	0.00	0.37	0.00	0.64
Volume/Cap:	0.00	0.91	0.59	0.91	0.28	0.00	0.00	0.00	0.00	0.91	0.00	0.63
Uniform Del:	0.0	38.8	11.2	39.1	13.9	0.0	0.0	0.0	0.0	32.8	0.0	12.0
IncremntDel:	0.0	20.1	0.9	21.3	0.2	0.0	0.0	0.0	0.0	16.4	0.0	1.2
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	58.9	12.1	60.4	14.1	0.0	0.0	0.0	0.0	49.2	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:	0.0	58.9	12.1	60.4	14.1	0.0	0.0	0.0	0.0	49.2	0.0	13.3
LOS by Move:	A	E	B	E	B	A	A	A	A	D	A	B
HCM2kAvgQ:	0	19	12	18	5	0	0	0	0	23	0	14

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.057
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 72.1
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM																				
Base Vol:	362	664	1		0	2199	108		36	13	1424		44	105	8					
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04					
Initial Bse:	376	691	1		0	2287	112		37	14	1481		46	109	8					
Added Vol:	151	145	1		19	171	0		0	37	5		122	150	69					
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0					
Initial Fut:	527	836	2		19	2458	112		37	51	1486		168	259	77					
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:	527	836	2		19	2458	112		37	51	1486		168	259	77					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	527	836	2		19	2458	112		37	51	1486		168	259	77					
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:	527	836	2		19	2458	112		37	51	1486		168	259	77					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.90	1.03	0.83		0.90	1.03	0.83		0.91	0.91	0.88		0.93	0.93	0.83					
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		1.28	1.72	2.00		1.00	2.00	1.00					
Final Sat.:	3432	5846	1583		3432	5846	1583		2211	2984	3343		1769	3538	1583					
Capacity Analysis Module:																				
Vol/Sat:	0.15	0.14	0.00		0.01	0.42	0.07		0.02	0.02	0.44		0.09	0.07	0.05					
Crit Moves:	****					****					****		****							
Green/Cycle:	0.15	0.43	0.52		0.12	0.40	0.40		0.28	0.28	0.42		0.09	0.09	0.20					
Volume/Cap:	1.06	0.33	0.00		0.05	1.06	0.18		0.06	0.06	1.06		1.06	0.82	0.24					
Uniform Del:	55.6	24.8	15.1		51.2	39.2	25.4		34.8	34.8	37.7		59.2	58.1	43.2					
IncremntDel:	56.3	0.1	0.0		0.1	36.1	0.1		0.0	0.0	40.8		87.5	15.1	0.4					
InitQueuDel:	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:	111.9	24.9	15.2		51.2	75.2	25.5		34.8	34.8	78.5		146.7	73.2	43.6					
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:	111.9	24.9	15.2		51.2	75.2	25.5		34.8	34.8	78.5		146.7	73.2	43.6					
LOS by Move:	F	C	B		D	E	C		C	C	E		F	E	D					
HCM2kAvgQ:	17	8	0		0	47	3		1	1	44		11	7	3					

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.645
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM																				
Base Vol:	129	6	49		73	5	73		130	1351	5		20	553	67					
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04					
Initial Bse:	134	6	51		76	5	76		135	1405	5		21	575	70					
Added Vol:	0	0	0		0	0	4		6	42	0		0	301	0					
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0					
Initial Fut:	134	6	51		76	5	80		141	1447	5		21	876	70					
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:	134	6	51		76	5	80		141	1447	5		21	876	70					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	134	6	51		76	5	80		141	1447	5		21	876	70					
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:	134	6	51		76	5	80		141	1447	5		21	876	70					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.62	0.62	0.62		0.73	0.73	0.73		0.93	0.93	0.93		0.93	0.92	0.92					
Lanes:	0.70	0.03	0.27		0.47	0.03	0.50		1.00	1.99	0.01		1.00	1.85	0.15					
Final Sat.:	824	38	313		657	45	691		1769	3522	13		1769	3241	258					
Capacity Analysis Module:																				
Vol/Sat:	0.16	0.16	0.16		0.12	0.12	0.12		0.08	0.41	0.41		0.01	0.27	0.27					
Crit Moves:		****								****			****							
Green/Cycle:	0.25	0.25	0.25		0.25	0.25	0.25		0.15	0.62	0.62		0.04	0.51	0.51					
Volume/Cap:	0.66	0.66	0.66		0.47	0.47	0.47		0.53	0.66	0.66		0.28	0.53	0.53					
Uniform Del:	40.8	40.8	40.8		38.6	38.6	38.6		47.0	14.6	14.6		55.8	19.6	19.6					
IncremntDel:	5.6	5.6	5.6		1.0	1.0	1.0		2.0	0.8	0.8		2.1	0.3	0.3					
InitQueuDel:	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	46.4	46.4		39.6	39.6	39.6		49.0	15.4	15.4		57.9	19.9	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:	46.4	46.4	46.4		39.6	39.6	39.6		49.0	15.4	15.4		57.9	19.9	19.9					
LOS by Move:	D	D	D		D	D	D		D	B	B		E	B	B					
HCM2kAvgQ:	7	7	7		5	5	5		5	18	18		1	12	12					

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.588
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.2
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	22	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		10	0	127		102	1515	0		0	832	23	
Added Vol:	0	0	0		6	0	10		10	42	0		0	264	41	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		16	0	137		112	1557	0		0	1096	64	
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	0	0		16	0	137		112	1557	0		0	1096	64	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		16	0	137		112	1557	0		0	1096	64	
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:	0	0	0		16	0	137		112	1557	0		0	1096	64	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.86	1.00	0.86		0.93	0.93	1.00		1.00	0.92	0.92	
Lanes:	0.00	0.00	0.00		0.11	0.00	0.89		1.00	2.00	0.00		0.00	1.89	0.11	
Final Sat.:	0	0	0		174	0	1454		1769	3538	0		0	3316	193	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.09	0.00	0.09		0.06	0.44	0.00		0.00	0.33	0.33	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.16	0.00	0.16		0.12	0.75	0.00		0.00	0.63	0.63	
Volume/Cap:	0.00	0.00	0.00		0.59	0.00	0.59		0.53	0.59	0.00		0.00	0.53	0.53	
Uniform Del:	0.0	0.0	0.0		46.7	0.0	46.7		49.6	6.8	0.0		0.0	12.4	12.4	
IncremntDel:	0.0	0.0	0.0		3.5	0.0	3.5		2.4	0.4	0.0		0.0	0.2	0.2	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		50.2	0.0	50.2		52.0	7.1	0.0		0.0	12.6	12.6	
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:	0.0	0.0	0.0		50.2	0.0	50.2		52.0	7.1	0.0		0.0	12.6	12.6	
LOS by Move:	A	A	A		D	A	D		D	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		6	0	6		5	14	0		0	12	12	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.584
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 46 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	125	0	36		0	0	0		0	1470	212		76	924	0	
Added Vol:	4	0	0		0	0	0		0	51	11		0	274	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	129	0	36		0	0	0		0	1521	223		76	1198	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:	129	0	36		0	0	0		0	1521	223		76	1198	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	129	0	36		0	0	0		0	1521	223		76	1198	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:	129	0	36		0	0	0		0	1521	223		76	1198	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.64	0.00	0.36		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2839	0	625		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.06		0.00	0.00	0.00		0.00	0.43	0.14		0.04	0.34	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.10	0.00	0.10		0.00	0.00	0.00		0.00	0.74	0.74		0.07	0.81	0.00	
Volume/Cap:	0.46	0.00	0.58		0.00	0.00	0.00		0.00	0.58	0.19		0.58	0.42	0.00	
Uniform Del:	51.0	0.0	51.7		0.0	0.0	0.0		0.0	7.4	4.9		53.8	3.3	0.0	
IncremntDel:	0.9	0.0	3.1		0.0	0.0	0.0		0.0	0.3	0.1		6.7	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	51.9	0.0	54.8		0.0	0.0	0.0		0.0	7.7	5.0		60.5	3.4	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:	51.9	0.0	54.8		0.0	0.0	0.0		0.0	7.7	5.0		60.5	3.4	0.0	
LOS by Move:	D	A	D		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	3	0	4		0	0	0		0	14	3		4	7	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.858
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 35.5
Optimal Cycle: 106 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	34	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	258	177	57		40	173	228		336	1493	353		106	1014	35	
Added Vol:	0	0	0		0	0	9		6	62	0		0	279	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	258	177	57		40	173	237		342	1555	353		106	1293	35	
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:	258	177	57		40	173	237		342	1555	353		106	1293	35	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	258	177	57		40	173	237		342	1555	353		106	1293	35	
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:	258	177	57		40	173	237		342	1555	353		106	1293	35	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.45	0.55		1.00	1.95	0.05	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4028	913		1769	3430	94	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.09	0.04		0.02	0.09	0.15		0.19	0.39	0.39		0.06	0.38	0.38	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.11	0.11	0.20		0.11	0.11	0.33		0.23	0.58	0.58		0.09	0.44	0.44	
Volume/Cap:	0.68	0.86	0.18		0.21	0.86	0.45		0.86	0.67	0.67		0.67	0.86	0.86	
Uniform Del:	51.3	52.4	39.8		48.8	52.6	31.4		44.6	17.6	17.6		52.9	30.3	30.3	
IncremntDel:	4.9	28.3	0.3		0.5	28.8	0.6		16.7	0.6	0.6		10.7	5.0	5.0	
InitQueuDel:	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	80.7	40.1		49.4	81.4	32.0		61.4	18.3	18.3		63.6	35.3	35.3	
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:	56.2	80.7	40.1		49.4	81.4	32.0		61.4	18.3	18.3		63.6	35.3	35.3	
LOS by Move:	E	F	D		D	F	C		E	B	B		E	D	D	
HCM2kAvgQ:	6	9	2		1	9	7		15	18	18		5	26	26	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.779
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 68 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		433	0	56		42	1493	0		0	1103	265	
Added Vol:	0	0	0		4	0	0		0	53	0		0	111	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		437	0	56		42	1546	0		0	1214	272	
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	0	0		437	0	56		42	1546	0		0	1214	272	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		437	0	56		42	1546	0		0	1214	272	
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:	0	0	0		437	0	56		42	1546	0		0	1214	272	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.25	0.00	0.04		0.02	0.44	0.00		0.00	0.34	0.17	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.32	0.00	0.32		0.08	0.56	0.00		0.00	0.48	0.48	
Volume/Cap:	0.00	0.00	0.00		0.78	0.00	0.11		0.30	0.78	0.00		0.00	0.71	0.36	
Uniform Del:	0.0	0.0	0.0		27.9	0.0	21.8		39.2	15.4	0.0		0.0	18.3	14.5	
IncremntDel:	0.0	0.0	0.0		6.9	0.0	0.1		1.2	2.0	0.0		0.0	1.4	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		34.8	0.0	21.9		40.4	17.4	0.0		0.0	19.7	14.8	
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:	0.0	0.0	0.0		34.8	0.0	21.9		40.4	17.4	0.0		0.0	19.7	14.8	
LOS by Move:	A	A	A		C	A	C		D	B	A		A	B	B	
HCM2kAvgQ:	0	0	0		13	0	1		1	19	0		0	15	5	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.731
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 50 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33	7	85		122	5	31		11	1125	10		90	818	51	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	34	7	88		127	5	32		11	1170	10		94	851	53	
Added Vol:	0	0	0		0	0	0		0	53	0		0	111	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	7	88		127	5	32		11	1223	10		94	962	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:	34	7	88		127	5	32		11	1223	10		94	962	53	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	7	88		127	5	32		11	1223	10		94	962	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	
FinalVolume:	34	7	88		127	5	32		11	1223	10		94	962	53	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.48	0.84	0.84		0.55	0.55	0.83		0.93	0.93	0.93		0.93	0.97	0.97	
Lanes:	1.00	0.08	0.92		0.96	0.04	1.00		1.00	1.98	0.02		1.00	0.95	0.05	
Final Sat.:	920	122	1481		1002	41	1583		1769	3504	30		1769	1751	97	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.06	0.06		0.13	0.13	0.02		0.01	0.35	0.35		0.05	0.55	0.55	
Crit Moves:						****			****					****		
Green/Cycle:	0.17	0.17	0.17		0.17	0.17	0.17		0.04	0.66	0.66		0.10	0.73	0.73	
Volume/Cap:	0.22	0.36	0.36		0.76	0.76	0.12		0.17	0.52	0.52		0.52	0.76	0.76	
Uniform Del:	37.8	38.7	38.7		41.6	41.6	37.1		48.9	9.1	9.1		44.8	8.7	8.7	
IncremntDel:	0.7	0.8	0.8		17.0	17.0	0.2		1.2	0.2	0.2		2.9	2.5	2.5	
InitQueuDel:	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:	38.5	39.5	39.5		58.6	58.6	37.3		50.1	9.3	9.3		47.7	11.1	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:	38.5	39.5	39.5		58.6	58.6	37.3		50.1	9.3	9.3		47.7	11.1	11.1	
LOS by Move:	D	D	D		E	E	D		D	A	A		D	B	B	
HCM2kAvgQ:	1	3	3		6	6	1		1	11	11		4	21	21	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.790
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	12	11	7		96	6	36		25	1126	6		5	827	113	
Added Vol:	0	0	0		0	0	0		0	53	0		0	111	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	12	11	7		96	6	36		25	1179	6		5	938	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:	12	11	7		96	6	36		25	1179	6		5	938	113	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	12	11	7		96	6	36		25	1179	6		5	938	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	
FinalVolume:	12	11	7		96	6	36		25	1179	6		5	938	113	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.20	0.98	0.98		0.14	0.96	0.96	
Lanes:	0.40	0.37	0.23		0.69	0.05	0.26		1.00	0.99	0.01		1.00	0.89	0.11	
Final Sat.:	655	601	382		959	63	365		378	1850	10		274	1635	198	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.10	0.10	0.10		0.07	0.64	0.64		0.02	0.57	0.57	
Crit Moves:						****				****						
Green/Cycle:	0.13	0.13	0.13		0.13	0.13	0.13		0.81	0.81	0.81		0.81	0.81	0.81	
Volume/Cap:	0.15	0.15	0.15		0.79	0.79	0.79		0.08	0.79	0.79		0.02	0.71	0.71	
Uniform Del:	40.8	40.8	40.8		44.5	44.5	44.5		2.1	5.4	5.4		2.0	4.6	4.6	
IncremntDel:	0.3	0.3	0.3		21.0	21.0	21.0		0.1	2.9	2.9		0.0	1.6	1.6	
InitQueuDel:	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:	41.2	41.2	41.2		65.5	65.5	65.5		2.2	8.3	8.3		2.0	6.2	6.2	
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:	41.2	41.2	41.2		65.5	65.5	65.5		2.2	8.3	8.3		2.0	6.2	6.2	
LOS by Move:	D	D	D		E	E	E		A	A	A		A	A	A	
HCM2kAvgQ:	1	1	1		6	6	6		0	22	22		0	16	16	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.735
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.1
Optimal Cycle: 50 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	96	32	78		30	31	4		4	1008	37		38	865	18	
Added Vol:	18	0	5		0	0	0		0	48	22		15	96	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	114	32	83		30	31	4		4	1056	59		53	961	18	
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:	114	32	83		30	31	4		4	1056	59		53	961	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	114	32	83		30	31	4		4	1056	59		53	961	18	
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:	114	32	83		30	31	4		4	1056	59		53	961	18	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.87	0.87		0.50	0.96	0.96		0.24	0.97	0.97		0.18	0.98	0.98	
Lanes:	1.00	0.28	0.72		1.00	0.88	0.12		1.00	0.95	0.05		1.00	0.98	0.02	
Final Sat.:	1376	465	1196		957	1613	215		447	1749	98		344	1823	34	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.07	0.07		0.03	0.02	0.02		0.01	0.60	0.60		0.16	0.53	0.53	
Crit Moves:	****									****						
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.82	0.82	0.82		0.82	0.82	0.82	
Volume/Cap:	0.74	0.62	0.62		0.28	0.17	0.17		0.01	0.74	0.74		0.19	0.64	0.64	
Uniform Del:	45.1	44.5	44.5		42.7	42.2	42.2		1.7	4.2	4.2		2.0	3.6	3.6	
IncremntDel:	16.7	6.1	6.1		1.4	0.4	0.4		0.0	1.9	1.9		0.3	0.9	0.9	
InitQueuDel:	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:	61.8	50.6	50.6		44.1	42.6	42.6		1.7	6.2	6.2		2.3	4.5	4.5	
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:	61.8	50.6	50.6		44.1	42.6	42.6		1.7	6.2	6.2		2.3	4.5	4.5	
LOS by Move:	E	D	D		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	5	5	5		1	1	1		0	17	17		1	13	13	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.352
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 160.0
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0	1	1	0	0
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	101	456	511		496	430	20		37	177	164		397	99	426	
Added Vol:	15	8	25		13	8	0		0	32	24		67	21	25	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	464	536		509	438	20		37	209	188		464	120	451	
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:	116	464	536		509	438	20		37	209	188		464	120	451	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	464	536		509	438	20		37	209	188		464	120	451	
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:	116	464	536		509	438	20		37	209	188		464	120	451	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.58	1.36	0.06		1.00	1.00	1.00		1.59	0.41	1.00	
Final Sat.:	1769	3538	791		2715	2333	105		1769	1862	1583		2848	735	1583	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.13	0.68		0.19	0.19	0.19		0.02	0.11	0.12		0.16	0.16	0.29	
Crit Moves:			****			****					****				****	
Green/Cycle:	0.50	0.50	0.50		0.14	0.14	0.14		0.09	0.09	0.09		0.21	0.21	0.21	
Volume/Cap:	0.13	0.26	1.35		1.35	1.35	1.35		0.24	1.27	1.35		0.77	0.77	1.35	
Uniform Del:	17.3	18.6	32.5		56.0	56.0	56.0		55.2	59.3	59.3		48.3	48.3	51.3	
IncremntDel:	0.1	0.1	174.2		167.4	167	167.4		0.8	162	198.0		5.0	5.0	176.8	
InitQueuDel:	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:	17.4	18.7	206.6		223.4	223	223.4		56.0	221	257.3		53.3	53.3	228.1	
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:	17.4	18.7	206.6		223.4	223	223.4		56.0	221	257.3		53.3	53.3	228.1	
LOS by Move:	B	B	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	5	40		26	26	26		2	16	16		13	13	34	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.391
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 184.1
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	392	1007	0	0	3628	132	62	0	1734	0	0	0				
Added Vol:	4	88	0	0	261	38	5	0	11	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	396	1095	0	0	3889	170	67	0	1745	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:	396	1095	0	0	3889	170	67	0	1745	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	396	1095	0	0	3889	170	67	0	1745	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				
FinalVolume:	396	1095	0	0	3889	170	67	0	1745	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.12	0.22	0.00	0.00	0.76	0.11	0.02	0.00	0.42	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.08	0.63	0.00	0.00	0.55	0.55	0.30	0.00	0.30	0.00	0.00	0.00				
Volume/Cap:	1.39	0.34	0.00	0.00	1.39	0.20	0.07	0.00	1.39	0.00	0.00	0.00				
Uniform Del:	68.8	12.9	0.0	0.0	33.7	17.0	37.5	0.0	52.5	0.0	0.0	0.0				
IncremntDel:	196.0	0.1	0.0	0.0	178	0.1	0.0	0.0	180.8	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	264.7	12.9	0.0	0.0	212	17.1	37.5	0.0	233.2	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:	264.7	12.9	0.0	0.0	212	17.1	37.5	0.0	233.2	0.0	0.0	0.0				
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A				
HCM2kAvgQ:	18	8	0	0	113	4	1	0	54	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.702
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 55 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	0	5	5	5	0	0	5	5			
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	120	0	99	20	1599	0	0	454	16				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	0	0	0	125	0	103	21	1663	0	0	472	17				
Added Vol:	0	0	0	11	0	0	0	5	0	0	38	4				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	136	0	103	21	1668	0	0	510	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:	0	0	0	136	0	103	21	1668	0	0	510	21				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	136	0	103	21	1668	0	0	510	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				
FinalVolume:	0	0	0	136	0	103	21	1668	0	0	510	21				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.57	0.00	0.43	1.00	2.00	0.00	0.00	1.92	0.08				
Final Sat.:	0	0	0	970	0	735	1769	3538	0	0	3380	137				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.01	0.47	0.00	0.00	0.15	0.15				
Crit Moves:				****				****		****						
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.19	0.67	0.00	0.00	0.48	0.48				
Volume/Cap:	0.00	0.00	0.00	0.70	0.00	0.70	0.06	0.70	0.00	0.00	0.31	0.31				
Uniform Del:	0.0	0.0	0.0	31.7	0.0	31.7	28.3	8.7	0.0	0.0	13.4	13.4				
IncremntDel:	0.0	0.0	0.0	6.5	0.0	6.5	0.1	1.0	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	38.2	0.0	38.2	28.4	9.7	0.0	0.0	13.5	13.5				
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:	0.0	0.0	0.0	38.2	0.0	38.2	28.4	9.7	0.0	0.0	13.5	13.5				
LOS by Move:	A	A	A	D	A	D	C	A	A	A	B	B				
HCM2kAvgQ:	0	0	0	7	0	7	0	15	0	0	4	4				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.1
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	13	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	36	32	12		20	30	85		27	1642	20		19	548	14	
Added Vol:	0	0	0		0	0	0		0	5	0		0	38	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	36	32	12		20	30	85		27	1647	20		19	586	14	
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:	36	32	12		20	30	85		27	1647	20		19	586	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	36	32	12		20	30	85		27	1647	20		19	586	14	
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:	36	32	12		20	30	85		27	1647	20		19	586	14	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.95	0.05	
Final Sat.:	816	723	280		252	385	1089		1805	3560	43		1805	3518	81	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.04	0.04		0.08	0.08	0.08		0.01	0.46	0.46		0.01	0.17	0.17	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.07	0.06	0.06		0.11	0.11	0.11		0.16	0.66	0.66		0.05	0.55	0.55	
Volume/Cap:	0.65	0.70	0.70		0.70	0.73	0.73		0.09	0.70	0.70		0.21	0.30	0.30	
Uniform Del:	45.4	45.9	45.9		42.7	43.2	43.2		35.4	10.5	10.5		45.6	12.2	12.2	
IncremntDel:	11.4	17.0	17.0		10.6	13.5	13.5		0.1	0.9	0.9		1.1	0.1	0.1	
InitQueuDel:	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:	56.8	62.8	62.8		53.4	56.7	56.7		35.5	11.4	11.4		46.7	12.3	12.3	
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:	56.8	62.8	62.8		53.4	56.7	56.7		35.5	11.4	11.4		46.7	12.3	12.3	
LOS by Move:	E	E	E		D	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	4	4	4		5	6	6		1	17	17		1	5	5	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.839
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.9
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	156	228	359		98	272	114		97	1343	90		124	562	51	
Added Vol:	0	0	0		0	0	0		0	5	0		0	38	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	156	228	359		98	272	114		97	1348	90		124	600	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:	156	228	359		98	272	114		97	1348	90		124	600	51	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	156	228	359		98	272	114		97	1348	90		124	600	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	
FinalVolume:	156	228	359		98	272	114		97	1348	90		124	600	51	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.87	0.13		1.00	1.84	0.16	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3352	225		1805	3287	279	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.12	0.22		0.05	0.14	0.07		0.05	0.40	0.40		0.07	0.18	0.18	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.12	0.26	0.26		0.06	0.21	0.21		0.13	0.48	0.48		0.08	0.43	0.43	
Volume/Cap:	0.69	0.46	0.84		0.84	0.69	0.34		0.42	0.84	0.84		0.84	0.42	0.42	
Uniform Del:	42.1	30.8	34.8		46.3	36.6	33.8		40.2	22.7	22.7		45.3	19.6	19.6	
IncremntDel:	3.7	0.4	13.7		38.9	5.1	0.6		1.2	3.9	3.9		32.6	0.2	0.2	
InitQueuDel:	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:	45.8	31.2	48.5		85.2	41.8	34.4		41.5	26.6	26.6		77.9	19.8	19.8	
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:	45.8	31.2	48.5		85.2	41.8	34.4		41.5	26.6	26.6		77.9	19.8	19.8	
LOS by Move:	D	C	D		F	D	C		D	C	C		E	B	B	
HCM2kAvgQ:	6	6	13		5	9	3		3	23	23		6	7	7	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.704
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	78	109	59		17	76	27		29	1264	78		44	793	17	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	81	113	61		18	79	28		30	1315	81		46	825	18	
Added Vol:	0	0	0		0	0	0		0	5	0		0	38	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	81	113	61		18	79	28		30	1320	81		46	863	18	
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:	81	113	61		18	79	28		30	1320	81		46	863	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	81	113	61		18	79	28		30	1320	81		46	863	18	
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:	81	113	61		18	79	28		30	1320	81		46	863	18	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.96	0.96	0.96		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.32	0.44	0.24		0.14	0.63	0.23		1.00	1.88	0.12		1.00	1.96	0.04	
Final Sat.:	574	802	434		259	1159	412		1805	3370	207		1805	3527	72	
Capacity Analysis Module:																		
Vol/Sat:	0.14	0.14	0.14		0.07	0.07	0.07		0.02	0.39	0.39		0.03	0.24	0.24	
Crit Moves:	****					****				****			****			
Green/Cycle:	0.20	0.20	0.20		0.10	0.10	0.10		0.10	0.55	0.55		0.05	0.50	0.50	
Volume/Cap:	0.72	0.72	0.72		0.72	0.72	0.72		0.16	0.72	0.72		0.51	0.49	0.49	
Uniform Del:	37.5	37.5	37.5		43.9	43.9	43.9		41.1	16.9	16.9		46.3	16.8	16.8	
IncremntDel:	6.8	6.8	6.8		13.2	13.2	13.2		0.4	1.3	1.3		4.6	0.2	0.2	
InitQueuDel:	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:	44.3	44.3	44.3		57.1	57.1	57.1		41.5	18.1	18.1		50.9	17.0	17.0	
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:	44.3	44.3	44.3		57.1	57.1	57.1		41.5	18.1	18.1		50.9	17.0	17.0	
LOS by Move:	D	D	D		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	9	9	9		5	5	5		1	18	18		2	10	10	

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.551
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.7
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18	18		18	18	18		64	64	64		64	64	64	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	60	83	38		11	68	22		42	1322	87		37	787	22	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	62	86	40		11	71	23		44	1375	90		38	818	23	
Added Vol:	0	0	0		0	0	0		0	5	0		0	38	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	62	86	40		11	71	23		44	1380	90		38	856	23	
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	86	40		11	71	23		44	1380	90		38	856	23	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	62	86	40		11	71	23		44	1380	90		38	856	23	
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:	62	86	40		11	71	23		44	1380	90		38	856	23	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.94	0.94	0.94		0.29	0.94	0.94		0.14	0.95	0.95	
Lanes:	0.33	0.46	0.21		0.11	0.67	0.22		1.00	1.88	0.12		1.00	1.95	0.05	
Final Sat.:	540	747	342		195	1204	389		557	3357	220		262	3502	94	
Capacity Analysis Module:																		
Vol/Sat:	0.12	0.12	0.12		0.06	0.06	0.06		0.08	0.41	0.41		0.15	0.24	0.24	
Crit Moves:		****								****						
Green/Cycle:	0.21	0.21	0.21		0.21	0.21	0.21		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.55	0.55	0.55		0.28	0.28	0.28		0.11	0.55	0.55		0.20	0.33	0.33	
Uniform Del:	31.8	31.8	31.8		29.9	29.9	29.9		3.2	4.9	4.9		3.4	3.8	3.8	
IncremntDel:	1.9	1.9	1.9		0.4	0.4	0.4		0.1	0.2	0.2		0.5	0.1	0.1	
InitQueuDel:	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:	33.7	33.7	33.7		30.3	30.3	30.3		3.3	5.2	5.2		3.9	3.9	3.9	
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:	33.7	33.7	33.7		30.3	30.3	30.3		3.3	5.2	5.2		3.9	3.9	3.9	
LOS by Move:	C	C	C		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	5	5	5		3	3	3		0	10	10		1	4	4	

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.878
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.7
Optimal Cycle: 98 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1	1	1	0	1	0	1	1	0	2	0	1	1	0
Volume Module:																	
Base Vol:	315	485	599		32	175	224		217	784	540		115	663	173	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	328	504	623		33	182	233		226	815	562		120	690	180	
Added Vol:	0	0	3		0	0	0		0	2	0		0	38	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	328	504	626		33	182	233		226	817	562		120	728	180	
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:	328	504	626		33	182	233		226	817	562		120	728	180	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	328	504	626		33	182	233		226	817	562		120	728	180	
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:	328	504	626		33	182	233		226	817	562		120	728	180	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.88	0.88	0.88		0.95	1.00	0.85		0.95	0.89	0.89		0.92	0.92	0.92	
Lanes:	1.00	1.34	1.66		1.00	1.00	1.00		1.00	1.19	0.81		2.00	1.60	0.40	
Final Sat.:	1671	2237	2776		1805	1900	1615		1805	2009	1381		3502	2807	694	
Capacity Analysis Module:																
Vol/Sat:	0.20	0.23	0.23		0.02	0.10	0.14		0.13	0.41	0.41		0.03	0.26	0.26	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.22	0.31	0.31		0.07	0.16	0.16		0.17	0.46	0.46		0.05	0.34	0.34	
Volume/Cap:	0.89	0.72	0.72		0.27	0.59	0.89		0.76	0.89	0.89		0.68	0.76	0.76	
Uniform Del:	37.8	30.5	30.5		44.1	38.8	41.0		39.8	24.8	24.8		46.7	29.2	29.2	
IncremntDel:	6.4	1.3	1.3		1.1	3.0	28.8		10.6	6.8	6.8		10.6	2.8	2.8	
InitQueuDel:	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:	44.2	31.7	31.7		45.2	41.8	69.8		50.5	31.6	31.6		57.3	32.0	32.0	
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:	44.2	31.7	31.7		45.2	41.8	69.8		50.5	31.6	31.6		57.3	32.0	32.0	
LOS by Move:	D	C	C		D	D	E		D	C	C		E	C	C	
HCM2kAvgQ:	14	12	12		1	6	10		8	24	24		3	15	15	

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.485
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 82 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	32	32		0	32	0		28	0	28		0	0	18	
Lanes:	0	0	2	1	0	0	0	2	0	0	2	0	0	0	0	1
Volume Module:																
Base Vol:	0	802	19		0	783	0		765	0	277		0	0	16	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	834	20		0	814	0		796	0	288		0	0	17	
Added Vol:	0	0	0		0	0	0		3	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	834	20		0	814	0		799	0	288		0	0	17	
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	834	20		0	814	0		799	0	288		0	0	17	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	834	20		0	814	0		799	0	288		0	0	17	
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:	0	834	20		0	814	0		799	0	288		0	0	17	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	0.91	0.91		1.00	0.95	1.00		0.92	1.00	0.85		1.00	1.00	0.87	
Lanes:	0.00	2.93	0.07		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5052	120		0	3610	0		3502	0	1615		0	0	1644	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.17	0.17		0.00	0.23	0.00		0.23	0.00	0.18		0.00	0.00	0.01	
Crit Moves:	****					****			****						****	
Green/Cycle:	0.00	0.38	0.38		0.00	0.38	0.00		0.38	0.00	0.58		0.00	0.00	0.20	
Volume/Cap:	0.00	0.44	0.44		0.00	0.60	0.00		0.60	0.00	0.31		0.00	0.00	0.05	
Uniform Del:	0.0	21.0	21.0		0.0	22.6	0.0		22.4	0.0	9.7		0.0	0.0	29.1	
IncremntDel:	0.0	0.2	0.2		0.0	0.8	0.0		0.8	0.0	0.2		0.0	0.0	0.1	
InitQueuDel:	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		0.00	1.00	0.00		1.00	0.00	1.00		0.00	0.00	1.00	
Delay/Veh:	0.0	21.2	21.2		0.0	23.4	0.0		23.2	0.0	9.9		0.0	0.0	29.2	
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:	0.0	21.2	21.2		0.0	23.4	0.0		23.2	0.0	9.9		0.0	0.0	29.2	
LOS by Move:	A	C	C		A	C	A		C	A	A		A	A	C	
HCM2kAvgQ:	0	7	7		0	10	0		10	0	4		0	0	0	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.537
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 136 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	18	18	18		0	0	0		0	39	57		21	64	0	
Lanes:	1	0	1! 0	1	0	0	0	0	0	0	0	2	0	2	0	0
Volume Module:																
Base Vol:	305	1	439		0	0	0		0	1391	388		487	927	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	317	1	457		0	0	0		0	1447	404		506	964	0	
Added Vol:	0	0	0		0	0	0		0	2	16		21	29	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	317	1	457		0	0	0		0	1449	420		527	993	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:	317	1	457		0	0	0		0	1449	420		527	993	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	317	1	457		0	0	0		0	1449	420		527	993	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:	317	1	457		0	0	0		0	1449	420		527	993	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		1.00	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00	
Lanes:	1.41	0.01	1.58		0.00	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00	
Final Sat.:	2292	4	2585		0	0	0		0	3610	2842		3502	3610	0	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.24	0.18		0.00	0.00	0.00		0.00	0.40	0.15		0.15	0.28	0.00	
Crit Moves:		****												****		
Green/Cycle:	0.20	0.20	0.20		0.00	0.00	0.00		0.00	0.43	0.43		0.32	0.76	0.00	
Volume/Cap:	0.69	1.19	0.88		0.00	0.00	0.00		0.00	0.93	0.34		0.47	0.36	0.00	
Uniform Del:	33.4	36.0	35.0		0.0	0.0	0.0		0.0	24.1	17.0		24.3	3.7	0.0	
IncremntDel:	1.9	101	10.5		0.0	0.0	0.0		0.0	9.8	0.2		0.3	0.1	0.0	
InitQueuDel:	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	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	35.3	137	45.5		0.0	0.0	0.0		0.0	34.0	17.1		24.6	3.8	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:	35.3	137	45.5		0.0	0.0	0.0		0.0	34.0	17.1		24.6	3.8	0.0	
LOS by Move:	D	F	D		A	A	A		A	C	B		C	A	A	
HCM2kAvgQ:	7	22	11		0	0	0		0	25	4		6	5	0	

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 0.900
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 47.4
Optimal Cycle: 113 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1! 0	0	2	0	0	1	0	1	0	1	1	0	1	0	2	0	1
Volume Module:																
Base Vol:	16	87	274		612	119	34		28	809	9		274	800	327	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	17	90	285		636	124	35		29	841	9		285	832	340	
Added Vol:	0	0	0		0	0	0		0	19	0		0	29	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	17	90	285		636	124	35		29	860	9		285	861	340	
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:	17	90	285		636	124	35		29	860	9		285	861	340	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	17	90	285		636	124	35		29	860	9		285	861	340	
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:	17	90	285		636	124	35		29	860	9		285	861	340	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.90	0.90		0.92	0.97	0.97		0.95	0.95	0.95		0.95	0.95	0.85	
Lanes:	0.04	0.23	0.73		2.00	0.78	0.22		1.00	1.98	0.02		1.00	2.00	1.00	
Final Sat.:	73	395	1243		3502	1429	408		1805	3564	39		1805	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.23	0.23	0.23		0.18	0.09	0.09		0.02	0.24	0.24		0.16	0.24	0.21	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.33	0.25	0.25		0.20	0.13	0.13		0.07	0.27	0.27		0.18	0.37	0.37	
Volume/Cap:	0.69	0.90	0.90		0.90	0.69	0.69		0.23	0.90	0.90		0.90	0.64	0.57	
Uniform Del:	31.9	39.6	39.6		42.8	46.1	46.1		48.2	38.8	38.8		44.4	28.4	27.4	
IncremntDel:	3.7	21.3	21.3		14.6	8.7	8.7		0.9	11.3	11.3		27.0	1.1	1.3	
InitQueuDel:	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:	35.6	60.9	60.9		57.4	54.8	54.8		49.2	50.1	50.1		71.4	29.5	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:	35.6	60.9	60.9		57.4	54.8	54.8		49.2	50.1	50.1		71.4	29.5	28.7	
LOS by Move:	D	E	E		E	D	D		D	D	D		E	C	C	
HCM2kAvgQ:	12	16	16		14	7	7		1	19	19		13	13	10	

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.608
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.8
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																	
Base Vol:	30	377	86		82	384	76		59	328	23		71	442	88	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	31	392	89		85	399	79		61	341	24		74	460	92	
Added Vol:	0	34	2		16	74	9		1	0	0		14	3	12	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	31	426	91		101	473	88		62	341	24		88	463	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:	31	426	91		101	473	88		62	341	24		88	463	104	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	31	426	91		101	473	88		62	341	24		88	463	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	
FinalVolume:	31	426	91		101	473	88		62	341	24		88	463	104	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.92	0.92	0.92		0.95	0.94	0.94		0.95	0.92	0.92	
Lanes:	0.11	1.56	0.33		0.30	1.43	0.27		1.00	1.87	0.13		1.00	1.63	0.37	
Final Sat.:	200	2725	585		536	2507	466		1805	3340	234		1805	2870	642	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.16	0.16		0.19	0.19	0.19		0.03	0.10	0.10		0.05	0.16	0.16	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.26	0.26	0.26		0.31	0.31	0.31		0.06	0.22	0.22		0.11	0.27	0.27	
Volume/Cap:	0.61	0.61	0.61		0.61	0.61	0.61		0.61	0.47	0.47		0.46	0.61	0.61	
Uniform Del:	32.7	32.7	32.7		29.3	29.3	29.3		46.1	34.2	34.2		42.0	32.2	32.2	
IncremntDel:	1.2	1.2	1.2		1.0	1.0	1.0		10.1	0.5	0.5		1.8	1.2	1.2	
InitQueuDel:	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:	33.9	33.9	33.9		30.3	30.3	30.3		56.2	34.7	34.7		43.8	33.4	33.4	
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:	33.9	33.9	33.9		30.3	30.3	30.3		56.2	34.7	34.7		43.8	33.4	33.4	
LOS by Move:	C	C	C		C	C	C		E	C	C		D	C	C	
HCM2kAvgQ:	9	9	9		10	10	10		3	6	6		3	9	9	

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.111
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 81.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	1	0	0	0
Volume Module:5:00 - 6:00 AM																	
Base Vol:	10	932	0		0	2235	16		334	0	76		0	0	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	10	969	0		0	2324	17		347	0	79		0	0	0	
Added Vol:	38	140	0		0	23	0		617	0	86		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	48	1109	0		0	2347	17		964	0	165		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:	48	1109	0		0	2347	17		964	0	165		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	48	1109	0		0	2347	17		964	0	165		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	
FinalVolume:	48	1109	0		0	2347	17		964	0	165		0	0	0	
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																	
Vol/Sat:	0.03	0.22	0.00		0.00	0.46	0.01		0.55	0.00	0.10		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.04	0.45	0.00		0.00	0.41	0.41		0.48	0.00	0.48		0.00	0.00	0.00	
Volume/Cap:	0.71	0.49	0.00		0.00	1.13	0.03		1.13	0.00	0.22		0.00	0.00	0.00	
Uniform Del:	61.8	25.4	0.0		0.0	38.4	22.9		33.6	0.0	19.4		0.0	0.0	0.0	
IncremntDel:	29.5	0.2	0.0		0.0	64.6	0.0		72.6	0.0	0.1		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	91.3	25.5	0.0		0.0	103	22.9		106.2	0.0	19.5		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:	91.3	25.5	0.0		0.0	103	22.9		106.2	0.0	19.5		0.0	0.0	0.0	
LOS by Move:	F	C	A		A	F	C		F	A	B		A	A	A	
HCM2kAvgQ:	3	11	0		0	49	0		55	0	4		0	0	0	

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.711
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.6
Optimal Cycle: 55 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	15	814	0	0	2211	166	198	0	193	0	0	0				
Added Vol:	38	177	0	0	105	3	1	0	86	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	53	991	0	0	2316	169	199	0	279	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:	53	991	0	0	2316	169	199	0	279	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	53	991	0	0	2316	169	199	0	279	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				
FinalVolume:	53	991	0	0	2316	169	199	0	279	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.20	0.00	0.00	0.46	0.11	0.11	0.00	0.18	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.04	0.68	0.00	0.00	0.64	0.64	0.25	0.00	0.25	0.00	0.00	0.00				
Volume/Cap:	0.71	0.29	0.00	0.00	0.71	0.17	0.45	0.00	0.71	0.00	0.00	0.00				
Uniform Del:	61.5	8.1	0.0	0.0	15.4	9.4	41.4	0.0	44.6	0.0	0.0	0.0				
IncremntDel:	27.5	0.0	0.0	0.0	0.8	0.1	0.7	0.0	6.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	89.0	8.2	0.0	0.0	16.2	9.5	42.1	0.0	50.6	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:	89.0	8.2	0.0	0.0	16.2	9.5	42.1	0.0	50.6	0.0	0.0	0.0				
LOS by Move:	F	A	A	A	B	A	D	A	D	A	A	A				
HCM2kAvgQ:	3	6	0	0	23	3	7	0	11	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.7
Optimal Cycle: 44 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	506	589	0	0	371	96	267	0	733	0	0	0				
Added Vol:	5	27	0	0	17	6	3	0	2	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	511	616	0	0	388	102	270	0	735	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:	511	616	0	0	388	102	270	0	735	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	511	616	0	0	388	102	270	0	735	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				
FinalVolume:	511	616	0	0	388	102	270	0	735	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1434	376	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.29	0.33	0.00	0.00	0.27	0.27	0.15	0.00	0.46	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.38	0.74	0.00	0.00	0.36	0.36	0.23	0.00	0.61	0.00	0.00	0.00				
Volume/Cap:	0.76	0.45	0.00	0.00	0.76	0.76	0.66	0.00	0.76	0.00	0.00	0.00				
Uniform Del:	32.4	6.2	0.0	0.0	34.1	34.1	41.9	0.0	17.0	0.0	0.0	0.0				
IncremntDel:	5.1	0.2	0.0	0.0	5.3	5.3	4.1	0.0	3.6	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	37.5	6.5	0.0	0.0	39.4	39.4	46.0	0.0	20.6	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:	37.5	6.5	0.0	0.0	39.4	39.4	46.0	0.0	20.6	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	C	A	A	A				
HCM2kAvgQ:	18	9	0	0	17	17	10	0	21	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.641
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.2
Optimal Cycle: 31 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	51	791	132		370	653	37		78	79	64		76	8	277	
Added Vol:	0	28	0		2	18	0		0	0	0		0	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	51	819	132		372	671	37		78	79	64		76	8	282	
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	819	132		372	671	37		78	79	64		76	8	282	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	51	819	132		372	671	37		78	79	64		76	8	282	
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:	51	819	132		372	671	37		78	79	64		76	8	282	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.63	0.91	0.91		0.64	0.64	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1192	957	781		1097	120	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.23	0.08		0.21	0.19	0.02		0.07	0.08	0.08		0.07	0.07	0.18	
Crit Moves:		****			****										****	
Green/Cycle:	0.10	0.36	0.36		0.33	0.59	0.59		0.28	0.28	0.28		0.28	0.28	0.28	
Volume/Cap:	0.28	0.64	0.23		0.64	0.32	0.04		0.24	0.30	0.30		0.25	0.25	0.64	
Uniform Del:	49.7	31.9	26.7		34.3	12.7	10.5		33.5	34.1	34.1		33.7	33.7	38.1	
IncremntDel:	0.8	1.1	0.2		2.4	0.1	0.0		0.4	0.3	0.3		0.4	0.4	3.2	
InitQueuDel:	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:	50.5	33.0	26.9		36.7	12.8	10.5		33.9	34.5	34.5		34.0	34.0	41.3	
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:	50.5	33.0	26.9		36.7	12.8	10.5		33.9	34.5	34.5		34.0	34.0	41.3	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	D	
HCM2kAvgQ:	2	14	3		12	6	1		2	4	4		3	3	10	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 1.060
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 86.1
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	93	475	25		25	528	170		436	140	81		7	57	12	
Added Vol:	0	48	0		0	100	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	93	523	25		25	628	170		436	140	81		7	57	12	
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	523	25		25	628	170		436	140	81		7	57	12	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	93	523	25		25	628	170		436	140	81		7	57	12	
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:	93	523	25		25	628	170		436	140	81		7	57	12	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.15	0.85	1.00		0.04	0.96	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	284	1603	1615		72	1824	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.33	0.33	0.02		0.34	0.34	0.10		0.24	0.12	0.12		0.04	0.04	0.04	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.31	0.31	0.31		0.32	0.32	0.32		0.23	0.23	0.23		0.05	0.05	0.05	
Volume/Cap:	1.07	1.07	0.05		1.07	1.07	0.33		1.07	0.55	0.55		0.92	0.92	0.92	
Uniform Del:	38.2	38.2	26.9		37.3	37.3	28.2		42.6	37.6	37.6		52.3	52.3	52.3	
IncremntDel:	56.8	56.8	0.0		55.8	55.8	0.4		63.7	1.5	1.5		70.5	70.5	70.5	
InitQueuDel:	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:	95.0	95.0	27.0		93.0	93.0	28.6		106.3	39.1	39.1		122.7	123	122.7	
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:	95.0	95.0	27.0		93.0	93.0	28.6		106.3	39.1	39.1		122.7	123	122.7	
LOS by Move:	F	F	C		F	F	C		F	D	D		F	F	F	
HCM2kAvgQ:	30	30	1		32	32	4		23	7	7		5	5	5	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.567
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.4
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	736	0	0	2399	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	214	0	0	191	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	950	0	0	2590	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	950	0	0	2590	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	950	0	0	2590	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	950	0	0	2590	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.18	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****											
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.21	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	0.9	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.9	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.9	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2015 East Campus Only AM
Command:	Near Term I Project AM
Volume:	Near Term I Project AM
Geometry:	Near Term I Project AM
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term I Project AM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term I Project AM

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	C	22.3	0.768	C	22.5	0.807	+ 0.145 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.0	0.638	D	43.3	1.057	+27.383 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	21.3	0.861	C	24.1	0.885	+ 2.776 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	27.4	0.822	C	24.4	0.845	-2.921 D/V
# 5 Bohannon/ Florence & Marsh Rd.	B	19.5	0.565	B	14.9	0.586	-4.688 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.5	0.586	B	16.3	0.674	-0.164 D/V
# 7 Middlefield at Marsh (Town of	C	26.2	0.610	C	26.3	0.737	+ 0.100 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.5	0.610	D	45.2	0.887	+17.687 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.9	0.559	C	20.4	0.586	-2.496 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.0	0.517	C	22.5	0.640	+ 4.585 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.0	0.464	B	13.2	0.606	-1.775 D/V
# 12 Newbridge St. & Willow Rd.	D	48.5	0.903	D	49.2	0.937	+ 0.641 D/V
# 13 Bay Rd. & Willow Rd.	C	20.0	0.694	B	20.0	0.765	-0.052 D/V
# 14 Durham St. & Willow Rd.	C	24.8	0.714	B	12.4	0.743	-12.423 D/V
# 15 Coleman Ave. & Willow Rd.	B	13.0	0.715	B	14.9	0.825	+ 1.872 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.0	0.663	B	15.8	0.798	+ 1.722 D/V
# 17 Middlefield Rd. & Willow Rd.	F	101.2	0.947	F	100.7	1.133	-0.478 D/V
# 18 Bayfront Exp. & University Ave	C	29.2	0.805	C	30.7	0.835	+ 1.450 D/V
# 19 O'Brien Dr. & University Ave.	A	6.4	0.548	A	6.2	0.555	-0.137 D/V
# 20 University & Kavanaugh	B	13.8	0.563	B	13.6	0.566	-0.266 D/V
# 21 University & Bay	C	27.7	0.661	C	27.2	0.663	-0.464 D/V
# 22 University & Runnymede	C	20.3	0.627	C	20.1	0.630	-0.237 D/V
# 23 University & Bell	A	7.6	0.246	A	7.2	0.277	-0.459 D/V
# 24 University & Donohoe	D	39.3	0.925	D	40.3	0.939	+ 1.038 D/V
# 25 NB 101 & Donohoe St	B	9.0	0.382	B	9.1	0.400	+ 0.160 D/V

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Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	17.1	0.642	B	17.5	0.646	+ 0.322 D/V
# 27 University Ave. & Woodland	D	38.7	0.891	D	38.9	0.895	+ 0.208 D/V
# 28 Middlefield Rd. & University A	C	34.3	0.734	D	39.2	0.815	+ 4.887 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.3	0.584	B	17.1	0.684	+ 9.800 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.0	0.593	B	19.2	0.620	+ 2.182 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.0	0.606	C	23.1	0.653	+ 1.131 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.5	0.470	C	25.3	0.479	-3.218 D/V
# 33 Middlefield Rd and Lytton Ave	C	34.7	0.714	D	40.1	0.816	+ 5.473 D/V
# 34 Bayfront Expy. and Facebook We	A	1.2	0.501	A	1.3	0.548	+ 0.106 D/V

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

****
Intersection #1 Bayfront Exp. & Marsh Rd.
****

Cycle (sec):	130	Critical Vol./Cap.(X):	0.807
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.5
Optimal Cycle:	85	Level Of Service:	C

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	5	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	2389	197	24		7	60	154		189	21	1037		7	20	5	
Added Vol:	183	0	0		0	0	0		0	0	442		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2572	197	24		7	60	154		189	21	1479		7	20	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:	2572	197	24		7	60	154		189	21	1479		7	20	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2572	197	24		7	60	154		189	21	1479		7	20	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	
FinalVolume:	2572	197	24		7	60	154		189	21	1479		7	20	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.50	0.12	0.12		0.02	0.02	0.10		0.12	0.12	0.53		0.02	0.02	0.02	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.61	0.61	0.61		0.12	0.12	0.12		0.14	0.14	0.75		0.04	0.04	0.04	
Volume/Cap:	0.82	0.20	0.20		0.16	0.16	0.82		0.82	0.82	0.71		0.47	0.47	0.47	
Uniform Del:	20.0	11.4	11.4		51.5	51.5	56.0		54.1	54.1	8.6		61.2	61.2	61.2	
IncremntDel:	1.9	0.1	0.1		0.2	0.2	24.4		18.9	18.9	1.1		4.9	4.9	4.9	
InitQueuDel:	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:	21.9	11.5	11.5		51.7	51.7	80.4		73.0	73.0	9.7		66.1	66.1	66.1	
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:	21.9	11.5	11.5		51.7	51.7	80.4		73.0	73.0	9.7		66.1	66.1	66.1	
LOS by Move:	C	B	B		D	D	F		E	E	A		E	E	E	
HCM2kAvgQ:	29	4	4		1	1	8		10	10	18		2	2	2	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 1.057
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 43.3
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	1 1	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	851	0	301		0	0	0		0	1184	526		0	854	1767	
Added Vol:	2	0	394		0	0	0		2	592	0		0	148	35	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	853	0	695		0	0	0		2	1776	526		0	1002	1802	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	853	0	695		0	0	0		2	1776	0		0	1002	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	853	0	695		0	0	0		2	1776	0		0	1002	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	853	0	695		0	0	0		2	1776	0		0	1002	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3375	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.25	0.00	0.44		0.00	0.00	0.00		0.53	0.53	0.00		0.00	0.28	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.41	0.00	0.41		0.00	0.00	0.00		0.50	0.50	0.00		0.00	0.50	0.00	
Volume/Cap:	0.60	0.00	1.06		0.00	0.00	0.00		1.06	1.06	0.00		0.00	0.57	0.00	
Uniform Del:	18.2	0.0	23.4		0.0	0.0	0.0		20.1	20.1	0.0		0.0	14.1	0.0	
IncremntDel:	0.7	0.0	51.3		0.0	0.0	0.0		39.0	39.0	0.0		0.0	0.4	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	18.9	0.0	74.7		0.0	0.0	0.0		59.1	59.1	0.0		0.0	14.5	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:	18.9	0.0	74.7		0.0	0.0	0.0		59.1	59.1	0.0		0.0	14.5	0.0	
LOS by Move:	B	A	E		A	A	A		E	E	A		A	B	A	
HCM2kAvgQ:	9	0	27		0	0	0		35	35	0		0	10	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.885
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: 82 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0 0	0	0	2	0 0	0	1	0	0 2	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	86	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		914	0	580		0	867	606		0	1483	89	
Added Vol:	0	0	0		315	0	7		0	282	0		0	62	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1229	0	587		0	1149	606		0	1545	89	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1229	0	587		0	1149	0		0	1545	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1229	0	587		0	1149	0		0	1545	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1229	0	587		0	1149	0		0	1545	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.36	0.00	0.37		0.00	0.32	0.00		0.00	0.44	0.00	
Crit Moves:							****							****		
Green/Cycle:	0.00	0.00	0.00		0.42	0.00	0.42		0.00	0.49	0.00		0.00	0.49	0.00	
Volume/Cap:	0.00	0.00	0.00		0.85	0.00	0.89		0.00	0.66	0.00		0.00	0.89	0.00	
Uniform Del:	0.0	0.0	0.0		21.0	0.0	21.5		0.0	15.2	0.0		0.0	18.2	0.0	
IncremntDel:	0.0	0.0	0.0		5.2	0.0	13.5		0.0	0.9	0.0		0.0	5.8	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		26.2	0.0	35.0		0.0	16.1	0.0		0.0	24.1	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:	0.0	0.0	0.0		26.2	0.0	35.0		0.0	16.1	0.0		0.0	24.1	0.0	
LOS by Move:	A	A	A		C	A	C		A	B	A		A	C	A	
HCM2kAvgQ:	0	0	0		17	0	17		0	12	0		0	22	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.845
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 24.4
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0 0	2		0 1	0 0	1		1 0	2 1	0		2 0	1 1	0	
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	28	3	51		231	19	3		16	1176	30		279	1473	291	
Added Vol:	0	0	0		0	0	0		0	282	0		0	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	28	3	51		231	19	3		16	1458	30		279	1542	291	
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	3	51		231	19	3		16	1458	30		279	1542	291	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	28	3	51		231	19	3		16	1458	30		279	1542	291	
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:	28	3	51		231	19	3		16	1458	30		279	1542	291	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.93	0.07	1.00		1.00	2.94	0.06		2.00	1.68	0.32	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4965	103		3432	2904	549	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.14	0.14	0.00		0.01	0.29	0.29		0.08	0.53	0.53	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.05	0.05	0.05		0.15	0.15	0.15		0.05	0.49	0.49		0.14	0.57	0.57	
Volume/Cap:	0.35	0.35	0.37		0.93	0.93	0.01		0.18	0.60	0.60		0.60	0.93	0.93	
Uniform Del:	36.7	36.7	36.8		33.5	33.5	28.9		36.4	14.8	14.8		32.6	15.5	15.5	
IncremntDel:	2.4	2.4	1.6		35.5	35.5	0.0		1.0	0.4	0.4		2.2	8.0	8.0	
InitQueuDel:	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:	39.1	39.1	38.4		69.0	69.0	28.9		37.4	15.2	15.2		34.8	23.5	23.5	
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:	39.1	39.1	38.4		69.0	69.0	28.9		37.4	15.2	15.2		34.8	23.5	23.5	
LOS by Move:	D	D	D		E	E	C		D	B	B		C	C	C	
HCM2kAvgQ:	1	1	1		10	10	0		1	10	10		4	27	27	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 26 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0 1	0		1 1	0 0	1		1 0	1 1	0		1 0	2 0	1	
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	16	9	8		406	31	95		122	828	60		48	1187	336	
Added Vol:	0	0	0		0	0	0		0	282	0		0	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	16	9	8		406	31	95		122	1110	60		48	1256	336	
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	9	8		406	31	95		122	1110	60		48	1256	336	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	16	9	8		406	31	95		122	1110	60		48	1256	336	
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:	16	9	8		406	31	95		122	1110	60		48	1256	336	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.90	0.10		1.00	2.00	1.00	
Final Sat.:	1769	916	814		3306	254	1583		1769	3329	181		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.12	0.12	0.06		0.07	0.33	0.33		0.03	0.35	0.21	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.20	0.20	0.20		0.11	0.61	0.61		0.09	0.58	0.58	
Volume/Cap:	0.18	0.20	0.20		0.61	0.61	0.30		0.61	0.55	0.55		0.30	0.61	0.36	
Uniform Del:	36.4	36.5	36.5		29.0	29.0	27.1		33.8	9.3	9.3		34.0	10.7	8.8	
IncremntDel:	1.0	1.2	1.2		1.5	1.5	0.5		5.3	0.3	0.3		1.0	0.5	0.2	
InitQueuDel:	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:	37.4	37.6	37.6		30.5	30.5	27.6		39.0	9.6	9.6		35.0	11.2	9.0	
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:	37.4	37.6	37.6		30.5	30.5	27.6		39.0	9.6	9.6		35.0	11.2	9.0	
LOS by Move:	D	D	D		C	C	C		D	A	A		D	B	A	
HCM2kAvgQ:	1	1	1		6	6	2		4	9	9		1	11	5	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.674
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.3
Optimal Cycle: 32 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1	0	1	0	1	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177		112	28	5		2	665	66		264	982	22	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	73	3	184		116	29	5		2	692	69		275	1021	23	
Added Vol:	1	0	0		0	0	0		0	282	2		0	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	74	3	184		116	29	5		2	974	71		275	1090	23	
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:	74	3	184		116	29	5		2	974	71		275	1090	23	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	74	3	184		116	29	5		2	974	71		275	1090	23	
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:	74	3	184		116	29	5		2	974	71		275	1090	23	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.80	0.80	0.80		0.54	0.54	0.54		0.88	0.88	0.88		0.93	0.93	0.93	
Lanes:	0.28	0.01	0.71		0.78	0.19	0.03		0.01	1.86	0.13		1.00	1.96	0.04	
Final Sat.:	427	18	1066		797	199	36		7	3112	226		1769	3455	72	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.15	0.15	0.15		0.31	0.31	0.31		0.16	0.32	0.32	
Crit Moves:		****								****			****			
Green/Cycle:	0.26	0.26	0.26		0.26	0.26	0.26		0.46	0.46	0.46		0.23	0.69	0.69	
Volume/Cap:	0.68	0.68	0.68		0.57	0.57	0.57		0.67	0.67	0.67		0.67	0.45	0.45	
Uniform Del:	26.8	26.8	26.8		26.0	26.0	26.0		16.7	16.7	16.7		28.0	5.4	5.4	
IncremntDel:	4.8	4.8	4.8		3.0	3.0	3.0		1.2	1.2	1.2		4.4	0.1	0.1	
InitQueuDel:	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:	31.6	31.6	31.6		29.0	29.0	29.0		17.9	17.9	17.9		32.4	5.6	5.6	
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:	31.6	31.6	31.6		29.0	29.0	29.0		17.9	17.9	17.9		32.4	5.6	5.6	
LOS by Move:	C	C	C		C	C	C		B	B	B		C	A	A	
HCM2kAvgQ:	7	7	7		4	4	4		11	11	11		7	7	7	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.737
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 61 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397		342	367	0		0	0	0		463	0	169	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	173	413		356	382	0		0	0	0		482	0	176	
Added Vol:	0	8	110		174	64	0		0	0	0		26	0	44	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	181	523		530	446	0		0	0	0		508	0	220	
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	181	523		530	446	0		0	0	0		508	0	220	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	181	523		530	446	0		0	0	0		508	0	220	
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:	0	181	523		530	446	0		0	0	0		508	0	220	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.10	0.32		0.29	0.23	0.00		0.00	0.00	0.00		0.28	0.00	0.14	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.13	0.51		0.40	0.53	0.00		0.00	0.00	0.00		0.38	0.00	0.78	
Volume/Cap:	0.00	0.74	0.63		0.74	0.44	0.00		0.00	0.00	0.00		0.74	0.00	0.17	
Uniform Del:	0.0	46.1	19.5		28.2	16.0	0.0		0.0	0.0	0.0		29.3	0.0	3.1	
IncremntDel:	0.0	11.1	1.6		4.0	0.3	0.0		0.0	0.0	0.0		4.2	0.0	0.1	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	57.2	21.1		32.2	16.4	0.0		0.0	0.0	0.0		33.4	0.0	3.1	
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:	0.0	57.2	21.1		32.2	16.4	0.0		0.0	0.0	0.0		33.4	0.0	3.1	
LOS by Move:	A	E	C		C	B	A		A	A	A		C	A	A	
HCM2kAvgQ:	0	8	13		16	9	0		0	0	0		16	0	2	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.887
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 45.2
Optimal Cycle: 117 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM																				
Base Vol:	1034	2108		6	13	677		92	84	34		379	3		6	5
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	1075	2192		6	14	704		96	87	35		394	3		6	5
Added Vol:	36	202		24	441	42		0	0	838		2	24		30	14
PasserByVol:	0	0		0	0	0		0	0	0		0	0		0	0
Initial Fut:	1111	2394		30	455	746		96	87	873		396	27		36	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:	1111	2394		30	455	746		96	87	873		396	27		36	19
Reduct Vol:	0	0		0	0	0		0	0	0		0	0		0	0
Reduced Vol:	1111	2394		30	455	746		96	87	873		396	27		36	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
FinalVolume:	1111	2394		30	455	746		96	87	873		396	27		36	19
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.93	0.93	0.88	0.93	0.93	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00
Final Sat.:	3432	5846	1583	3432	5846	1583	1760	3520	3343	1769	3538	1583
Capacity Analysis Module:																
Vol/Sat:	0.32	0.41	0.02	0.13	0.13	0.06	0.05	0.25	0.12	0.02	0.01	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.43	0.45	0.49	0.15	0.17	0.17	0.27	0.27	0.27	0.04	0.04	0.04
Volume/Cap:	0.76	0.91	0.04	0.91	0.76	0.36	0.18	0.91	0.43	0.40	0.27	0.32
Uniform Del:	31.5	33.2	17.3	54.7	51.5	47.8	36.2	45.7	39.0	61.0	60.7	60.8
IncremntDel:	2.3	5.2	0.0	20.5	3.4	0.8	0.0	11.4	0.3	3.8	1.1	3.0
InitQueuDel:	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:	33.8	38.4	17.3	75.2	54.9	48.7	36.2	57.1	39.3	64.8	61.8	63.8
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:	33.8	38.4	17.3	75.2	54.9	48.7	36.2	57.1	39.3	64.8	61.8	63.8
LOS by Move:	C	D	B	E	D	D	D	E	D	E	E	E
HCM2kAvgQ:	20	36	1	12	12	4	3	21	7	2	1	1

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.4
Optimal Cycle: 46 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am																				
Base Vol:	18	13		26	71	19		72	115	415		52	56	1037		74
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	19	14		27	74	20		75	120	432		54	58	1078		77
Added Vol:	0	0		0	0	0		8	2	839		0	0	66		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	19	14		27	74	20		83	122	1271		54	58	1144		77
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:	19	14		27	74	20		83	122	1271		54	58	1144		77
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	19	14		27	74	20		83	122	1271		54	58	1144		77
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:	19	14		27	74	20		83	122	1271		54	58	1144		77
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.83	0.83	0.78	0.78	0.78	0.93	0.93	0.93	0.93	0.92	0.92
Lanes:	0.31	0.23	0.46	0.42	0.11	0.47	1.00	1.92	0.08	1.00	1.87	0.13
Final Sat.:	500	361	722	621	166	697	1769	3373	144	1769	3285	221
Capacity Analysis Module:																
Vol/Sat:	0.04	0.04	0.04	0.12	0.12	0.12	0.07	0.38	0.38	0.03	0.35	0.35
Crit Moves:					****		****				****	
Green/Cycle:	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.65	0.65	0.07	0.59	0.59
Volume/Cap:	0.18	0.18	0.18	0.59	0.59	0.59	0.59	0.58	0.58	0.50	0.59	0.59
Uniform Del:	42.9	42.9	42.9	46.9	46.9	46.9	54.4	13.0	13.0	58.6	16.4	16.4
IncremntDel:	0.3	0.3	0.3	3.0	3.0	3.0	4.3	0.4	0.4	3.3	0.4	0.4
InitQueuDel:	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:	43.2	43.2	43.2	49.8	49.8	49.8	58.6	13.4	13.4	62.0	16.8	16.8
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:	43.2	43.2	43.2	49.8	49.8	49.8	58.6	13.4	13.4	62.0	16.8	16.8
LOS by Move:	D	D	D	D	D	D	E	B	B	E	B	B
HCM2kAvgQ:	2	2	2	7	7	7	5	16	16	3	16	16

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.640
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	1	1	0
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																		
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		1	0	193		85	678	0		0	1062	15	
Added Vol:	0	0	0		115	0	6		7	726	0		0	65	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		116	0	199		92	1404	0		0	1127	24	
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	0	0		116	0	199		92	1404	0		0	1127	24	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		116	0	199		92	1404	0		0	1127	24	
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:	0	0	0		116	0	199		92	1404	0		0	1127	24	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.88	1.00	0.88		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.37	0.00	0.63		1.00	2.00	0.00		0.00	1.96	0.04	
Final Sat.:	0	0	0		615	0	1058		1769	3538	0		0	3455	72	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.19	0.00	0.19		0.05	0.40	0.00		0.00	0.33	0.33	
Crit Moves:							****			****			****			
Green/Cycle:	0.00	0.00	0.00		0.29	0.00	0.29		0.09	0.62	0.00		0.00	0.53	0.53	
Volume/Cap:	0.00	0.00	0.00		0.64	0.00	0.64		0.61	0.64	0.00		0.00	0.61	0.61	
Uniform Del:	0.0	0.0	0.0		39.8	0.0	39.8		57.3	15.5	0.0		0.0	20.9	20.9	
IncremntDel:	0.0	0.0	0.0		2.8	0.0	2.8		7.1	0.6	0.0		0.0	0.6	0.6	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		42.7	0.0	42.7		64.4	16.2	0.0		0.0	21.4	21.4	
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:	0.0	0.0	0.0		42.7	0.0	42.7		64.4	16.2	0.0		0.0	21.4	21.4	
LOS by Move:	A	A	A		D	A	D		E	B	A		A	C	C	
HCM2kAvgQ:	0	0	0		12	0	12		5	19	0		0	17	17	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.606
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.2
Optimal Cycle: 48 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1	0	1!	0	0	0	0	0	0	0	2	0	1	1	0	2	0	0
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																		
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	135	0	70		0	0	0		0	725	260		106	1218	0	
Added Vol:	10	0	0		0	0	0		0	733	2		0	71	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	145	0	70		0	0	0		0	1458	262		106	1289	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	70		0	0	0		0	1458	262		106	1289	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	145	0	70		0	0	0		0	1458	262		106	1289	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:	145	0	70		0	0	0		0	1458	262		106	1289	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.51	0.00	0.49		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2586	0	839		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.00	0.08		0.00	0.00	0.00		0.00	0.41	0.17		0.06	0.36	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.14	0.00	0.14		0.00	0.00	0.00		0.00	0.68	0.68		0.10	0.78	0.00	
Volume/Cap:	0.41	0.00	0.61		0.00	0.00	0.00		0.00	0.61	0.24		0.61	0.47	0.00	
Uniform Del:	51.3	0.0	52.8		0.0	0.0	0.0		0.0	11.4	8.0		56.1	5.0	0.0	
IncremntDel:	0.5	0.0	3.0		0.0	0.0	0.0		0.0	0.4	0.1		6.0	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	51.8	0.0	55.8		0.0	0.0	0.0		0.0	11.8	8.1		62.1	5.1	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:	51.8	0.0	55.8		0.0	0.0	0.0		0.0	11.8	8.1		62.1	5.1	0.0	
LOS by Move:	D	A	E		A	A	A		A	B	A		E	A	A	
HCM2kAvgQ:	4	0	6		0	0	0		0	17	4		5	9	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.937
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 49.2
Optimal Cycle: 156 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																				
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	364	115	37		29	185	399		154	859	161		29	1270	4	
Added Vol:	0	0	0		0	0	3		10	735	0		0	80	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	364	115	37		29	185	402		164	1594	161		29	1350	4	
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:	364	115	37		29	185	402		164	1594	161		29	1350	4	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	364	115	37		29	185	402		164	1594	161		29	1350	4	
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:	364	115	37		29	185	402		164	1594	161		29	1350	4	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.88	0.88		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.72	0.28		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4552	460		1769	3527	11	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.06	0.02		0.02	0.10	0.25		0.09	0.35	0.35		0.02	0.38	0.38	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.11	0.11	0.11		0.27	0.27	0.27		0.10	0.46	0.46		0.05	0.41	0.41	
Volume/Cap:	0.94	0.55	0.21		0.06	0.37	0.94		0.94	0.77	0.77		0.33	0.94	0.94	
Uniform Del:	57.2	54.5	52.3		35.1	38.3	46.3		58.2	29.5	29.5		59.6	36.8	36.8	
IncremntDel:	30.0	3.0	0.6		0.1	0.5	28.0		49.7	1.6	1.6		2.2	11.7	11.7	
InitQueuDel:	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:	87.1	57.5	52.9		35.1	38.8	74.3		107.9	31.1	31.1		61.8	48.5	48.5	
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:	87.1	57.5	52.9		35.1	38.8	74.3		107.9	31.1	31.1		61.8	48.5	48.5	
LOS by Move:	F	E	D		D	D	E		F	C	C		E	D	D	
HCM2kAvgQ:	11	5	1		1	6	20		10	22	22		1	32	32	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.765
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 67 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																				
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		375	0	78		67	1433	0		0	1159	332	
Added Vol:	0	0	0		2	0	0		0	220	0		0	50	3	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		377	0	78		67	1653	0		0	1209	335	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		377	0	78		67	1653	0		0	1209	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		377	0	78		67	1653	0		0	1209	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		377	0	78		67	1653	0		0	1209	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.21	0.00	0.05		0.04	0.47	0.00		0.00	0.34	0.00	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.28	0.00	0.28		0.08	0.61	0.00		0.00	0.53	0.00	
Volume/Cap:	0.00	0.00	0.00		0.76	0.00	0.18		0.48	0.76	0.00		0.00	0.64	0.00	
Uniform Del:	0.0	0.0	0.0		33.0	0.0	27.3		44.2	14.2	0.0		0.0	16.6	0.0	
IncremntDel:	0.0	0.0	0.0		7.0	0.0	0.2		2.6	1.7	0.0		0.0	0.8	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		40.1	0.0	27.5		46.8	15.9	0.0		0.0	17.3	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:	0.0	0.0	0.0		40.1	0.0	27.5		46.8	15.9	0.0		0.0	17.3	0.0	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		12	0	2		3	21	0		0	14	0	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.743
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.4
Optimal Cycle: 51 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	64	17	130		40	2	2		12	1041	9		43	884	148	
Added Vol:	0	0	0		0	0	0		0	220	0		0	50	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	64	17	130		40	2	2		12	1261	9		43	934	148	
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:	64	17	130		40	2	2		12	1261	9		43	934	148	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	64	17	130		40	2	2		12	1261	9		43	934	148	
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:	64	17	130		40	2	2		12	1261	9		43	934	148	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.50	0.50	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.99	0.01		1.00	0.86	0.14	
Final Sat.:	1367	183	1431		895	47	1583		1769	3508	26		1769	1574	249	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.09	0.09		0.04	0.04	0.00		0.01	0.36	0.36		0.02	0.59	0.59	
Crit Moves:		****							****					****		
Green/Cycle:	0.12	0.12	0.12		0.12	0.12	0.12		0.04	0.73	0.73		0.08	0.77	0.77	
Volume/Cap:	0.40	0.77	0.77		0.37	0.37	0.01		0.18	0.49	0.49		0.30	0.77	0.77	
Uniform Del:	40.8	42.8	42.8		40.7	40.7	38.9		46.4	5.7	5.7		43.2	6.4	6.4	
IncremntDel:	1.6	17.1	17.1		2.1	2.1	0.0		1.2	0.1	0.1		1.2	2.6	2.6	
InitQueuDel:	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:	42.4	59.9	59.9		42.8	42.8	39.0		47.6	5.8	5.8		44.4	9.0	9.0	
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:	42.4	59.9	59.9		42.8	42.8	39.0		47.6	5.8	5.8		44.4	9.0	9.0	
LOS by Move:	D	E	E		D	D	D		D	A	A		D	A	A	
HCM2kAvgQ:	2	6	6		2	2	0		1	9	9		2	20	20	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.825
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 68 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	62	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	3	3	8		148	6	50		18	928	5		6	888	64	
Added Vol:	0	0	0		0	0	0		0	220	0		0	50	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	3	8		148	6	50		18	1148	5		6	938	64	
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:	3	3	8		148	6	50		18	1148	5		6	938	64	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	8		148	6	50		18	1148	5		6	938	64	
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:	3	3	8		148	6	50		18	1148	5		6	938	64	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.19	0.98	0.98		0.12	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.94	0.06	
Final Sat.:	352	352	938		999	42	338		354	1852	8		222	1725	119	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.15	0.15	0.15		0.05	0.62	0.62		0.03	0.54	0.54	
Crit Moves:					****					****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.05	0.05	0.05		0.83	0.83	0.83		0.07	0.83	0.83		0.04	0.72	0.72	
Uniform Del:	34.0	34.0	34.0		39.5	39.5	39.5		3.3	8.2	8.2		3.2	6.8	6.8	
IncremntDel:	0.1	0.1	0.1		19.8	19.8	19.8		0.1	4.2	4.2		0.1	1.9	1.9	
InitQueuDel:	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:	34.1	34.1	34.1		59.4	59.4	59.4		3.4	12.3	12.3		3.3	8.7	8.7	
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:	34.1	34.1	34.1		59.4	59.4	59.4		3.4	12.3	12.3		3.3	8.7	8.7	
LOS by Move:	C	C	C		E	E	E		A	B	B		A	A	A	
HCM2kAvgQ:	0	0	0		8	8	8		0	25	25		0	18	18	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 61 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	72		41	869	5	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	105	88	127		32	43	7		4	826	75		43	904	5	
Added Vol:	11	0	26		0	0	0		0	194	8		4	46	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	88	153		32	43	7		4	1020	83		47	950	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:	116	88	153		32	43	7		4	1020	83		47	950	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	88	153		32	43	7		4	1020	83		47	950	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	
FinalVolume:	116	88	153		32	43	7		4	1020	83		47	950	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.89	0.89		0.29	0.96	0.96		0.21	0.97	0.97		0.14	0.98	0.98	
Lanes:	1.00	0.37	0.63		1.00	0.85	0.15		1.00	0.92	0.08		1.00	0.99	0.01	
Final Sat.:	1354	617	1068		547	1555	266		393	1703	138		264	1850	10	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.14	0.14		0.06	0.03	0.03		0.01	0.60	0.60		0.18	0.51	0.51	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.48	0.80	0.80		0.33	0.15	0.15		0.01	0.80	0.80		0.24	0.68	0.68	
Uniform Del:	36.8	39.3	39.3		35.8	34.6	34.6		3.1	7.8	7.8		3.8	6.4	6.4	
IncremntDel:	1.5	13.8	13.8		2.0	0.2	0.2		0.0	3.4	3.4		0.6	1.4	1.4	
InitQueuDel:	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:	38.3	53.1	53.1		37.7	34.8	34.8		3.2	11.1	11.1		4.4	7.8	7.8	
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:	38.3	53.1	53.1		37.7	34.8	34.8		3.2	11.1	11.1		4.4	7.8	7.8	
LOS by Move:	D	D	D		D	C	C		A	B	B		A	A	A	
HCM2kAvgQ:	4	9	9		1	1	1		0	23	23		1	16	16	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.133
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 100.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	70	356	255		424	335	10		17	173	122		437	67	514	
Added Vol:	15	9	114		80	7	0		0	8	10		18	18	21	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	85	365	369		504	342	10		17	181	132		455	85	535	
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	365	369		504	342	10		17	181	132		455	85	535	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	85	365	366		504	342	10		17	181	132		455	85	535	
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:	85	365	366		504	342	10		17	181	132		455	85	535	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.76	1.20	0.04		1.00	1.00	1.00		1.69	0.31	1.00	
Final Sat.:	1769	3538	791		3028	2052	62		1769	1862	1583		3015	560	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.10	0.46		0.17	0.17	0.17		0.01	0.10	0.08		0.15	0.15	0.34	
Crit Moves:			****			****				****					****	
Green/Cycle:	0.41	0.41	0.41		0.15	0.15	0.15		0.09	0.09	0.09		0.30	0.30	0.30	
Volume/Cap:	0.12	0.25	1.13		1.13	1.13	1.13		0.11	1.13	0.97		0.51	0.51	1.13	
Uniform Del:	23.9	25.4	38.5		55.4	55.4	55.4		54.9	59.4	59.3		37.7	37.7	45.6	
IncremntDel:	0.1	0.1	91.2		76.0	76.0	76.0		0.3	112	68.5		0.4	0.4	83.4	
InitQueuDel:	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:	24.0	25.5	129.7		131.5	131	131.5		55.2	171	127.8		38.1	38.1	129.0	
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:	24.0	25.5	129.7		131.5	131	131.5		55.2	171	127.8		38.1	38.1	129.0	
LOS by Move:	C	C	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	5	23		20	20	20		1	13	9		9	9	32	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.835
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 30.7
Optimal Cycle: 92 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0	0	884	188	179	0	429	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	1603	2997	0	0	919	196	186	0	446	0	0	0				
Added Vol:	10	439	0	0	61	8	109	0	2	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	1613	3436	0	0	980	204	295	0	448	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:	1613	3436	0	0	980	204	295	0	448	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1613	3436	0	0	980	204	295	0	448	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				
FinalVolume:	1613	3436	0	0	980	204	295	0	448	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.47	0.68	0.00	0.00	0.19	0.13	0.09	0.00	0.11	0.00	0.00	0.00				
Crit Moves:		****		****					****							
Green/Cycle:	0.57	0.81	0.00	0.00	0.24	0.24	0.13	0.00	0.13	0.00	0.00	0.00				
Volume/Cap:	0.82	0.84	0.00	0.00	0.82	0.55	0.67	0.00	0.84	0.00	0.00	0.00				
Uniform Del:	27.4	9.0	0.0	0.0	57.9	53.7	66.5	0.0	68.1	0.0	0.0	0.0				
IncremntDel:	2.8	1.6	0.0	0.0	4.6	1.7	4.0	0.0	10.9	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	30.3	10.6	0.0	0.0	62.5	55.4	70.5	0.0	79.0	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:	30.3	10.6	0.0	0.0	62.5	55.4	70.5	0.0	79.0	0.0	0.0	0.0				
LOS by Move:	C	B	A	A	E	E	E	A	E	A	A	A				
HCM2kAvgQ:	34	37	0	0	18	9	8	0	10	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.555
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.2
Optimal Cycle: 41 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	5	5	5	0	0	5	5				
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0	22	0	22	68	526	0	0	1341	46				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	0	0	0	23	0	23	71	547	0	0	1395	48				
Added Vol:	0	0	0	2	0	0	0	109	0	0	8	10				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	25	0	23	71	656	0	0	1403	58				
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	0	0	25	0	23	71	656	0	0	1403	58				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	25	0	23	71	656	0	0	1403	58				
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:	0	0	0	25	0	23	71	656	0	0	1403	58				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.89	1.00	0.89	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.52	0.00	0.48	1.00	2.00	0.00	0.00	1.92	0.08				
Final Sat.:	0	0	0	884	0	813	1769	3538	0	0	3377	139				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.03	0.04	0.19	0.00	0.00	0.42	0.42				
Crit Moves:				****			****				****					
Green/Cycle:	0.00	0.00	0.00	0.06	0.00	0.06	0.07	0.81	0.00	0.00	0.74	0.74				
Volume/Cap:	0.00	0.00	0.00	0.48	0.00	0.48	0.56	0.23	0.00	0.00	0.56	0.56				
Uniform Del:	0.0	0.0	0.0	38.7	0.0	38.7	38.2	1.8	0.0	0.0	4.9	4.9				
IncremntDel:	0.0	0.0	0.0	3.6	0.0	3.6	5.6	0.0	0.0	0.0	0.3	0.3				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	42.3	0.0	42.3	43.8	1.9	0.0	0.0	5.2	5.2				
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:	0.0	0.0	0.0	42.3	0.0	42.3	43.8	1.9	0.0	0.0	5.2	5.2				
LOS by Move:	A	A	A	D	A	D	D	A	A	A	A	A				
HCM2kAvgQ:	0	0	0	2	0	2	3	2	0	0	9	9				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	1	1 0	1	0	1	1 0
Volume Module:																
Base Vol:	32	37	20	8	21	44	40	582	43	25	1302	25				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	33	38	21	8	22	46	42	605	45	26	1354	26				
Added Vol:	0	0	0	0	0	0	0	109	0	0	8	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	33	38	21	8	22	46	42	714	45	26	1362	26				
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:	33	38	21	8	22	46	42	714	45	26	1362	26				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	33	38	21	8	22	46	42	714	45	26	1362	26				
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:	33	38	21	8	22	46	42	714	45	26	1362	26				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.94	0.94	0.95	0.95	0.95				
Lanes:	0.36	0.42	0.22	0.11	0.29	0.60	1.00	1.88	0.12	1.00	1.96	0.04				
Final Sat.:	651	752	407	190	500	1047	1805	3367	211	1805	3532	67				
Capacity Analysis Module:																
Vol/Sat:	0.05	0.05	0.05	0.04	0.04	0.04	0.02	0.21	0.21	0.01	0.39	0.39				
Crit Moves:	****				****		****				****					
Green/Cycle:	0.09	0.08	0.08	0.08	0.08	0.08	0.05	0.59	0.59	0.14	0.67	0.67				
Volume/Cap:	0.57	0.61	0.61	0.53	0.57	0.57	0.46	0.36	0.36	0.10	0.57	0.57				
Uniform Del:	43.7	44.2	44.2	44.1	44.6	44.6	46.2	10.9	10.9	37.7	8.6	8.6				
IncremntDel:	4.9	7.1	7.1	3.9	5.9	5.9	3.7	0.1	0.1	0.2	0.3	0.3				
InitQueuDel:	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:	48.6	51.3	51.3	47.9	50.5	50.5	49.9	11.0	11.0	37.9	9.0	9.0				
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:	48.6	51.3	51.3	47.9	50.5	50.5	49.9	11.0	11.0	37.9	9.0	9.0				
LOS by Move:	D	D	D	D	D	D	D	B	B	D	A	A				
HCM2kAvgQ:	4	4	4	3	3	3	2	6	6	1	12	12				

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.663
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	1	0	1	0 1	1	0	1	0 1	1	0	1	1 0	1	0	1	1 0
Volume Module:																
Base Vol:	108	225	113	50	196	86	141	497	78	97	1115	49				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	112	234	118	52	204	89	147	517	81	101	1160	51				
Added Vol:	0	0	0	0	0	0	0	109	0	0	8	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	112	234	118	52	204	89	147	626	81	101	1168	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:	112	234	118	52	204	89	147	626	81	101	1168	51				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	112	234	118	52	204	89	147	626	81	101	1168	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				
FinalVolume:	112	234	118	52	204	89	147	626	81	101	1168	51				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.94	0.94				
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.77	0.23	1.00	1.92	0.08				
Final Sat.:	1805	1900	1615	1805	1900	1615	1805	3141	407	1805	3438	150				
Capacity Analysis Module:																
Vol/Sat:	0.06	0.12	0.07	0.03	0.11	0.06	0.08	0.20	0.20	0.06	0.34	0.34				
Crit Moves:	****				****		****				****					
Green/Cycle:	0.09	0.18	0.18	0.07	0.16	0.16	0.12	0.50	0.50	0.14	0.51	0.51				
Volume/Cap:	0.66	0.68	0.40	0.39	0.66	0.34	0.66	0.40	0.40	0.40	0.66	0.66				
Uniform Del:	43.8	38.2	36.1	44.2	39.4	37.2	41.9	15.9	15.9	39.3	18.0	18.0				
IncremntDel:	9.5	5.3	0.9	1.9	5.4	0.8	7.4	0.2	0.2	1.1	0.9	0.9				
InitQueuDel:	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:	53.3	43.5	37.0	46.1	44.7	38.0	49.3	16.0	16.0	40.3	19.0	19.0				
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:	53.3	43.5	37.0	46.1	44.7	38.0	49.3	16.0	16.0	40.3	19.0	19.0				
LOS by Move:	D	D	D	D	D	D	D	B	B	D	B	B				
HCM2kAvgQ:	5	8	4	2	7	3	6	7	7	3	15	15				

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.630
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.1
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	47	105	12	16	59	56	18	626	48	88	1246	61
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	49	109	12	17	61	58	19	651	50	92	1296	63
Added Vol:	0	0	0	0	0	0	0	109	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	109	12	17	61	58	19	760	50	92	1304	63
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	109	12	17	61	58	19	760	50	92	1304	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	109	12	17	61	58	19	760	50	92	1304	63
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:	49	109	12	17	61	58	19	760	50	92	1304	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.98	0.98	0.98	0.94	0.94	0.94	0.95	0.94	0.94	0.95	0.94	0.94
Lanes:	0.29	0.64	0.07	0.12	0.45	0.43	1.00	1.88	0.12	1.00	1.91	0.09
Final Sat.:	532	1187	136	217	801	761	1805	3357	220	1805	3418	166
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.08	0.08	0.08	0.01	0.23	0.23	0.05	0.38	0.38
Crit Moves:	****				****		****				****	
Green/Cycle:	0.14	0.14	0.14	0.12	0.12	0.12	0.05	0.52	0.52	0.12	0.58	0.58
Volume/Cap:	0.65	0.65	0.65	0.65	0.65	0.65	0.21	0.44	0.44	0.44	0.65	0.65
Uniform Del:	40.7	40.7	40.7	42.2	42.2	42.2	45.6	15.1	15.1	41.2	14.1	14.1
IncremntDel:	5.9	5.9	5.9	7.3	7.3	7.3	1.1	0.2	0.2	1.5	0.8	0.8
InitQueuDel:	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	46.6	46.6	49.5	49.5	49.5	46.7	15.3	15.3	42.7	14.8	14.8
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:	46.6	46.6	46.6	49.5	49.5	49.5	46.7	15.3	15.3	42.7	14.8	14.8
LOS by Move:	D	D	D	D	D	D	D	B	B	D	B	B
HCM2kAvgQ:	6	6	6	5	5	5	1	8	8	3	15	15

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap.(X): 0.277
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	14	14	14	14	14	14	73	73	73	73	73	73
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	18	59	9	7	43	11	15	614	24	15	123	24
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	19	61	9	7	45	11	16	639	25	16	128	25
Added Vol:	0	0	0	0	0	0	0	109	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	61	9	7	45	11	16	748	25	16	136	25
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:	19	61	9	7	45	11	16	748	25	16	136	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	61	9	7	45	11	16	748	25	16	136	25
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:	19	61	9	7	45	11	16	748	25	16	136	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.95	0.95	0.95	0.64	0.95	0.95	0.33	0.93	0.93
Lanes:	0.21	0.69	0.10	0.11	0.71	0.18	1.00	1.94	0.06	1.00	1.69	0.31
Final Sat.:	370	1212	185	207	1272	325	1224	3476	116	631	2980	547
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.04	0.04	0.04	0.01	0.22	0.22	0.02	0.05	0.05
Crit Moves:		****						****				
Green/Cycle:	0.18	0.18	0.18	0.18	0.18	0.18	0.78	0.78	0.78	0.78	0.78	0.78
Volume/Cap:	0.28	0.28	0.28	0.19	0.19	0.19	0.02	0.28	0.28	0.03	0.06	0.06
Uniform Del:	33.4	33.4	33.4	32.9	32.9	32.9	2.4	3.1	3.1	2.5	2.5	2.5
IncremntDel:	0.5	0.5	0.5	0.3	0.3	0.3	0.0	0.1	0.1	0.0	0.0	0.0
InitQueuDel:	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:	33.9	33.9	33.9	33.2	33.2	33.2	2.4	3.1	3.1	2.5	2.5	2.5
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:	33.9	33.9	33.9	33.2	33.2	33.2	2.4	3.1	3.1	2.5	2.5	2.5
LOS by Move:	C	C	C	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	2	2	2	0	3	3	0	1	1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.939
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 40.3
Optimal Cycle: 130 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1 1	1	0	1	0 1	2	0	2	0 1	1	0	1	1 0
Volume Module:																
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	376	454	341		11	129	398		122	366	294		51	1253	71	
Added Vol:	0	0	60		0	0	0		0	49	0		0	8	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	376	454	401		11	129	398		122	415	294		51	1261	71	
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:	376	454	401		11	129	398		122	415	294		51	1261	71	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	376	454	401		11	129	398		122	415	294		51	1261	71	
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:	376	454	401		11	129	398		122	415	294		51	1261	71	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.22	1.48	1.30		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.89	0.11	
Final Sat.:	2067	2495	2202		1805	1900	1615		3502	3610	1615		1805	3391	190	
Capacity Analysis Module:																
Vol/Sat:	0.18	0.18	0.18		0.01	0.07	0.25		0.03	0.11	0.18		0.03	0.37	0.37	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.19	0.35	0.35		0.10	0.26	0.26		0.05	0.35	0.35		0.09	0.39	0.39	
Volume/Cap:	0.95	0.52	0.52		0.07	0.26	0.95		0.69	0.33	0.53		0.30	0.95	0.95	
Uniform Del:	40.0	25.6	25.6		41.0	29.5	36.5		46.7	24.2	26.2		42.2	29.6	29.6	
IncremntDel:	15.2	0.2	0.2		0.2	0.3	32.1		11.5	0.2	0.9		1.0	14.4	14.4	
InitQueuDel:	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:	55.2	25.8	25.8		41.2	29.8	68.6		58.2	24.4	27.1		43.1	44.0	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:	55.2	25.8	25.8		41.2	29.8	68.6		58.2	24.4	27.1		43.1	44.0	44.0	
LOS by Move:	E	C	C		D	C	E		E	C	C		D	D	D	
HCM2kAvgQ:	14	8	8		0	3	17		3	5	8		2	26	26	

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.400
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0	2	1 0	0	0	2	0 0	2	0	0	0 1	0	0	0	0 1
Volume Module:																
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	113	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	870	8		0	469	0		380	0	146		0	0	118	
Added Vol:	0	0	0		0	0	0		60	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	870	8		0	469	0		440	0	146		0	0	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:	0	870	8		0	469	0		440	0	146		0	0	118	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	870	8		0	469	0		440	0	146		0	0	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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	958	9		0	492	0		453	0	146		0	0	118	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5646	54		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.17	0.17		0.00	0.13	0.00		0.13	0.00	0.09		0.00	0.00	0.08	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.00	0.42	0.42		0.00	0.42	0.00		0.31	0.00	0.51		0.00	0.00	0.20	
Volume/Cap:	0.00	0.40	0.40		0.00	0.31	0.00		0.40	0.00	0.18		0.00	0.00	0.40	
Uniform Del:	0.0	9.9	9.9		0.0	9.4	0.0		13.3	0.0	6.4		0.0	0.0	17.2	
IncremntDel:	0.0	0.1	0.1		0.0	0.0	0.0		0.1	0.0	0.0		0.0	0.0	0.5	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	8.4	8.4		0.0	8.0	0.0		11.4	0.0	5.5		0.0	0.0	15.1	
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:	0.0	8.4	8.4		0.0	8.0	0.0		11.4	0.0	5.5		0.0	0.0	15.1	
DesignQueue:	0	7	7		0	5	0		6	0	3		0	0	3	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.646
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 88 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	16		16	16	0		0	0	0		29	45	28		61	0
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	317	1	220	0	0		0	0	828		379	798	1527			0
Growth Adj:	1.04	1.04	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04
Initial Bse:	330	1	229	0	0		0	0	861		394	830	1588			0
Added Vol:	0	0	0	0	0		0	0	49		6	4	12			0
PasserByVol:	0	0	0	0	0		0	0	0		0	0	0			0
Initial Fut:	330	1	229	0	0		0	0	910		400	834	1600			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	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	1.00
PHF Volume:	330	1	229	0	0		0	0	910		400	834	1600			0
Reduct Vol:	0	0	0	0	0		0	0	0		0	0	0			0
Reduced Vol:	330	1	229	0	0		0	0	910		400	834	1600			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	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	1.00
FinalVolume:	330	1	229	0	0		0	0	910		400	834	1600			0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00		1.00	1.00	0.95		0.75	0.92	0.95		1.00	1.00
Lanes:	1.58	0.01	1.41	0.00	0.00		0.00	0.00	2.00		2.00	2.00	2.00		0.00	0.00
Final Sat.:	2584	6	2291	0	0		0	0	3610		2842	3502	3610			0
Capacity Analysis Module:																
Vol/Sat:	0.13	0.17	0.10	0.00	0.00		0.00	0.00	0.25		0.14	0.24	0.44			0.00
Crit Moves:		****											****			
Green/Cycle:	0.19	0.19	0.19	0.00	0.00		0.00	0.00	0.34		0.34	0.42	0.76			0.00
Volume/Cap:	0.68	0.92	0.53	0.00	0.00		0.00	0.00	0.74		0.41	0.56	0.58			0.00
Uniform Del:	32.1	33.8	31.1	0.0	0.0		0.0	0.0	24.7		21.5	18.5	4.2			0.0
IncremntDel:	2.3	18.5	0.5	0.0	0.0		0.0	0.0	2.4		0.3	0.5	0.3			0.0
InitQueuDel:	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	0.00		0.00	0.00	1.00		1.00	1.00	1.00			0.00
Delay/Veh:	34.4	52.3	31.6	0.0	0.0		0.0	0.0	27.1		21.8	19.0	4.5			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:	34.4	52.3	31.6	0.0	0.0		0.0	0.0	27.1		21.8	19.0	4.5			0.0
LOS by Move:	C	D	C	A	A		A	A	C		C	B	A			A
HCM2kAvgQ:	6	11	5	0	0		0	0	12		5	9	10			0

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.895
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 105 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5		5	5	5		5	5	5		5	5	5		5	5
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	14	78	250	410	115		41		51	538		13	238	1506		420
Growth Adj:	1.04	1.04	1.04	1.04	1.04		1.04		1.04	1.04		1.04	1.04	1.04		1.04
Initial Bse:	15	81	260	426	120		43		53	560		14	248	1566		437
Added Vol:	0	0	0	0	0		0		0	55		0	0	12		0
PasserByVol:	0	0	0	0	0		0		0	0		0	0	0		0
Initial Fut:	15	81	260	426	120		43		53	615		14	248	1578		437
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	81	260	426	120		43		53	615		14	248	1578		437
Reduct Vol:	0	0	0	0	0		0		0	0		0	0	0		0
Reduced Vol:	15	81	260	426	120		43		53	615		14	248	1578		437
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:	15	81	260	426	120		43		53	615		14	248	1578		437
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900		1900		1900	1900		1900	1900	1900		1900
Adjustment:	0.90	0.90	0.90	0.92	0.96		0.96		0.95	0.95		0.95	0.95	0.95		0.85
Lanes:	0.04	0.23	0.73	2.00	0.74		0.26		1.00	1.96		0.04	1.00	2.00		1.00
Final Sat.:	70	390	1249	3502	1346		480		1805	3522		77	1805	3610		1615
Capacity Analysis Module:																
Vol/Sat:	0.21	0.21	0.21	0.12	0.09		0.09		0.03	0.17		0.17	0.14	0.44		0.27
Crit Moves:		****		****					****					****		
Green/Cycle:	0.25	0.23	0.23	0.13	0.11		0.11		0.05	0.30		0.30	0.23	0.48		0.48
Volume/Cap:	0.82	0.91	0.91	0.91	0.82		0.82		0.59	0.59		0.59	0.59	0.91		0.56
Uniform Del:	35.2	37.6	37.6	42.8	43.7		43.7		46.5	30.0		30.0	34.1	24.1		18.6
IncremntDel:	12.0	25.4	25.4	22.3	23.4		23.4		9.7	0.9		0.9	2.2	7.9		1.0
InitQueuDel:	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:	47.2	63.0	63.0	65.0	67.0		67.0		56.2	30.9		30.9	36.3	32.0		19.6
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	63.0	63.0	65.0	67.0		67.0		56.2	30.9		30.9	36.3	32.0		19.6
LOS by Move:	D	E	E	E	E		E		E	C		C	D	C		B
HCM2kAvgQ:	13	15	15	10	7		7		3	9		9	7	28		10

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0
Volume Module:																	
Base Vol:	37	264	51		92	391	62		15	228	24		73	584	95	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	38	275	53		96	407	64		16	237	25		76	607	99	
Added Vol:	0	104	41		6	27	2		25	8	0		3	1	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	38	379	94		102	434	66		41	245	25		79	608	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:	38	379	94		102	434	66		41	245	25		79	608	108	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	38	379	94		102	434	66		41	245	25		79	608	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	
FinalVolume:	38	379	94		102	434	66		41	245	25		79	608	108	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.93	0.93	0.93		0.95	0.99	0.99		0.95	0.98	0.98	
Lanes:	0.15	1.48	0.37		0.34	1.44	0.22		1.00	0.91	0.09		1.00	0.85	0.15	
Final Sat.:	263	2589	643		595	2539	389		1805	1700	173		1805	1577	279	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.15	0.15		0.17	0.17	0.17		0.02	0.14	0.14		0.04	0.39	0.39	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.17	0.17	0.17		0.20	0.20	0.20		0.05	0.38	0.38		0.13	0.46	0.46	
Volume/Cap:	0.84	0.84	0.84		0.84	0.84	0.84		0.45	0.38	0.38		0.33	0.84	0.84	
Uniform Del:	39.9	39.9	39.9		38.2	38.2	38.2		46.2	22.5	22.5		39.4	23.6	23.6	
IncremntDel:	9.8	9.8	9.8		8.5	8.5	8.5		3.5	0.3	0.3		0.8	7.2	7.2	
InitQueuDel:	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	49.7	49.7		46.7	46.7	46.7		49.7	22.8	22.8		40.3	30.9	30.9	
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:	49.7	49.7	49.7		46.7	46.7	46.7		49.7	22.8	22.8		40.3	30.9	30.9	
LOS by Move:	D	D	D		D	D	D		D	C	C		D	C	C	
HCM2kAvgQ:	11	11	11		12	12	12		2	6	6		2	22	22	

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.684
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.1
Optimal Cycle: 51 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM																	
Base Vol:	45	2362	0		0	1034	31		103	0	6		0	0	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	47	2456	0		0	1075	32		107	0	6		0	0	0	
Added Vol:	94	30	0		0	442	0		153	0	21		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	141	2486	0		0	1517	32		260	0	27		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:	141	2486	0		0	1517	32		260	0	27		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	141	2486	0		0	1517	32		260	0	27		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	
FinalVolume:	141	2486	0		0	1517	32		260	0	27		0	0	0	
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																	
Vol/Sat:	0.08	0.49	0.00		0.00	0.30	0.02		0.15	0.00	0.02		0.00	0.00	0.00	
Crit Moves:		****			****				****							
Green/Cycle:	0.15	0.72	0.00		0.00	0.56	0.56		0.22	0.00	0.22		0.00	0.00	0.00	
Volume/Cap:	0.53	0.68	0.00		0.00	0.53	0.04		0.68	0.00	0.08		0.00	0.00	0.00	
Uniform Del:	50.9	10.3	0.0		0.0	17.5	12.6		46.9	0.0	40.7		0.0	0.0	0.0	
IncremntDel:	2.0	0.5	0.0		0.0	0.2	0.0		5.1	0.0	0.1		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	52.9	10.8	0.0		0.0	17.7	12.6		52.0	0.0	40.8		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:	52.9	10.8	0.0		0.0	17.7	12.6		52.0	0.0	40.8		0.0	0.0	0.0	
LOS by Move:	D	B	A		A	B	B		D	A	D		A	A	A	
HCM2kAvgQ:	6	20	0		0	14	1		11	0	1		0	0	0	

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.620
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 44 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	0	5	5	5	5	0	5	0	0	0	0	0
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0	0	851	196	218	0	31	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	152	2153	0	0	885	204	227	0	32	0	0	0				
Added Vol:	94	122	0	0	462	1	2	0	21	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	246	2275	0	0	1347	205	229	0	53	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:	246	2275	0	0	1347	205	229	0	53	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	246	2275	0	0	1347	205	229	0	53	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				
FinalVolume:	246	2275	0	0	1347	205	229	0	53	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.14	0.45	0.00	0.00	0.26	0.13	0.13	0.00	0.03	0.00	0.00	0.00				
Crit Moves:		****		****			****									
Green/Cycle:	0.25	0.72	0.00	0.00	0.47	0.47	0.21	0.00	0.21	0.00	0.00	0.00				
Volume/Cap:	0.56	0.62	0.00	0.00	0.56	0.27	0.62	0.00	0.16	0.00	0.00	0.00				
Uniform Del:	42.6	9.1	0.0	0.0	24.5	20.7	46.8	0.0	42.1	0.0	0.0	0.0				
IncremntDel:	1.6	0.3	0.0	0.0	0.3	0.2	3.2	0.0	0.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	44.3	9.4	0.0	0.0	24.8	20.9	50.0	0.0	42.4	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:	44.3	9.4	0.0	0.0	24.8	20.9	50.0	0.0	42.4	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	C	C	D	A	D	A	A	A				
HCM2kAvgQ:	9	17	0	0	14	5	9	0	2	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.1
Optimal Cycle: 31 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0	0	0	10	10	4	0	4	0	0	0	0	0	0
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0	0	398	66	83	0	561	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	483	381	0	0	414	69	86	0	583	0	0	0				
Added Vol:	3	24	0	0	71	2	7	0	13	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	486	405	0	0	485	71	93	0	596	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	486	405	0	0	485	71	93	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	486	405	0	0	485	71	93	0	0	0	0	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	486	405	0	0	485	71	93	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1598	233	1769	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.27	0.22	0.00	0.00	0.30	0.30	0.05	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.42	0.89	0.00	0.00	0.47	0.47	0.08	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.65	0.25	0.00	0.00	0.65	0.65	0.65	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	27.8	1.0	0.0	0.0	24.6	24.6	53.5	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	2.1	0.1	0.0	0.0	1.8	1.8	10.3	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	29.8	1.1	0.0	0.0	26.5	26.5	63.8	0.0	0.0	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:	29.8	1.1	0.0	0.0	26.5	26.5	63.8	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	C	E	A	A	A	A	A				
HCM2kAvgQ:	15	2	0	0	16	16	5	0	0	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.479
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 22 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1	0 2	0 1		1	0 2	0 1		1	0 0	1 0		0	1 0	0 1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	709	68		3	3	3		123	53	241	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	59	648	51		200	737	71		3	3	3		128	55	251	
Added Vol:	0	26	0		1	84	0		0	0	0		0	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	59	674	51		201	821	71		3	3	3		128	55	252	
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:	59	674	51		201	821	71		3	3	3		128	55	252	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	59	674	51		201	821	71		3	3	3		128	55	252	
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:	59	674	51		201	821	71		3	3	3		128	55	252	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.50	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		953	861	861		1025	442	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.19	0.03		0.11	0.23	0.04		0.00	0.00	0.00		0.12	0.12	0.16	
Crit Moves:		****			****										****	
Green/Cycle:	0.08	0.40	0.40		0.24	0.55	0.55		0.33	0.33	0.33		0.33	0.33	0.33	
Volume/Cap:	0.42	0.48	0.08		0.48	0.42	0.08		0.01	0.01	0.01		0.38	0.38	0.48	
Uniform Del:	52.5	26.9	22.5		39.4	15.5	12.5		26.9	26.9	26.9		30.6	30.6	31.8	
IncremntDel:	2.0	0.3	0.1		0.9	0.1	0.0		0.0	0.0	0.0		0.5	0.5	0.7	
InitQueuDel:	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:	54.5	27.1	22.5		40.3	15.6	12.5		26.9	26.9	26.9		31.1	31.1	32.5	
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:	54.5	27.1	22.5		40.3	15.6	12.5		26.9	26.9	26.9		31.1	31.1	32.5	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	3	10	1		7	9	1		0	0	0		5	5	8	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.816
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 40.1
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1 0	0 1		0	1 0	0 1		1	0 0	1 0		0	0 1!	0 0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	5	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	120	327	8		7	510	369		119	35	47		6	101	5	
Added Vol:	0	138	0		0	35	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	120	465	8		7	545	369		119	35	47		6	101	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:	120	465	8		7	545	369		119	35	47		6	101	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	120	465	8		7	545	369		119	35	47		6	101	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	
FinalVolume:	120	465	8		7	545	369		119	35	47		6	101	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.20	0.80	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	385	1496	1615		25	1873	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.31	0.31	0.01		0.29	0.29	0.23		0.07	0.05	0.05		0.06	0.06	0.06	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.38	0.38	0.38		0.36	0.36	0.36		0.08	0.08	0.08		0.07	0.07	0.07	
Volume/Cap:	0.82	0.82	0.01		0.82	0.82	0.64		0.82	0.59	0.59		0.82	0.82	0.82	
Uniform Del:	27.8	27.8	19.3		29.2	29.2	26.9		45.3	44.4	44.4		45.7	45.7	45.7	
IncremntDel:	7.3	7.3	0.0		7.7	7.7	2.5		28.9	6.4	6.4		30.1	30.1	30.1	
InitQueuDel:	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:	35.1	35.1	19.3		36.9	36.9	29.3		74.1	50.8	50.8		75.8	75.8	75.8	
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:	35.1	35.1	19.3		36.9	36.9	29.3		74.1	50.8	50.8		75.8	75.8	75.8	
LOS by Move:	D	D	B		D	D	C		E	D	D		E	E	E	
HCM2kAvgQ:	18	18	0		18	18	10		6	3	3		6	6	6	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.548
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.3
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	2285	0	0	813	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	216	0	0	483	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2501	0	0	1296	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	2501	0	0	1296	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2501	0	0	1296	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	2501	0	0	1296	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.48	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****												
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.55	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	1.4	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	7	0	0	3	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2015 East Campus Only PM
Command:	Near Term I Project PM
Volume:	Near Term I Project PM
Geometry:	Near Term I Project PM
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term I Project PM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term I Project PM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	D	52.4	0.980	D	53.9	1.001	+ 1.551 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	14.1	0.847	C	28.9	1.021	+14.790 D/V
# 3 US 101 SB Ramps & Marsh Rd.	B	19.0	0.849	C	23.3	0.908	+ 4.335 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	20.5	0.712	C	20.2	0.825	-0.380 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	26.5	0.605	C	20.9	0.718	-5.607 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.0	0.600	B	14.3	0.623	-0.791 D/V
# 7 Middlefield at Marsh (Town of	C	31.8	0.841	D	38.5	0.952	+ 6.656 D/V
# 8 Bayfront Exp. & Willow Rd.	D	47.7	0.953	F	107.1	1.179	+59.360 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.3	0.630	C	23.1	0.716	+ 0.831 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.2	0.565	B	13.6	0.696	+ 1.452 D/V
# 11 O'Brien Dr. & Willow Rd.	A	9.9	0.567	A	9.1	0.600	-0.733 D/V
# 12 Newbridge St. & Willow Rd.	C	33.7	0.765	D	44.9	0.992	+11.229 D/V
# 13 Bay Rd. & Willow Rd.	C	20.1	0.760	C	20.8	0.783	+ 0.678 D/V
# 14 Durham St. & Willow Rd.	D	49.4	0.660	B	16.5	0.782	-32.886 D/V
# 15 Coleman Ave. & Willow Rd.	B	11.5	0.760	B	11.6	0.796	+ 0.111 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.2	0.675	B	11.3	0.741	-0.931 D/V
# 17 Middlefield Rd. & Willow Rd.	F	133.4	1.281	F	169.2	1.386	+35.778 D/V
# 18 Bayfront Exp. & University Ave	F	164.8	1.332	F	192.8	1.419	+27.929 D/V
# 19 O'Brien Dr. & University Ave.	B	13.0	0.694	B	13.3	0.705	+ 0.282 D/V
# 20 University & Kavanaugh	B	16.2	0.668	B	16.0	0.672	-0.265 D/V
# 21 University & Bay	C	34.0	0.838	C	33.8	0.841	-0.263 D/V
# 22 University & Runnymede	C	22.9	0.702	C	22.7	0.706	-0.170 D/V
# 23 University & Bell	A	7.7	0.550	A	7.6	0.553	-0.093 D/V
# 24 University & Donohoe	D	36.6	0.877	D	37.1	0.879	+ 0.498 D/V
# 25 NB 101 & Donohoe St	C	21.3	0.484	C	21.3	0.487	+ 0.059 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	25.4	0.529	C	25.3	0.545	-0.083 D/V
# 27 University Ave. & Woodland	D	47.1	0.894	D	47.3	0.901	+ 0.281 D/V
# 28 Middlefield Rd. & University A	C	32.9	0.559	C	34.4	0.624	+ 1.482 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.0	0.709	F	81.6	1.118	+62.594 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.0	0.607	B	18.1	0.717	+ 4.105 D/V
# 31 Middlefield Rd. & Ravenswood A	C	26.6	0.746	C	26.7	0.764	+ 0.028 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.3	0.629	C	29.2	0.653	+ 0.848 D/V
# 33 Middlefield Rd and Lytton Ave	E	65.8	0.973	F	92.8	1.084	+26.977 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.526	A	1.4	0.574	+ 0.113 D/V

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

Intersection #1 Bayfront Exp. & Marsh Rd.

Cycle (sec): 140 Critical Vol./Cap.(X): 1.001
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 53.9
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	1231	51	7		0	360	193		145	42	2030		32	76	11	
Added Vol:	980	0	0		0	0	0		0	0	53		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2211	51	7		0	360	193		145	42	2083		32	76	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:	2211	51	7		0	360	193		145	42	2083		32	76	11	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2211	51	7		0	360	193		145	42	2083		32	76	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	
FinalVolume:	2211	51	7		0	360	193		145	42	2083		32	76	11	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.87	0.13		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.43	0.03	0.03		0.00	0.10	0.12		0.10	0.10	0.75		0.07	0.07	0.07	
Crit Moves:	****					****					****				****	
Green/Cycle:	0.43	0.43	0.43		0.00	0.10	0.42		0.32	0.32	0.75		0.07	0.07	0.07	
Volume/Cap:	1.00	0.07	0.07		0.00	1.00	0.29		0.33	0.33	1.00		1.00	1.00	1.00	
Uniform Del:	40.0	23.6	23.6		0.0	62.9	26.9		36.4	36.4	17.7		65.4	65.4	65.4	
IncremntDel:	19.5	0.0	0.0		0.0	47.8	0.2		0.3	0.3	20.0		82.7	82.7	82.7	
InitQueuDel:	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:	59.4	23.6	23.6		0.0	111	27.1		36.7	36.7	37.8		148.1	148	148.1	
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:	59.4	23.6	23.6		0.0	111	27.1		36.7	36.7	37.8		148.1	148	148.1	
LOS by Move:	E	C	C		A	F	C		D	D	D		F	F	F	
HCM2kAvgQ:	39	1	1		0	12	5		6	6	58		9	9	9	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.021
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 28.9
Optimal Cycle: 178 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0 1	0	0	0	0 0	0	1	1	0 1	0	0	2	0 1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	513	0	222		0	0	0		0	2146	527		0	709	823	
Added Vol:	0	0	160		0	0	0		3	115	0		0	729	251	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	513	0	382		0	0	0		3	2261	527		0	1438	1074	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	513	0	382		0	0	0		3	2261	0		0	1438	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	513	0	382		0	0	0		3	2261	0		0	1438	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	513	0	382		0	0	0		3	2261	0		0	1438	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3374	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.00	0.24		0.00	0.00	0.00		0.67	0.67	0.00		0.00	0.41	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.24	0.00	0.24		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.66	0.00	
Volume/Cap:	0.63	0.00	1.02		0.00	0.00	0.00		1.02	1.02	0.00		0.00	0.62	0.00	
Uniform Del:	22.3	0.0	24.8		0.0	0.0	0.0		11.2	11.2	0.0		0.0	6.5	0.0	
IncremntDel:	1.6	0.0	52.0		0.0	0.0	0.0		24.6	24.6	0.0		0.0	0.5	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	23.9	0.0	76.8		0.0	0.0	0.0		35.8	35.8	0.0		0.0	7.0	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:	23.9	0.0	76.8		0.0	0.0	0.0		35.8	35.8	0.0		0.0	7.0	0.0	
LOS by Move:	C	A	E		A	A	A		D	D	A		A	A	A	
HCM2kAvgQ:	6	0	14		0	0	0		35	35	0		0	10	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.908
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 23.3
Optimal Cycle: 83 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0 0	2	0	0	0 1	0	0	2	0 1	0	0	2	0 1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		1409	0	471		0	1228	677		0	978	293	
Added Vol:	0	0	0		64	0	8		0	61	0		0	370	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1473	0	479		0	1289	677		0	1348	293	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1473	0	479		0	1289	0		0	1348	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1473	0	479		0	1289	0		0	1348	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1473	0	479		0	1289	0		0	1348	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.43	0.00	0.30		0.00	0.36	0.00		0.00	0.38	0.00	
Crit Moves:					****									****		
Green/Cycle:	0.00	0.00	0.00		0.47	0.00	0.47		0.00	0.42	0.00		0.00	0.42	0.00	
Volume/Cap:	0.00	0.00	0.00		0.91	0.00	0.64		0.00	0.87	0.00		0.00	0.91	0.00	
Uniform Del:	0.0	0.0	0.0		15.8	0.0	13.0		0.0	17.2	0.0		0.0	17.7	0.0	
IncremntDel:	0.0	0.0	0.0		7.8	0.0	1.9		0.0	5.8	0.0		0.0	8.5	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		23.7	0.0	14.8		0.0	23.0	0.0		0.0	26.2	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:	0.0	0.0	0.0		23.7	0.0	14.8		0.0	23.0	0.0		0.0	26.2	0.0	
LOS by Move:	A	A	A		C	A	B		A	C	A		A	C	A	
HCM2kAvgQ:	0	0	0		19	0	8		0	16	0		0	18	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.825
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 54 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0	1	0	0	2	0	1	0	0	1	1	0	2	1	0	
Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM																
Base Vol:	28	15	267		254	9	2		42	1314	17		78	1109	214	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	29	16	278		264	9	2		44	1367	18		81	1153	223	
Added Vol:	0	0	0		0	0	0		0	63	0		0	377	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	29	16	278		264	9	2		44	1430	18		81	1530	223	
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	16	278		264	9	2		44	1430	18		81	1530	223	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	29	16	278		264	9	2		44	1430	18		81	1530	223	
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:	29	16	278		264	9	2		44	1430	18		81	1530	223	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.73		0.93	0.93	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.65	0.35	2.00		0.97	0.03	1.00		1.00	2.96	0.04		2.00	1.75	0.25	
Final Sat.:	1174	629	2786		1716	61	1583		1769	5011	62		3432	3030	441	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.10		0.15	0.15	0.00		0.02	0.29	0.29		0.02	0.51	0.51	
Crit Moves:			****			****			****					****		
Green/Cycle:	0.12	0.12	0.12		0.18	0.18	0.18		0.05	0.55	0.55		0.10	0.60	0.60	
Volume/Cap:	0.21	0.21	0.84		0.84	0.84	0.01		0.49	0.52	0.52		0.24	0.84	0.84	
Uniform Del:	31.9	31.9	34.5		31.6	31.6	26.8		37.0	11.2	11.2		33.4	13.0	13.0	
IncremntDel:	0.5	0.5	17.6		17.8	17.8	0.0		4.3	0.2	0.2		0.4	3.3	3.3	
InitQueuDel:	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:	32.4	32.4	52.1		49.4	49.4	26.8		41.3	11.4	11.4		33.8	16.3	16.3	
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:	32.4	32.4	52.1		49.4	49.4	26.8		41.3	11.4	11.4		33.8	16.3	16.3	
LOS by Move:	C	C	D		D	D	C		D	B	B		C	B	B	
HCM2kAvgQ:	1	1	6		9	9	0		2	8	8		1	21	21	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.718
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 20.9
Optimal Cycle: 36 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1	0	0	1	0	1	1	0	0	1	1	0	1	0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm																
Base Vol:	95	32	58		428	30	128		239	885	55		26	833	316	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	99	33	60		445	31	133		249	920	57		27	866	329	
Added Vol:	0	0	0		0	0	0		0	63	0		0	377	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	99	33	60		445	31	133		249	983	57		27	1243	329	
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:	99	33	60		445	31	133		249	983	57		27	1243	329	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	99	33	60		445	31	133		249	983	57		27	1243	329	
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:	99	33	60		445	31	133		249	983	57		27	1243	329	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.88	0.88		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.36	0.64		1.87	0.13	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	598	1084		3323	233	1583		1769	3317	193		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.13	0.13	0.08		0.14	0.30	0.30		0.02	0.35	0.21	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.08	0.08	0.08		0.19	0.19	0.19		0.20	0.59	0.59		0.10	0.49	0.49	
Volume/Cap:	0.72	0.72	0.72		0.72	0.72	0.45		0.72	0.51	0.51		0.15	0.72	0.42	
Uniform Del:	36.0	36.0	36.0		30.6	30.6	28.9		30.1	9.7	9.7		33.0	16.1	13.1	
IncremntDel:	16.6	17.1	17.1		3.8	3.8	1.1		7.1	0.2	0.2		0.4	1.5	0.4	
InitQueuDel:	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:	52.6	53.1	53.1		34.3	34.3	30.0		37.2	9.9	9.9		33.4	17.5	13.5	
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:	52.6	53.1	53.1		34.3	34.3	30.0		37.2	9.9	9.9		33.4	17.5	13.5	
LOS by Move:	D	D	D		C	C	C		D	A	A		C	B	B	
HCM2kAvgQ:	4	4	4		7	7	3		7	8	8		1	14	5	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.623
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 28 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		6	6	6		4	6	6	
Lanes:	0	0	1! 0	0	0	0	1! 0	0	0	1	0	1	0	1	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	57	8	180		55	31	3		5	819	90		200	891	47	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	59	8	187		57	32	3		5	852	94		208	927	49	
Added Vol:	2	0	0		0	0	0		0	63	2		0	377	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	61	8	187		57	32	3		5	915	96		208	1304	49	
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	8	187		57	32	3		5	915	96		208	1304	49	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	61	8	187		57	32	3		5	915	96		208	1304	49	
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	8	187		57	32	3		5	915	96		208	1304	49	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.81	0.81	0.81		0.69	0.69	0.69		0.87	0.87	0.87		0.93	0.93	0.93	
Lanes:	0.24	0.03	0.73		0.62	0.35	0.03		0.01	1.80	0.19		1.00	1.93	0.07	
Final Sat.:	366	50	1119		814	459	44		17	2982	312		1769	3393	127	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.07	0.07	0.07		0.31	0.31	0.31		0.12	0.38	0.38	
Crit Moves:		****								****			****			
Green/Cycle:	0.27	0.27	0.27		0.27	0.27	0.27		0.49	0.49	0.49		0.19	0.68	0.68	
Volume/Cap:	0.62	0.62	0.62		0.26	0.26	0.26		0.62	0.62	0.62		0.62	0.56	0.56	
Uniform Del:	25.7	25.7	25.7		23.0	23.0	23.0		14.9	14.9	14.9		29.8	6.6	6.6	
IncremntDel:	2.9	2.9	2.9		0.4	0.4	0.4		0.8	0.8	0.8		3.6	0.3	0.3	
InitQueuDel:	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:	28.6	28.6	28.6		23.4	23.4	23.4		15.6	15.6	15.6		33.4	6.9	6.9	
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:	28.6	28.6	28.6		23.4	23.4	23.4		15.6	15.6	15.6		33.4	6.9	6.9	
LOS by Move:	C	C	C		C	C	C		B	B	B		C	A	A	
HCM2kAvgQ:	7	7	7		2	2	2		10	10	10		6	9	9	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.952
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 38.5
Optimal Cycle: 149 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.																
Base Vol:	0	426	548		408	269	0		0	0	0		515	0	447	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	443	570		424	280	0		0	0	0		536	0	465	
Added Vol:	0	58	42		23	11	0		0	0	0		103	0	276	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	501	612		447	291	0		0	0	0		639	0	741	
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	501	612		447	291	0		0	0	0		639	0	741	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	501	612		447	291	0		0	0	0		639	0	741	
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:	0	501	612		447	291	0		0	0	0		639	0	741	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.26	0.38		0.25	0.15	0.00		0.00	0.00	0.00		0.35	0.00	0.46	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.28	0.65		0.26	0.54	0.00		0.00	0.00	0.00		0.37	0.00	0.63	
Volume/Cap:	0.00	0.95	0.58		0.95	0.28	0.00		0.00	0.00	0.00		0.95	0.00	0.73	
Uniform Del:	0.0	39.0	10.9		40.0	13.9	0.0		0.0	0.0	0.0		33.6	0.0	13.8	
IncremntDel:	0.0	27.5	0.9		29.6	0.2	0.0		0.0	0.0	0.0		23.5	0.0	2.6	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	66.5	11.8		69.6	14.1	0.0		0.0	0.0	0.0		57.1	0.0	16.4	
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:	0.0	66.5	11.8		69.6	14.1	0.0		0.0	0.0	0.0		57.1	0.0	16.4	
LOS by Move:	A	E	B		E	B	A		A	A	A		E	A	B	
HCM2kAvgQ:	0	22	12		20	5	0		0	0	0		26	0	18	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.179
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 107.1
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	362	664	1	0	2199	108	36	13	1424	44	105	8
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	376	691	1	0	2287	112	37	14	1481	46	109	8
Added Vol:	393	257	3	49	171	0	0	94	5	317	391	181
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	769	948	4	49	2458	112	37	108	1486	363	500	189
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:	769	948	4	49	2458	112	37	108	1486	363	500	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	769	948	4	49	2458	112	37	108	1486	363	500	189
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:	769	948	4	49	2458	112	37	108	1486	363	500	189

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.92	0.92	0.88	0.93	0.93	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00
Final Sat.:	3432	5846	1583	3432	5846	1583	1746	3492	3343	1769	3538	1583

Capacity Analysis Module:

Vol/Sat:	0.22	0.16	0.00	0.01	0.42	0.07	0.02	0.03	0.44	0.21	0.14	0.12
Crit Moves:	****				****				****	****		
Green/Cycle:	0.19	0.44	0.62	0.10	0.36	0.36	0.19	0.19	0.38	0.17	0.17	0.28
Volume/Cap:	1.18	0.37	0.00	0.14	1.18	0.20	0.11	0.16	1.18	1.18	0.81	0.43
Uniform Del:	52.6	24.2	9.6	52.8	41.8	29.0	43.9	44.3	40.5	53.7	51.7	38.4
IncremntDel:	95.8	0.1	0.0	0.2	85.8	0.2	0.0	0.1	89.0	109.0	8.1	0.7
InitQueuDel:	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:	148.4	24.2	9.6	53.0	128	29.1	44.0	44.4	129.5	162.7	59.8	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:	148.4	24.2	9.6	53.0	128	29.1	44.0	44.4	129.5	162.7	59.8	39.1
LOS by Move:	F	C	A	D	F	C	D	D	F	F	E	D
HCM2kAvgQ:	26	9	0	1	55	3	1	2	52	24	12	6

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.716
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.1
Optimal Cycle: 61 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM

Base Vol:	129	6	49	73	5	73	130	1351	5	20	553	67
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	134	6	51	76	5	76	135	1405	5	21	575	70
Added Vol:	0	0	0	0	0	4	6	99	0	0	784	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	134	6	51	76	5	80	141	1504	5	21	1359	70
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:	134	6	51	76	5	80	141	1504	5	21	1359	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	6	51	76	5	80	141	1504	5	21	1359	70
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:	134	6	51	76	5	80	141	1504	5	21	1359	70

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.62	0.62	0.62	0.73	0.73	0.73	0.93	0.93	0.93	0.93	0.92	0.92
Lanes:	0.70	0.03	0.27	0.47	0.03	0.50	1.00	1.99	0.01	1.00	1.90	0.10
Final Sat.:	819	38	311	658	45	692	1769	3526	12	1769	3342	171

Capacity Analysis Module:

Vol/Sat:	0.16	0.16	0.16	0.12	0.12	0.12	0.08	0.43	0.43	0.01	0.41	0.41
Crit Moves:		****					****				****	
Green/Cycle:	0.23	0.23	0.23	0.23	0.23	0.23	0.11	0.62	0.62	0.06	0.57	0.57
Volume/Cap:	0.72	0.72	0.72	0.50	0.50	0.50	0.72	0.69	0.69	0.19	0.72	0.72
Uniform Del:	42.7	42.7	42.7	40.3	40.3	40.3	51.5	15.2	15.2	53.6	18.9	18.9
IncremntDel:	8.9	8.9	8.9	1.3	1.3	1.3	11.8	0.9	0.9	0.9	1.3	1.3
InitQueuDel:	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:	51.6	51.6	51.6	41.6	41.6	41.6	63.3	16.1	16.1	54.5	20.1	20.1
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:	51.6	51.6	51.6	41.6	41.6	41.6	63.3	16.1	16.1	54.5	20.1	20.1
LOS by Move:	D	D	D	D	D	D	E	B	B	D	C	C
HCM2kAvgQ:	8	8	8	6	6	6	7	20	20	1	21	21

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.696
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	22	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		10	0	127		102	1515	0		0	832	23	
Added Vol:	0	0	0		14	0	10		10	91	0		0	684	104	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		24	0	137		112	1606	0		0	1516	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:	0	0	0		24	0	137		112	1606	0		0	1516	127	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		24	0	137		112	1606	0		0	1516	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	
FinalVolume:	0	0	0		24	0	137		112	1606	0		0	1516	127	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.86	1.00	0.86		0.93	0.93	1.00		1.00	0.92	0.92	
Lanes:	0.00	0.00	0.00		0.15	0.00	0.85		1.00	2.00	0.00		0.00	1.85	0.15	
Final Sat.:	0	0	0		248	0	1389		1769	3538	0		0	3225	270	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.10	0.00	0.10		0.06	0.45	0.00		0.00	0.47	0.47	
Crit Moves:							****		****					****		
Green/Cycle:	0.00	0.00	0.00		0.14	0.00	0.14		0.09	0.77	0.00		0.00	0.68	0.68	
Volume/Cap:	0.00	0.00	0.00		0.70	0.00	0.70		0.70	0.59	0.00		0.00	0.70	0.70	
Uniform Del:	0.0	0.0	0.0		49.0	0.0	49.0		52.9	6.0	0.0		0.0	11.9	11.9	
IncremntDel:	0.0	0.0	0.0		8.9	0.0	8.9		12.5	0.4	0.0		0.0	0.9	0.9	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		57.9	0.0	57.9		65.4	6.3	0.0		0.0	12.8	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:	0.0	0.0	0.0		57.9	0.0	57.9		65.4	6.3	0.0		0.0	12.8	12.8	
LOS by Move:	A	A	A		E	A	E		E	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		7	0	7		5	13	0		0	20	20	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.600
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: 47 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	125	0	36		0	0	0		0	1470	212		76	924	0	
Added Vol:	4	0	0		0	0	0		0	100	11		0	694	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	129	0	36		0	0	0		0	1570	223		76	1618	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:	129	0	36		0	0	0		0	1570	223		76	1618	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	129	0	36		0	0	0		0	1570	223		76	1618	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:	129	0	36		0	0	0		0	1570	223		76	1618	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.64	0.00	0.36		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2839	0	625		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.06		0.00	0.00	0.00		0.00	0.44	0.14		0.04	0.46	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.10	0.00	0.10		0.00	0.00	0.00		0.00	0.74	0.74		0.07	0.81	0.00	
Volume/Cap:	0.47	0.00	0.60		0.00	0.00	0.00		0.00	0.60	0.19		0.60	0.56	0.00	
Uniform Del:	51.2	0.0	51.9		0.0	0.0	0.0		0.0	7.3	4.7		54.0	3.9	0.0	
IncremntDel:	1.0	0.0	3.6		0.0	0.0	0.0		0.0	0.4	0.1		7.8	0.3	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	52.2	0.0	55.6		0.0	0.0	0.0		0.0	7.7	4.8		61.8	4.2	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:	52.2	0.0	55.6		0.0	0.0	0.0		0.0	7.7	4.8		61.8	4.2	0.0	
LOS by Move:	D	A	E		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	3	0	5		0	0	0		0	14	2		4	11	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.992
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 44.9
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0 1	0 1		1	0 1	0 1		1	0 2	1 0		1	0 1	1 0	
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	34	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	258	177	57		40	173	228		336	1493	353		106	1014	35	
Added Vol:	0	0	0		0	0	9		6	111	0		0	699	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	258	177	57		40	173	237		342	1604	353		106	1713	35	
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:	258	177	57		40	173	237		342	1604	353		106	1713	35	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	258	177	57		40	173	237		342	1604	353		106	1713	35	
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:	258	177	57		40	173	237		342	1604	353		106	1713	35	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.46	0.54		1.00	1.96	0.04	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4055	891		1769	3456	71	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.09	0.04		0.02	0.09	0.15		0.19	0.40	0.40		0.06	0.50	0.50	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.10	0.10	0.19		0.09	0.09	0.29		0.19	0.60	0.60		0.09	0.50	0.50	
Volume/Cap:	0.79	0.99	0.19		0.24	0.99	0.52		0.99	0.66	0.66		0.66	0.99	0.99	
Uniform Del:	53.1	54.2	41.1		50.4	54.4	35.7		48.2	15.7	15.7		52.7	29.8	29.8	
IncremntDel:	11.8	65.1	0.3		0.8	65.9	1.1		46.3	0.5	0.5		9.4	19.6	19.6	
InitQueuDel:	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:	64.9	119	41.5		51.2	120	36.8		94.6	16.2	16.2		62.1	49.4	49.4	
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:	64.9	119	41.5		51.2	120	36.8		94.6	16.2	16.2		62.1	49.4	49.4	
LOS by Move:	E	F	D		D	F	D		F	B	B		E	D	D	
HCM2kAvgQ:	7	11	2		2	10	8		18	18	18		5	41	41	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.783
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.8
Optimal Cycle: 68 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0 0	0 0		1	0 0	0 1		1	0 2	0 0		0	0 2	0 1	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	0	0	0		433	0	56		42	1493	0		0	1103	265	
Added Vol:	0	0	0		4	0	0		0	64	0		0	197	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		437	0	56		42	1557	0		0	1300	272	
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	0	0		437	0	56		42	1557	0		0	1300	272	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		437	0	56		42	1557	0		0	1300	272	
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:	0	0	0		437	0	56		42	1557	0		0	1300	272	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.25	0.00	0.04		0.02	0.44	0.00		0.00	0.37	0.17	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.32	0.00	0.32		0.07	0.56	0.00		0.00	0.49	0.49	
Volume/Cap:	0.00	0.00	0.00		0.78	0.00	0.11		0.32	0.78	0.00		0.00	0.75	0.35	
Uniform Del:	0.0	0.0	0.0		28.0	0.0	21.9		39.5	15.4	0.0		0.0	18.6	14.2	
IncremntDel:	0.0	0.0	0.0		7.1	0.0	0.1		1.4	2.1	0.0		0.0	1.9	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		35.1	0.0	22.0		40.9	17.5	0.0		0.0	20.5	14.5	
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:	0.0	0.0	0.0		35.1	0.0	22.0		40.9	17.5	0.0		0.0	20.5	14.5	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	C	B	
HCM2kAvgQ:	0	0	0		13	0	1		1	19	0		0	17	5	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.782
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 59 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33	7	85		122	5	31		11	1125	10		90	818	51	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	34	7	88		127	5	32		11	1170	10		94	851	53	
Added Vol:	0	0	0		0	0	0		0	64	0		0	197	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	7	88		127	5	32		11	1234	10		94	1048	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:	34	7	88		127	5	32		11	1234	10		94	1048	53	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	7	88		127	5	32		11	1234	10		94	1048	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	
FinalVolume:	34	7	88		127	5	32		11	1234	10		94	1048	53	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.47	0.84	0.84		0.54	0.54	0.83		0.93	0.93	0.93		0.93	0.97	0.97	
Lanes:	1.00	0.08	0.92		0.96	0.04	1.00		1.00	1.98	0.02		1.00	0.95	0.05	
Final Sat.:	896	122	1481		989	41	1583		1769	3505	30		1769	1760	89	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.06	0.06		0.13	0.13	0.02		0.01	0.35	0.35		0.05	0.60	0.60	
Crit Moves:						****			****					****		
Green/Cycle:	0.16	0.16	0.16		0.16	0.16	0.16		0.04	0.67	0.67		0.10	0.74	0.74	
Volume/Cap:	0.24	0.38	0.38		0.81	0.81	0.13		0.17	0.52	0.52		0.52	0.81	0.81	
Uniform Del:	38.6	39.5	39.5		42.6	42.6	37.9		48.9	8.6	8.6		44.8	9.0	9.0	
IncremntDel:	0.9	0.9	0.9		25.0	25.0	0.2		1.2	0.2	0.2		2.8	3.7	3.7	
InitQueuDel:	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:	39.5	40.5	40.5		67.6	67.6	38.2		50.1	8.9	8.9		47.6	12.7	12.7	
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:	39.5	40.5	40.5		67.6	67.6	38.2		50.1	8.9	8.9		47.6	12.7	12.7	
LOS by Move:	D	D	D		E	E	D		D	A	A		D	B	B	
HCM2kAvgQ:	1	3	3		6	6	1		1	11	11		4	25	25	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.796
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 61 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	12	11	7		96	6	36		25	1126	6		5	827	113	
Added Vol:	0	0	0		0	0	0		0	64	0		0	197	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	12	11	7		96	6	36		25	1190	6		5	1024	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:	12	11	7		96	6	36		25	1190	6		5	1024	113	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	12	11	7		96	6	36		25	1190	6		5	1024	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	
FinalVolume:	12	11	7		96	6	36		25	1190	6		5	1024	113	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.16	0.98	0.98		0.14	0.97	0.97	
Lanes:	0.40	0.37	0.23		0.69	0.05	0.26		1.00	0.99	0.01		1.00	0.90	0.10	
Final Sat.:	655	601	382		959	63	365		313	1850	10		266	1651	183	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.10	0.10	0.10		0.08	0.64	0.64		0.02	0.62	0.62	
Crit Moves:						****				****						
Green/Cycle:	0.13	0.13	0.13		0.13	0.13	0.13		0.81	0.81	0.81		0.81	0.81	0.81	
Volume/Cap:	0.15	0.15	0.15		0.80	0.80	0.80		0.10	0.80	0.80		0.02	0.77	0.77	
Uniform Del:	40.9	40.9	40.9		44.6	44.6	44.6		2.1	5.4	5.4		2.0	5.1	5.1	
IncremntDel:	0.3	0.3	0.3		22.0	22.0	22.0		0.2	3.1	3.1		0.0	2.5	2.5	
InitQueuDel:	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:	41.3	41.3	41.3		66.6	66.6	66.6		2.3	8.5	8.5		2.0	7.6	7.6	
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:	41.3	41.3	41.3		66.6	66.6	66.6		2.3	8.5	8.5		2.0	7.6	7.6	
LOS by Move:	D	D	D		E	E	E		A	A	A		A	A	A	
HCM2kAvgQ:	1	1	1		6	6	6		0	22	22		0	20	20	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.3
Optimal Cycle: 51 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	96	32	78		30	31	4		4	1008	37		38	865	18	
Added Vol:	18	0	7		0	0	0		0	57	22		24	173	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	114	32	85		30	31	4		4	1065	59		62	1038	18	
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:	114	32	85		30	31	4		4	1065	59		62	1038	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	114	32	85		30	31	4		4	1065	59		62	1038	18	
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:	114	32	85		30	31	4		4	1065	59		62	1038	18	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.87	0.87		0.49	0.96	0.96		0.21	0.97	0.97		0.18	0.98	0.98	
Lanes:	1.00	0.27	0.73		1.00	0.88	0.12		1.00	0.95	0.05		1.00	0.98	0.02	
Final Sat.:	1376	456	1203		940	1613	215		391	1749	98		339	1825	31	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.07	0.07		0.03	0.02	0.02		0.01	0.61	0.61		0.18	0.57	0.57	
Crit Moves:	****									****						
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.82	0.82	0.82		0.82	0.82	0.82	
Volume/Cap:	0.74	0.63	0.63		0.29	0.17	0.17		0.01	0.74	0.74		0.22	0.69	0.69	
Uniform Del:	45.2	44.6	44.6		42.8	42.3	42.3		1.7	4.3	4.3		2.0	3.9	3.9	
IncremntDel:	17.4	7.0	7.0		1.5	0.4	0.4		0.0	2.0	2.0		0.4	1.4	1.4	
InitQueuDel:	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:	62.6	51.6	51.6		44.3	42.7	42.7		1.7	6.2	6.2		2.5	5.3	5.3	
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:	62.6	51.6	51.6		44.3	42.7	42.7		1.7	6.2	6.2		2.5	5.3	5.3	
LOS by Move:	E	D	D		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	5	5	5		1	1	1		0	18	18		1	15	15	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.386
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 169.2
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	101	456	511		496	430	20		37	177	164		397	99	426	
Added Vol:	15	8	29		18	8	0		0	32	24		104	21	66	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	464	540		514	438	20		37	209	188		501	120	492	
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:	116	464	540		514	438	20		37	209	188		501	120	492	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	464	540		514	438	20		37	209	188		501	120	492	
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:	116	464	540		514	438	20		37	209	188		501	120	492	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.59	1.35	0.06		1.00	1.00	1.00		1.61	0.39	1.00	
Final Sat.:	1769	3538	791		2727	2321	105		1769	1862	1583		2888	690	1583	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.13	0.68		0.19	0.19	0.19		0.02	0.11	0.12		0.17	0.17	0.31	
Crit Moves:			****		****						****				****	
Green/Cycle:	0.49	0.49	0.49		0.14	0.14	0.14		0.09	0.09	0.09		0.22	0.22	0.22	
Volume/Cap:	0.13	0.27	1.39		1.39	1.39	1.39		0.25	1.31	1.39		0.77	0.77	1.39	
Uniform Del:	17.9	19.3	33.0		56.2	56.2	56.2		55.5	59.4	59.4		47.3	47.3	50.4	
IncremntDel:	0.1	0.1	188.9		182.4	182	182.4		0.9	175	212.5		4.7	4.7	190.2	
InitQueuDel:	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:	18.0	19.4	221.9		238.5	239	238.5		56.3	235	271.9		52.0	52.0	240.6	
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:	18.0	19.4	221.9		238.5	239	238.5		56.3	235	271.9		52.0	52.0	240.6	
LOS by Move:	B	B	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	6	41		27	27	27		2	17	16		13	13	38	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.419
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 192.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0 3	0	0	0	0 3	0	1	2	0 0	0	3	0	0 0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	392	1007	0	0	3628	132	62	0	1734	0	0	0				
Added Vol:	4	105	0	0	396	98	12	0	11	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	396	1112	0	0	4024	230	74	0	1745	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:	396	1112	0	0	4024	230	74	0	1745	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	396	1112	0	0	4024	230	74	0	1745	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				
FinalVolume:	396	1112	0	0	4024	230	74	0	1745	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.12	0.22	0.00	0.00	0.79	0.15	0.02	0.00	0.42	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.08	0.64	0.00	0.00	0.56	0.56	0.29	0.00	0.29	0.00	0.00	0.00				
Volume/Cap:	1.42	0.34	0.00	0.00	1.42	0.26	0.07	0.00	1.42	0.00	0.00	0.00				
Uniform Del:	68.9	12.5	0.0	0.0	33.2	17.2	38.2	0.0	52.9	0.0	0.0	0.0				
IncremntDel:	208.4	0.1	0.0	0.0	191	0.2	0.0	0.0	193.4	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	277.3	12.6	0.0	0.0	224	17.3	38.2	0.0	246.4	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:	277.3	12.6	0.0	0.0	224	17.3	38.2	0.0	246.4	0.0	0.0	0.0				
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A				
HCM2kAvgQ:	19	8	0	0	119	5	1	0	55	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.705
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.3
Optimal Cycle: 55 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	5	0	5	0	5	5	0	0	5	5		
Lanes:	0	0 0	0	0	0	0 1!	0	0	1	0 2	0	0	0	0 1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	0	120	0	99	0	20	1599	0	0	454	16		
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	0	0	0	0	125	0	103	0	21	1663	0	0	472	17		
Added Vol:	0	0	0	0	11	0	0	0	0	12	0	0	98	4		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	0	0	0	0	136	0	103	0	21	1675	0	0	570	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:	0	0	0	0	136	0	103	0	21	1675	0	0	570	21		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	0	0	0	0	136	0	103	0	21	1675	0	0	570	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				
FinalVolume:	0	0	0	0	136	0	103	0	21	1675	0	0	570	21		
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.57	0.00	0.43	1.00	2.00	0.00	0.00	1.93	0.07				
Final Sat.:	0	0	0	970	0	735	1769	3538	0	0	3397	123				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.01	0.47	0.00	0.00	0.17	0.17				
Crit Moves:				****				****		****						
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.17	0.67	0.00	0.00	0.50	0.50				
Volume/Cap:	0.00	0.00	0.00	0.70	0.00	0.70	0.07	0.70	0.00	0.00	0.34	0.34				
Uniform Del:	0.0	0.0	0.0	31.7	0.0	31.7	29.3	8.7	0.0	0.0	12.9	12.9				
IncremntDel:	0.0	0.0	0.0	6.6	0.0	6.6	0.1	1.0	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	38.3	0.0	38.3	29.4	9.7	0.0	0.0	13.0	13.0				
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	0.0	0.0	38.3	0.0	38.3	29.4	9.7	0.0	0.0	13.0	13.0				
LOS by Move:	A	A	A	D	A	D	C	A	A	A	B	B				
HCM2kAvgQ:	0	0	0	7	0	7	0	15	0	0	5	5				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.672
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.0
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	13	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	36	32	12		20	30	85		27	1642	20		19	548	14	
Added Vol:	0	0	0		0	0	0		0	12	0		0	98	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	36	32	12		20	30	85		27	1654	20		19	646	14	
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:	36	32	12		20	30	85		27	1654	20		19	646	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	36	32	12		20	30	85		27	1654	20		19	646	14	
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:	36	32	12		20	30	85		27	1654	20		19	646	14	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.96	0.04	
Final Sat.:	816	723	280		252	385	1089		1805	3560	43		1805	3525	74	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.04	0.04		0.08	0.08	0.08		0.01	0.46	0.46		0.01	0.18	0.18	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.07	0.06	0.06		0.11	0.11	0.11		0.15	0.66	0.66		0.05	0.56	0.56	
Volume/Cap:	0.65	0.70	0.70		0.70	0.73	0.73		0.10	0.70	0.70		0.21	0.33	0.33	
Uniform Del:	45.4	45.9	45.9		42.8	43.2	43.2		36.4	10.5	10.5		45.6	11.8	11.8	
IncremntDel:	11.6	17.3	17.3		10.8	13.8	13.8		0.2	0.9	0.9		1.1	0.1	0.1	
InitQueuDel:	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	63.1	63.1		53.6	57.0	57.0		36.6	11.5	11.5		46.7	11.9	11.9	
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:	57.0	63.1	63.1		53.6	57.0	57.0		36.6	11.5	11.5		46.7	11.9	11.9	
LOS by Move:	E	E	E		D	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	4	4	4		5	6	6		1	18	18		1	6	6	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.841
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 33.8
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	156	228	359		98	272	114		97	1343	90		124	562	51	
Added Vol:	0	0	0		0	0	0		0	12	0		0	98	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	156	228	359		98	272	114		97	1355	90		124	660	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:	156	228	359		98	272	114		97	1355	90		124	660	51	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	156	228	359		98	272	114		97	1355	90		124	660	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	
FinalVolume:	156	228	359		98	272	114		97	1355	90		124	660	51	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.87	0.13		1.00	1.86	0.14	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3354	224		1805	3314	256	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.12	0.22		0.05	0.14	0.07		0.05	0.40	0.40		0.07	0.20	0.20	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.12	0.26	0.26		0.06	0.21	0.21		0.12	0.48	0.48		0.08	0.44	0.44	
Volume/Cap:	0.69	0.46	0.84		0.84	0.69	0.34		0.45	0.84	0.84		0.84	0.45	0.45	
Uniform Del:	42.2	30.9	34.8		46.3	36.7	33.8		41.0	22.7	22.7		45.3	19.4	19.4	
IncremntDel:	3.7	0.4	14.0		39.5	5.2	0.6		1.5	3.9	3.9		33.1	0.2	0.2	
InitQueuDel:	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:	45.9	31.3	48.8		85.8	41.9	34.4		42.5	26.6	26.6		78.4	19.6	19.6	
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:	45.9	31.3	48.8		85.8	41.9	34.4		42.5	26.6	26.6		78.4	19.6	19.6	
LOS by Move:	D	C	D		F	D	C		D	C	C		E	B	B	
HCM2kAvgQ:	6	6	13		5	9	3		3	23	23		6	8	8	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.706
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.7
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module:																
Base Vol:	78	109	59	17	76	27	29	1264	78	44	793	17
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	81	113	61	18	79	28	30	1315	81	46	825	18
Added Vol:	0	0	0	0	0	0	0	12	0	0	98	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	113	61	18	79	28	30	1327	81	46	923	18
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:	81	113	61	18	79	28	30	1327	81	46	923	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	113	61	18	79	28	30	1327	81	46	923	18
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:	81	113	61	18	79	28	30	1327	81	46	923	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.94	0.94	0.95	0.95	0.95
Lanes:	0.32	0.44	0.24	0.14	0.63	0.23	1.00	1.88	0.12	1.00	1.96	0.04
Final Sat.:	574	802	434	259	1159	412	1805	3371	206	1805	3532	68
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.07	0.07	0.07	0.02	0.39	0.39	0.03	0.26	0.26
Crit Moves:	****				****			****		****		
Green/Cycle:	0.20	0.20	0.20	0.09	0.09	0.09	0.10	0.55	0.55	0.05	0.50	0.50
Volume/Cap:	0.72	0.72	0.72	0.72	0.72	0.72	0.17	0.72	0.72	0.51	0.52	0.52
Uniform Del:	37.6	37.6	37.6	43.9	43.9	43.9	41.5	16.8	16.8	46.3	16.8	16.8
IncremntDel:	6.9	6.9	6.9	13.5	13.5	13.5	0.5	1.3	1.3	4.6	0.3	0.3
InitQueuDel:	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:	44.4	44.4	44.4	57.4	57.4	57.4	42.0	18.1	18.1	50.9	17.1	17.1
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:	44.4	44.4	44.4	57.4	57.4	57.4	42.0	18.1	18.1	50.9	17.1	17.1
LOS by Move:	D	D	D	E	E	E	D	B	B	D	B	B
HCM2kAvgQ:	9	9	9	5	5	5	1	18	18	2	10	10

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.553
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.6
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18	18		18	18	18		64	64	64		64	64	64	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module:																
Base Vol:	60	83	38	11	68	22	42	1322	87	37	787	22
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	62	86	40	11	71	23	44	1375	90	38	818	23
Added Vol:	0	0	0	0	0	0	0	12	0	0	98	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	86	40	11	71	23	44	1387	90	38	916	23
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	86	40	11	71	23	44	1387	90	38	916	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	86	40	11	71	23	44	1387	90	38	916	23
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:	62	86	40	11	71	23	44	1387	90	38	916	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	0.94	0.94	0.94	0.28	0.94	0.94	0.14	0.95	0.95
Lanes:	0.33	0.46	0.21	0.11	0.67	0.22	1.00	1.88	0.12	1.00	1.95	0.05
Final Sat.:	539	746	342	195	1205	390	524	3358	219	260	3508	88
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.12	0.06	0.06	0.06	0.08	0.41	0.41	0.15	0.26	0.26
Crit Moves:		****						****				
Green/Cycle:	0.21	0.21	0.21	0.21	0.21	0.21	0.75	0.75	0.75	0.75	0.75	0.75
Volume/Cap:	0.55	0.55	0.55	0.28	0.28	0.28	0.11	0.55	0.55	0.20	0.35	0.35
Uniform Del:	31.8	31.8	31.8	29.9	29.9	29.9	3.2	4.9	4.9	3.4	3.9	3.9
IncremntDel:	2.0	2.0	2.0	0.4	0.4	0.4	0.1	0.3	0.3	0.5	0.1	0.1
InitQueuDel:	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:	33.8	33.8	33.8	30.3	30.3	30.3	3.3	5.2	5.2	3.9	4.0	4.0
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:	33.8	33.8	33.8	30.3	30.3	30.3	3.3	5.2	5.2	3.9	4.0	4.0
LOS by Move:	C	C	C	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	5	5	5	3	3	3	0	10	10	1	5	5

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.879
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 37.1
Optimal Cycle: 98 Level Of Service: D

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	5		5		5		5		5		5		5		5		5		5		5		5	
Lanes:	1	1	0	1	1		1	0	1	0	1		1	0	1	1	0		2	0	1	1	0	
Volume Module:																								
Base Vol:	315	485		599			32	175		224			217	784		540			115	663		173		
Growth Adj:	1.04	1.04		1.04			1.04	1.04		1.04			1.04	1.04		1.04			1.04	1.04		1.04		
Initial Bse:	328	504		623			33	182		233			226	815		562			120	690		180		
Added Vol:	0	0		7			0	0		0			0	5		0			0	98		0		
PasserByVol:	0	0		0			0	0		0			0	0		0			0	0		0		
Initial Fut:	328	504		630			33	182		233			226	820		562			120	788		180		
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:	328	504		630			33	182		233			226	820		562			120	788		180		
Reduct Vol:	0	0		0			0	0		0			0	0		0			0	0		0		
Reduced Vol:	328	504		630			33	182		233			226	820		562			120	788		180		
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:	328	504		630			33	182		233			226	820		562			120	788		180		
Saturation Flow Module:																								
Sat/Lane:	1900	1900		1900			1900	1900		1900			1900	1900		1900			1900	1900		1900		
Adjustment:	0.88	0.88		0.88			0.95	1.00		0.85			0.95	0.89		0.89			0.92	0.92		0.92		
Lanes:	1.00	1.33		1.67			1.00	1.00		1.00			1.00	1.19		0.81			2.00	1.63		0.37		
Final Sat.:	1669	2227		2781			1805	1900		1615			1805	2012		1378			3502	2856		653		
Capacity Analysis Module:																								
Vol/Sat:	0.20	0.23		0.23			0.02	0.10		0.14			0.13	0.41		0.41			0.03	0.28		0.28		
Crit Moves:	****									****				****					****					
Green/Cycle:	0.22	0.31		0.31			0.07	0.16		0.16			0.16	0.46		0.46			0.05	0.35		0.35		
Volume/Cap:	0.89	0.72		0.72			0.27	0.59		0.89			0.79	0.89		0.89			0.68	0.79		0.79		
Uniform Del:	37.8	30.5		30.5			44.1	38.8		41.0			40.5	24.8		24.8			46.7	29.2		29.2		
IncremntDel:	6.5	1.3		1.3			1.2	3.1		29.1			13.7	6.8		6.8			10.6	3.5		3.5		
InitQueuDel:	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:	44.3	31.8		31.8			45.3	41.9		70.1			54.2	31.7		31.7			57.3	32.8		32.8		
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:	44.3	31.8		31.8			45.3	41.9		70.1			54.2	31.7		31.7			57.3	32.8		32.8		
LOS by Move:	D	C		C			D	D		E			D	C		C			E	C		C		
HCM2kAvgQ:	14	12		12			1	6		10			9	24		24			3	16		16		

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

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

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.487
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 82 Level Of Service: C

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	0		32		32		0		32		0		28		0		28		0		0		18	
Lanes:	0	0	2	1	0		0	0	2	0	0		2	0	0	0	1		0	0	0	0	1	
Volume Module:																								
Base Vol:	0	802		19			0	783		0			765		0		277		0		0		16	
Growth Adj:	1.04	1.04		1.04			1.04	1.04		1.04			1.04	1.04		1.04			1.04	1.04		1.04		
Initial Bse:	0	834		20			0	814		0			796		0		288		0		0		17	
Added Vol:	0	0		0			0	0		0			7		0		0		0		0		0	
PasserByVol:	0	0		0			0	0		0			0		0		0		0		0		0	
Initial Fut:	0	834		20			0	814		0			803		0		288		0		0		17	
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	834		20			0	814		0			803		0		288		0		0		17	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
Reduced Vol:	0	834		20			0	814		0			803		0		288		0		0		17	
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:	0	834		20			0	814		0			803		0		288		0		0		17	
Saturation Flow Module:																								
Sat/Lane:	1900	1900		1900			1900	1900		1900			1900	1900		1900			1900	1900		1900		
Adjustment:	1.00	0.91		0.91			1.00	0.95		1.00			0.92	1.00		0.85			1.00	1.00		0.87		
Lanes:	0.00	2.93		0.07			0.00	2.00		0.00			2.00	0.00		1.00			0.00	0.00		1.00		
Final Sat.:	0	5052		120			0	3610		0			3502		0		1615		0		0		1644	
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.17		0.17			0.00	0.23		0.00			0.23	0.00		0.18			0.00	0.00		0.01		
Crit Moves:	****							****					****									****		
Green/Cycle:	0.00	0.37		0.37			0.00	0.37		0.00			0.38	0.00		0.58			0.00	0.00		0.20		
Volume/Cap:	0.00	0.44		0.44			0.00	0.60		0.00			0.60	0.00		0.31			0.00	0.00		0.05		
Uniform Del:	0.0	21.1		21.1			0.0	22.7		0.0			22.4	0.0		9.6			0.0	0.0		29.1		
IncremntDel:	0.0	0.2		0.2			0.0	0.8		0.0			0.8	0.0		0.2			0.0	0.0		0.1		
InitQueuDel:	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			0.00	1.00		0.00			1.00	0.00		1.00			0.00	0.00		1.00		
Delay/Veh:	0.0	21.2		21.2			0.0	23.5		0.0			23.2	0.0		9.8			0.0	0.0		29.2		
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:	0.0	21.2		21.2			0.0	23.5		0.0			23.2	0.0		9.8			0.0	0.0		29.2		
LOS by Move:	A	C		C			A	C		A			C	A		A			A	A		C		
HCM2kAvgQ:	0	7		7			0	10		0			10	0		4			0	0		0		

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.545
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 151 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	18	18	18		0	0	0		0	39	57		21	64	0	
Lanes:	1	0	1!	0	1	0	0	0	0	0	0	2	0	2	0	0
Volume Module:																
Base Vol:	305	1	439		0	0	0		0	1391	388		487	927	0	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	317	1	457		0	0	0		0	1447	404		506	964	0	
Added Vol:	0	0	0		0	0	0		0	5	16		54	56	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	317	1	457		0	0	0		0	1452	420		560	1020	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:	317	1	457		0	0	0		0	1452	420		560	1020	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	317	1	457		0	0	0		0	1452	420		560	1020	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:	317	1	457		0	0	0		0	1452	420		560	1020	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		1.00	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00	
Lanes:	1.41	0.01	1.58		0.00	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00	
Final Sat.:	2292	4	2585		0	0	0		0	3610	2842		3502	3610	0	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.24	0.18		0.00	0.00	0.00		0.00	0.40	0.15		0.16	0.28	0.00	
Crit Moves:		****												****		
Green/Cycle:	0.20	0.20	0.20		0.00	0.00	0.00		0.00	0.43	0.43		0.32	0.76	0.00	
Volume/Cap:	0.69	1.19	0.88		0.00	0.00	0.00		0.00	0.93	0.34		0.50	0.37	0.00	
Uniform Del:	33.4	36.0	35.0		0.0	0.0	0.0		0.0	24.2	17.0		24.6	3.7	0.0	
IncremntDel:	1.9	101	10.5		0.0	0.0	0.0		0.0	10.0	0.2		0.3	0.1	0.0	
InitQueuDel:	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	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	35.3	137	45.5		0.0	0.0	0.0		0.0	34.2	17.1		25.0	3.8	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:	35.3	137	45.5		0.0	0.0	0.0		0.0	34.2	17.1		25.0	3.8	0.0	
LOS by Move:	D	F	D		A	A	A		A	C	B		C	A	A	
HCM2kAvgQ:	7	22	11		0	0	0		0	25	4		7	5	0	

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 0.901
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 47.3
Optimal Cycle: 113 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	2	0	0	1	0	1	0	1	1	0	1
Volume Module:																
Base Vol:	16	87	274		612	119	34		28	809	9		274	800	327	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	17	90	285		636	124	35		29	841	9		285	832	340	
Added Vol:	0	0	0		0	0	0		0	22	0		0	56	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	17	90	285		636	124	35		29	863	9		285	888	340	
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:	17	90	285		636	124	35		29	863	9		285	888	340	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	17	90	285		636	124	35		29	863	9		285	888	340	
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:	17	90	285		636	124	35		29	863	9		285	888	340	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.90	0.90		0.92	0.97	0.97		0.95	0.95	0.95		0.95	0.95	0.85	
Lanes:	0.04	0.23	0.73		2.00	0.78	0.22		1.00	1.98	0.02		1.00	2.00	1.00	
Final Sat.:	73	395	1243		3502	1429	408		1805	3564	39		1805	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.23	0.23	0.23		0.18	0.09	0.09		0.02	0.24	0.24		0.16	0.25	0.21	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.33	0.25	0.25		0.20	0.13	0.13		0.07	0.27	0.27		0.18	0.37	0.37	
Volume/Cap:	0.69	0.90	0.90		0.90	0.69	0.69		0.23	0.90	0.90		0.90	0.66	0.56	
Uniform Del:	31.9	39.7	39.7		42.8	46.1	46.1		48.4	38.8	38.8		44.4	28.5	27.2	
IncremntDel:	3.7	21.4	21.4		14.7	8.8	8.8		1.0	11.4	11.4		27.2	1.2	1.2	
InitQueuDel:	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:	35.6	61.1	61.1		57.5	54.9	54.9		49.4	50.2	50.2		71.6	29.7	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:	35.6	61.1	61.1		57.5	54.9	54.9		49.4	50.2	50.2		71.6	29.7	28.5	
LOS by Move:	D	E	E		E	D	D		D	D	D		E	C	C	
HCM2kAvgQ:	12	16	16		14	7	7		1	19	19		13	14	9	

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.624
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 34.4
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 1	0 1	0	0 1	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	30	377	86	82	384	76	59	328	23	71	442	88
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	31	392	89	85	399	79	61	341	24	74	460	92
Added Vol:	0	37	5	16	96	23	3	1	0	37	7	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	429	94	101	495	102	64	342	24	111	467	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:	31	429	94	101	495	102	64	342	24	111	467	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	429	94	101	495	102	64	342	24	111	467	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
FinalVolume:	31	429	94	101	495	102	64	342	24	111	467	104
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.94	0.94	0.95	0.92	0.92
Lanes:	0.11	1.55	0.34	0.29	1.42	0.29	1.00	1.87	0.13	1.00	1.64	0.36
Final Sat.:	197	2714	597	508	2486	512	1805	3340	234	1805	2875	638
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.16	0.20	0.20	0.20	0.04	0.10	0.10	0.06	0.16	0.16
Crit Moves:		****		****			****				****	
Green/Cycle:	0.25	0.25	0.25	0.32	0.32	0.32	0.06	0.20	0.20	0.12	0.26	0.26
Volume/Cap:	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.52	0.52	0.52	0.62	0.62
Uniform Del:	33.1	33.1	33.1	28.9	28.9	28.9	46.1	35.8	35.8	41.4	32.7	32.7
IncremntDel:	1.4	1.4	1.4	1.1	1.1	1.1	11.4	0.7	0.7	2.2	1.4	1.4
InitQueuDel:	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:	34.5	34.5	34.5	30.0	30.0	30.0	57.4	36.5	36.5	43.5	34.0	34.0
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:	34.5	34.5	34.5	30.0	30.0	30.0	57.4	36.5	36.5	43.5	34.0	34.0
LOS by Move:	C	C	C	C	C	C	E	D	D	D	C	C
HCM2kAvgQ:	9	9	9	10	10	10	3	6	6	4	9	9

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.118
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 81.6
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0
Lanes:	1 0	3 0	0	0 0	3 0	1	1 0	0 0	1	0 0	0 0	0
Volume Module:5:00 - 6:00 AM												
Base Vol:	10	932	0	0	2235	16	334	0	76	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	10	969	0	0	2324	17	347	0	79	0	0	0
Added Vol:	38	363	0	0	53	0	617	0	86	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	48	1332	0	0	2377	17	964	0	165	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:	48	1332	0	0	2377	17	964	0	165	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	1332	0	0	2377	17	964	0	165	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
FinalVolume:	48	1332	0	0	2377	17	964	0	165	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.00	0.00	0.47	0.01	0.55	0.00	0.10	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.04	0.45	0.00	0.00	0.41	0.41	0.48	0.00	0.48	0.00	0.00	0.00
Volume/Cap:	0.71	0.58	0.00	0.00	1.14	0.03	1.14	0.00	0.22	0.00	0.00	0.00
Uniform Del:	61.8	26.6	0.0	0.0	38.2	22.7	33.8	0.0	19.6	0.0	0.0	0.0
IncremntDel:	29.5	0.4	0.0	0.0	67.3	0.0	75.2	0.0	0.1	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	91.3	27.0	0.0	0.0	106	22.7	109.0	0.0	19.7	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:	91.3	27.0	0.0	0.0	106	22.7	109.0	0.0	19.7	0.0	0.0	0.0
LOS by Move:	F	C	A	A	F	C	F	A	B	A	A	A
HCM2kAvgQ:	3	14	0	0	50	0	55	0	4	0	0	0

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.717
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 56 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	15	814	0	0	2211	166	198	0	193	0	0	0				
Added Vol:	38	400	0	0	135	3	1	0	86	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	53	1214	0	0	2346	169	199	0	279	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:	53	1214	0	0	2346	169	199	0	279	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	53	1214	0	0	2346	169	199	0	279	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				
FinalVolume:	53	1214	0	0	2346	169	199	0	279	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.24	0.00	0.00	0.46	0.11	0.11	0.00	0.18	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.04	0.68	0.00	0.00	0.64	0.64	0.25	0.00	0.25	0.00	0.00	0.00				
Volume/Cap:	0.72	0.35	0.00	0.00	0.72	0.17	0.46	0.00	0.72	0.00	0.00	0.00				
Uniform Del:	61.6	8.5	0.0	0.0	15.4	9.3	41.6	0.0	44.9	0.0	0.0	0.0				
IncremntDel:	28.7	0.1	0.0	0.0	0.8	0.1	0.8	0.0	6.3	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	90.3	8.6	0.0	0.0	16.1	9.3	42.4	0.0	51.2	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:	90.3	8.6	0.0	0.0	16.1	9.3	42.4	0.0	51.2	0.0	0.0	0.0				
LOS by Move:	F	A	A	A	B	A	D	A	D	A	A	A				
HCM2kAvgQ:	3	7	0	0	23	3	7	0	11	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.764
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.7
Optimal Cycle: 44 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	0	0	0				
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04				
Initial Bse:	506	589	0	0	371	96	267	0	733	0	0	0				
Added Vol:	14	58	0	0	21	6	3	0	3	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	520	647	0	0	392	102	270	0	736	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:	520	647	0	0	392	102	270	0	736	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	520	647	0	0	392	102	270	0	736	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				
FinalVolume:	520	647	0	0	392	102	270	0	736	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1437	373	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.29	0.35	0.00	0.00	0.27	0.27	0.15	0.00	0.47	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.39	0.74	0.00	0.00	0.36	0.36	0.22	0.00	0.61	0.00	0.00	0.00				
Volume/Cap:	0.76	0.47	0.00	0.00	0.76	0.76	0.68	0.00	0.76	0.00	0.00	0.00				
Uniform Del:	32.1	6.1	0.0	0.0	34.1	34.1	42.7	0.0	17.1	0.0	0.0	0.0				
IncremntDel:	5.1	0.3	0.0	0.0	5.4	5.4	4.8	0.0	3.7	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	37.2	6.3	0.0	0.0	39.4	39.4	47.5	0.0	20.8	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:	37.2	6.3	0.0	0.0	39.4	39.4	47.5	0.0	20.8	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	C	A	A	A				
HCM2kAvgQ:	18	9	0	0	17	17	10	0	21	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.2
Optimal Cycle: 31 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	51	791	132		370	653	37		78	79	64		76	8	277	
Added Vol:	0	68	0		2	23	0		0	0	0		0	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	51	859	132		372	676	37		78	79	64		76	8	282	
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	859	132		372	676	37		78	79	64		76	8	282	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	51	859	132		372	676	37		78	79	64		76	8	282	
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:	51	859	132		372	676	37		78	79	64		76	8	282	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.63	0.91	0.91		0.64	0.64	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1188	957	781		1091	120	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.24	0.08		0.21	0.19	0.02		0.07	0.08	0.08		0.07	0.07	0.18	
Crit Moves:		****			****										****	
Green/Cycle:	0.10	0.37	0.37		0.32	0.59	0.59		0.27	0.27	0.27		0.27	0.27	0.27	
Volume/Cap:	0.28	0.65	0.22		0.65	0.32	0.04		0.24	0.30	0.30		0.26	0.26	0.65	
Uniform Del:	49.7	31.3	25.8		34.9	12.4	10.3		34.0	34.6	34.6		34.1	34.1	38.6	
IncremntDel:	0.8	1.2	0.2		2.7	0.1	0.0		0.4	0.4	0.4		0.4	0.4	3.6	
InitQueuDel:	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:	50.5	32.4	26.0		37.6	12.5	10.3		34.4	35.0	35.0		34.5	34.5	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:	50.5	32.4	26.0		37.6	12.5	10.3		34.4	35.0	35.0		34.5	34.5	42.2	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	D	
HCM2kAvgQ:	2	14	3		12	6	1		2	4	4		3	3	10	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 1.084
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 92.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
Growth Adj:	1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04		1.04	1.04	1.04	
Initial Bse:	93	475	25		25	528	170		436	140	81		7	57	12	
Added Vol:	0	53	0		0	136	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	93	528	25		25	664	170		436	140	81		7	57	12	
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	528	25		25	664	170		436	140	81		7	57	12	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	93	528	25		25	664	170		436	140	81		7	57	12	
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:	93	528	25		25	664	170		436	140	81		7	57	12	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.15	0.85	1.00		0.04	0.96	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	281	1605	1615		69	1828	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.33	0.33	0.02		0.36	0.36	0.10		0.24	0.12	0.12		0.04	0.04	0.04	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.30	0.30	0.30		0.33	0.33	0.33		0.22	0.22	0.22		0.05	0.05	0.05	
Volume/Cap:	1.09	1.09	0.05		1.09	1.09	0.32		1.09	0.56	0.56		0.92	0.92	0.92	
Uniform Del:	38.4	38.4	27.3		36.7	36.7	27.4		42.9	38.1	38.1		52.3	52.3	52.3	
IncremntDel:	65.6	65.6	0.0		63.8	63.8	0.3		72.5	1.8	1.8		70.5	70.5	70.5	
InitQueuDel:	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:	104.0	104	27.3		100.5	101	27.7		115.3	39.9	39.9		122.7	123	122.7	
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:	104.0	104	27.3		100.5	101	27.7		115.3	39.9	39.9		122.7	123	122.7	
LOS by Move:	F	F	C		F	F	C		F	D	D		F	F	F	
HCM2kAvgQ:	32	32	1		35	35	4		23	7	7		5	5	5	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.574
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.4
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0 0	0	0	3	0 1	2	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	736	0	0	2399	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	438	0	0	221	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1174	0	0	2620	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	1174	0	0	2620	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1174	0	0	2620	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	1174	0	0	2620	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.23	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****											
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.26	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	0.9	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2018 East Campus Only AM
Command:	Near Term II No Project AM
Volume:	Near Term II No Project AM
Geometry:	Near Term II No Project AM
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term II No Project AM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term II No Project AM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	C	23.1	0.790	C	23.4	0.829	+ 0.374 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.2	0.657	D	46.7	1.075	+30.480 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	22.5	0.886	C	25.6	0.910	+ 3.175 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	30.8	0.845	C	26.6	0.869	-4.248 D/V
# 5 Bohannon/ Florence & Marsh Rd.	B	19.9	0.582	B	15.1	0.602	-4.804 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.7	0.603	B	16.7	0.691	-0.002 D/V
# 7 Middlefield at Marsh (Town of	C	27.1	0.628	C	26.9	0.754	-0.194 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.8	0.627	D	46.1	0.900	+18.223 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.1	0.575	C	20.7	0.602	-2.412 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.2	0.532	C	22.9	0.649	+ 4.768 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.1	0.477	B	13.4	0.617	-1.643 D/V
# 12 Newbridge St. & Willow Rd.	D	51.0	0.929	D	52.2	0.963	+ 1.121 D/V
# 13 Bay Rd. & Willow Rd.	C	20.4	0.714	C	20.5	0.785	+ 0.104 D/V
# 14 Durham St. & Willow Rd.	C	27.5	0.734	B	12.9	0.764	-14.559 D/V
# 15 Coleman Ave. & Willow Rd.	B	13.6	0.735	B	15.9	0.845	+ 2.339 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.5	0.682	B	16.5	0.817	+ 2.041 D/V
# 17 Middlefield Rd. & Willow Rd.	F	105.0	0.974	F	107.5	1.161	+ 2.504 D/V
# 18 Bayfront Exp. & University Ave	C	30.1	0.828	C	31.8	0.857	+ 1.732 D/V
# 19 O'Brien Dr. & University Ave.	A	6.5	0.563	A	6.4	0.571	-0.133 D/V
# 20 University & Kavanaugh	B	14.0	0.580	B	13.7	0.582	-0.259 D/V
# 21 University & Bay	C	27.9	0.660	C	27.4	0.662	-0.474 D/V
# 22 University & Runnymede	C	20.7	0.645	C	20.5	0.648	-0.229 D/V
# 23 University & Bell	A	7.7	0.253	A	7.2	0.284	-0.440 D/V
# 24 University & Donohoe	D	42.1	0.952	D	43.4	0.965	+ 1.356 D/V
# 25 NB 101 & Donohoe St	B	9.0	0.393	B	9.2	0.411	+ 0.155 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	17.4	0.661	B	17.7	0.664	+ 0.346 D/V
# 27 University Ave. & Woodland	D	41.3	0.917	D	41.5	0.921	+ 0.280 D/V
# 28 Middlefield Rd. & University A	D	35.3	0.755	D	40.7	0.836	+ 5.471 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.4	0.601	B	17.2	0.700	+ 9.780 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.2	0.610	B	19.4	0.637	+ 2.189 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.4	0.623	C	23.6	0.670	+ 1.211 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.484	C	25.4	0.492	-3.245 D/V
# 33 Middlefield Rd and Lytton Ave	D	35.6	0.735	D	41.8	0.837	+ 6.220 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.515	A	1.4	0.562	+ 0.111 D/V

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

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Intersection #1 Bayfront Exp. & Marsh Rd.

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.829
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 92 Level Of Service: C

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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:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	5	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	2458	202	25		7	62	158		195	21	1067		7	20	5	
Added Vol:	183	0	0		0	0	0		0	0	442		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2641	202	25		7	62	158		195	21	1509		7	20	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:	2641	202	25		7	62	158		195	21	1509		7	20	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2641	202	25		7	62	158		195	21	1509		7	20	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	
FinalVolume:	2641	202	25		7	62	158		195	21	1509		7	20	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.51	0.12	0.12		0.02	0.02	0.10		0.12	0.12	0.54		0.02	0.02	0.02	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.61	0.61	0.61		0.12	0.12	0.12		0.14	0.14	0.75		0.04	0.04	0.04	
Volume/Cap:	0.84	0.20	0.20		0.17	0.17	0.84		0.84	0.84	0.72		0.48	0.48	0.48	
Uniform Del:	20.6	11.4	11.4		51.5	51.5	56.1		54.3	54.3	8.8		61.2	61.2	61.2	
IncremntDel:	2.3	0.1	0.1		0.2	0.2	28.0		21.9	21.9	1.3		5.1	5.1	5.1	
InitQueuDel:	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:	22.9	11.5	11.5		51.7	51.7	84.2		76.2	76.2	10.1		66.4	66.4	66.4	
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:	22.9	11.5	11.5		51.7	51.7	84.2		76.2	76.2	10.1		66.4	66.4	66.4	
LOS by Move:	C	B	B		D	D	F		E	E	B		E	E	E	
HCM2kAvgQ:	31	4	4		1	1	9		11	11	19		2	2	2	

****

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 1.075
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 46.7
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0 1	0	0	0	0 0	0	1	1	0 1	0	0	2	0 1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	875	0	309		0	0	0		0	1218	541		0	878	1818	
Added Vol:	2	0	394		0	0	0		2	592	0		0	148	35	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	877	0	703		0	0	0		2	1810	541		0	1026	1853	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	877	0	703		0	0	0		2	1810	0		0	1026	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	877	0	703		0	0	0		2	1810	0		0	1026	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	877	0	703		0	0	0		2	1810	0		0	1026	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3375	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.26	0.00	0.44		0.00	0.00	0.00		0.54	0.54	0.00		0.00	0.29	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.41	0.00	0.41		0.00	0.00	0.00		0.50	0.50	0.00		0.00	0.50	0.00	
Volume/Cap:	0.62	0.00	1.07		0.00	0.00	0.00		1.07	1.07	0.00		0.00	0.58	0.00	
Uniform Del:	18.5	0.0	23.5		0.0	0.0	0.0		20.0	20.0	0.0		0.0	14.1	0.0	
IncremntDel:	0.8	0.0	56.9		0.0	0.0	0.0		45.0	45.0	0.0		0.0	0.5	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	19.3	0.0	80.4		0.0	0.0	0.0		65.1	65.1	0.0		0.0	14.6	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:	19.3	0.0	80.4		0.0	0.0	0.0		65.1	65.1	0.0		0.0	14.6	0.0	
LOS by Move:	B	A	F		A	A	A		E	E	A		A	B	A	
HCM2kAvgQ:	9	0	29		0	0	0		37	37	0		0	10	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.910
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 93 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0 0	2	0	0	0 1	0	0	2	0 1	0	0	2	0 1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	86	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		941	0	597		0	892	624		0	1526	92	
Added Vol:	0	0	0		315	0	7		0	282	0		0	62	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1256	0	604		0	1174	624		0	1588	92	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1256	0	604		0	1174	0		0	1588	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1256	0	604		0	1174	0		0	1588	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1256	0	604		0	1174	0		0	1588	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.37	0.00	0.38		0.00	0.33	0.00		0.00	0.45	0.00	
Crit Moves:							****							****		
Green/Cycle:	0.00	0.00	0.00		0.42	0.00	0.42		0.00	0.49	0.00		0.00	0.49	0.00	
Volume/Cap:	0.00	0.00	0.00		0.87	0.00	0.91		0.00	0.67	0.00		0.00	0.91	0.00	
Uniform Del:	0.0	0.0	0.0		21.3	0.0	21.8		0.0	15.4	0.0		0.0	18.6	0.0	
IncremntDel:	0.0	0.0	0.0		6.1	0.0	16.7		0.0	1.0	0.0		0.0	7.5	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		27.4	0.0	38.5		0.0	16.4	0.0		0.0	26.2	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:	0.0	0.0	0.0		27.4	0.0	38.5		0.0	16.4	0.0		0.0	26.2	0.0	
LOS by Move:	A	A	A		C	A	D		A	B	A		A	C	A	
HCM2kAvgQ:	0	0	0		18	0	18		0	12	0		0	23	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.869
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 26.6
Optimal Cycle: 90 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	29	3	52		238	19	3		16	1210	31		287	1515	300	
Added Vol:	0	0	0		0	0	0		0	282	0		0	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	29	3	52		238	19	3		16	1492	31		287	1584	300	
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	3	52		238	19	3		16	1492	31		287	1584	300	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	29	3	52		238	19	3		16	1492	31		287	1584	300	
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:	29	3	52		238	19	3		16	1492	31		287	1584	300	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.92	0.08	1.00		1.00	2.94	0.06		2.00	1.68	0.32	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4965	103		3432	2904	549	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.14	0.14	0.00		0.01	0.30	0.30		0.08	0.55	0.55	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.15	0.15	0.15		0.05	0.49	0.49		0.14	0.57	0.57	
Volume/Cap:	0.36	0.36	0.38		0.95	0.95	0.01		0.18	0.62	0.62		0.62	0.95	0.95	
Uniform Del:	36.8	36.8	36.8		33.6	33.6	28.8		36.4	15.0	15.0		32.6	16.0	16.0	
IncremntDel:	2.5	2.5	1.7		41.5	41.5	0.0		1.0	0.5	0.5		2.5	10.9	10.9	
InitQueuDel:	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:	39.2	39.2	38.5		75.2	75.2	28.9		37.4	15.5	15.5		35.1	27.0	27.0	
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:	39.2	39.2	38.5		75.2	75.2	28.9		37.4	15.5	15.5		35.1	27.0	27.0	
LOS by Move:	D	D	D		E	E	C		D	B	B		D	C	C	
HCM2kAvgQ:	1	1	1		11	11	0		1	11	11		5	29	29	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.602
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.1
Optimal Cycle: 27 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	16	10	9		417	32	97		125	852	62		49	1221	346	
Added Vol:	0	0	0		0	0	0		0	282	0		0	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	16	10	9		417	32	97		125	1134	62		49	1290	346	
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	10	9		417	32	97		125	1134	62		49	1290	346	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	16	10	9		417	32	97		125	1134	62		49	1290	346	
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:	16	10	9		417	32	97		125	1134	62		49	1290	346	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.90	0.10		1.00	2.00	1.00	
Final Sat.:	1769	916	814		3306	254	1583		1769	3327	182		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.13	0.13	0.06		0.07	0.34	0.34		0.03	0.36	0.22	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.20	0.20	0.20		0.11	0.61	0.61		0.09	0.58	0.58	
Volume/Cap:	0.18	0.21	0.21		0.62	0.62	0.30		0.62	0.56	0.56		0.31	0.62	0.37	
Uniform Del:	36.4	36.5	36.5		29.1	29.1	27.1		33.8	9.3	9.3		34.1	10.9	8.8	
IncremntDel:	1.0	1.2	1.2		1.7	1.7	0.5		6.0	0.3	0.3		1.1	0.6	0.3	
InitQueuDel:	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:	37.4	37.7	37.7		30.8	30.8	27.7		39.9	9.6	9.6		35.3	11.5	9.1	
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:	37.4	37.7	37.7		30.8	30.8	27.7		39.9	9.6	9.6		35.3	11.5	9.1	
LOS by Move:	D	D	D		C	C	C		D	A	A		D	B	A	
HCM2kAvgQ:	1	1	1		6	6	2		4	10	10		1	11	5	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 16.7
Optimal Cycle: 34 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1	0	1	0	1	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177		112	28	5		2	665	66		264	982	22	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	75	3	189		120	30	5		2	712	71		282	1051	24	
Added Vol:	1	0	0		0	0	0		0	282	2		0	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	76	3	189		120	30	5		2	994	73		282	1120	24	
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:	76	3	189		120	30	5		2	994	73		282	1120	24	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	76	3	189		120	30	5		2	994	73		282	1120	24	
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:	76	3	189		120	30	5		2	994	73		282	1120	24	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.79	0.79	0.79		0.53	0.53	0.53		0.88	0.88	0.88		0.93	0.93	0.93	
Lanes:	0.28	0.01	0.71		0.78	0.19	0.03		0.01	1.86	0.13		1.00	1.96	0.04	
Final Sat.:	427	18	1065		784	196	35		7	3111	227		1769	3455	73	
Capacity Analysis Module:																
Vol/Sat:	0.18	0.18	0.18		0.15	0.15	0.15		0.32	0.32	0.32		0.16	0.32	0.32	
Crit Moves:		****								****			****			
Green/Cycle:	0.26	0.26	0.26		0.26	0.26	0.26		0.46	0.46	0.46		0.23	0.69	0.69	
Volume/Cap:	0.69	0.69	0.69		0.59	0.59	0.59		0.69	0.69	0.69		0.69	0.47	0.47	
Uniform Del:	26.9	26.9	26.9		26.1	26.1	26.1		17.0	17.0	17.0		28.1	5.6	5.6	
IncremntDel:	5.3	5.3	5.3		3.7	3.7	3.7		1.4	1.4	1.4		5.0	0.1	0.1	
InitQueuDel:	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:	32.1	32.1	32.1		29.7	29.7	29.7		18.4	18.4	18.4		33.2	5.7	5.7	
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:	32.1	32.1	32.1		29.7	29.7	29.7		18.4	18.4	18.4		33.2	5.7	5.7	
LOS by Move:	C	C	C		C	C	C		B	B	B		C	A	A	
HCM2kAvgQ:	7	7	7		4	4	4		12	12	12		8	7	7	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.754
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 26.9
Optimal Cycle: 64 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397		342	367	0		0	0	0		463	0	169	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	178	425		366	393	0		0	0	0		495	0	181	
Added Vol:	0	8	110		174	64	0		0	0	0		26	0	44	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	186	535		540	457	0		0	0	0		521	0	225	
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	186	535		540	457	0		0	0	0		521	0	225	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	186	535		540	457	0		0	0	0		521	0	225	
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:	0	186	535		540	457	0		0	0	0		521	0	225	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.10	0.33		0.30	0.24	0.00		0.00	0.00	0.00		0.29	0.00	0.14	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.13	0.51		0.40	0.53	0.00		0.00	0.00	0.00		0.38	0.00	0.78	
Volume/Cap:	0.00	0.75	0.65		0.75	0.46	0.00		0.00	0.00	0.00		0.75	0.00	0.18	
Uniform Del:	0.0	46.2	19.5		28.6	16.3	0.0		0.0	0.0	0.0		29.4	0.0	3.1	
IncremntDel:	0.0	12.4	1.8		4.6	0.3	0.0		0.0	0.0	0.0		4.7	0.0	0.1	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	58.6	21.3		33.1	16.6	0.0		0.0	0.0	0.0		34.2	0.0	3.2	
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:	0.0	58.6	21.3		33.1	16.6	0.0		0.0	0.0	0.0		34.2	0.0	3.2	
LOS by Move:	A	E	C		C	B	A		A	A	A		C	A	A	
HCM2kAvgQ:	0	8	14		17	10	0		0	0	0		17	0	2	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.900
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 46.1
Optimal Cycle: 124 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	2 0	3 0	1	2 0	3 0	1	1 1	1 0	2	1 0	2 0	1
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM												
Base Vol:	1034	2108	6	13	677	92	84	34	379	3	6	5
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	1106	2256	6	14	724	98	90	36	406	3	6	5
Added Vol:	36	202	24	441	42	0	0	838	2	24	30	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1142	2458	30	455	766	98	90	874	408	27	36	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:	1142	2458	30	455	766	98	90	874	408	27	36	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1142	2458	30	455	766	98	90	874	408	27	36	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
FinalVolume:	1142	2458	30	455	766	98	90	874	408	27	36	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.93	0.93	0.88	0.93	0.93	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00
Final Sat.:	3432	5846	1583	3432	5846	1583	1760	3520	3343	1769	3538	1583
Capacity Analysis Module:												
Vol/Sat:	0.33	0.42	0.02	0.13	0.13	0.06	0.05	0.25	0.12	0.02	0.01	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.43	0.46	0.49	0.14	0.17	0.17	0.27	0.27	0.27	0.04	0.04	0.04
Volume/Cap:	0.77	0.92	0.04	0.92	0.77	0.37	0.19	0.92	0.45	0.40	0.27	0.32
Uniform Del:	31.6	33.2	16.9	54.9	51.6	47.8	36.6	46.2	39.5	61.0	60.7	60.8
IncremntDel:	2.6	6.0	0.0	22.8	3.8	0.9	0.0	13.0	0.4	3.8	1.1	3.0
InitQueuDel:	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:	34.2	39.2	17.0	77.8	55.4	48.7	36.6	59.1	39.9	64.9	61.8	63.8
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:	34.2	39.2	17.0	77.8	55.4	48.7	36.6	59.1	39.9	64.9	61.8	63.8
LOS by Move:	C	D	B	E	E	D	D	E	D	E	E	E
HCM2kAvgQ:	21	37	1	13	12	4	3	22	8	2	1	1

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.602
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 48 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am												
Base Vol:	18	13	26	71	19	72	115	415	52	56	1037	74
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	19	14	28	76	20	77	123	444	56	60	1110	79
Added Vol:	0	0	0	0	0	8	2	839	0	0	66	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	14	28	76	20	85	125	1283	56	60	1176	79
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:	19	14	28	76	20	85	125	1283	56	60	1176	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	14	28	76	20	85	125	1283	56	60	1176	79
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:	19	14	28	76	20	85	125	1283	56	60	1176	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.83	0.83	0.78	0.78	0.78	0.93	0.93	0.93	0.93	0.92	0.92
Lanes:	0.31	0.23	0.46	0.42	0.11	0.47	1.00	1.92	0.08	1.00	1.87	0.13
Final Sat.:	497	359	719	622	166	696	1769	3370	146	1769	3285	221
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.12	0.12	0.12	0.07	0.38	0.38	0.03	0.36	0.36
Crit Moves:					****		****				****	
Green/Cycle:	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.65	0.65	0.07	0.59	0.59
Volume/Cap:	0.19	0.19	0.19	0.60	0.60	0.60	0.60	0.59	0.59	0.52	0.60	0.60
Uniform Del:	43.0	43.0	43.0	47.0	47.0	47.0	54.5	13.1	13.1	58.8	16.6	16.6
IncremntDel:	0.3	0.3	0.3	3.4	3.4	3.4	4.9	0.4	0.4	4.1	0.5	0.5
InitQueuDel:	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:	43.2	43.2	43.2	50.4	50.4	50.4	59.3	13.5	13.5	62.9	17.1	17.1
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:	43.2	43.2	43.2	50.4	50.4	50.4	59.3	13.5	13.5	62.9	17.1	17.1
LOS by Move:	D	D	D	D	D	D	E	B	B	E	B	B
HCM2kAvgQ:	2	2	2	7	7	7	6	16	16	3	17	17

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.649
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 53 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	1	1	0
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		1	0	199		88	698	0		0	1092	15	
Added Vol:	0	0	0		115	0	6		7	726	0		0	65	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		116	0	205		95	1424	0		0	1157	24	
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	0	0		116	0	205		95	1424	0		0	1157	24	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		116	0	205		95	1424	0		0	1157	24	
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:	0	0	0		116	0	205		95	1424	0		0	1157	24	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.88	1.00	0.88		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.36	0.00	0.64		1.00	2.00	0.00		0.00	1.96	0.04	
Final Sat.:	0	0	0		604	0	1067		1769	3538	0		0	3456	72	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.19	0.00	0.19		0.05	0.40	0.00		0.00	0.33	0.33	
Crit Moves:							****			****			****			
Green/Cycle:	0.00	0.00	0.00		0.30	0.00	0.30		0.09	0.62	0.00		0.00	0.53	0.53	
Volume/Cap:	0.00	0.00	0.00		0.65	0.00	0.65		0.63	0.65	0.00		0.00	0.63	0.63	
Uniform Del:	0.0	0.0	0.0		39.9	0.0	39.9		57.4	15.7	0.0		0.0	21.2	21.2	
IncremntDel:	0.0	0.0	0.0		3.0	0.0	3.0		8.1	0.7	0.0		0.0	0.7	0.7	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		42.9	0.0	42.9		65.5	16.4	0.0		0.0	21.9	21.9	
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:	0.0	0.0	0.0		42.9	0.0	42.9		65.5	16.4	0.0		0.0	21.9	21.9	
LOS by Move:	A	A	A		D	A	D		E	B	A		A	C	C	
HCM2kAvgQ:	0	0	0		12	0	12		5	19	0		0	17	17	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.617
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 49 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1	0	1!	0	0	0	0	0	0	0	0	2	0	1	1	0	2	0	0
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	139	0	72		0	0	0		0	746	268		109	1253	0	
Added Vol:	10	0	0		0	0	0		0	733	2		0	71	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	149	0	72		0	0	0		0	1479	270		109	1324	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:	149	0	72		0	0	0		0	1479	270		109	1324	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	149	0	72		0	0	0		0	1479	270		109	1324	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:	149	0	72		0	0	0		0	1479	270		109	1324	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.51	0.00	0.49		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2585	0	839		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.00	0.09		0.00	0.00	0.00		0.00	0.42	0.17		0.06	0.37	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.14	0.00	0.14		0.00	0.00	0.00		0.00	0.68	0.68		0.10	0.78	0.00	
Volume/Cap:	0.42	0.00	0.62		0.00	0.00	0.00		0.00	0.62	0.25		0.62	0.48	0.00	
Uniform Del:	51.2	0.0	52.8		0.0	0.0	0.0		0.0	11.6	8.2		56.1	5.2	0.0	
IncremntDel:	0.5	0.0	3.2		0.0	0.0	0.0		0.0	0.5	0.1		6.5	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	51.7	0.0	56.0		0.0	0.0	0.0		0.0	12.1	8.3		62.6	5.3	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:	51.7	0.0	56.0		0.0	0.0	0.0		0.0	12.1	8.3		62.6	5.3	0.0	
LOS by Move:	D	A	E		A	A	A		A	B	A		E	A	A	
HCM2kAvgQ:	4	0	6		0	0	0		0	17	4		5	10	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.963
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 52.2
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	375	119	39		30	190	411		158	884	166		30	1306	4	
Added Vol:	0	0	0		0	0	3		10	735	0		0	80	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	375	119	39		30	190	414		168	1619	166		30	1386	4	
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:	375	119	39		30	190	414		168	1619	166		30	1386	4	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	375	119	39		30	190	414		168	1619	166		30	1386	4	
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:	375	119	39		30	190	414		168	1619	166		30	1386	4	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.88	0.88		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.72	0.28		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4546	466		1769	3527	11	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.06	0.02		0.02	0.10	0.26		0.10	0.36	0.36		0.02	0.39	0.39	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.11	0.11	0.11		0.27	0.27	0.27		0.10	0.46	0.46		0.05	0.41	0.41	
Volume/Cap:	0.96	0.56	0.21		0.06	0.38	0.96		0.96	0.78	0.78		0.34	0.96	0.96	
Uniform Del:	57.4	54.6	52.4		35.1	38.4	46.7		58.3	29.7	29.7		59.7	37.5	37.5	
IncremntDel:	35.8	3.5	0.6		0.1	0.5	33.7		56.9	1.8	1.8		2.3	15.6	15.6	
InitQueuDel:	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:	93.2	58.0	53.0		35.1	38.9	80.4		115.2	31.4	31.4		62.1	53.1	53.1	
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:	93.2	58.0	53.0		35.1	38.9	80.4		115.2	31.4	31.4		62.1	53.1	53.1	
LOS by Move:	F	E	D		D	D	F		F	C	C		E	D	D	
HCM2kAvgQ:	11	5	2		1	6	21		10	23	23		2	34	34	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.785
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 71 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		386	0	80		68	1474	0		0	1192	341	
Added Vol:	0	0	0		2	0	0		0	220	0		0	50	3	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		388	0	80		68	1694	0		0	1242	344	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		388	0	80		68	1694	0		0	1242	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		388	0	80		68	1694	0		0	1242	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		388	0	80		68	1694	0		0	1242	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.22	0.00	0.05		0.04	0.48	0.00		0.00	0.35	0.00	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.28	0.00	0.28		0.08	0.61	0.00		0.00	0.53	0.00	
Volume/Cap:	0.00	0.00	0.00		0.78	0.00	0.18		0.51	0.78	0.00		0.00	0.66	0.00	
Uniform Del:	0.0	0.0	0.0		33.2	0.0	27.3		44.4	14.6	0.0		0.0	16.7	0.0	
IncremntDel:	0.0	0.0	0.0		8.1	0.0	0.2		3.2	2.0	0.0		0.0	0.9	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		41.3	0.0	27.5		47.6	16.5	0.0		0.0	17.6	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:	0.0	0.0	0.0		41.3	0.0	27.5		47.6	16.5	0.0		0.0	17.6	0.0	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		13	0	2		3	22	0		0	15	0	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.764
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 55 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	66	17	134		41	2	2		13	1071	10		44	910	152	
Added Vol:	0	0	0		0	0	0		0	220	0		0	50	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	66	17	134		41	2	2		13	1291	10		44	960	152	
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:	66	17	134		41	2	2		13	1291	10		44	960	152	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	66	17	134		41	2	2		13	1291	10		44	960	152	
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:	66	17	134		41	2	2		13	1291	10		44	960	152	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.48	0.48	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.99	0.01		1.00	0.86	0.14	
Final Sat.:	1365	183	1431		860	45	1583		1769	3508	26		1769	1574	249	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.09	0.09		0.05	0.05	0.00		0.01	0.37	0.37		0.02	0.61	0.61	
Crit Moves:		****							****					****		
Green/Cycle:	0.12	0.12	0.12		0.12	0.12	0.12		0.04	0.73	0.73		0.08	0.77	0.77	
Volume/Cap:	0.41	0.79	0.79		0.40	0.40	0.01		0.18	0.50	0.50		0.31	0.79	0.79	
Uniform Del:	40.9	42.9	42.9		40.8	40.8	38.9		46.4	5.7	5.7		43.4	6.7	6.7	
IncremntDel:	1.7	19.6	19.6		2.4	2.4	0.0		1.2	0.2	0.2		1.3	3.1	3.1	
InitQueuDel:	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:	42.6	62.5	62.5		43.2	43.2	38.9		47.7	5.8	5.8		44.7	9.8	9.8	
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:	42.6	62.5	62.5		43.2	43.2	38.9		47.7	5.8	5.8		44.7	9.8	9.8	
LOS by Move:	D	E	E		D	D	D		D	A	A		D	A	A	
HCM2kAvgQ:	2	7	7		2	2	0		1	9	9		2	22	22	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.845
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 74 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	62	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	3	3	9		152	6	51		18	954	5		6	914	66	
Added Vol:	0	0	0		0	0	0		0	220	0		0	50	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	3	9		152	6	51		18	1174	5		6	964	66	
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:	3	3	9		152	6	51		18	1174	5		6	964	66	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	9		152	6	51		18	1174	5		6	964	66	
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:	3	3	9		152	6	51		18	1174	5		6	964	66	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.17	0.98	0.98		0.10	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.94	0.06	
Final Sat.:	351	351	937		999	42	338		330	1852	8		196	1725	119	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.15	0.15	0.15		0.06	0.63	0.63		0.03	0.56	0.56	
Crit Moves:						****				****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.05	0.05	0.05		0.85	0.85	0.85		0.07	0.85	0.85		0.04	0.74	0.74	
Uniform Del:	33.9	33.9	33.9		39.7	39.7	39.7		3.3	8.5	8.5		3.2	7.1	7.1	
IncremntDel:	0.1	0.1	0.1		22.6	22.6	22.6		0.1	5.0	5.0		0.1	2.2	2.2	
InitQueuDel:	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:	34.0	34.0	34.0		62.2	62.2	62.2		3.4	13.5	13.5		3.4	9.3	9.3	
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:	34.0	34.0	34.0		62.2	62.2	62.2		3.4	13.5	13.5		3.4	9.3	9.3	
LOS by Move:	C	C	C		E	E	E		A	B	B		A	A	A	
HCM2kAvgQ:	0	0	0		9	9	9		0	27	27		0	19	19	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.817
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 66 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	72		41	869	5	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	108	91	131		33	44	7		4	850	77		44	930	5	
Added Vol:	11	0	26		0	0	0		0	194	8		4	46	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	119	91	157		33	44	7		4	1044	85		48	976	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:	119	91	157		33	44	7		4	1044	85		48	976	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	119	91	157		33	44	7		4	1044	85		48	976	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	
FinalVolume:	119	91	157		33	44	7		4	1044	85		48	976	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.89	0.89		0.28	0.96	0.96		0.20	0.97	0.97		0.13	0.98	0.98	
Lanes:	1.00	0.37	0.63		1.00	0.85	0.15		1.00	0.92	0.08		1.00	0.99	0.01	
Final Sat.:	1352	619	1066		523	1555	266		371	1703	139		242	1850	10	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.15	0.15		0.06	0.03	0.03		0.01	0.61	0.61		0.20	0.53	0.53	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.49	0.82	0.82		0.35	0.16	0.16		0.02	0.82	0.82		0.26	0.70	0.70	
Uniform Del:	36.9	39.4	39.4		35.9	34.6	34.6		3.2	8.1	8.1		3.9	6.6	6.6	
IncremntDel:	1.6	15.7	15.7		2.3	0.2	0.2		0.0	3.9	3.9		0.8	1.6	1.6	
InitQueuDel:	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:	38.4	55.2	55.2		38.2	34.8	34.8		3.2	12.0	12.0		4.7	8.2	8.2	
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:	38.4	55.2	55.2		38.2	34.8	34.8		3.2	12.0	12.0		4.7	8.2	8.2	
LOS by Move:	D	E	E		D	C	C		A	B	B		A	A	A	
HCM2kAvgQ:	4	10	10		1	1	1		0	24	24		1	17	17	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.161
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 107.5
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0	1	1	0	0
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	72	366	262		437	345	11		17	178	125		449	68	529	
Added Vol:	15	9	114		80	7	0		0	8	10		18	18	21	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	87	375	376		517	352	11		17	186	135		467	86	550	
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	375	376		517	352	11		17	186	135		467	86	550	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	87	375	373		517	352	11		17	186	135		467	86	550	
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:	87	375	373		517	352	11		17	186	135		467	86	550	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.76	1.20	0.04		1.00	1.00	1.00		1.69	0.31	1.00	
Final Sat.:	1769	3538	791		3023	2057	63		1769	1862	1583		3017	558	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.11	0.47		0.17	0.17	0.17		0.01	0.10	0.09		0.15	0.15	0.35	
Crit Moves:			****		****					****					****	
Green/Cycle:	0.41	0.41	0.41		0.15	0.15	0.15		0.09	0.09	0.09		0.30	0.30	0.30	
Volume/Cap:	0.12	0.26	1.16		1.16	1.16	1.16		0.11	1.16	0.99		0.52	0.52	1.16	
Uniform Del:	24.1	25.6	38.6		55.4	55.4	55.4		54.8	59.4	59.4		37.8	37.8	45.6	
IncremntDel:	0.1	0.1	101.2		86.7	86.7	86.7		0.3	121	75.5		0.4	0.4	93.6	
InitQueuDel:	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:	24.2	25.7	139.8		142.1	142	142.1		55.2	180	134.8		38.2	38.2	139.1	
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:	24.2	25.7	139.8		142.1	142	142.1		55.2	180	134.8		38.2	38.2	139.1	
LOS by Move:	C	C	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	5	24		21	21	21		1	13	9		9	9	34	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.857
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 102 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0	0	884	188	179	0	429	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	1649	3084	0	0	946	201	192	0	459	0	0	0				
Added Vol:	10	439	0	0	61	8	109	0	2	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	1659	3523	0	0	1007	209	301	0	461	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:	1659	3523	0	0	1007	209	301	0	461	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1659	3523	0	0	1007	209	301	0	461	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				
FinalVolume:	1659	3523	0	0	1007	209	301	0	461	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.48	0.69	0.00	0.00	0.20	0.13	0.09	0.00	0.11	0.00	0.00	0.00				
Crit Moves:		****		****					****							
Green/Cycle:	0.57	0.81	0.00	0.00	0.24	0.24	0.13	0.00	0.13	0.00	0.00	0.00				
Volume/Cap:	0.84	0.86	0.00	0.00	0.84	0.56	0.68	0.00	0.86	0.00	0.00	0.00				
Uniform Del:	28.1	9.5	0.0	0.0	58.4	53.9	66.6	0.0	68.3	0.0	0.0	0.0				
IncremntDel:	3.5	2.0	0.0	0.0	5.6	2.0	4.3	0.0	12.9	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	31.6	11.5	0.0	0.0	64.0	55.9	70.8	0.0	81.1	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:	31.6	11.5	0.0	0.0	64.0	55.9	70.8	0.0	81.1	0.0	0.0	0.0				
LOS by Move:	C	B	A	A	E	E	A	F	A	A	A					
HCM2kAvgQ:	36	41	0	0	19	9	8	0	11	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.571
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.4
Optimal Cycle: 43 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	0	5	5	5	0	0	5	5			
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0	22	0	22	68	526	0	0	1341	46				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	0	0	0	24	0	24	73	563	0	0	1435	49				
Added Vol:	0	0	0	2	0	0	0	109	0	0	8	10				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	26	0	24	73	672	0	0	1443	59				
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	0	0	26	0	24	73	672	0	0	1443	59				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	26	0	24	73	672	0	0	1443	59				
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:	0	0	0	26	0	24	73	672	0	0	1443	59				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.89	1.00	0.89	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.52	0.00	0.48	1.00	2.00	0.00	0.00	1.92	0.08				
Final Sat.:	0	0	0	883	0	814	1769	3538	0	0	3378	139				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.03	0.04	0.19	0.00	0.00	0.43	0.43				
Crit Moves:				****			****				****					
Green/Cycle:	0.00	0.00	0.00	0.06	0.00	0.06	0.07	0.81	0.00	0.00	0.74	0.74				
Volume/Cap:	0.00	0.00	0.00	0.49	0.00	0.49	0.58	0.23	0.00	0.00	0.58	0.58				
Uniform Del:	0.0	0.0	0.0	38.8	0.0	38.8	38.2	1.9	0.0	0.0	5.0	5.0				
IncremntDel:	0.0	0.0	0.0	3.8	0.0	3.8	6.5	0.0	0.0	0.0	0.3	0.3				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	42.5	0.0	42.5	44.7	1.9	0.0	0.0	5.3	5.3				
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:	0.0	0.0	0.0	42.5	0.0	42.5	44.7	1.9	0.0	0.0	5.3	5.3				
LOS by Move:	A	A	A	D	A	D	D	A	A	A	A	A				
HCM2kAvgQ:	0	0	0	2	0	2	3	2	0	0	10	10				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.582
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	34	40	21		9	22	47		43	623	46		27	1393	27	
Added Vol:	0	0	0		0	0	0		0	109	0		0	8	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	40	21		9	22	47		43	732	46		27	1401	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:	34	40	21		9	22	47		43	732	46		27	1401	27	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	40	21		9	22	47		43	732	46		27	1401	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	
FinalVolume:	34	40	21		9	22	47		43	732	46		27	1401	27	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.91	0.91	0.91		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.36	0.42	0.22		0.11	0.29	0.60		1.00	1.88	0.12		1.00	1.96	0.04	
Final Sat.:	651	752	407		190	500	1047		1805	3366	212		1805	3532	67	
Capacity Analysis Module:																		
Vol/Sat:	0.05	0.05	0.05		0.04	0.04	0.04		0.02	0.22	0.22		0.01	0.40	0.40	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.09	0.09		0.08	0.08	0.08		0.05	0.59	0.59		0.14	0.67	0.67	
Volume/Cap:	0.59	0.62	0.62		0.56	0.59	0.59		0.47	0.37	0.37		0.11	0.59	0.59	
Uniform Del:	43.8	44.2	44.2		44.2	44.7	44.7		46.2	10.8	10.8		37.9	8.8	8.8	
IncremntDel:	5.6	7.5	7.5		4.9	6.8	6.8		3.9	0.1	0.1		0.2	0.4	0.4	
InitQueuDel:	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:	49.3	51.6	51.6		49.1	51.4	51.4		50.1	10.9	10.9		38.1	9.2	9.2	
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:	49.3	51.6	51.6		49.1	51.4	51.4		50.1	10.9	10.9		38.1	9.2	9.2	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	A	A	
HCM2kAvgQ:	4	4	4		3	3	3		2	7	7		1	13	13	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.662
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	116	241	121		54	210	92		151	532	83		104	1193	52	
Added Vol:	0	0	0		0	0	0		0	109	0		0	8	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	241	121		54	210	92		151	641	83		104	1201	52	
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:	116	241	121		54	210	92		151	641	83		104	1201	52	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	241	121		54	210	92		151	641	83		104	1201	52	
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:	116	241	121		54	210	92		151	641	83		104	1201	52	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.77	0.23		1.00	1.92	0.08	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3140	409		1805	3438	150	
Capacity Analysis Module:																		
Vol/Sat:	0.06	0.13	0.07		0.03	0.11	0.06		0.08	0.20	0.20		0.06	0.35	0.35	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.09	0.19	0.19		0.05	0.15	0.15		0.13	0.51	0.51		0.14	0.52	0.52	
Volume/Cap:	0.73	0.67	0.39		0.59	0.73	0.37		0.67	0.40	0.40		0.40	0.67	0.67	
Uniform Del:	44.4	37.5	35.4		46.5	40.4	38.1		41.7	15.3	15.3		39.0	17.4	17.4	
IncremntDel:	15.4	4.7	0.8		10.1	8.9	1.0		7.3	0.1	0.1		1.0	0.9	0.9	
InitQueuDel:	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:	59.8	42.2	36.3		56.6	49.3	39.1		49.1	15.4	15.4		40.0	18.3	18.3	
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:	59.8	42.2	36.3		56.6	49.3	39.1		49.1	15.4	15.4		40.0	18.3	18.3	
LOS by Move:	E	D	D		E	D	D		D	B	B		D	B	B	
HCM2kAvgQ:	5	8	4		3	8	3		6	7	7		3	15	15	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	47	105	12	16	59	56	18	626	48	88	1246	61
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	50	112	13	17	63	60	19	670	51	94	1333	65
Added Vol:	0	0	0	0	0	0	0	109	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	112	13	17	63	60	19	779	51	94	1341	65
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:	50	112	13	17	63	60	19	779	51	94	1341	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	112	13	17	63	60	19	779	51	94	1341	65
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:	50	112	13	17	63	60	19	779	51	94	1341	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.98	0.98	0.98	0.94	0.94	0.94	0.95	0.94	0.94	0.95	0.94	0.94
Lanes:	0.29	0.64	0.07	0.12	0.45	0.43	1.00	1.88	0.12	1.00	1.91	0.09
Final Sat.:	532	1187	136	217	801	761	1805	3356	221	1805	3418	166
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.08	0.08	0.08	0.01	0.23	0.23	0.05	0.39	0.39
Crit Moves:	****				****		****				****	
Green/Cycle:	0.14	0.14	0.14	0.12	0.12	0.12	0.05	0.52	0.52	0.12	0.58	0.58
Volume/Cap:	0.67	0.67	0.67	0.67	0.67	0.67	0.21	0.45	0.45	0.45	0.67	0.67
Uniform Del:	40.8	40.8	40.8	42.3	42.3	42.3	45.6	15.2	15.2	41.2	14.3	14.3
IncremntDel:	6.8	6.8	6.8	8.4	8.4	8.4	1.2	0.2	0.2	1.5	0.9	0.9
InitQueuDel:	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:	47.6	47.6	47.6	50.7	50.7	50.7	46.8	15.4	15.4	42.7	15.2	15.2
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:	47.6	47.6	47.6	50.7	50.7	50.7	46.8	15.4	15.4	42.7	15.2	15.2
LOS by Move:	D	D	D	D	D	D	D	B	B	D	B	B
HCM2kAvgQ:	6	6	6	5	5	5	1	8	8	3	16	16

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap.(X): 0.284
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	14	14	14	14	14	14	73	73	73	73	73	73
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	18	59	9	7	43	11	15	614	24	15	123	24
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	19	63	10	7	46	12	16	657	26	16	132	26
Added Vol:	0	0	0	0	0	0	0	109	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	63	10	7	46	12	16	766	26	16	140	26
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:	19	63	10	7	46	12	16	766	26	16	140	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	63	10	7	46	12	16	766	26	16	140	26
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:	19	63	10	7	46	12	16	766	26	16	140	26
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.95	0.95	0.95	0.64	0.95	0.95	0.33	0.93	0.93
Lanes:	0.21	0.69	0.10	0.11	0.71	0.18	1.00	1.94	0.06	1.00	1.69	0.31
Final Sat.:	370	1212	185	207	1272	325	1218	3475	117	619	2979	548
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.04	0.04	0.04	0.01	0.22	0.22	0.03	0.05	0.05
Crit Moves:		****						****				
Green/Cycle:	0.18	0.18	0.18	0.18	0.18	0.18	0.77	0.77	0.77	0.77	0.77	0.77
Volume/Cap:	0.28	0.28	0.28	0.20	0.20	0.20	0.02	0.28	0.28	0.03	0.06	0.06
Uniform Del:	33.4	33.4	33.4	32.9	32.9	32.9	2.4	3.1	3.1	2.5	2.5	2.5
IncremntDel:	0.5	0.5	0.5	0.3	0.3	0.3	0.0	0.1	0.1	0.0	0.0	0.0
InitQueuDel:	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:	33.9	33.9	33.9	33.2	33.2	33.2	2.4	3.1	3.1	2.5	2.5	2.5
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:	33.9	33.9	33.9	33.2	33.2	33.2	2.4	3.1	3.1	2.5	2.5	2.5
LOS by Move:	C	C	C	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	2	2	2	0	4	4	0	1	1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.965
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 43.4
Optimal Cycle: 152 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1 1	1	0	1	0 1	2	0	2	0 1	1	0	1	1 0
Volume Module:																
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	387	468	351		12	133	410		125	377	303		52	1289	73	
Added Vol:	0	0	60		0	0	0		0	49	0		0	8	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	387	468	411		12	133	410		125	426	303		52	1297	73	
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:	387	468	411		12	133	410		125	426	303		52	1297	73	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	387	468	411		12	133	410		125	426	303		52	1297	73	
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:	387	468	411		12	133	410		125	426	303		52	1297	73	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.22	1.48	1.30		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.89	0.11	
Final Sat.:	2069	2498	2196		1805	1900	1615		3502	3610	1615		1805	3391	190	
Capacity Analysis Module:																
Vol/Sat:	0.19	0.19	0.19		0.01	0.07	0.25		0.04	0.12	0.19		0.03	0.38	0.38	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.19	0.35	0.35		0.09	0.26	0.26		0.05	0.35	0.35		0.09	0.39	0.39	
Volume/Cap:	0.98	0.53	0.53		0.07	0.27	0.98		0.72	0.34	0.54		0.31	0.98	0.98	
Uniform Del:	40.3	25.6	25.6		41.2	29.5	36.8		46.8	24.1	26.2		42.4	30.1	30.1	
IncremntDel:	20.4	0.2	0.2		0.2	0.3	38.7		13.1	0.2	1.1		1.1	19.5	19.5	
InitQueuDel:	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:	60.7	25.8	25.8		41.4	29.8	75.5		59.9	24.3	27.3		43.5	49.6	49.6	
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:	60.7	25.8	25.8		41.4	29.8	75.5		59.9	24.3	27.3		43.5	49.6	49.6	
LOS by Move:	E	C	C		D	C	E		E	C	C		D	D	D	
HCM2kAvgQ:	15	8	8		0	3	18		3	5	8		2	28	28	

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.411
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.2
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0	2	1 0	0	0	2	0 0	2	0	0	0 1	0	0	0	0 1
Volume Module:																
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	113	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	896	9		0	483	0		391	0	150		0	0	121	
Added Vol:	0	0	0		0	0	0		60	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	896	9		0	483	0		451	0	150		0	0	121	
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	896	9		0	483	0		451	0	150		0	0	121	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	896	9		0	483	0		451	0	150		0	0	121	
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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	985	9		0	507	0		464	0	150		0	0	121	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5646	54		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.17	0.17		0.00	0.13	0.00		0.13	0.00	0.09		0.00	0.00	0.08	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.00	0.42	0.42		0.00	0.42	0.00		0.31	0.00	0.51		0.00	0.00	0.20	
Volume/Cap:	0.00	0.41	0.41		0.00	0.31	0.00		0.41	0.00	0.18		0.00	0.00	0.41	
Uniform Del:	0.0	9.9	9.9		0.0	9.4	0.0		13.4	0.0	6.4		0.0	0.0	17.2	
IncremntDel:	0.0	0.1	0.1		0.0	0.0	0.0		0.1	0.0	0.0		0.0	0.0	0.5	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	8.5	8.5		0.0	8.1	0.0		11.5	0.0	5.5		0.0	0.0	15.2	
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:	0.0	8.5	8.5		0.0	8.1	0.0		11.5	0.0	5.5		0.0	0.0	15.2	
DesignQueue:	0	7	7		0	5	0		6	0	3		0	0	4	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.664
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 108 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	16		16	16	0		0	0	0		29	45	28		61	0
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	317		1	220	0		0	0	0	828		379	798	1527		0
Growth Adj:	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07
Initial Bse:	339		1	235	0		0	0	0	886		406	854	1634		0
Added Vol:	0		0	0	0		0	0	0	49		6	4	12		0
PasserByVol:	0		0	0	0		0	0	0	0		0	0	0		0
Initial Fut:	339		1	235	0		0	0	0	935		412	858	1646		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:	339		1	235	0		0	0	0	935		412	858	1646		0
Reduct Vol:	0		0	0	0		0	0	0	0		0	0	0		0
Reduced Vol:	339		1	235	0		0	0	0	935		412	858	1646		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:	339		1	235	0		0	0	0	935		412	858	1646		0
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.86	0.86		0.86	1.00	1.00		1.00	1.00	0.95		0.75	0.92	0.95		1.00
Lanes:	1.58	0.01		1.41	0.00	0.00		0.00	0.00	2.00		2.00	2.00	2.00		0.00
Final Sat.:	2584		6	2291	0		0	0	0	3610		2842	3502	3610		0
Capacity Analysis Module:																
Vol/Sat:	0.13	0.18		0.10	0.00	0.00		0.00	0.00	0.26		0.14	0.24	0.46		0.00
Crit Moves:		****												****		
Green/Cycle:	0.19	0.19		0.19	0.00	0.00		0.00	0.00	0.34		0.34	0.42	0.76		0.00
Volume/Cap:	0.70	0.94		0.55	0.00	0.00		0.00	0.00	0.76		0.42	0.58	0.60		0.00
Uniform Del:	32.2	34.0		31.2	0.0	0.0		0.0	0.0	24.9		21.6	18.7	4.3		0.0
IncremntDel:	2.6	23.0		0.6	0.0	0.0		0.0	0.0	2.8		0.3	0.6	0.4		0.0
InitQueuDel:	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	0.00		0.00	1.00	1.00		1.00	1.00	1.00		0.00
Delay/Veh:	34.9	57.0		31.8	0.0	0.0		0.0	27.7	21.9		19.3	4.7	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:	34.9	57.0		31.8	0.0	0.0		0.0	27.7	21.9		19.3	4.7	0.0		
LOS by Move:	C	E		C	A	A		A	A	C		C	B	A		A
HCM2kAvgQ:	7	12		5	0	0		0	0	13		5	9	10		0

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.921
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 41.5
Optimal Cycle: 118 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5		5	5	5		5	5	5		5	5	5		5	5
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	14	78		250	410	115		41	51	538		13	238	1506		420
Growth Adj:	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07
Initial Bse:	15	83		268	439	123		44	55	576		14	255	1611		449
Added Vol:	0	0		0	0	0		0	0	55		0	0	12		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	15	83		268	439	123		44	55	631		14	255	1623		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:	15	83		268	439	123		44	55	631		14	255	1623		449
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	15	83		268	439	123		44	55	631		14	255	1623		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
FinalVolume:	15	83		268	439	123		44	55	631		14	255	1623		449
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.90	0.90		0.90	0.92	0.96		0.96	0.95	0.95		0.95	0.95	0.95		0.85
Lanes:	0.04	0.23		0.73	2.00	0.74		0.26	1.00	1.96		0.04	1.00	2.00		1.00
Final Sat.:	70	390		1249	3502	1346		480	1805	3521		78	1805	3610		1615
Capacity Analysis Module:																
Vol/Sat:	0.21	0.21		0.21	0.13	0.09		0.09	0.03	0.18		0.18	0.14	0.45		0.28
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.23		0.23	0.13	0.11		0.11	0.05	0.30		0.30	0.23	0.48		0.48
Volume/Cap:	0.85	0.94		0.94	0.94	0.85		0.85	0.60	0.61		0.61	0.61	0.94		0.58
Uniform Del:	35.5	37.9		37.9	42.9	43.8		43.8	46.5	30.2		30.2	34.2	24.7		18.8
IncremntDel:	14.3	30.5		30.5	27.1	27.1		27.1	11.1	1.0		1.0	2.5	10.5		1.1
InitQueuDel:	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	68.5		68.5	70.0	70.9		70.9	57.7	31.2		31.2	36.8	35.2		20.0
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:	49.7	68.5		68.5	70.0	70.9		70.9	57.7	31.2		31.2	36.8	35.2		20.0
LOS by Move:	D	E		E	E	E		E	E	C		C	D	D		B
HCM2kAvgQ:	13	15		15	11	8		8	3	10		10	8	30		10

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.836
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 40.7
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1
Volume Module:																
Base Vol:	37	264	51		92	391	62		15	228	24		73	584	95	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	40	282	55		98	418	66		16	244	26		78	625	102	
Added Vol:	0	104	41		6	27	2		25	8	0		3	1	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	40	386	96		104	445	68		41	252	26		81	626	111	
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:	40	386	96		104	445	68		41	252	26		81	626	111	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	40	386	96		104	445	68		41	252	26		81	626	111	
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:	40	386	96		104	445	68		41	252	26		81	626	111	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.93	0.93	0.93		0.95	0.99	0.99		0.95	0.98	0.98	
Lanes:	0.15	1.48	0.37		0.34	1.44	0.22		1.00	0.91	0.09		1.00	0.85	0.15	
Final Sat.:	266	2592	641		595	2536	389		1805	1700	173		1805	1579	279	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.15	0.15		0.18	0.18	0.18		0.02	0.15	0.15		0.04	0.40	0.40	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.17	0.17	0.17		0.20	0.20	0.20		0.05	0.38	0.38		0.13	0.46	0.46	
Volume/Cap:	0.86	0.86	0.86		0.86	0.86	0.86		0.45	0.39	0.39		0.35	0.86	0.86	
Uniform Del:	40.1	40.1	40.1		38.4	38.4	38.4		46.2	22.4	22.4		39.7	24.0	24.0	
IncremntDel:	11.7	11.7	11.7		10.1	10.1	10.1		3.6	0.3	0.3		0.9	8.7	8.7	
InitQueuDel:	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:	51.9	51.9	51.9		48.5	48.5	48.5		49.8	22.7	22.7		40.6	32.7	32.7	
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:	51.9	51.9	51.9		48.5	48.5	48.5		49.8	22.7	22.7		40.6	32.7	32.7	
LOS by Move:	D	D	D		D	D	D		D	C	C		D	C	C	
HCM2kAvgQ:	11	11	11		13	13	13		2	6	6		3	23	23	

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.700
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.2
Optimal Cycle: 53 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	45	2362	0		0	1034	31		103	0	6		0	0	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	48	2527	0		0	1106	33		110	0	6		0	0	0	
Added Vol:	94	30	0		0	442	0		153	0	21		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	142	2557	0		0	1548	33		263	0	27		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:	142	2557	0		0	1548	33		263	0	27		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	142	2557	0		0	1548	33		263	0	27		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	
FinalVolume:	142	2557	0		0	1548	33		263	0	27		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.50	0.00		0.00	0.30	0.02		0.15	0.00	0.02		0.00	0.00	0.00	
Crit Moves:		****			****				****							
Green/Cycle:	0.15	0.72	0.00		0.00	0.57	0.57		0.21	0.00	0.21		0.00	0.00	0.00	
Volume/Cap:	0.54	0.70	0.00		0.00	0.54	0.04		0.70	0.00	0.08		0.00	0.00	0.00	
Uniform Del:	51.1	10.4	0.0		0.0	17.4	12.4		47.4	0.0	41.0		0.0	0.0	0.0	
IncremntDel:	2.2	0.6	0.0		0.0	0.2	0.0		5.8	0.0	0.1		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	53.2	11.0	0.0		0.0	17.6	12.4		53.2	0.0	41.1		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:	53.2	11.0	0.0		0.0	17.6	12.4		53.2	0.0	41.1		0.0	0.0	0.0	
LOS by Move:	D	B	A		A	B	B		D	A	D		A	A	A	
HCM2kAvgQ:	6	21	0		0	14	1		11	0	1		0	0	0	

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.637
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4
Optimal Cycle: 46 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	0	5	5	5	5	0	5	0	0	0	0	0
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0	0	0	851	196	218	0	31	0	0	0			
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	156	2215	0	0	911	210	233	0	33	0	0	0				
Added Vol:	94	122	0	0	462	1	2	0	21	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	250	2337	0	0	1373	211	235	0	54	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:	250	2337	0	0	1373	211	235	0	54	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	250	2337	0	0	1373	211	235	0	54	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				
FinalVolume:	250	2337	0	0	1373	211	235	0	54	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.14	0.46	0.00	0.00	0.27	0.13	0.13	0.00	0.03	0.00	0.00	0.00				
Crit Moves:		****		****			****									
Green/Cycle:	0.25	0.72	0.00	0.00	0.47	0.47	0.21	0.00	0.21	0.00	0.00	0.00				
Volume/Cap:	0.57	0.64	0.00	0.00	0.57	0.28	0.64	0.00	0.16	0.00	0.00	0.00				
Uniform Del:	42.8	9.3	0.0	0.0	24.7	20.8	46.9	0.0	42.1	0.0	0.0	0.0				
IncremntDel:	1.8	0.4	0.0	0.0	0.3	0.2	3.7	0.0	0.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	44.6	9.7	0.0	0.0	25.0	21.0	50.6	0.0	42.4	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:	44.6	9.7	0.0	0.0	25.0	21.0	50.6	0.0	42.4	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	C	C	D	A	D	A	A	A				
HCM2kAvgQ:	9	18	0	0	14	5	9	0	2	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.670
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: 33 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0	0	0	10	10	4	0	4	0	0	0			
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0	0	0	398	66	83	0	561	0	0	0			
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	496	392	0	0	426	71	89	0	600	0	0	0				
Added Vol:	3	24	0	0	71	2	7	0	13	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	499	416	0	0	497	73	96	0	613	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	499	416	0	0	497	73	96	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	499	416	0	0	497	73	96	0	0	0	0	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	499	416	0	0	497	73	96	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1597	233	1769	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.28	0.22	0.00	0.00	0.31	0.31	0.05	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.42	0.89	0.00	0.00	0.46	0.46	0.08	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.67	0.25	0.00	0.00	0.67	0.67	0.67	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	28.0	1.0	0.0	0.0	25.0	25.0	53.6	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	2.4	0.1	0.0	0.0	2.1	2.1	11.7	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	30.4	1.1	0.0	0.0	27.1	27.1	65.3	0.0	0.0	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:	30.4	1.1	0.0	0.0	27.1	27.1	65.3	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	C	E	A	A	A	A	A				
HCM2kAvgQ:	15	2	0	0	17	17	5	0	0	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.492
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 22 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	709	68		3	3	3		123	53	241	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	61	667	52		205	759	73		3	3	3		132	57	258	
Added Vol:	0	26	0		1	84	0		0	0	0		0	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	61	693	52		206	843	73		3	3	3		132	57	259	
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	693	52		206	843	73		3	3	3		132	57	259	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	61	693	52		206	843	73		3	3	3		132	57	259	
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	693	52		206	843	73		3	3	3		132	57	259	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.49	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		940	861	861		1024	441	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.20	0.03		0.12	0.24	0.05		0.00	0.00	0.00		0.13	0.13	0.16	
Crit Moves:		****			****										****	
Green/Cycle:	0.08	0.40	0.40		0.24	0.55	0.55		0.33	0.33	0.33		0.33	0.33	0.33	
Volume/Cap:	0.43	0.49	0.08		0.49	0.43	0.08		0.01	0.01	0.01		0.39	0.39	0.49	
Uniform Del:	52.6	27.1	22.5		39.5	15.6	12.5		26.9	26.9	26.9		30.7	30.7	32.0	
IncremntDel:	2.1	0.3	0.1		0.9	0.2	0.0		0.0	0.0	0.0		0.5	0.5	0.7	
InitQueuDel:	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:	54.7	27.4	22.6		40.5	15.8	12.5		26.9	26.9	26.9		31.2	31.2	32.7	
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:	54.7	27.4	22.6		40.5	15.8	12.5		26.9	26.9	26.9		31.2	31.2	32.7	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	3	10	1		7	9	1		0	0	0		5	5	8	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.837
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 41.8
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	5	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	123	336	9		7	524	380		122	36	48		6	104	5	
Added Vol:	0	138	0		0	35	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	474	9		7	559	380		122	36	48		6	104	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:	123	474	9		7	559	380		122	36	48		6	104	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	474	9		7	559	380		122	36	48		6	104	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	
FinalVolume:	123	474	9		7	559	380		122	36	48		6	104	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.21	0.79	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	388	1493	1615		25	1873	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.32	0.32	0.01		0.30	0.30	0.24		0.07	0.05	0.05		0.06	0.06	0.06	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.38	0.38	0.38		0.36	0.36	0.36		0.08	0.08	0.08		0.07	0.07	0.07	
Volume/Cap:	0.84	0.84	0.01		0.84	0.84	0.66		0.84	0.60	0.60		0.84	0.84	0.84	
Uniform Del:	28.2	28.2	19.4		29.5	29.5	27.1		45.3	44.4	44.4		45.7	45.7	45.7	
IncremntDel:	8.6	8.6	0.0		9.0	9.0	2.8		32.5	7.2	7.2		33.9	33.9	33.9	
InitQueuDel:	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:	36.8	36.8	19.4		38.5	38.5	29.9		77.8	51.6	51.6		79.6	79.6	79.6	
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:	36.8	36.8	19.4		38.5	38.5	29.9		77.8	51.6	51.6		79.6	79.6	79.6	
LOS by Move:	D	D	B		D	D	C		E	D	D		E	E	E	
HCM2kAvgQ:	19	19	0		18	18	11		6	4	4		6	6	6	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.562
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.4
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	2351	0	0	837	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	216	0	0	483	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2567	0	0	1320	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	2567	0	0	1320	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2567	0	0	1320	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	2567	0	0	1320	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.49	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****												
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.56	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	1.4	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.6	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.6	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	7	0	0	3	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2018 East Campus Only PM
Command:	Near Term II No Project PM
Volume:	Near Term II No Project PM
Geometry:	Near Term II No Project PM
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term II No Project PM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term II No Project PM

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	E	59.1	1.009	E	61.1	1.030	+ 2.080 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	15.2	0.872	C	33.4	1.046	+18.223 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	20.0	0.874	C	25.4	0.930	+ 5.386 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	21.5	0.733	C	21.1	0.845	-0.404 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	27.2	0.623	C	21.4	0.735	-5.794 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.3	0.618	B	14.5	0.640	-0.748 D/V
# 7 Middlefield at Marsh (Town of	C	33.8	0.866	D	41.6	0.976	+ 7.806 D/V
# 8 Bayfront Exp. & Willow Rd.	D	52.6	0.981	F	115.6	1.206	+62.990 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.7	0.649	C	23.7	0.730	+ 1.076 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.3	0.581	B	14.0	0.707	+ 1.620 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.0	0.584	A	9.3	0.616	-0.689 D/V
# 12 Newbridge St. & Willow Rd.	C	34.5	0.787	D	48.0	1.014	+13.523 D/V
# 13 Bay Rd. & Willow Rd.	C	20.6	0.781	C	21.4	0.805	+ 0.801 D/V
# 14 Durham St. & Willow Rd.	D	51.3	0.680	B	17.3	0.803	-33.951 D/V
# 15 Coleman Ave. & Willow Rd.	B	12.2	0.782	B	12.4	0.818	+ 0.264 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.7	0.695	B	11.8	0.760	-0.900 D/V
# 17 Middlefield Rd. & Willow Rd.	F	139.3	1.318	F	179.8	1.423	+40.497 D/V
# 18 Bayfront Exp. & University Ave	F	178.9	1.370	F	206.8	1.458	+27.896 D/V
# 19 O'Brien Dr. & University Ave.	B	13.4	0.714	B	13.7	0.725	+ 0.288 D/V
# 20 University & Kavanaugh	B	16.6	0.687	B	16.4	0.691	-0.261 D/V
# 21 University & Bay	D	35.4	0.862	D	35.1	0.866	-0.246 D/V
# 22 University & Runnymede	C	23.4	0.723	C	23.2	0.726	-0.152 D/V
# 23 University & Bell	A	7.9	0.566	A	7.8	0.570	-0.090 D/V
# 24 University & Donohoe	D	38.1	0.902	D	38.7	0.904	+ 0.597 D/V
# 25 NB 101 & Donohoe St	B	13.9	0.499	B	13.9	0.501	+ 0.040 D/V

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Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	27.1	0.544	C	27.0	0.560	-0.065 D/V
# 27 University Ave. & Woodland	D	49.6	0.920	D	50.0	0.927	+ 0.400 D/V
# 28 Middlefield Rd. & University A	C	33.2	0.575	C	34.8	0.640	+ 1.586 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.5	0.729	F	87.4	1.138	+67.973 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.3	0.625	B	18.4	0.735	+ 4.142 D/V
# 31 Middlefield Rd. & Ravenswood A	C	27.6	0.768	C	27.6	0.785	-0.054 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.647	C	29.5	0.671	+ 0.837 D/V
# 33 Middlefield Rd and Lytton Ave	E	72.0	1.002	F	100.9	1.112	+28.938 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.541	A	1.5	0.589	+ 0.120 D/V

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

****
Intersection #1 Bayfront Exp. & Marsh Rd.
****

Cycle (sec): 140 Critical Vol./Cap.(X): 1.030
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 61.1
Optimal Cycle: 180 Level Of Service: E

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	1267	52	7		0	370	199		149	43	2089		33	78	12	
Added Vol:	980	0	0		0	0	0		0	0	53		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2247	52	7		0	370	199		149	43	2142		33	78	12	
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:	2247	52	7		0	370	199		149	43	2142		33	78	12	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2247	52	7		0	370	199		149	43	2142		33	78	12	
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:	2247	52	7		0	370	199		149	43	2142		33	78	12	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.87	0.13		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.44	0.03	0.03		0.00	0.10	0.13		0.11	0.11	0.77		0.07	0.07	0.07	
Crit Moves:	****					****					****				****	
Green/Cycle:	0.42	0.42	0.42		0.00	0.10	0.42		0.32	0.32	0.75		0.07	0.07	0.07	
Volume/Cap:	1.03	0.08	0.08		0.00	1.03	0.30		0.33	0.33	1.03		1.03	1.03	1.03	
Uniform Del:	40.3	24.0	24.0		0.0	62.9	26.5		35.9	35.9	17.7		65.4	65.4	65.4	
IncremntDel:	27.3	0.0	0.0		0.0	55.3	0.2		0.3	0.3	27.8		90.5	90.5	90.5	
InitQueuDel:	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:	67.6	24.1	24.1		0.0	118	26.8		36.3	36.3	45.5		155.8	156	155.8	
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	24.1	24.1		0.0	118	26.8		36.3	36.3	45.5		155.8	156	155.8	
LOS by Move:	E	C	C		A	F	C		D	D	D		F	F	F	
HCM2kAvgQ:	41	1	1		0	13	6		6	6	62		9	9	9	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.046
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 33.4
Optimal Cycle: 180 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0	1	0	0	0	0	0	0	1	1	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	528	0	228		0	0	0		0	2207	542		0	730	846	
Added Vol:	0	0	160		0	0	0		3	115	0		0	729	251	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	528	0	388		0	0	0		3	2322	542		0	1459	1097	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	528	0	388		0	0	0		3	2322	0		0	1459	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	528	0	388		0	0	0		3	2322	0		0	1459	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	528	0	388		0	0	0		3	2322	0		0	1459	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3374	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.00	0.25		0.00	0.00	0.00		0.69	0.69	0.00		0.00	0.41	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.23	0.00	0.23		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.66	0.00	
Volume/Cap:	0.66	0.00	1.05		0.00	0.00	0.00		1.05	1.05	0.00		0.00	0.63	0.00	
Uniform Del:	22.5	0.0	24.9		0.0	0.0	0.0		11.1	11.1	0.0		0.0	6.5	0.0	
IncremntDel:	2.0	0.0	59.3		0.0	0.0	0.0		32.5	32.5	0.0		0.0	0.5	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	24.5	0.0	84.1		0.0	0.0	0.0		43.6	43.6	0.0		0.0	7.0	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:	24.5	0.0	84.1		0.0	0.0	0.0		43.6	43.6	0.0		0.0	7.0	0.0	
LOS by Move:	C	A	F		A	A	A		D	D	A		A	A	A	
HCM2kAvgQ:	6	0	15		0	0	0		38	38	0		0	10	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.930
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 93 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0	0	2	0	0	0	1	0	0	2	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		1450	0	485		0	1264	697		0	1006	302	
Added Vol:	0	0	0		64	0	8		0	61	0		0	370	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1514	0	493		0	1325	697		0	1376	302	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1514	0	493		0	1325	0		0	1376	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1514	0	493		0	1325	0		0	1376	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1514	0	493		0	1325	0		0	1376	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.44	0.00	0.31		0.00	0.37	0.00		0.00	0.39	0.00	
Crit Moves:					****									****		
Green/Cycle:	0.00	0.00	0.00		0.47	0.00	0.47		0.00	0.42	0.00		0.00	0.42	0.00	
Volume/Cap:	0.00	0.00	0.00		0.93	0.00	0.66		0.00	0.90	0.00		0.00	0.93	0.00	
Uniform Del:	0.0	0.0	0.0		16.1	0.0	13.0		0.0	17.6	0.0		0.0	18.0	0.0	
IncremntDel:	0.0	0.0	0.0		9.9	0.0	2.1		0.0	7.5	0.0		0.0	10.7	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		26.0	0.0	15.2		0.0	25.1	0.0		0.0	28.7	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	0.0	0.0		26.0	0.0	15.2		0.0	25.1	0.0		0.0	28.7	0.0	
LOS by Move:	A	A	A		C	A	B		A	C	A		A	C	A	
HCM2kAvgQ:	0	0	0		20	0	9		0	17	0		0	19	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.845
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.1
Optimal Cycle: 59 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0 0	2		0 1	0 0	1		1 0	2 1	0		2 0	1 1	0	
Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM																
Base Vol:	28	15	267		254	9	2		42	1314	17		78	1109	214	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	30	16	286		272	10	2		45	1406	18		83	1187	229	
Added Vol:	0	0	0		0	0	0		0	63	0		0	377	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	30	16	286		272	10	2		45	1469	18		83	1564	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:	30	16	286		272	10	2		45	1469	18		83	1564	229	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	30	16	286		272	10	2		45	1469	18		83	1564	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	
FinalVolume:	30	16	286		272	10	2		45	1469	18		83	1564	229	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.73		0.93	0.93	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.65	0.35	2.00		0.97	0.03	1.00		1.00	2.96	0.04		2.00	1.74	0.26	
Final Sat.:	1174	629	2786		1716	61	1583		1769	5011	62		3432	3027	443	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.03	0.10		0.16	0.16	0.00		0.03	0.29	0.29		0.02	0.52	0.52	
Crit Moves:			****			****			****					****		
Green/Cycle:	0.12	0.12	0.12		0.18	0.18	0.18		0.05	0.55	0.55		0.09	0.60	0.60	
Volume/Cap:	0.22	0.22	0.86		0.86	0.86	0.01		0.51	0.53	0.53		0.26	0.86	0.86	
Uniform Del:	31.9	31.9	34.6		31.7	31.7	26.7		37.0	11.3	11.3		33.6	13.4	13.4	
IncremntDel:	0.5	0.5	20.3		20.5	20.5	0.0		4.8	0.2	0.2		0.4	4.0	4.0	
InitQueuDel:	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:	32.4	32.4	54.9		52.2	52.2	26.7		41.8	11.5	11.5		34.0	17.4	17.4	
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:	32.4	32.4	54.9		52.2	52.2	26.7		41.8	11.5	11.5		34.0	17.4	17.4	
LOS by Move:	C	C	D		D	D	C		D	B	B		C	B	B	
HCM2kAvgQ:	1	1	7		10	10	0		2	9	9		1	22	22	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.735
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: 38 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0 1	0		1 1	0 0	1		1 0	1 1	0		1 0	2 0	1	
Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm																
Base Vol:	95	32	58		428	30	128		239	885	55		26	833	316	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	102	34	62		458	32	137		256	947	59		28	891	338	
Added Vol:	0	0	0		0	0	0		0	63	0		0	377	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	102	34	62		458	32	137		256	1010	59		28	1268	338	
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	34	62		458	32	137		256	1010	59		28	1268	338	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	102	34	62		458	32	137		256	1010	59		28	1268	338	
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:	102	34	62		458	32	137		256	1010	59		28	1268	338	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.88	0.88		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.36	0.64		1.87	0.13	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	598	1084		3323	233	1583		1769	3316	193		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.14	0.14	0.09		0.14	0.30	0.30		0.02	0.36	0.21	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.08	0.08	0.08		0.19	0.19	0.19		0.20	0.59	0.59		0.10	0.49	0.49	
Volume/Cap:	0.74	0.73	0.73		0.74	0.74	0.46		0.74	0.52	0.52		0.16	0.74	0.44	
Uniform Del:	36.1	36.1	36.1		30.6	30.6	28.9		30.2	9.8	9.8		33.2	16.4	13.4	
IncremntDel:	18.4	19.0	19.0		4.3	4.3	1.1		7.9	0.2	0.2		0.5	1.7	0.4	
InitQueuDel:	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:	54.5	55.0	55.0		34.9	34.9	30.1		38.1	10.0	10.0		33.6	18.0	13.7	
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:	54.5	55.0	55.0		34.9	34.9	30.1		38.1	10.0	10.0		33.6	18.0	13.7	
LOS by Move:	D	E	E		C	C	C		D	B	B		C	B	B	
HCM2kAvgQ:	4	4	4		7	7	4		8	8	8		1	14	6	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.640
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 30 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	4	6	6
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 1	0	1 0	1 1	0
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM												
Base Vol:	57	8	180	55	31	3	5	819	90	200	891	47
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	61	9	193	59	33	3	5	876	96	214	953	50
Added Vol:	2	0	0	0	0	0	0	63	2	0	377	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	9	193	59	33	3	5	939	98	214	1330	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:	63	9	193	59	33	3	5	939	98	214	1330	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	9	193	59	33	3	5	939	98	214	1330	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
FinalVolume:	63	9	193	59	33	3	5	939	98	214	1330	50
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.81	0.81	0.68	0.68	0.68	0.87	0.87	0.87	0.93	0.93	0.93
Lanes:	0.24	0.03	0.73	0.62	0.35	0.03	0.01	1.80	0.19	1.00	1.93	0.07
Final Sat.:	366	50	1118	800	451	44	17	2981	312	1769	3392	128
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.07	0.07	0.07	0.32	0.32	0.32	0.12	0.39	0.39
Crit Moves:		****						****		****		
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.49	0.49	0.49	0.19	0.68	0.68
Volume/Cap:	0.64	0.64	0.64	0.27	0.27	0.27	0.64	0.64	0.64	0.64	0.58	0.58
Uniform Del:	25.9	25.9	25.9	23.1	23.1	23.1	15.1	15.1	15.1	29.9	6.7	6.7
IncremntDel:	3.4	3.4	3.4	0.4	0.4	0.4	0.9	0.9	0.9	4.1	0.3	0.3
InitQueuDel:	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	29.3	29.3	23.5	23.5	23.5	15.9	15.9	15.9	34.0	7.0	7.0
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:	29.3	29.3	29.3	23.5	23.5	23.5	15.9	15.9	15.9	34.0	7.0	7.0
LOS by Move:	C	C	C	C	C	C	B	B	B	C	A	A
HCM2kAvgQ:	7	7	7	2	2	2	11	11	11	6	10	10

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.976
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 41.6
Optimal Cycle: 178 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	0	6	6	5	6	0	0	0	0	6	0	6
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.												
Base Vol:	0	426	548	408	269	0	0	0	0	515	0	447
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	456	586	437	288	0	0	0	0	551	0	478
Added Vol:	0	58	42	23	11	0	0	0	0	103	0	276
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	514	628	460	299	0	0	0	0	654	0	754
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	514	628	460	299	0	0	0	0	654	0	754
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	514	628	460	299	0	0	0	0	654	0	754
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:	0	514	628	460	299	0	0	0	0	654	0	754
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1615	1805	1900	0	0	0	0	1805	0	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.39	0.25	0.16	0.00	0.00	0.00	0.00	0.36	0.00	0.47
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.28	0.65	0.26	0.54	0.00	0.00	0.00	0.00	0.37	0.00	0.63
Volume/Cap:	0.00	0.98	0.60	0.98	0.29	0.00	0.00	0.00	0.00	0.98	0.00	0.74
Uniform Del:	0.0	39.4	11.1	40.3	13.9	0.0	0.0	0.0	0.0	34.1	0.0	14.0
IncremntDel:	0.0	33.0	1.0	35.2	0.2	0.0	0.0	0.0	0.0	28.7	0.0	2.9
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	72.4	12.1	75.5	14.1	0.0	0.0	0.0	0.0	62.8	0.0	16.9
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:	0.0	72.4	12.1	75.5	14.1	0.0	0.0	0.0	0.0	62.8	0.0	16.9
LOS by Move:	A	E	B	E	B	A	A	A	A	E	A	B
HCM2kAvgQ:	0	23	13	21	5	0	0	0	0	28	0	19

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.206
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 115.6
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1

Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM

Base Vol:	362	664	1	0	2199	108	36	13	1424	44	105	8
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	387	710	1	0	2353	116	39	14	1524	47	112	9
Added Vol:	393	257	3	49	171	0	0	94	5	317	391	181
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	780	967	4	49	2524	116	39	108	1529	364	503	190
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:	780	967	4	49	2524	116	39	108	1529	364	503	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	780	967	4	49	2524	116	39	108	1529	364	503	190
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:	780	967	4	49	2524	116	39	108	1529	364	503	190

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.92	0.92	0.88	0.93	0.93	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00
Final Sat.:	3432	5846	1583	3432	5846	1583	1746	3492	3343	1769	3538	1583

Capacity Analysis Module:

Vol/Sat:	0.23	0.17	0.00	0.01	0.43	0.07	0.02	0.03	0.46	0.21	0.14	0.12
Crit Moves:	****				****				****	****		
Green/Cycle:	0.19	0.44	0.61	0.10	0.36	0.36	0.19	0.19	0.38	0.17	0.17	0.27
Volume/Cap:	1.21	0.37	0.00	0.14	1.21	0.20	0.12	0.16	1.21	1.21	0.83	0.44
Uniform Del:	52.7	24.1	9.7	53.1	41.7	28.9	43.5	43.9	40.4	53.9	52.1	39.0
IncremntDel:	106.9	0.1	0.0	0.2	97.6	0.2	0.0	0.1	100.5	119.8	9.7	0.7
InitQueuDel:	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:	159.7	24.2	9.7	53.2	139	29.1	43.6	44.0	140.8	173.7	61.8	39.7
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:	159.7	24.2	9.7	53.2	139	29.1	43.6	44.0	140.8	173.7	61.8	39.7
LOS by Move:	F	C	A	D	F	C	D	D	F	F	E	D
HCM2kAvgQ:	27	9	0	1	58	3	1	2	55	25	13	6

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.730
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.7
Optimal Cycle: 64 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0

Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM

Base Vol:	129	6	49	73	5	73	130	1351	5	20	553	67
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	138	6	52	78	5	78	139	1446	5	21	592	72
Added Vol:	0	0	0	0	0	4	6	99	0	0	784	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	138	6	52	78	5	82	145	1545	5	21	1376	72
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:	138	6	52	78	5	82	145	1545	5	21	1376	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	6	52	78	5	82	145	1545	5	21	1376	72
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:	138	6	52	78	5	82	145	1545	5	21	1376	72

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.61	0.61	0.61	0.73	0.73	0.73	0.93	0.93	0.93	0.93	0.92	0.92
Lanes:	0.70	0.03	0.27	0.47	0.03	0.50	1.00	1.99	0.01	1.00	1.90	0.10
Final Sat.:	815	38	310	656	45	690	1769	3526	12	1769	3339	174

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.17	0.12	0.12	0.12	0.08	0.44	0.44	0.01	0.41	0.41
Crit Moves:		****					****				****	
Green/Cycle:	0.23	0.23	0.23	0.23	0.23	0.23	0.11	0.62	0.62	0.06	0.56	0.56
Volume/Cap:	0.73	0.73	0.73	0.51	0.51	0.51	0.73	0.71	0.71	0.21	0.73	0.73
Uniform Del:	42.6	42.6	42.6	40.2	40.2	40.2	51.5	15.6	15.6	53.8	19.4	19.4
IncremntDel:	9.7	9.7	9.7	1.4	1.4	1.4	12.9	1.1	1.1	1.0	1.4	1.4
InitQueuDel:	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:	52.4	52.4	52.4	41.6	41.6	41.6	64.4	16.7	16.7	54.8	20.8	20.8
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:	52.4	52.4	52.4	41.6	41.6	41.6	64.4	16.7	16.7	54.8	20.8	20.8
LOS by Move:	D	D	D	D	D	D	E	B	B	D	C	C
HCM2kAvgQ:	8	8	8	6	6	6	7	21	21	1	21	21

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.707
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	22	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		11	0	131		105	1559	0		0	856	24	
Added Vol:	0	0	0		14	0	10		10	91	0		0	684	104	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		25	0	141		115	1650	0		0	1540	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:	0	0	0		25	0	141		115	1650	0		0	1540	128	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		25	0	141		115	1650	0		0	1540	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	
FinalVolume:	0	0	0		25	0	141		115	1650	0		0	1540	128	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.86	1.00	0.86		0.93	0.93	1.00		1.00	0.92	0.92	
Lanes:	0.00	0.00	0.00		0.15	0.00	0.85		1.00	2.00	0.00		0.00	1.85	0.15	
Final Sat.:	0	0	0		245	0	1392		1769	3538	0		0	3231	268	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.10	0.00	0.10		0.06	0.47	0.00		0.00	0.48	0.48	
Crit Moves:							****		****					****		
Green/Cycle:	0.00	0.00	0.00		0.14	0.00	0.14		0.09	0.77	0.00		0.00	0.67	0.67	
Volume/Cap:	0.00	0.00	0.00		0.71	0.00	0.71		0.71	0.61	0.00		0.00	0.71	0.71	
Uniform Del:	0.0	0.0	0.0		49.0	0.0	49.0		52.9	6.2	0.0		0.0	12.2	12.2	
IncremntDel:	0.0	0.0	0.0		9.6	0.0	9.6		13.4	0.4	0.0		0.0	1.0	1.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		58.6	0.0	58.6		66.3	6.6	0.0		0.0	13.2	13.2	
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:	0.0	0.0	0.0		58.6	0.0	58.6		66.3	6.6	0.0		0.0	13.2	13.2	
LOS by Move:	A	A	A		E	A	E		A	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		7	0	7		6	14	0		0	21	21	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.616
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.3
Optimal Cycle: 49 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	128	0	37		0	0	0		0	1512	218		78	950	0	
Added Vol:	4	0	0		0	0	0		0	100	11		0	694	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	132	0	37		0	0	0		0	1612	229		78	1644	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:	132	0	37		0	0	0		0	1612	229		78	1644	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	132	0	37		0	0	0		0	1612	229		78	1644	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:	132	0	37		0	0	0		0	1612	229		78	1644	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.64	0.00	0.36		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2838	0	626		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.06		0.00	0.00	0.00		0.00	0.46	0.14		0.04	0.46	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.10	0.00	0.10		0.00	0.00	0.00		0.00	0.74	0.74		0.07	0.81	0.00	
Volume/Cap:	0.48	0.00	0.62		0.00	0.00	0.00		0.00	0.62	0.20		0.62	0.57	0.00	
Uniform Del:	51.3	0.0	52.0		0.0	0.0	0.0		0.0	7.5	4.8		54.1	4.0	0.0	
IncremntDel:	1.0	0.0	4.2		0.0	0.0	0.0		0.0	0.4	0.1		8.8	0.3	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	52.3	0.0	56.2		0.0	0.0	0.0		0.0	7.9	4.8		62.9	4.3	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:	52.3	0.0	56.2		0.0	0.0	0.0		0.0	7.9	4.8		62.9	4.3	0.0	
LOS by Move:	D	A	E		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	3	0	5		0	0	0		0	15	3		4	11	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 1.014
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 48.0
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0 1	0 1		1	0 1	0 1		1	0 2	1 0		1	0 1	1 0	
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	34	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	265	182	59		41	178	234		346	1537	363		109	1043	36	
Added Vol:	0	0	0		0	0	9		6	111	0		0	699	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	265	182	59		41	178	243		352	1648	363		109	1742	36	
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:	265	182	59		41	178	243		352	1648	363		109	1742	36	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	265	182	59		41	178	243		352	1648	363		109	1742	36	
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:	265	182	59		41	178	243		352	1648	363		109	1742	36	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.46	0.54		1.00	1.96	0.04	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4054	892		1769	3455	72	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.10	0.04		0.02	0.10	0.15		0.20	0.41	0.41		0.06	0.50	0.50	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.10	0.10	0.19		0.09	0.09	0.29		0.20	0.60	0.60		0.09	0.50	0.50	
Volume/Cap:	0.80	1.01	0.20		0.24	1.01	0.53		1.01	0.68	0.68		0.68	1.01	1.01	
Uniform Del:	53.1	54.2	41.1		50.4	54.4	35.7		48.2	16.0	16.0		52.8	30.2	30.2	
IncremntDel:	13.2	71.0	0.3		0.8	71.8	1.2		52.1	0.6	0.6		10.8	25.1	25.1	
InitQueuDel:	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:	66.3	125	41.5		51.2	126	36.9		100.3	16.7	16.7		63.6	55.3	55.3	
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:	66.3	125	41.5		51.2	126	36.9		100.3	16.7	16.7		63.6	55.3	55.3	
LOS by Move:	E	F	D		D	F	D		F	B	B		E	E	E	
HCM2kAvgQ:	7	11	2		2	11	8		19	18	18		5	43	43	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.805
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: 73 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0 0	0 0		1	0 0	0 1		1	0 2	0 0		0	0 2	0 1	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		445	0	58		43	1537	0		0	1135	273	
Added Vol:	0	0	0		4	0	0		0	64	0		0	197	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		449	0	58		43	1601	0		0	1332	280	
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	0	0		449	0	58		43	1601	0		0	1332	280	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		449	0	58		43	1601	0		0	1332	280	
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:	0	0	0		449	0	58		43	1601	0		0	1332	280	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.25	0.00	0.04		0.02	0.45	0.00		0.00	0.38	0.18	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.32	0.00	0.32		0.07	0.56	0.00		0.00	0.49	0.49	
Volume/Cap:	0.00	0.00	0.00		0.80	0.00	0.12		0.33	0.80	0.00		0.00	0.77	0.36	
Uniform Del:	0.0	0.0	0.0		28.3	0.0	21.9		39.7	15.7	0.0		0.0	18.8	14.2	
IncremntDel:	0.0	0.0	0.0		8.3	0.0	0.1		1.6	2.5	0.0		0.0	2.1	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		36.6	0.0	22.0		41.2	18.2	0.0		0.0	20.9	14.5	
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:	0.0	0.0	0.0		36.6	0.0	22.0		41.2	18.2	0.0		0.0	20.9	14.5	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	C	B	
HCM2kAvgQ:	0	0	0		14	0	1		1	20	0		0	17	5	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.803
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 63 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33	7	85		122	5	31		11	1125	10		90	818	51	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	35	7	91		131	5	33		12	1204	11		96	875	55	
Added Vol:	0	0	0		0	0	0		0	64	0		0	197	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	35	7	91		131	5	33		12	1268	11		96	1072	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:	35	7	91		131	5	33		12	1268	11		96	1072	55	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	35	7	91		131	5	33		12	1268	11		96	1072	55	
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:	35	7	91		131	5	33		12	1268	11		96	1072	55	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.46	0.84	0.84		0.54	0.54	0.83		0.93	0.93	0.93		0.93	0.97	0.97	
Lanes:	1.00	0.08	0.92		0.96	0.04	1.00		1.00	1.98	0.02		1.00	0.95	0.05	
Final Sat.:	879	122	1481		982	40	1583		1769	3505	30		1769	1759	90	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.06	0.06		0.13	0.13	0.02		0.01	0.36	0.36		0.05	0.61	0.61	
Crit Moves:						****			****					****		
Green/Cycle:	0.16	0.16	0.16		0.16	0.16	0.16		0.04	0.67	0.67		0.10	0.73	0.73	
Volume/Cap:	0.25	0.38	0.38		0.83	0.83	0.13		0.17	0.54	0.54		0.54	0.83	0.83	
Uniform Del:	38.6	39.4	39.4		42.7	42.7	37.8		48.9	8.9	8.9		44.9	9.4	9.4	
IncremntDel:	0.9	1.0	1.0		28.3	28.3	0.2		1.2	0.2	0.2		3.3	4.4	4.4	
InitQueuDel:	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:	39.5	40.4	40.4		71.0	71.0	38.0		50.1	9.1	9.1		48.1	13.9	13.9	
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:	39.5	40.4	40.4		71.0	71.0	38.0		50.1	9.1	9.1		48.1	13.9	13.9	
LOS by Move:	D	D	D		E	E	D		D	A	A		D	B	B	
HCM2kAvgQ:	1	3	3		7	7	1		1	11	11		4	27	27	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.818
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.4
Optimal Cycle: 67 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	13	12	7		98	6	37		26	1159	6		5	851	117	
Added Vol:	0	0	0		0	0	0		0	64	0		0	197	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	13	12	7		98	6	37		26	1223	6		5	1048	117	
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:	13	12	7		98	6	37		26	1223	6		5	1048	117	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	13	12	7		98	6	37		26	1223	6		5	1048	117	
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:	13	12	7		98	6	37		26	1223	6		5	1048	117	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.15	0.98	0.98		0.13	0.97	0.97	
Lanes:	0.40	0.37	0.23		0.69	0.05	0.26		1.00	0.99	0.01		1.00	0.90	0.10	
Final Sat.:	654	599	381		961	63	366		292	1850	10		238	1650	184	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.10	0.10	0.10		0.09	0.66	0.66		0.02	0.63	0.63	
Crit Moves:						****				****						
Green/Cycle:	0.13	0.13	0.13		0.13	0.13	0.13		0.81	0.81	0.81		0.81	0.81	0.81	
Volume/Cap:	0.16	0.16	0.16		0.82	0.82	0.82		0.11	0.82	0.82		0.03	0.79	0.79	
Uniform Del:	41.0	41.0	41.0		44.8	44.8	44.8		2.1	5.7	5.7		2.0	5.3	5.3	
IncremntDel:	0.4	0.4	0.4		25.2	25.2	25.2		0.2	3.6	3.6		0.1	2.9	2.9	
InitQueuDel:	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:	41.3	41.3	41.3		69.9	69.9	69.9		2.3	9.3	9.3		2.0	8.1	8.1	
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:	41.3	41.3	41.3		69.9	69.9	69.9		2.3	9.3	9.3		2.0	8.1	8.1	
LOS by Move:	D	D	D		E	E	E		A	A	A		A	A	A	
HCM2kAvgQ:	1	1	1		7	7	7		0	24	24		0	21	21	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.760
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 54 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	98	33	80		31	32	4		4	1037	39		40	890	18	
Added Vol:	18	0	7		0	0	0		0	57	22		24	173	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	33	87		31	32	4		4	1094	61		64	1063	18	
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:	116	33	87		31	32	4		4	1094	61		64	1063	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	33	87		31	32	4		4	1094	61		64	1063	18	
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:	116	33	87		31	32	4		4	1094	61		64	1063	18	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.87	0.87		0.48	0.96	0.96		0.20	0.97	0.97		0.17	0.98	0.98	
Lanes:	1.00	0.28	0.72		1.00	0.88	0.12		1.00	0.95	0.05		1.00	0.98	0.02	
Final Sat.:	1376	457	1202		918	1613	215		371	1750	97		317	1825	31	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.07	0.07		0.03	0.02	0.02		0.01	0.62	0.62		0.20	0.58	0.58	
Crit Moves:	****									****						
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.82	0.82	0.82		0.82	0.82	0.82	
Volume/Cap:	0.76	0.65	0.65		0.30	0.18	0.18		0.01	0.76	0.76		0.24	0.71	0.71	
Uniform Del:	45.3	44.7	44.7		42.9	42.3	42.3		1.7	4.4	4.4		2.1	4.0	4.0	
IncremntDel:	19.7	8.1	8.1		1.7	0.4	0.4		0.0	2.3	2.3		0.5	1.6	1.6	
InitQueuDel:	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:	65.0	52.8	52.8		44.6	42.7	42.7		1.7	6.7	6.7		2.6	5.5	5.5	
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:	65.0	52.8	52.8		44.6	42.7	42.7		1.7	6.7	6.7		2.6	5.5	5.5	
LOS by Move:	E	D	D		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	5	5	5		1	1	1		0	19	19		1	16	16	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.423
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 179.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	104	469	525		510	442	20		39	182	169		409	102	439	
Added Vol:	15	8	29		18	8	0		0	32	24		104	21	66	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	119	477	554		528	450	20		39	214	193		513	123	505	
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:	119	477	554		528	450	20		39	214	193		513	123	505	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	119	477	554		528	450	20		39	214	193		513	123	505	
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:	119	477	554		528	450	20		39	214	193		513	123	505	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.59	1.35	0.06		1.00	1.00	1.00		1.61	0.39	1.00	
Final Sat.:	1769	3538	791		2727	2322	105		1769	1862	1583		2888	691	1583	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.13	0.70		0.19	0.19	0.19		0.02	0.11	0.12		0.18	0.18	0.32	
Crit Moves:			****			****					****				****	
Green/Cycle:	0.49	0.49	0.49		0.14	0.14	0.14		0.09	0.09	0.09		0.22	0.22	0.22	
Volume/Cap:	0.14	0.27	1.42		1.42	1.42	1.42		0.25	1.34	1.42		0.79	0.79	1.42	
Uniform Del:	18.0	19.4	33.0		56.1	56.1	56.1		55.5	59.4	59.4		47.6	47.6	50.4	
IncremntDel:	0.1	0.1	204.7		198.5	199	198.5		0.9	189	227.6		5.4	5.4	206.0	
InitQueuDel:	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:	18.0	19.4	237.7		254.7	255	254.7		56.4	248	287.0		53.0	53.0	256.4	
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:	18.0	19.4	237.7		254.7	255	254.7		56.4	248	287.0		53.0	53.0	256.4	
LOS by Move:	B	B	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	6	44		28	28	28		2	17	17		14	14	40	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.458
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 206.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0 3	0	0	0	0 3	0	1	2	0 0	0	3	0	0 0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	403	1036	0	0	3732	136	64	0	1784	0	0	0				
Added Vol:	4	105	0	0	396	98	12	0	11	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	407	1141	0	0	4128	234	76	0	1795	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:	407	1141	0	0	4128	234	76	0	1795	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	407	1141	0	0	4128	234	76	0	1795	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				
FinalVolume:	407	1141	0	0	4128	234	76	0	1795	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.12	0.22	0.00	0.00	0.81	0.15	0.02	0.00	0.43	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.08	0.64	0.00	0.00	0.56	0.56	0.29	0.00	0.29	0.00	0.00	0.00				
Volume/Cap:	1.46	0.35	0.00	0.00	1.46	0.27	0.08	0.00	1.46	0.00	0.00	0.00				
Uniform Del:	68.9	12.6	0.0	0.0	33.2	17.3	38.2	0.0	52.9	0.0	0.0	0.0				
IncremntDel:	224.7	0.1	0.0	0.0	208	0.2	0.0	0.0	210.4	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	293.6	12.7	0.0	0.0	241	17.4	38.2	0.0	263.3	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:	293.6	12.7	0.0	0.0	241	17.4	38.2	0.0	263.3	0.0	0.0	0.0				
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A				
HCM2kAvgQ:	19	9	0	0	125	5	1	0	58	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.725
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	5	0	5	0	5	5	0	0	0	5	5	
Lanes:	0	0 0	0	0	0	0 1!	0	0	1	0 2	0	0	0	0 1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	0	120	0	99	0	20	1599	0	0	0	454	16	
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	0	0	0	0	128	0	106	0	21	1711	0	0	0	486	17	
Added Vol:	0	0	0	0	11	0	0	0	0	12	0	0	0	98	4	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	0	0	0	0	139	0	106	0	21	1723	0	0	0	584	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:	0	0	0	0	139	0	106	0	21	1723	0	0	0	584	21	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	0	0	0	139	0	106	0	21	1723	0	0	0	584	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				
FinalVolume:	0	0	0	0	139	0	106	0	21	1723	0	0	0	584	21	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.57	0.00	0.43	1.00	2.00	0.00	0.00	1.93	0.07				
Final Sat.:	0	0	0	969	0	736	1769	3538	0	0	3397	123				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.01	0.49	0.00	0.00	0.17	0.17				
Crit Moves:				****				****		****						
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.17	0.67	0.00	0.00	0.50	0.50				
Volume/Cap:	0.00	0.00	0.00	0.72	0.00	0.72	0.07	0.72	0.00	0.00	0.34	0.34				
Uniform Del:	0.0	0.0	0.0	31.9	0.0	31.9	29.5	8.9	0.0	0.0	12.8	12.8				
IncremntDel:	0.0	0.0	0.0	7.6	0.0	7.6	0.1	1.1	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	39.5	0.0	39.5	29.6	10.0	0.0	0.0	12.9	12.9				
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:	0.0	0.0	0.0	39.5	0.0	39.5	29.6	10.0	0.0	0.0	12.9	12.9				
LOS by Move:	A	A	A	D	A	D	C	B	A	A	B	B				
HCM2kAvgQ:	0	0	0	8	0	8	0	16	0	0	5	5				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.4
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	13	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	37	33	13		20	31	88		28	1690	20		19	564	14	
Added Vol:	0	0	0		0	0	0		0	12	0		0	98	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	37	33	13		20	31	88		28	1702	20		19	662	14	
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	33	13		20	31	88		28	1702	20		19	662	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	37	33	13		20	31	88		28	1702	20		19	662	14	
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:	37	33	13		20	31	88		28	1702	20		19	662	14	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.96	0.04	
Final Sat.:	816	723	280		252	385	1089		1805	3560	43		1805	3525	74	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.05	0.05		0.08	0.08	0.08		0.02	0.48	0.48		0.01	0.19	0.19	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.07	0.06	0.06		0.11	0.11	0.11		0.15	0.66	0.66		0.05	0.56	0.56	
Volume/Cap:	0.68	0.72	0.72		0.72	0.74	0.74		0.10	0.72	0.72		0.21	0.33	0.33	
Uniform Del:	45.6	45.9	45.9		42.9	43.2	43.2		36.7	10.8	10.8		45.6	11.7	11.7	
IncremntDel:	14.6	19.6	19.6		12.3	14.8	14.8		0.2	1.1	1.1		1.2	0.1	0.1	
InitQueuDel:	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:	60.2	65.5	65.5		55.2	58.0	58.0		36.8	11.9	11.9		46.8	11.8	11.8	
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:	60.2	65.5	65.5		55.2	58.0	58.0		36.8	11.9	11.9		46.8	11.8	11.8	
LOS by Move:	E	E	E		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	4	4	4		6	6	6		1	19	19		1	6	6	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.866
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.1
Optimal Cycle: 93 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	161	234	369		101	280	118		100	1381	93		127	578	52	
Added Vol:	0	0	0		0	0	0		0	12	0		0	98	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	161	234	369		101	280	118		100	1393	93		127	676	52	
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:	161	234	369		101	280	118		100	1393	93		127	676	52	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	161	234	369		101	280	118		100	1393	93		127	676	52	
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:	161	234	369		101	280	118		100	1393	93		127	676	52	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.87	0.13		1.00	1.86	0.14	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3353	224		1805	3313	257	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.13	0.23		0.06	0.15	0.07		0.06	0.42	0.42		0.07	0.20	0.20	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.12	0.26	0.26		0.06	0.21	0.21		0.12	0.48	0.48		0.08	0.44	0.44	
Volume/Cap:	0.71	0.48	0.87		0.87	0.71	0.35		0.46	0.87	0.87		0.87	0.46	0.46	
Uniform Del:	42.3	31.0	35.1		46.4	36.9	33.9		41.0	23.1	23.1		45.4	19.6	19.6	
IncremntDel:	4.3	0.4	16.7		44.9	6.0	0.6		1.6	4.9	4.9		38.0	0.2	0.2	
InitQueuDel:	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	31.4	51.8		91.3	42.8	34.5		42.6	28.0	28.0		83.4	19.8	19.8	
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:	46.6	31.4	51.8		91.3	42.8	34.5		42.6	28.0	28.0		83.4	19.8	19.8	
LOS by Move:	D	C	D		F	D	C		D	C	C		F	B	B	
HCM2kAvgQ:	6	6	14		5	9	3		3	24	24		6	8	8	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.726
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.2
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	78	109	59		17	76	27		29	1264	78		44	793	17	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	83	117	63		18	81	29		31	1352	83		47	849	18	
Added Vol:	0	0	0		0	0	0		0	12	0		0	98	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	83	117	63		18	81	29		31	1364	83		47	947	18	
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	117	63		18	81	29		31	1364	83		47	947	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	83	117	63		18	81	29		31	1364	83		47	947	18	
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:	83	117	63		18	81	29		31	1364	83		47	947	18	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.96	0.96	0.96		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.32	0.44	0.24		0.14	0.63	0.23		1.00	1.88	0.12		1.00	1.96	0.04	
Final Sat.:	574	802	434		259	1159	412		1805	3371	206		1805	3531	68	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.15	0.15		0.07	0.07	0.07		0.02	0.40	0.40		0.03	0.27	0.27	
Crit Moves:	****					****				****			****			
Green/Cycle:	0.20	0.20	0.20		0.10	0.10	0.10		0.09	0.55	0.55		0.05	0.50	0.50	
Volume/Cap:	0.74	0.74	0.74		0.74	0.74	0.74		0.18	0.74	0.74		0.52	0.53	0.53	
Uniform Del:	37.7	37.7	37.7		44.0	44.0	44.0		41.8	17.2	17.2		46.3	16.8	16.8	
IncremntDel:	7.9	7.9	7.9		15.4	15.4	15.4		0.5	1.5	1.5		5.4	0.3	0.3	
InitQueuDel:	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	45.7	45.7		59.4	59.4	59.4		42.3	18.7	18.7		51.7	17.1	17.1	
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:	45.7	45.7	45.7		59.4	59.4	59.4		42.3	18.7	18.7		51.7	17.1	17.1	
LOS by Move:	D	D	D		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	9	9	9		6	6	6		1	19	19		2	11	11	

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.570
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18	18		18	18	18		64	64	64		64	64	64	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	60	83	38		11	68	22		42	1322	87		37	787	22	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	64	89	41		12	73	24		45	1415	93		40	842	24	
Added Vol:	0	0	0		0	0	0		0	12	0		0	98	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	64	89	41		12	73	24		45	1427	93		40	940	24	
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:	64	89	41		12	73	24		45	1427	93		40	940	24	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	64	89	41		12	73	24		45	1427	93		40	940	24	
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:	64	89	41		12	73	24		45	1427	93		40	940	24	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.85	0.85	0.85		0.94	0.94	0.94		0.27	0.94	0.94		0.13	0.95	0.95	
Lanes:	0.33	0.46	0.21		0.11	0.67	0.22		1.00	1.88	0.12		1.00	1.95	0.05	
Final Sat.:	536	742	340		195	1205	390		507	3358	219		245	3508	88	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.12	0.12		0.06	0.06	0.06		0.09	0.42	0.42		0.16	0.27	0.27	
Crit Moves:		****								****						
Green/Cycle:	0.21	0.21	0.21		0.21	0.21	0.21		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.57	0.57	0.57		0.29	0.29	0.29		0.12	0.57	0.57		0.22	0.36	0.36	
Uniform Del:	31.9	31.9	31.9		29.9	29.9	29.9		3.2	5.1	5.1		3.5	4.0	4.0	
IncremntDel:	2.3	2.3	2.3		0.4	0.4	0.4		0.1	0.3	0.3		0.6	0.1	0.1	
InitQueuDel:	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:	34.2	34.2	34.2		30.3	30.3	30.3		3.3	5.4	5.4		4.1	4.1	4.1	
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:	34.2	34.2	34.2		30.3	30.3	30.3		3.3	5.4	5.4		4.1	4.1	4.1	
LOS by Move:	C	C	C		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	6	6	6		3	3	3		0	10	10		1	5	5	

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.904
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 38.7
Optimal Cycle: 110 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1 0	1	1	1	0 1	0	1	1	0 1	1	0	2	0 1	1	0
Volume Module:																
Base Vol:	315	485	599		32	175	224		217	784	540		115	663	173	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	337	519	641		34	187	240		232	839	578		123	709	185	
Added Vol:	0	0	7		0	0	0		0	5	0		0	98	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	337	519	648		34	187	240		232	844	578		123	807	185	
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	519	648		34	187	240		232	844	578		123	807	185	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	337	519	648		34	187	240		232	844	578		123	807	185	
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:	337	519	648		34	187	240		232	844	578		123	807	185	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.88	0.88	0.88		0.95	1.00	0.85		0.95	0.89	0.89		0.92	0.92	0.92	
Lanes:	1.00	1.33	1.67		1.00	1.00	1.00		1.00	1.19	0.81		2.00	1.63	0.37	
Final Sat.:	1669	2227	2780		1805	1900	1615		1805	2012	1378		3502	2854	654	
Capacity Analysis Module:																
Vol/Sat:	0.20	0.23	0.23		0.02	0.10	0.15		0.13	0.42	0.42		0.04	0.28	0.28	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.22	0.31	0.31		0.07	0.16	0.16		0.16	0.46	0.46		0.05	0.35	0.35	
Volume/Cap:	0.92	0.74	0.74		0.28	0.61	0.92		0.81	0.92	0.92		0.70	0.81	0.81	
Uniform Del:	38.1	30.6	30.6		44.3	39.0	41.2		40.6	25.3	25.3		46.8	29.6	29.6	
IncremntDel:	8.5	1.5	1.5		1.3	3.5	34.2		15.8	8.9	8.9		12.1	4.2	4.2	
InitQueuDel:	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	32.1	32.1		45.6	42.5	75.4		56.4	34.2	34.2		58.9	33.7	33.7	
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	32.1	32.1		45.6	42.5	75.4		56.4	34.2	34.2		58.9	33.7	33.7	
LOS by Move:	D	C	C		D	D	E		E	C	C		E	C	C	
HCM2kAvgQ:	15	13	13		1	6	11		9	26	26		3	17	17	

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.501
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 13.9
Optimal Cycle: 82 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	32	32		0	32	0		28	0	28		0	0	18	
Lanes:	0	0 2	1	0	0	0 2	0	0	2	0 0	0	1	0	0 0	0	1
Volume Module:																
Base Vol:	0	802	19		0	783	0		765	0	277		0	0	16	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	858	20		0	838	0		819	0	296		0	0	17	
Added Vol:	0	0	0		0	0	0		7	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	858	20		0	838	0		826	0	296		0	0	17	
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	858	20		0	838	0		826	0	296		0	0	17	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	858	20		0	838	0		826	0	296		0	0	17	
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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	944	22		0	880	0		850	0	296		0	0	17	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.93	0.07		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5568	132		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.17	0.17		0.00	0.23	0.00		0.24	0.00	0.18		0.00	0.00	0.01	
Crit Moves:	****					****			****						****	
Green/Cycle:	0.00	0.37	0.37		0.00	0.37	0.00		0.38	0.00	0.58		0.00	0.00	0.20	
Volume/Cap:	0.00	0.45	0.45		0.00	0.62	0.00		0.62	0.00	0.32		0.00	0.00	0.06	
Uniform Del:	0.0	16.1	16.1		0.0	17.4	0.0		17.1	0.0	7.4		0.0	0.0	22.1	
IncremntDel:	0.0	0.1	0.1		0.0	0.6	0.0		0.6	0.0	0.1		0.0	0.0	0.0	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	13.8	13.8		0.0	15.4	0.0		15.2	0.0	6.3		0.0	0.0	18.8	
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:	0.0	13.8	13.8		0.0	15.4	0.0		15.2	0.0	6.3		0.0	0.0	18.8	
DesignQueue:	0	11	11		0	15	0		14	0	6		0	0	1	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.560
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 180 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	18	18	18		0	0	0		0	39	57		21	64	0	
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	305	1	439		0	0	0		0	1391	388		487	927	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	326	1	470		0	0	0		0	1488	415		521	992	0	
Added Vol:	0	0	0		0	0	0		0	5	16		54	56	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	326	1	470		0	0	0		0	1493	431		575	1048	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:	326	1	470		0	0	0		0	1493	431		575	1048	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	326	1	470		0	0	0		0	1493	431		575	1048	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:	326	1	470		0	0	0		0	1493	431		575	1048	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		1.00	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00	
Lanes:	1.41	0.01	1.58		0.00	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00	
Final Sat.:	2292	4	2585		0	0	0		0	3610	2842		3502	3610	0	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.25	0.18		0.00	0.00	0.00		0.00	0.41	0.15		0.16	0.29	0.00	
Crit Moves:		****												****		
Green/Cycle:	0.20	0.20	0.20		0.00	0.00	0.00		0.00	0.43	0.43		0.32	0.76	0.00	
Volume/Cap:	0.71	1.23	0.91		0.00	0.00	0.00		0.00	0.95	0.35		0.51	0.38	0.00	
Uniform Del:	33.6	36.0	35.2		0.0	0.0	0.0		0.0	24.6	17.0		24.7	3.8	0.0	
IncremntDel:	2.2	115	13.2		0.0	0.0	0.0		0.0	13.5	0.2		0.4	0.1	0.0	
InitQueuDel:	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	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	35.8	151	48.4		0.0	0.0	0.0		0.0	38.2	17.2		25.1	3.9	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:	35.8	151	48.4		0.0	0.0	0.0		0.0	38.2	17.2		25.1	3.9	0.0	
LOS by Move:	D	F	D		A	A	A		A	D	B		C	A	A	
HCM2kAvgQ:	7	23	12		0	0	0		0	27	5		7	5	0	

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 0.927
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 50.0
Optimal Cycle: 129 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	16	87	274		612	119	34		28	809	9		274	800	327	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	17	93	293		655	127	36		30	866	10		293	856	350	
Added Vol:	0	0	0		0	0	0		0	22	0		0	56	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	17	93	293		655	127	36		30	888	10		293	912	350	
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:	17	93	293		655	127	36		30	888	10		293	912	350	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	17	93	293		655	127	36		30	888	10		293	912	350	
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:	17	93	293		655	127	36		30	888	10		293	912	350	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.90	0.90		0.92	0.97	0.97		0.95	0.95	0.95		0.95	0.95	0.85	
Lanes:	0.04	0.23	0.73		2.00	0.78	0.22		1.00	1.98	0.02		1.00	2.00	1.00	
Final Sat.:	73	395	1243		3502	1429	408		1805	3564	39		1805	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.24	0.24	0.24		0.19	0.09	0.09		0.02	0.25	0.25		0.16	0.25	0.22	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.33	0.25	0.25		0.20	0.13	0.13		0.07	0.27	0.27		0.18	0.38	0.38	
Volume/Cap:	0.71	0.93	0.93		0.93	0.71	0.71		0.25	0.93	0.93		0.93	0.67	0.58	
Uniform Del:	32.2	40.0	40.0		43.1	46.2	46.2		48.6	39.2	39.2		44.7	28.6	27.3	
IncremntDel:	4.2	25.9	25.9		18.3	10.0	10.0		1.0	14.5	14.5		32.2	1.3	1.4	
InitQueuDel:	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:	36.5	65.9	65.9		61.5	56.3	56.3		49.7	53.7	53.7		76.9	30.0	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:	36.5	65.9	65.9		61.5	56.3	56.3		49.7	53.7	53.7		76.9	30.0	28.7	
LOS by Move:	D	E	E		E	E	E		D	D	D		E	C	C	
HCM2kAvgQ:	13	17	17		15	7	7		1	20	20		14	14	10	

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.640
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 34.8
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																	
Base Vol:	30	377		86	82	384		76	59	328		23	71	442		88
Growth Adj:	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07
Initial Bse:	32	403		92	88	411		81	63	351		25	76	473		94
Added Vol:	0	37		5	16	96		23	3	1		0	37	7		12
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	32	440		97	104	507		104	66	352		25	113	480		106
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:	32	440		97	104	507		104	66	352		25	113	480		106
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	32	440		97	104	507		104	66	352		25	113	480		106
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:	32	440		97	104	507		104	66	352		25	113	480		106
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.92	0.92		0.92	0.92	0.92		0.92	0.95	0.94		0.94	0.95	0.92		0.92
Lanes:	0.11	1.55		0.34	0.29	1.42		0.29	1.00	1.87		0.13	1.00	1.64		0.36
Final Sat.:	198	2714		598	509	2486		512	1805	3340		234	1805	2876		636
Capacity Analysis Module:																
Vol/Sat:	0.16	0.16		0.16	0.20	0.20		0.20	0.04	0.11		0.11	0.06	0.17		0.17
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.25		0.25	0.32	0.32		0.32	0.06	0.20		0.20	0.12	0.26		0.26
Volume/Cap:	0.64	0.64		0.64	0.64	0.64		0.64	0.64	0.53		0.53	0.53	0.64		0.64
Uniform Del:	33.3	33.3		33.3	29.2	29.2		29.2	46.1	35.8		35.8	41.4	32.8		32.8
IncremntDel:	1.6	1.6		1.6	1.3	1.3		1.3	12.8	0.7		0.7	2.5	1.5		1.5
InitQueuDel:	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:	34.8	34.8		34.8	30.4	30.4		30.4	58.9	36.6		36.6	43.9	34.3		34.3
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:	34.8	34.8		34.8	30.4	30.4		30.4	58.9	36.6		36.6	43.9	34.3		34.3
LOS by Move:	C	C		C	C	C		C	E	D		D	D	C		C
HCM2kAvgQ:	9	9		9	11	11		11	3	6		6	4	9		9

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.138
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 87.4
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module:5:00 - 6:00 AM																	
Base Vol:	10	932		0	0	2235		16	334		0	76		0	0	0
Growth Adj:	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07
Initial Bse:	11	997		0	0	2391		17	357		0	81		0	0	0
Added Vol:	38	363		0	0	53		0	617		0	86		0	0	0
PasserByVol:	0	0		0	0	0		0	0		0	0		0	0	0
Initial Fut:	49	1360		0	0	2444		17	974		0	167		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:	49	1360		0	0	2444		17	974		0	167		0	0	0
Reduct Vol:	0	0		0	0	0		0	0		0	0		0	0	0
Reduced Vol:	49	1360		0	0	2444		17	974		0	167		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
FinalVolume:	49	1360		0	0	2444		17	974		0	167		0	0	0
Saturation Flow Module:																	
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.93	0.89		1.00	1.00	0.89		0.83	0.93	1.00		0.83	1.00	1.00		1.00
Lanes:	1.00	3.00		0.00	0.00	3.00		1.00	1.00	0.00		1.00	0.00	0.00		0.00
Final Sat.:	1769	5083		0	0	5083		1583	1769		0	1583		0	0	0
Capacity Analysis Module:																	
Vol/Sat:	0.03	0.27		0.00	0.00	0.48		0.01	0.55	0.00		0.11	0.00	0.00		0.00
Crit Moves:	****					****			****							
Green/Cycle:	0.04	0.45		0.00	0.00	0.42		0.42	0.48	0.00		0.48	0.00	0.00		0.00
Volume/Cap:	0.72	0.59		0.00	0.00	1.16		0.03	1.16	0.00		0.22	0.00	0.00		0.00
Uniform Del:	61.8	26.4		0.0	0.0	38.0		22.4	34.0	0.0		19.9	0.0	0.0		0.0
IncremntDel:	30.3	0.4		0.0	0.0	76.1		0.0	83.6	0.0		0.1	0.0	0.0		0.0
InitQueuDel:	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	1.00	0.00		1.00	0.00	0.00		0.00
Delay/Veh:	92.1	26.8		0.0	0.0	114		22.4	117.6	0.0		20.1	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:	92.1	26.8		0.0	0.0	114		22.4	117.6	0.0		20.1	0.0	0.0		0.0
LOS by Move:	F	C		A	A	F		C	F	A		C	A	A		A
HCM2kAvgQ:	3	15		0	0	53		0	57	0		4	0	0		0

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.735
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.4
Optimal Cycle: 59 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	15	838	0	0	2275	171	203	0	199	0	0	0				
Added Vol:	38	400	0	0	135	3	1	0	86	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	53	1238	0	0	2410	174	204	0	285	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:	53	1238	0	0	2410	174	204	0	285	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	53	1238	0	0	2410	174	204	0	285	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				
FinalVolume:	53	1238	0	0	2410	174	204	0	285	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.24	0.00	0.00	0.47	0.11	0.12	0.00	0.18	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.04	0.69	0.00	0.00	0.65	0.65	0.25	0.00	0.25	0.00	0.00	0.00				
Volume/Cap:	0.73	0.36	0.00	0.00	0.73	0.17	0.47	0.00	0.73	0.00	0.00	0.00				
Uniform Del:	61.7	8.5	0.0	0.0	15.6	9.2	41.9	0.0	45.2	0.0	0.0	0.0				
IncremntDel:	32.1	0.1	0.0	0.0	0.9	0.1	0.8	0.0	7.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	93.8	8.5	0.0	0.0	16.5	9.3	42.7	0.0	52.3	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:	93.8	8.5	0.0	0.0	16.5	9.3	42.7	0.0	52.3	0.0	0.0	0.0				
LOS by Move:	F	A	A	A	B	A	D	A	D	A	A	A				
HCM2kAvgQ:	4	7	0	0	24	3	7	0	12	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.785
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.6
Optimal Cycle: 48 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	521	606	0	0	382	98	275	0	754	0	0	0				
Added Vol:	14	58	0	0	21	6	3	0	3	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	535	664	0	0	403	104	278	0	757	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:	535	664	0	0	403	104	278	0	757	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	535	664	0	0	403	104	278	0	757	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				
FinalVolume:	535	664	0	0	403	104	278	0	757	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1437	373	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.30	0.36	0.00	0.00	0.28	0.28	0.16	0.00	0.48	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.39	0.74	0.00	0.00	0.36	0.36	0.22	0.00	0.61	0.00	0.00	0.00				
Volume/Cap:	0.79	0.48	0.00	0.00	0.79	0.79	0.70	0.00	0.79	0.00	0.00	0.00				
Uniform Del:	32.5	6.2	0.0	0.0	34.5	34.5	42.8	0.0	17.5	0.0	0.0	0.0				
IncremntDel:	6.0	0.3	0.0	0.0	6.3	6.3	5.5	0.0	4.3	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	38.5	6.4	0.0	0.0	40.8	40.8	48.4	0.0	21.8	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:	38.5	6.4	0.0	0.0	40.8	40.8	48.4	0.0	21.8	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	C	A	A	A				
HCM2kAvgQ:	19	10	0	0	18	18	11	0	22	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.5
Optimal Cycle: 33 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	52	814	136		381	672	39		80	81	66		78	9	285	
Added Vol:	0	68	0		2	23	0		0	0	0		0	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	52	882	136		383	695	39		80	81	66		78	9	290	
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:	52	882	136		383	695	39		80	81	66		78	9	290	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	52	882	136		383	695	39		80	81	66		78	9	290	
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:	52	882	136		383	695	39		80	81	66		78	9	290	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.62	0.91	0.91		0.63	0.63	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1179	957	781		1071	117	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.25	0.09		0.22	0.20	0.02		0.07	0.08	0.08		0.07	0.07	0.18	
Crit Moves:		****			****										****	
Green/Cycle:	0.10	0.37	0.37		0.32	0.59	0.59		0.27	0.27	0.27		0.27	0.27	0.27	
Volume/Cap:	0.29	0.67	0.23		0.67	0.33	0.04		0.25	0.31	0.31		0.27	0.27	0.67	
Uniform Del:	50.0	31.6	25.9		35.1	12.3	10.2		34.1	34.7	34.7		34.2	34.2	38.9	
IncremntDel:	0.9	1.4	0.2		3.1	0.1	0.0		0.4	0.4	0.4		0.4	0.4	4.1	
InitQueuDel:	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	32.9	26.1		38.3	12.4	10.2		34.5	35.1	35.1		34.7	34.7	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:	50.9	32.9	26.1		38.3	12.4	10.2		34.5	35.1	35.1		34.7	34.7	42.9	
LOS by Move:	D	C	C		D	B	B		C	D	D		C	C	D	
HCM2kAvgQ:	2	15	3		13	7	1		2	4	4		3	3	10	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 1.112
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 100.9
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	95	489	26		26	544	174		448	144	83		7	59	13	
Added Vol:	0	53	0		0	136	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	95	542	26		26	680	174		448	144	83		7	59	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:	95	542	26		26	680	174		448	144	83		7	59	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	95	542	26		26	680	174		448	144	83		7	59	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	
FinalVolume:	95	542	26		26	680	174		448	144	83		7	59	13	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.15	0.85	1.00		0.04	0.96	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	282	1605	1615		69	1827	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.34	0.34	0.02		0.37	0.37	0.11		0.25	0.13	0.13		0.04	0.04	0.04	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.30	0.30	0.30		0.33	0.33	0.33		0.22	0.22	0.22		0.05	0.05	0.05	
Volume/Cap:	1.12	1.12	0.05		1.12	1.12	0.33		1.12	0.57	0.57		0.94	0.94	0.94	
Uniform Del:	38.4	38.4	27.3		36.8	36.8	27.5		42.8	38.2	38.2		52.4	52.4	52.4	
IncremntDel:	75.6	75.6	0.0		74.0	74.0	0.4		82.1	2.0	2.0		78.7	78.7	78.7	
InitQueuDel:	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:	114.1	114	27.3		110.8	111	27.9		125.0	40.2	40.2		131.0	131	131.0	
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:	114.1	114	27.3		110.8	111	27.9		125.0	40.2	40.2		131.0	131	131.0	
LOS by Move:	F	F	C		F	F	C		F	D	D		F	F	F	
HCM2kAvgQ:	34	34	1		37	37	4		25	7	7		5	5	5	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.589
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.5
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	758	0	0	2468	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	438	0	0	221	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1196	0	0	2689	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	1196	0	0	2689	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1196	0	0	2689	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	1196	0	0	2689	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.23	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****											
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.26	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	0.9	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2018 East and West Campuses AM
Command:	Near Term II Project AM
Volume:	Near Term II Project AM
Geometry:	Near Term II Project AM
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term II Project AM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term II Project AM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	C	23.1	0.790	C	26.0	0.862	+ 2.929 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.2	0.657	E	73.9	1.185	+57.655 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	22.5	0.886	C	29.7	0.948	+ 7.219 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	30.8	0.845	C	26.9	0.874	-3.944 D/V
# 5 Bohannon/ Florence & Marsh Rd.	B	19.9	0.582	B	15.0	0.606	-4.876 D/V
# 6 Bay Rd. & Marsh Rd.	B	16.7	0.603	B	17.6	0.748	+ 0.878 D/V
# 7 Middlefield at Marsh (Town of	C	27.1	0.628	C	31.8	0.847	+ 4.707 D/V
# 8 Bayfront Exp. & Willow Rd.	C	27.8	0.627	E	56.7	0.979	+28.840 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.1	0.575	B	19.8	0.740	-3.327 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.2	0.532	C	26.0	0.825	+ 7.881 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.1	0.477	B	13.6	0.747	-1.505 D/V
# 12 Newbridge St. & Willow Rd.	D	51.0	0.929	E	55.3	0.973	+ 4.283 D/V
# 13 Bay Rd. & Willow Rd.	C	20.4	0.714	C	20.7	0.805	+ 0.257 D/V
# 14 Durham St. & Willow Rd.	C	27.5	0.734	B	12.8	0.766	-14.645 D/V
# 15 Coleman Ave. & Willow Rd.	B	13.6	0.735	B	17.4	0.882	+ 3.831 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.5	0.682	B	18.1	0.855	+ 3.599 D/V
# 17 Middlefield Rd. & Willow Rd.	F	105.0	0.974	F	121.5	1.216	+16.533 D/V
# 18 Bayfront Exp. & University Ave	C	30.1	0.828	C	33.5	0.890	+ 3.412 D/V
# 19 O'Brien Dr. & University Ave.	A	6.5	0.563	A	6.3	0.573	-0.244 D/V
# 20 University & Kavanaugh	B	14.0	0.580	B	13.6	0.584	-0.406 D/V
# 21 University & Bay	C	27.9	0.660	C	27.2	0.664	-0.760 D/V
# 22 University & Runnymede	C	20.7	0.645	C	20.3	0.649	-0.352 D/V
# 23 University & Bell	A	7.7	0.253	A	6.9	0.305	-0.779 D/V
# 24 University & Donohoe	D	42.1	0.952	D	44.4	0.974	+ 2.355 D/V
# 25 NB 101 & Donohoe St	B	9.0	0.393	B	9.4	0.423	+ 0.338 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	17.4	0.661	B	18.0	0.665	+ 0.617 D/V
# 27 University Ave. & Woodland	D	41.3	0.917	D	41.6	0.921	+ 0.305 D/V
# 28 Middlefield Rd. & University A	D	35.3	0.755	D	42.7	0.858	+ 7.422 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.4	0.601	B	17.4	0.706	+ 9.989 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.2	0.610	B	19.5	0.657	+ 2.236 D/V
# 31 Middlefield Rd. & Ravenswood A	C	22.4	0.623	C	23.6	0.670	+ 1.211 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.484	C	25.4	0.492	-3.245 D/V
# 33 Middlefield Rd and Lytton Ave	D	35.6	0.735	D	43.7	0.858	+ 8.107 D/V
# 34 Bayfront Expy. and Facebook We	A	1.3	0.515	B	18.8	0.780	+17.519 D/V

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

****
Intersection #1 Bayfront Exp. & Marsh Rd.
****

Cycle (sec): 130 Critical Vol./Cap.(X): 0.862
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.0
Optimal Cycle: 105 Level Of Service: C

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	5	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	2458	202	25		7	62	158		195	21	1067		7	20	5	
Added Vol:	208	0	0		0	0	0		0	0	783		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2666	202	25		7	62	158		195	21	1850		7	20	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:	2666	202	25		7	62	158		195	21	1850		7	20	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2666	202	25		7	62	158		195	21	1850		7	20	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	
FinalVolume:	2666	202	25		7	62	158		195	21	1850		7	20	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.52	0.12	0.12		0.02	0.02	0.10		0.12	0.12	0.66		0.02	0.02	0.02	
Crit Moves:	****						****				****			****		
Green/Cycle:	0.59	0.59	0.59		0.11	0.11	0.11		0.17	0.17	0.76		0.04	0.04	0.04	
Volume/Cap:	0.88	0.21	0.21		0.17	0.17	0.88		0.73	0.73	0.88		0.48	0.48	0.48	
Uniform Del:	22.8	12.5	12.5		52.1	52.1	56.7		51.4	51.4	11.6		61.2	61.2	61.2	
IncremntDel:	3.3	0.1	0.1		0.2	0.2	35.5		8.9	8.9	4.6		5.1	5.1	5.1	
InitQueuDel:	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	12.6	12.6		52.3	52.3	92.2		60.3	60.3	16.2		66.4	66.4	66.4	
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:	26.0	12.6	12.6		52.3	52.3	92.2		60.3	60.3	16.2		66.4	66.4	66.4	
LOS by Move:	C	B	B		D	D	F		E	E	B		E	E	E	
HCM2kAvgQ:	34	4	4		1	1	9		10	10	33		2	2	2	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 1.185
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 73.9
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	1 1	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	875	0	309		0	0	0		0	1218	541		0	878	1818	
Added Vol:	2	0	394		0	0	0		2	934	0		0	162	46	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	877	0	703		0	0	0		2	2152	541		0	1040	1864	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	877	0	703		0	0	0		2	2152	0		0	1040	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	877	0	703		0	0	0		2	2152	0		0	1040	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	877	0	703		0	0	0		2	2152	0		0	1040	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		3	3375	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.26	0.00	0.44		0.00	0.00	0.00		0.64	0.64	0.00		0.00	0.29	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.37	0.00	0.37		0.00	0.00	0.00		0.54	0.54	0.00		0.00	0.54	0.00	
Volume/Cap:	0.68	0.00	1.19		0.00	0.00	0.00		1.19	1.19	0.00		0.00	0.55	0.00	
Uniform Del:	21.0	0.0	25.0		0.0	0.0	0.0		18.5	18.5	0.0		0.0	12.1	0.0	
IncremntDel:	1.5	0.0	99.7		0.0	0.0	0.0		89.4	89.4	0.0		0.0	0.3	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	22.5	0.0	124.7		0.0	0.0	0.0		107.9	108	0.0		0.0	12.4	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:	22.5	0.0	124.7		0.0	0.0	0.0		107.9	108	0.0		0.0	12.4	0.0	
LOS by Move:	C	A	F		A	A	A		F	F	A		A	B	A	
HCM2kAvgQ:	10	0	34		0	0	0		53	53	0		0	9	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.948
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 117 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0 0	0	0	2	0 0	0	1	0	0 2	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	86	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		941	0	597		0	892	624		0	1526	92	
Added Vol:	0	0	0		474	0	7		0	463	0		0	76	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1415	0	604		0	1355	624		0	1602	92	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1415	0	604		0	1355	0		0	1602	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1415	0	604		0	1355	0		0	1602	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1415	0	604		0	1355	0		0	1602	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.41	0.00	0.38		0.00	0.38	0.00		0.00	0.45	0.00	
Crit Moves:					****									****		
Green/Cycle:	0.00	0.00	0.00		0.43	0.00	0.43		0.00	0.48	0.00		0.00	0.48	0.00	
Volume/Cap:	0.00	0.00	0.00		0.95	0.00	0.88		0.00	0.80	0.00		0.00	0.95	0.00	
Uniform Del:	0.0	0.0	0.0		21.7	0.0	20.7		0.0	17.7	0.0		0.0	19.9	0.0	
IncremntDel:	0.0	0.0	0.0		13.0	0.0	12.3		0.0	2.9	0.0		0.0	11.8	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		34.7	0.0	33.0		0.0	20.5	0.0		0.0	31.8	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:	0.0	0.0	0.0		34.7	0.0	33.0		0.0	20.5	0.0		0.0	31.8	0.0	
LOS by Move:	A	A	A		C	A	C		A	C	A		A	C	A	
HCM2kAvgQ:	0	0	0		23	0	17		0	17	0		0	26	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.874
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 26.9
Optimal Cycle: 92 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	29	3	52		238	19	3		16	1210	31		287	1515	300	
Added Vol:	0	0	0		0	0	0		0	464	0		0	83	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	29	3	52		238	19	3		16	1674	31		287	1598	300	
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	3	52		238	19	3		16	1674	31		287	1598	300	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	29	3	52		238	19	3		16	1674	31		287	1598	300	
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:	29	3	52		238	19	3		16	1674	31		287	1598	300	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.92	0.08	1.00		1.00	2.95	0.05		2.00	1.68	0.32	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4976	92		3432	2908	545	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.14	0.14	0.00		0.01	0.34	0.34		0.08	0.55	0.55	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.15	0.15	0.15		0.05	0.50	0.50		0.12	0.57	0.57	
Volume/Cap:	0.36	0.36	0.38		0.96	0.96	0.01		0.18	0.67	0.67		0.67	0.96	0.96	
Uniform Del:	36.8	36.8	36.8		33.7	33.7	28.9		36.4	15.1	15.1		33.5	16.1	16.1	
IncremntDel:	2.5	2.5	1.7		43.1	43.1	0.0		1.0	0.7	0.7		4.2	11.7	11.7	
InitQueuDel:	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:	39.2	39.2	38.5		76.8	76.8	28.9		37.4	15.8	15.8		37.7	27.8	27.8	
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:	39.2	39.2	38.5		76.8	76.8	28.9		37.4	15.8	15.8		37.7	27.8	27.8	
LOS by Move:	D	D	D		E	E	C		D	B	B		D	C	C	
HCM2kAvgQ:	1	1	1		11	11	0		1	12	12		5	30	30	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.606
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.0
Optimal Cycle: 27 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	16	10	9		417	32	97		125	852	62		49	1221	346	
Added Vol:	0	0	0		0	0	0		0	464	0		0	83	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	16	10	9		417	32	97		125	1316	62		49	1304	346	
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	10	9		417	32	97		125	1316	62		49	1304	346	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	16	10	9		417	32	97		125	1316	62		49	1304	346	
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:	16	10	9		417	32	97		125	1316	62		49	1304	346	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.91	0.09		1.00	2.00	1.00	
Final Sat.:	1769	916	814		3306	254	1583		1769	3355	158		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.13	0.13	0.06		0.07	0.39	0.39		0.03	0.37	0.22	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.20	0.20	0.20		0.11	0.62	0.62		0.08	0.59	0.59	
Volume/Cap:	0.18	0.21	0.21		0.63	0.63	0.31		0.63	0.63	0.63		0.35	0.63	0.37	
Uniform Del:	36.4	36.5	36.5		29.2	29.2	27.2		33.9	9.5	9.5		34.9	10.8	8.8	
IncremntDel:	1.0	1.2	1.2		1.8	1.8	0.5		6.3	0.6	0.6		1.5	0.6	0.3	
InitQueuDel:	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:	37.4	37.7	37.7		31.0	31.0	27.8		40.2	10.1	10.1		36.4	11.5	9.0	
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:	37.4	37.7	37.7		31.0	31.0	27.8		40.2	10.1	10.1		36.4	11.5	9.0	
LOS by Move:	D	D	D		C	C	C		D	B	B		D	B	A	
HCM2kAvgQ:	1	1	1		6	6	2		4	12	12		2	12	5	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.748
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.6
Optimal Cycle: 40 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1! 0	0	0	0	1! 0	0	0	1	0	1	0	1	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177	112	28	5	2	665	66	264	982	22				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	75	3	189	120	30	5	2	712	71	282	1051	24				
Added Vol:	1	0	0	0	0	0	0	464	2	0	83	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	76	3	189	120	30	5	2	1176	73	282	1134	24				
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:	76	3	189	120	30	5	2	1176	73	282	1134	24				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	76	3	189	120	30	5	2	1176	73	282	1134	24				
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:	76	3	189	120	30	5	2	1176	73	282	1134	24				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.79	0.79	0.79	0.53	0.53	0.53	0.88	0.88	0.88	0.93	0.93	0.93				
Lanes:	0.28	0.01	0.71	0.78	0.19	0.03	0.01	1.88	0.11	1.00	1.96	0.04				
Final Sat.:	427	18	1065	778	195	35	6	3148	194	1769	3455	72				
Capacity Analysis Module:																
Vol/Sat:	0.18	0.18	0.18	0.15	0.15	0.15	0.37	0.37	0.37	0.16	0.33	0.33				
Crit Moves:		****						****		****						
Green/Cycle:	0.25	0.25	0.25	0.25	0.25	0.25	0.49	0.49	0.49	0.21	0.70	0.70				
Volume/Cap:	0.70	0.70	0.70	0.61	0.61	0.61	0.77	0.77	0.77	0.77	0.47	0.47				
Uniform Del:	27.1	27.1	27.1	26.4	26.4	26.4	16.7	16.7	16.7	29.8	5.5	5.5				
IncremntDel:	5.8	5.8	5.8	4.2	4.2	4.2	2.2	2.2	2.2	9.2	0.1	0.1				
InitQueuDel:	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:	32.9	32.9	32.9	30.5	30.5	30.5	19.0	19.0	19.0	39.0	5.6	5.6				
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:	32.9	32.9	32.9	30.5	30.5	30.5	19.0	19.0	19.0	39.0	5.6	5.6				
LOS by Move:	C	C	C	C	C	C	B	B	B	D	A	A				
HCM2kAvgQ:	7	7	7	4	4	4	15	15	15	9	7	7				

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.847
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 31.8
Optimal Cycle: 87 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397	342	367	0	0	0	0	0	463	0	169			
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	0	178	425	366	393	0	0	0	0	495	0	181				
Added Vol:	0	8	142	323	64	0	0	0	0	29	0	56				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	186	567	689	457	0	0	0	0	524	0	237				
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	186	567	689	457	0	0	0	0	524	0	237				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	186	567	689	457	0	0	0	0	524	0	237				
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:	0	186	567	689	457	0	0	0	0	524	0	237				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85				
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00				
Final Sat.:	0	1900	1615	1805	1900	0	0	0	0	1805	0	1615				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.10	0.35	0.38	0.24	0.00	0.00	0.00	0.00	0.29	0.00	0.15				
Crit Moves:		****		****						****						
Green/Cycle:	0.00	0.12	0.46	0.45	0.57	0.00	0.00	0.00	0.00	0.34	0.00	0.79				
Volume/Cap:	0.00	0.85	0.77	0.85	0.42	0.00	0.00	0.00	0.00	0.85	0.00	0.18				
Uniform Del:	0.0	47.7	24.9	26.8	13.6	0.0	0.0	0.0	0.0	33.5	0.0	2.7				
IncremntDel:	0.0	25.1	4.8	8.3	0.3	0.0	0.0	0.0	0.0	10.5	0.0	0.1				
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00				
Delay/Veh:	0.0	72.8	29.7	35.1	13.9	0.0	0.0	0.0	0.0	44.0	0.0	2.8				
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:	0.0	72.8	29.7	35.1	13.9	0.0	0.0	0.0	0.0	44.0	0.0	2.8				
LOS by Move:	A	E	C	D	B	A	A	A	A	D	A	A				
HCM2kAvgQ:	0	9	17	23	9	0	0	0	0	19	0	2				

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.979
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 56.7
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Split Phase						Split Phase					
Rights:	Ovl						Include						Include						Include					
Min. Green:	5	5	5				5	5	5				5	5	5				5	5	5			
Lanes:	2	0	3	0	1		2	0	3	0	1		1	1	1	0	2		1	0	2	0	1	
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM																								
Base Vol:	1034	2108		6		13	677		92		84	34	379			3		6		5				
Growth Adj:	1.07	1.07		1.07		1.07	1.07		1.07		1.07	1.07	1.07			1.07		1.07		1.07				
Initial Bse:	1106	2256		6		14	724		98		90	36	406			3		6		5				
Added Vol:	36	433		24		441	59		43		494	838	2			24		30		14				
PasserByVol:	0	0		0		0	0		0		0	0	0			0		0		0				
Initial Fut:	1142	2689		30		455	783		141		584	874	408			27		36		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:	1142	2689		30		455	783		141		584	874	408			27		36		19				
Reduct Vol:	0	0		0		0	0		0		0	0	0			0		0		0				
Reduced Vol:	1142	2689		30		455	783		141		584	874	408			27		36		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				
FinalVolume:	1142	2689		30		455	783		141		584	874	408			27		36		19				
Saturation Flow Module:																								
Sat/Lane:	1900	1900		1900		1900	1900		1900		1900	1900	1900			1900		1900		1900				
Adjustment:	0.90	1.03		0.83		0.90	1.03		0.83		0.91	0.91	0.88			0.93		0.93		0.83				
Lanes:	2.00	3.00		1.00		2.00	3.00		1.00		1.20	1.80	2.00			1.00		2.00		1.00				
Final Sat.:	3432	5846		1583		3432	5846		1583		2082	3118	3343			1769		3538		1583				
Capacity Analysis Module:																								
Vol/Sat:	0.33	0.46		0.02		0.13	0.13		0.09		0.28	0.28	0.12			0.02		0.01		0.01				
Crit Moves:		****				****						****				****								
Green/Cycle:	0.42	0.46		0.50		0.13	0.17		0.17		0.28	0.28	0.28			0.04		0.04		0.04				
Volume/Cap:	0.79	1.00		0.04		1.00	0.79		0.53		1.00	1.00	0.44			0.40		0.27		0.32				
Uniform Del:	32.7	35.2		16.8		56.4	51.8		49.3		46.9	46.9	38.5			61.0		60.7		60.8				
IncremntDel:	3.1	18.4		0.0		43.3	4.4		2.0		24.6	24.6	0.3			3.8		1.1		3.0				
InitQueuDel:	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:	35.8	53.6		16.8		99.7	56.2		51.2		71.5	71.5	38.8			64.9		61.8		63.8				
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:	35.8	53.6		16.8		99.7	56.2		51.2		71.5	71.5	38.8			64.9		61.8		63.8				
LOS by Move:	D	D		B		F	E		D		E	E	D			E		E		E				
HCM2kAvgQ:	22	47		1		14	13		6		27	27	8			2		1		1				

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 19.8
Optimal Cycle: 66 Level Of Service: B

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Permitted						Permitted						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	5	5	5				5	5	5				5	5	5				5	5	5			
Lanes:	0	0	1!	0	0		0	0	1!	0	0		1	0	1	1	0		1	0	1	1	0	
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am																								
Base Vol:	18	13		26		71	19		72		115	415	52			56		1037		74				
Growth Adj:	1.07	1.07		1.07		1.07	1.07		1.07		1.07	1.07	1.07			1.07		1.07		1.07				
Initial Bse:	19	14		28		76	20		77		123	444	56			60		1110		79				
Added Vol:	0	0		0		0	0		8		2	1333	0			0		104		0				
PasserByVol:	0	0		0		0	0		0		0	0	0			0		0		0				
Initial Fut:	19	14		28		76	20		85		125	1777	56			60		1214		79				
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:	19	14		28		76	20		85		125	1777	56			60		1214		79				
Reduct Vol:	0	0		0		0	0		0		0	0	0			0		0		0				
Reduced Vol:	19	14		28		76	20		85		125	1777	56			60		1214		79				
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:	19	14		28		76	20		85		125	1777	56			60		1214		79				
Saturation Flow Module:																								
Sat/Lane:	1900	1900		1900		1900	1900		1900		1900	1900	1900			1900		1900		1900				
Adjustment:	0.80	0.80		0.80		0.77	0.77		0.77		0.93	0.93	0.93			0.93		0.92		0.92				
Lanes:	0.31	0.23		0.46		0.42	0.11		0.47		1.00	1.94	0.06			1.00		1.88		0.12				
Final Sat.:	483	349		697		614	164		687		1769	3417	107			1769		3291		215				
Capacity Analysis Module:																								
Vol/Sat:	0.04	0.04		0.04		0.12	0.12		0.12		0.07	0.52	0.52			0.03		0.37		0.37				
Crit Moves:							****					****				****								
Green/Cycle:	0.17	0.17		0.17		0.17	0.17		0.17		0.12	0.70	0.70			0.05		0.63		0.63				
Volume/Cap:	0.24	0.24		0.24		0.74	0.74		0.74		0.59	0.74	0.74			0.74		0.59		0.59				
Uniform Del:	47.0	47.0		47.0		51.5	51.5		51.5		54.1	12.0	12.0			61.3		14.3		14.3				
IncremntDel:	0.5	0.5		0.5		11.4	11.4		11.4		4.2	1.2	1.2			30.1		0.4		0.4				
InitQueuDel:	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:	47.4	47.4		47.4		62.8	62.8		62.8		58.3	13.2	13.2			91.3		14.7		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:	47.4	47.4		47.4		62.8	62.8		62.8		58.3	13.2	13.2			91.3		14.7		14.7				
LOS by Move:	D	D		D		E	E		E		E	B	B			F		B		B				
HCM2kAvgQ:	2	2		2		8	8		8		6	24	24			4		16		16				

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.825
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 26.0
Optimal Cycle: 87 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		1	0	199		88	698	0		0	1092	15	
Added Vol:	0	0	0		190	0	6		7	1145	0		0	97	14	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		191	0	205		95	1843	0		0	1189	29	
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	0	0		191	0	205		95	1843	0		0	1189	29	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		191	0	205		95	1843	0		0	1189	29	
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:	0	0	0		191	0	205		95	1843	0		0	1189	29	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.89	1.00	0.89		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.48	0.00	0.52		1.00	2.00	0.00		0.00	1.95	0.05	
Final Sat.:	0	0	0		815	0	875		1769	3538	0		0	3440	84	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.23	0.00	0.23		0.05	0.52	0.00		0.00	0.35	0.35	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.28	0.00	0.28		0.08	0.63	0.00		0.00	0.55	0.55	
Volume/Cap:	0.00	0.00	0.00		0.83	0.00	0.83		0.63	0.83	0.00		0.00	0.63	0.63	
Uniform Del:	0.0	0.0	0.0		43.5	0.0	43.5		57.5	18.4	0.0		0.0	20.4	20.4	
IncremntDel:	0.0	0.0	0.0		11.1	0.0	11.1		8.5	2.6	0.0		0.0	0.7	0.7	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		54.7	0.0	54.7		66.0	21.1	0.0		0.0	21.1	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:	0.0	0.0	0.0		54.7	0.0	54.7		66.0	21.1	0.0		0.0	21.1	21.1	
LOS by Move:	A	A	A		D	A	D		E	C	A		A	C	C	
HCM2kAvgQ:	0	0	0		17	0	17		5	31	0		0	18	18	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.747
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 68 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	139	0	72		0	0	0		0	746	268		109	1253	0	
Added Vol:	10	0	0		0	0	0		0	1152	2		0	103	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	149	0	72		0	0	0		0	1898	270		109	1356	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:	149	0	72		0	0	0		0	1898	270		109	1356	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	149	0	72		0	0	0		0	1898	270		109	1356	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:	149	0	72		0	0	0		0	1898	270		109	1356	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.51	0.00	0.49		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2585	0	839		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.00	0.09		0.00	0.00	0.00		0.00	0.54	0.17		0.06	0.38	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.11	0.00	0.11		0.00	0.00	0.00		0.00	0.72	0.72		0.08	0.80	0.00	
Volume/Cap:	0.50	0.00	0.75		0.00	0.00	0.00		0.00	0.75	0.24		0.75	0.48	0.00	
Uniform Del:	54.1	0.0	55.7		0.0	0.0	0.0		0.0	11.1	6.2		58.3	4.2	0.0	
IncremntDel:	0.9	0.0	10.0		0.0	0.0	0.0		0.0	1.3	0.1		18.9	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	55.0	0.0	65.7		0.0	0.0	0.0		0.0	12.4	6.3		77.2	4.3	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:	55.0	0.0	65.7		0.0	0.0	0.0		0.0	12.4	6.3		77.2	4.3	0.0	
LOS by Move:	E	A	E		A	A	A		A	B	A		E	A	A	
HCM2kAvgQ:	4	0	7		0	0	0		0	25	4		6	9	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.973
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 55.3
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																				
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	375	119	39		30	190	411		158	884	166		30	1306	4	
Added Vol:	0	0	0		0	0	3		10	1154	0		0	112	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	375	119	39		30	190	414		168	2038	166		30	1418	4	
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:	375	119	39		30	190	414		168	2038	166		30	1418	4	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	375	119	39		30	190	414		168	2038	166		30	1418	4	
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:	375	119	39		30	190	414		168	2038	166		30	1418	4	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.88	0.88		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.77	0.23		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4649	378		1769	3527	11	
Capacity Analysis Module:																
Vol/Sat:	0.11	0.06	0.02		0.02	0.10	0.26		0.10	0.44	0.44		0.02	0.40	0.40	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.11	0.11	0.11		0.27	0.27	0.27		0.10	0.47	0.47		0.04	0.41	0.41	
Volume/Cap:	0.97	0.57	0.22		0.06	0.38	0.97		0.97	0.93	0.93		0.41	0.97	0.97	
Uniform Del:	57.5	54.7	52.5		35.3	38.7	47.1		58.5	32.5	32.5		60.8	37.4	37.4	
IncremntDel:	38.5	3.7	0.6		0.1	0.5	36.4		60.1	7.5	7.5		3.7	17.4	17.4	
InitQueuDel:	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:	96.0	58.4	53.1		35.4	39.2	83.4		118.6	40.0	40.0		64.5	54.8	54.8	
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:	96.0	58.4	53.1		35.4	39.2	83.4		118.6	40.0	40.0		64.5	54.8	54.8	
LOS by Move:	F	E	D		D	D	F		F	D	D		E	D	D	
HCM2kAvgQ:	12	5	2		1	6	21		10	35	35		2	35	35	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.805
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 75 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																				
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		386	0	80		68	1474	0		0	1192	341	
Added Vol:	0	0	0		2	0	0		0	284	0		0	55	3	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		388	0	80		68	1758	0		0	1247	344	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		388	0	80		68	1758	0		0	1247	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		388	0	80		68	1758	0		0	1247	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		388	0	80		68	1758	0		0	1247	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.22	0.00	0.05		0.04	0.50	0.00		0.00	0.35	0.00	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.27	0.00	0.27		0.08	0.62	0.00		0.00	0.54	0.00	
Volume/Cap:	0.00	0.00	0.00		0.81	0.00	0.19		0.50	0.81	0.00		0.00	0.65	0.00	
Uniform Del:	0.0	0.0	0.0		33.9	0.0	27.9		44.3	14.6	0.0		0.0	16.3	0.0	
IncremntDel:	0.0	0.0	0.0		9.6	0.0	0.2		3.0	2.3	0.0		0.0	0.8	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		43.5	0.0	28.1		47.4	16.8	0.0		0.0	17.1	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:	0.0	0.0	0.0		43.5	0.0	28.1		47.4	16.8	0.0		0.0	17.1	0.0	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		13	0	2		3	23	0		0	15	0	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.8
Optimal Cycle: 55 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	66	17	134		41	2	2		13	1071	10		44	910	152	
Added Vol:	0	0	0		0	0	0		0	284	0		0	55	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	66	17	134		41	2	2		13	1355	10		44	965	152	
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:	66	17	134		41	2	2		13	1355	10		44	965	152	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	66	17	134		41	2	2		13	1355	10		44	965	152	
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:	66	17	134		41	2	2		13	1355	10		44	965	152	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.48	0.48	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.99	0.01		1.00	0.86	0.14	
Final Sat.:	1365	183	1431		858	45	1583		1769	3509	25		1769	1576	248	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.09	0.09		0.05	0.05	0.00		0.01	0.39	0.39		0.02	0.61	0.61	
Crit Moves:		****							****					****		
Green/Cycle:	0.12	0.12	0.12		0.12	0.12	0.12		0.04	0.74	0.74		0.08	0.77	0.77	
Volume/Cap:	0.41	0.79	0.79		0.40	0.40	0.01		0.18	0.52	0.52		0.33	0.79	0.79	
Uniform Del:	40.9	42.9	42.9		40.8	40.8	39.0		46.4	5.7	5.7		43.8	6.7	6.7	
IncremntDel:	1.7	19.9	19.9		2.5	2.5	0.0		1.2	0.2	0.2		1.4	3.2	3.2	
InitQueuDel:	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:	42.6	62.8	62.8		43.3	43.3	39.0		47.7	5.9	5.9		45.2	9.9	9.9	
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:	42.6	62.8	62.8		43.3	43.3	39.0		47.7	5.9	5.9		45.2	9.9	9.9	
LOS by Move:	D	E	E		D	D	D		D	A	A		D	A	A	
HCM2kAvgQ:	2	7	7		2	2	0		1	10	10		2	22	22	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.882
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 88 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	62	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	3	3	9		152	6	51		18	954	5		6	914	66	
Added Vol:	0	0	0		0	0	0		0	284	0		0	55	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	3	9		152	6	51		18	1238	5		6	969	66	
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:	3	3	9		152	6	51		18	1238	5		6	969	66	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	9		152	6	51		18	1238	5		6	969	66	
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:	3	3	9		152	6	51		18	1238	5		6	969	66	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.87	0.87	0.87		0.73	0.73	0.73		0.18	0.98	0.98		0.08	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.94	0.06	
Final Sat.:	353	353	942		999	42	338		333	1852	8		147	1725	118	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.15	0.15	0.15		0.05	0.67	0.67		0.04	0.56	0.56	
Crit Moves:						****				****						
Green/Cycle:	0.17	0.17	0.17		0.17	0.17	0.17		0.76	0.76	0.76		0.76	0.76	0.76	
Volume/Cap:	0.05	0.05	0.05		0.88	0.88	0.88		0.07	0.88	0.88		0.06	0.74	0.74	
Uniform Del:	34.6	34.6	34.6		40.4	40.4	40.4		3.1	8.9	8.9		3.1	6.7	6.7	
IncremntDel:	0.1	0.1	0.1		29.6	29.6	29.6		0.1	6.9	6.9		0.2	2.2	2.2	
InitQueuDel:	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:	34.6	34.6	34.6		70.0	70.0	70.0		3.2	15.7	15.7		3.3	8.9	8.9	
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:	34.6	34.6	34.6		70.0	70.0	70.0		3.2	15.7	15.7		3.3	8.9	8.9	
LOS by Move:	C	C	C		E	E	E		A	B	B		A	A	A	
HCM2kAvgQ:	0	0	0		9	9	9		0	31	31		0	19	19	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.855
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 77 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	72		41	869	5	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	108	91	131		33	44	7		4	850	77		44	930	5	
Added Vol:	11	0	37		0	0	0		0	247	8		5	50	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	119	91	168		33	44	7		4	1097	85		49	980	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:	119	91	168		33	44	7		4	1097	85		49	980	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	119	91	168		33	44	7		4	1097	85		49	980	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	
FinalVolume:	119	91	168		33	44	7		4	1097	85		49	980	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.88	0.88		0.25	0.96	0.96		0.19	0.97	0.97		0.10	0.98	0.98	
Lanes:	1.00	0.35	0.65		1.00	0.85	0.15		1.00	0.93	0.07		1.00	0.99	0.01	
Final Sat.:	1352	592	1090		477	1555	266		369	1709	133		194	1850	10	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.15	0.15		0.07	0.03	0.03		0.01	0.64	0.64		0.25	0.53	0.53	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.49	0.86	0.86		0.39	0.16	0.16		0.02	0.86	0.86		0.34	0.71	0.71	
Uniform Del:	36.9	39.8	39.8		36.2	34.6	34.6		3.2	8.7	8.7		4.2	6.6	6.6	
IncremntDel:	1.6	20.6	20.6		2.9	0.2	0.2		0.0	5.5	5.5		1.4	1.7	1.7	
InitQueuDel:	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:	38.4	60.3	60.3		39.0	34.8	34.8		3.2	14.2	14.2		5.5	8.3	8.3	
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:	38.4	60.3	60.3		39.0	34.8	34.8		3.2	14.2	14.2		5.5	8.3	8.3	
LOS by Move:	D	E	E		D	C	C		A	B	B		A	A	A	
HCM2kAvgQ:	4	11	11		1	1	1		0	28	28		1	17	17	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.216
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 121.5
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0	1	1	0	0
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	72	366	262		437	345	11		17	178	125		449	68	529	
Added Vol:	15	9	146		80	7	0		0	30	10		20	19	21	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	87	375	408		517	352	11		17	208	135		469	87	550	
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	375	408		517	352	11		17	208	135		469	87	550	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	87	375	405		517	352	11		17	208	135		469	87	550	
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:	87	375	405		517	352	11		17	208	135		469	87	550	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.76	1.20	0.04		1.00	1.00	1.00		1.69	0.31	1.00	
Final Sat.:	1769	3538	791		3023	2057	63		1769	1862	1583		3013	562	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.11	0.51		0.17	0.17	0.17		0.01	0.11	0.09		0.16	0.16	0.35	
Crit Moves:			****		****					****					****	
Green/Cycle:	0.42	0.42	0.42		0.14	0.14	0.14		0.09	0.09	0.09		0.29	0.29	0.29	
Volume/Cap:	0.12	0.25	1.22		1.22	1.22	1.22		0.11	1.22	0.93		0.55	0.55	1.22	
Uniform Del:	22.9	24.4	37.6		55.9	55.9	55.9		54.2	59.0	58.6		39.3	39.3	46.4	
IncremntDel:	0.1	0.1	121.7		109.8	110	109.8		0.3	139	54.5		0.6	0.6	116.2	
InitQueuDel:	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:	23.0	24.5	159.4		165.7	166	165.7		54.4	198	113.1		39.9	39.9	162.6	
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:	23.0	24.5	159.4		165.7	166	165.7		54.4	198	113.1		39.9	39.9	162.6	
LOS by Move:	C	C	F		F	F	F		D	F	F		D	D	F	
HCM2kAvgQ:	2	5	28		22	22	22		1	15	8		10	10	36	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.890
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 33.5
Optimal Cycle: 121 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	3	0	1	2	0	0	0	3	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0	0	884	188	179	0	429	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	1649	3084	0	0	946	201	192	0	459	0	0	0				
Added Vol:	10	599	0	0	73	13	181	0	2	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	1659	3683	0	0	1019	214	373	0	461	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:	1659	3683	0	0	1019	214	373	0	461	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1659	3683	0	0	1019	214	373	0	461	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				
FinalVolume:	1659	3683	0	0	1019	214	373	0	461	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.48	0.72	0.00	0.00	0.20	0.14	0.11	0.00	0.11	0.00	0.00	0.00				
Crit Moves:		****		****					****							
Green/Cycle:	0.58	0.81	0.00	0.00	0.24	0.24	0.12	0.00	0.12	0.00	0.00	0.00				
Volume/Cap:	0.84	0.89	0.00	0.00	0.84	0.57	0.88	0.00	0.89	0.00	0.00	0.00				
Uniform Del:	28.0	10.1	0.0	0.0	58.0	53.7	68.9	0.0	69.0	0.0	0.0	0.0				
IncremntDel:	3.4	2.8	0.0	0.0	5.4	2.0	18.1	0.0	17.3	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	31.4	12.9	0.0	0.0	63.4	55.7	87.0	0.0	86.3	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:	31.4	12.9	0.0	0.0	63.4	55.7	87.0	0.0	86.3	0.0	0.0	0.0				
LOS by Move:	C	B	A	A	E	E	F	A	F	A	A	A				
HCM2kAvgQ:	36	47	0	0	20	10	12	0	11	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.573
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.3
Optimal Cycle: 43 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	5	5	5	0	0	5	5				
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0	22	0	22	68	526	0	0	1341	46				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	0	0	0	24	0	24	73	563	0	0	1435	49				
Added Vol:	0	0	0	2	0	0	0	181	0	0	13	10				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	26	0	24	73	744	0	0	1448	59				
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	0	0	26	0	24	73	744	0	0	1448	59				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	26	0	24	73	744	0	0	1448	59				
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:	0	0	0	26	0	24	73	744	0	0	1448	59				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.89	1.00	0.89	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.52	0.00	0.48	1.00	2.00	0.00	0.00	1.92	0.08				
Final Sat.:	0	0	0	883	0	814	1769	3538	0	0	3378	138				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.03	0.04	0.21	0.00	0.00	0.43	0.43				
Crit Moves:				****			****				****					
Green/Cycle:	0.00	0.00	0.00	0.06	0.00	0.06	0.07	0.81	0.00	0.00	0.74	0.74				
Volume/Cap:	0.00	0.00	0.00	0.49	0.00	0.49	0.58	0.26	0.00	0.00	0.58	0.58				
Uniform Del:	0.0	0.0	0.0	38.8	0.0	38.8	38.2	1.9	0.0	0.0	5.0	5.0				
IncremntDel:	0.0	0.0	0.0	3.8	0.0	3.8	6.6	0.0	0.0	0.0	0.3	0.3				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	42.5	0.0	42.5	44.8	2.0	0.0	0.0	5.3	5.3				
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:	0.0	0.0	0.0	42.5	0.0	42.5	44.8	2.0	0.0	0.0	5.3	5.3				
LOS by Move:	A	A	A	D	A	D	D	A	A	A	A	A				
HCM2kAvgQ:	0	0	0	2	0	2	3	3	0	0	10	10				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.584
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	34	40	21		9	22	47		43	623	46		27	1393	27	
Added Vol:	0	0	0		0	0	0		0	181	0		0	13	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	40	21		9	22	47		43	804	46		27	1406	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:	34	40	21		9	22	47		43	804	46		27	1406	27	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	40	21		9	22	47		43	804	46		27	1406	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	
FinalVolume:	34	40	21		9	22	47		43	804	46		27	1406	27	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.91	0.91	0.91		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.36	0.42	0.22		0.11	0.29	0.60		1.00	1.89	0.11		1.00	1.96	0.04	
Final Sat.:	651	752	407		190	500	1047		1805	3387	194		1805	3532	67	
Capacity Analysis Module:																		
Vol/Sat:	0.05	0.05	0.05		0.04	0.04	0.04		0.02	0.24	0.24		0.01	0.40	0.40	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.08	0.08		0.08	0.08	0.08		0.05	0.60	0.60		0.13	0.67	0.67	
Volume/Cap:	0.59	0.62	0.62		0.56	0.59	0.59		0.47	0.40	0.40		0.12	0.59	0.59	
Uniform Del:	43.8	44.2	44.2		44.3	44.7	44.7		46.2	10.6	10.6		38.8	8.8	8.8	
IncremntDel:	5.7	7.6	7.6		5.0	6.9	6.9		3.9	0.1	0.1		0.2	0.4	0.4	
InitQueuDel:	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:	49.5	51.8	51.8		49.2	51.6	51.6		50.1	10.7	10.7		39.0	9.2	9.2	
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:	49.5	51.8	51.8		49.2	51.6	51.6		50.1	10.7	10.7		39.0	9.2	9.2	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	A	A	
HCM2kAvgQ:	4	4	4		3	3	3		2	7	7		1	13	13	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.664
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	116	241	121		54	210	92		151	532	83		104	1193	52	
Added Vol:	0	0	0		0	0	0		0	181	0		0	13	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	241	121		54	210	92		151	713	83		104	1206	52	
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:	116	241	121		54	210	92		151	713	83		104	1206	52	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	241	121		54	210	92		151	713	83		104	1206	52	
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:	116	241	121		54	210	92		151	713	83		104	1206	52	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.79	0.21		1.00	1.92	0.08	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3180	372		1805	3439	149	
Capacity Analysis Module:																		
Vol/Sat:	0.06	0.13	0.07		0.03	0.11	0.06		0.08	0.22	0.22		0.06	0.35	0.35	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.09	0.19	0.19		0.05	0.15	0.15		0.13	0.52	0.52		0.13	0.53	0.53	
Volume/Cap:	0.73	0.67	0.39		0.59	0.73	0.38		0.67	0.43	0.43		0.43	0.67	0.67	
Uniform Del:	44.4	37.6	35.5		46.5	40.4	38.2		41.8	15.0	15.0		39.9	17.4	17.4	
IncremntDel:	15.5	4.8	0.8		10.1	9.0	1.0		7.5	0.2	0.2		1.3	0.9	0.9	
InitQueuDel:	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	42.3	36.3		56.6	49.4	39.1		49.2	15.2	15.2		41.2	18.3	18.3	
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:	60.0	42.3	36.3		56.6	49.4	39.1		49.2	15.2	15.2		41.2	18.3	18.3	
LOS by Move:	E	D	D		E	D	D		D	B	B		D	B	B	
HCM2kAvgQ:	5	8	4		3	8	3		6	8	8		3	15	15	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.649
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 20.3
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	47	105	12	16	59	56	18	626	48	88	1246	61
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	50	112	13	17	63	60	19	670	51	94	1333	65
Added Vol:	0	0	0	0	0	0	0	181	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	112	13	17	63	60	19	851	51	94	1346	65
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:	50	112	13	17	63	60	19	851	51	94	1346	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	112	13	17	63	60	19	851	51	94	1346	65
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:	50	112	13	17	63	60	19	851	51	94	1346	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.98	0.98	0.98	0.94	0.94	0.94	0.95	0.94	0.94	0.95	0.94	0.94
Lanes:	0.29	0.64	0.07	0.12	0.45	0.43	1.00	1.89	0.11	1.00	1.91	0.09
Final Sat.:	532	1187	136	217	801	761	1805	3374	204	1805	3419	166
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.08	0.08	0.08	0.01	0.25	0.25	0.05	0.39	0.39
Crit Moves:	****				****		****				****	
Green/Cycle:	0.14	0.14	0.14	0.12	0.12	0.12	0.05	0.52	0.52	0.11	0.58	0.58
Volume/Cap:	0.68	0.68	0.68	0.68	0.68	0.68	0.21	0.48	0.48	0.48	0.68	0.68
Uniform Del:	40.8	40.8	40.8	42.3	42.3	42.3	45.6	15.1	15.1	41.9	14.3	14.3
IncremntDel:	6.9	6.9	6.9	8.5	8.5	8.5	1.2	0.2	0.2	1.9	0.9	0.9
InitQueuDel:	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	47.7	47.7	50.9	50.9	50.9	46.8	15.3	15.3	43.8	15.2	15.2
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:	47.7	47.7	47.7	50.9	50.9	50.9	46.8	15.3	15.3	43.8	15.2	15.2
LOS by Move:	D	D	D	D	D	D	D	B	B	D	B	B
HCM2kAvgQ:	6	6	6	5	5	5	1	9	9	3	16	16

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap.(X): 0.305
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 6.9
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	14	14	14	14	14	14	73	73	73	73	73	73
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	18	59	9	7	43	11	15	614	24	15	123	24
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	19	63	10	7	46	12	16	657	26	16	132	26
Added Vol:	0	0	0	0	0	0	0	181	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	63	10	7	46	12	16	838	26	16	145	26
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:	19	63	10	7	46	12	16	838	26	16	145	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	63	10	7	46	12	16	838	26	16	145	26
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:	19	63	10	7	46	12	16	838	26	16	145	26
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.95	0.95	0.95	0.64	0.95	0.95	0.30	0.93	0.93
Lanes:	0.21	0.69	0.10	0.11	0.71	0.18	1.00	1.94	0.06	1.00	1.70	0.30
Final Sat.:	369	1209	184	207	1271	325	1212	3489	107	578	2995	532
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.04	0.04	0.04	0.01	0.24	0.24	0.03	0.05	0.05
Crit Moves:		****						****				
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.17	0.79	0.79	0.79	0.79	0.79	0.79
Volume/Cap:	0.31	0.31	0.31	0.21	0.21	0.21	0.02	0.31	0.31	0.04	0.06	0.06
Uniform Del:	34.4	34.4	34.4	33.9	33.9	33.9	2.2	2.8	2.8	2.2	2.3	2.3
IncremntDel:	0.6	0.6	0.6	0.3	0.3	0.3	0.0	0.1	0.1	0.0	0.0	0.0
InitQueuDel:	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:	35.0	35.0	35.0	34.2	34.2	34.2	2.2	2.9	2.9	2.3	2.3	2.3
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:	35.0	35.0	35.0	34.2	34.2	34.2	2.2	2.9	2.9	2.3	2.3	2.3
LOS by Move:	D	D	D	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	3	3	3	2	2	2	0	4	4	0	1	1

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.974
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 161 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1 0	1	1	1	0 1	0	1	2	0 2	0	1	1	0 1	1	0
Volume Module:																
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	387	468	351		12	133	410		125	377	303		52	1289	73	
Added Vol:	0	0	100		0	0	0		0	81	0		0	13	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	387	468	451		12	133	410		125	458	303		52	1302	73	
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:	387	468	451		12	133	410		125	458	303		52	1302	73	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	387	468	451		12	133	410		125	458	303		52	1302	73	
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:	387	468	451		12	133	410		125	458	303		52	1302	73	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.19	1.43	1.38		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.89	0.11	
Final Sat.:	2000	2414	2328		1805	1900	1615		3502	3610	1615		1805	3392	189	
Capacity Analysis Module:																
Vol/Sat:	0.19	0.19	0.19		0.01	0.07	0.25		0.04	0.13	0.19		0.03	0.38	0.38	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.20	0.36	0.36		0.09	0.26	0.26		0.05	0.35	0.35		0.09	0.39	0.39	
Volume/Cap:	0.99	0.54	0.54		0.07	0.27	0.99		0.72	0.37	0.54		0.32	0.99	0.99	
Uniform Del:	40.1	25.5	25.5		41.4	29.7	37.1		46.8	24.5	26.3		42.4	30.4	30.4	
IncremntDel:	22.3	0.2	0.2		0.2	0.3	41.4		13.1	0.2	1.1		1.1	21.6	21.6	
InitQueuDel:	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:	62.4	25.7	25.7		41.6	30.0	78.5		59.9	24.7	27.4		43.5	52.0	52.0	
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:	62.4	25.7	25.7		41.6	30.0	78.5		59.9	24.7	27.4		43.5	52.0	52.0	
LOS by Move:	E	C	C		D	C	E		E	C	C		D	D	D	
HCM2kAvgQ:	16	9	9		0	3	18		3	6	8		2	29	29	

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.423
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.4
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0 2	1	0	0	0 2	0	0	2	0 0	0	1	0	0 0	0	1
Volume Module:																
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	113	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	896	9		0	483	0		391	0	150		0	0	121	
Added Vol:	0	0	0		0	0	0		100	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	896	9		0	483	0		491	0	150		0	0	121	
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	896	9		0	483	0		491	0	150		0	0	121	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	896	9		0	483	0		491	0	150		0	0	121	
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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	985	9		0	507	0		505	0	150		0	0	121	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5646	54		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.17	0.17		0.00	0.13	0.00		0.14	0.00	0.09		0.00	0.00	0.08	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.00	0.41	0.41		0.00	0.41	0.00		0.33	0.00	0.53		0.00	0.00	0.20	
Volume/Cap:	0.00	0.42	0.42		0.00	0.32	0.00		0.42	0.00	0.18		0.00	0.00	0.42	
Uniform Del:	0.0	10.3	10.3		0.0	9.8	0.0		12.9	0.0	6.1		0.0	0.0	17.4	
IncremntDel:	0.0	0.1	0.1		0.0	0.0	0.0		0.2	0.0	0.0		0.0	0.0	0.6	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	8.9	8.9		0.0	8.4	0.0		11.1	0.0	5.2		0.0	0.0	15.4	
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:	0.0	8.9	8.9		0.0	8.4	0.0		11.1	0.0	5.2		0.0	0.0	15.4	
DesignQueue:	0	7	7		0	6	0		6	0	3		0	0	4	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.665
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.0
Optimal Cycle: 118 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	16	16	16		0	0	0		0	29	45		28	61	0	
Lanes:	1	0	1!	0	1	0	0	0	0	0	0	2	0	2	0	0
Volume Module:																
Base Vol:	317	1	220		0	0	0		0	828	379		798	1527	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	339	1	235		0	0	0		0	886	406		854	1634	0	
Added Vol:	0	0	0		0	0	0		0	81	6		7	14	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	339	1	235		0	0	0		0	967	412		861	1648	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:	339	1	235		0	0	0		0	967	412		861	1648	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	339	1	235		0	0	0		0	967	412		861	1648	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:	339	1	235		0	0	0		0	967	412		861	1648	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		1.00	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00	
Lanes:	1.58	0.01	1.41		0.00	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00	
Final Sat.:	2584	6	2291		0	0	0		0	3610	2842		3502	3610	0	
Capacity Analysis Module:																
Vol/Sat:	0.13	0.18	0.10		0.00	0.00	0.00		0.00	0.27	0.14		0.25	0.46	0.00	
Crit Moves:		****												****		
Green/Cycle:	0.19	0.19	0.19		0.00	0.00	0.00		0.00	0.34	0.34		0.42	0.76	0.00	
Volume/Cap:	0.70	0.94	0.55		0.00	0.00	0.00		0.00	0.79	0.42		0.58	0.60	0.00	
Uniform Del:	32.2	34.0	31.2		0.0	0.0	0.0		0.0	25.2	21.6		18.7	4.3	0.0	
IncremntDel:	2.6	23.0	0.6		0.0	0.0	0.0		0.0	3.4	0.3		0.6	0.4	0.0	
InitQueuDel:	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	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	34.9	57.0	31.8		0.0	0.0	0.0		0.0	28.6	21.9		19.3	4.7	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:	34.9	57.0	31.8		0.0	0.0	0.0		0.0	28.6	21.9		19.3	4.7	0.0	
LOS by Move:	C	E	C		A	A	A		A	C	C		B	A	A	
HCM2kAvgQ:	7	12	5		0	0	0		0	14	5		9	10	0	

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.921
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 41.6
Optimal Cycle: 119 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	2	0	0	1	0	1	0	1	1	0	1
Volume Module:																
Base Vol:	14	78	250		410	115	41		51	538	13		238	1506	420	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	15	83	268		439	123	44		55	576	14		255	1611	449	
Added Vol:	0	0	0		0	0	0		0	87	0		0	14	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	15	83	268		439	123	44		55	663	14		255	1625	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:	15	83	268		439	123	44		55	663	14		255	1625	449	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	15	83	268		439	123	44		55	663	14		255	1625	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	
FinalVolume:	15	83	268		439	123	44		55	663	14		255	1625	449	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.90	0.90		0.92	0.96	0.96		0.95	0.95	0.95		0.95	0.95	0.85	
Lanes:	0.04	0.23	0.73		2.00	0.74	0.26		1.00	1.96	0.04		1.00	2.00	1.00	
Final Sat.:	70	390	1249		3502	1346	480		1805	3525	74		1805	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.21	0.21	0.21		0.13	0.09	0.09		0.03	0.19	0.19		0.14	0.45	0.28	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.23	0.23		0.13	0.11	0.11		0.05	0.30	0.30		0.23	0.48	0.48	
Volume/Cap:	0.85	0.94	0.94		0.94	0.85	0.85		0.60	0.62	0.62		0.62	0.94	0.58	
Uniform Del:	35.5	37.9	37.9		42.9	43.8	43.8		46.5	30.0	30.0		34.8	24.7	18.8	
IncremntDel:	14.3	30.7	30.7		27.2	27.2	27.2		11.1	1.1	1.1		3.0	10.6	1.1	
InitQueuDel:	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	68.6	68.6		70.2	71.0	71.0		57.7	31.1	31.1		37.8	35.3	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:	49.8	68.6	68.6		70.2	71.0	71.0		57.7	31.1	31.1		37.8	35.3	19.9	
LOS by Move:	D	E	E		E	E	E		E	C	C		D	D	B	
HCM2kAvgQ:	13	15	15		11	8	8		3	10	10		8	30	10	

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.858
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 42.7
Optimal Cycle: 90 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0
Volume Module:																	
Base Vol:	37	264	51		92	391	62		15	228	24		73	584	95		
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		
Initial Bse:	40	282	55		98	418	66		16	244	26		78	625	102		
Added Vol:	0	131	67		6	29	2		31	13	0		5	1	9		
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0		
Initial Fut:	40	413	122		104	447	68		47	257	26		83	626	111		
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:	40	413	122		104	447	68		47	257	26		83	626	111		
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0		
Reduced Vol:	40	413	122		104	447	68		47	257	26		83	626	111		
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:	40	413	122		104	447	68		47	257	26		83	626	111		
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		
Adjustment:	0.92	0.92	0.92		0.93	0.93	0.93		0.95	0.99	0.99		0.95	0.98	0.98		
Lanes:	0.14	1.44	0.42		0.34	1.44	0.22		1.00	0.91	0.09		1.00	0.85	0.15		
Final Sat.:	240	2507	737		593	2542	388		1805	1703	170		1805	1579	279		
Capacity Analysis Module:																	
Vol/Sat:	0.16	0.16	0.16		0.18	0.18	0.18		0.03	0.15	0.15		0.05	0.40	0.40		
Crit Moves:		****			****				****					****			
Green/Cycle:	0.19	0.19	0.19		0.20	0.20	0.20		0.05	0.38	0.38		0.12	0.45	0.45		
Volume/Cap:	0.88	0.88	0.88		0.88	0.88	0.88		0.52	0.40	0.40		0.37	0.88	0.88		
Uniform Del:	39.5	39.5	39.5		38.8	38.8	38.8		46.3	22.9	22.9		40.1	24.9	24.9		
IncremntDel:	12.9	12.9	12.9		12.1	12.1	12.1		5.4	0.4	0.4		1.0	10.4	10.4		
InitQueuDel:	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:	52.4	52.4	52.4		50.9	50.9	50.9		51.7	23.2	23.2		41.2	35.3	35.3		
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:	52.4	52.4	52.4		50.9	50.9	50.9		51.7	23.2	23.2		41.2	35.3	35.3		
LOS by Move:	D	D	D		D	D	D		D	C	C		D	D	D		
HCM2kAvgQ:	12	12	12		13	13	13		2	6	6		3	24	24		

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.706
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 54 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM																	
Base Vol:	45	2362	0		0	1034	31		103	0	6		0	0	0		
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		
Initial Bse:	48	2527	0		0	1106	33		110	0	6		0	0	0		
Added Vol:	94	55	0		0	783	0		153	0	21		0	0	0		
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0		
Initial Fut:	142	2582	0		0	1889	33		263	0	27		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:	142	2582	0		0	1889	33		263	0	27		0	0	0		
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0		
Reduced Vol:	142	2582	0		0	1889	33		263	0	27		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		
FinalVolume:	142	2582	0		0	1889	33		263	0	27		0	0	0		
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00		
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00		
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0		
Capacity Analysis Module:																	
Vol/Sat:	0.08	0.51	0.00		0.00	0.37	0.02		0.15	0.00	0.02		0.00	0.00	0.00		
Crit Moves:		****			****				****								
Green/Cycle:	0.13	0.72	0.00		0.00	0.59	0.59		0.21	0.00	0.21		0.00	0.00	0.00		
Volume/Cap:	0.63	0.71	0.00		0.00	0.63	0.04		0.71	0.00	0.08		0.00	0.00	0.00		
Uniform Del:	53.7	10.4	0.0		0.0	17.2	11.1		47.6	0.0	41.2		0.0	0.0	0.0		
IncremntDel:	5.5	0.6	0.0		0.0	0.4	0.0		6.1	0.0	0.1		0.0	0.0	0.0		
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00		
Delay/Veh:	59.3	11.0	0.0		0.0	17.7	11.1		53.6	0.0	41.3		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:	59.3	11.0	0.0		0.0	17.7	11.1		53.6	0.0	41.3		0.0	0.0	0.0		
LOS by Move:	E	B	A		A	B	B		D	A	D		A	A	A		
HCM2kAvgQ:	6	22	0		0	18	1		11	0	1		0	0	0		

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.657
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: 48 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0	0	851	196	218	0	31	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	156	2215	0	0	911	210	233	0	33	0	0	0				
Added Vol:	94	146	0	0	803	1	2	0	21	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	250	2361	0	0	1714	211	235	0	54	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:	250	2361	0	0	1714	211	235	0	54	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	250	2361	0	0	1714	211	235	0	54	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				
FinalVolume:	250	2361	0	0	1714	211	235	0	54	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.14	0.46	0.00	0.00	0.34	0.13	0.13	0.00	0.03	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.22	0.73	0.00	0.00	0.51	0.51	0.20	0.00	0.20	0.00	0.00	0.00				
Volume/Cap:	0.66	0.64	0.00	0.00	0.66	0.26	0.66	0.00	0.17	0.00	0.00	0.00				
Uniform Del:	46.6	9.0	0.0	0.0	23.2	17.8	47.7	0.0	42.8	0.0	0.0	0.0				
IncremntDel:	4.2	0.4	0.0	0.0	0.6	0.2	4.4	0.0	0.3	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	50.8	9.3	0.0	0.0	23.9	18.0	52.1	0.0	43.1	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:	50.8	9.3	0.0	0.0	23.9	18.0	52.1	0.0	43.1	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	C	B	D	A	D	A	A	A				
HCM2kAvgQ:	10	18	0	0	18	5	10	0	2	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.670
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: 33 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0	0	10	10	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0	0	398	66	83	0	561	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	496	392	0	0	426	71	89	0	600	0	0	0				
Added Vol:	3	24	0	0	71	2	7	0	13	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	499	416	0	0	497	73	96	0	613	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	499	416	0	0	497	73	96	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	499	416	0	0	497	73	96	0	0	0	0	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	499	416	0	0	497	73	96	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1597	233	1769	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.28	0.22	0.00	0.00	0.31	0.31	0.05	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.42	0.89	0.00	0.00	0.46	0.46	0.08	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.67	0.25	0.00	0.00	0.67	0.67	0.67	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	28.0	1.0	0.0	0.0	25.0	25.0	53.6	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	2.4	0.1	0.0	0.0	2.1	2.1	11.7	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	30.4	1.1	0.0	0.0	27.1	27.1	65.3	0.0	0.0	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:	30.4	1.1	0.0	0.0	27.1	27.1	65.3	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	C	E	A	A	A	A	A				
HCM2kAvgQ:	15	2	0	0	17	17	5	0	0	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.492
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 22 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	709	68		3	3	3		123	53	241	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	61	667	52		205	759	73		3	3	3		132	57	258	
Added Vol:	0	26	0		1	84	0		0	0	0		0	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	61	693	52		206	843	73		3	3	3		132	57	259	
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	693	52		206	843	73		3	3	3		132	57	259	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	61	693	52		206	843	73		3	3	3		132	57	259	
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	693	52		206	843	73		3	3	3		132	57	259	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.49	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		940	861	861		1024	441	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.20	0.03		0.12	0.24	0.05		0.00	0.00	0.00		0.13	0.13	0.16	
Crit Moves:		****			****										****	
Green/Cycle:	0.08	0.40	0.40		0.24	0.55	0.55		0.33	0.33	0.33		0.33	0.33	0.33	
Volume/Cap:	0.43	0.49	0.08		0.49	0.43	0.08		0.01	0.01	0.01		0.39	0.39	0.49	
Uniform Del:	52.6	27.1	22.5		39.5	15.6	12.5		26.9	26.9	26.9		30.7	30.7	32.0	
IncremntDel:	2.1	0.3	0.1		0.9	0.2	0.0		0.0	0.0	0.0		0.5	0.5	0.7	
InitQueuDel:	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:	54.7	27.4	22.6		40.5	15.8	12.5		26.9	26.9	26.9		31.2	31.2	32.7	
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:	54.7	27.4	22.6		40.5	15.8	12.5		26.9	26.9	26.9		31.2	31.2	32.7	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	3	10	1		7	9	1		0	0	0		5	5	8	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.858
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 43.7
Optimal Cycle: 91 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	5	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	123	336	9		7	524	380		122	36	48		6	104	5	
Added Vol:	0	170	0		0	38	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	506	9		7	562	380		122	36	48		6	104	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:	123	506	9		7	562	380		122	36	48		6	104	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	506	9		7	562	380		122	36	48		6	104	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	
FinalVolume:	123	506	9		7	562	380		122	36	48		6	104	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.20	0.80	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	368	1513	1615		25	1873	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.33	0.33	0.01		0.30	0.30	0.24		0.07	0.05	0.05		0.06	0.06	0.06	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.39	0.39	0.39		0.35	0.35	0.35		0.08	0.08	0.08		0.07	0.07	0.07	
Volume/Cap:	0.86	0.86	0.01		0.86	0.86	0.67		0.86	0.62	0.62		0.86	0.86	0.86	
Uniform Del:	28.0	28.0	18.7		30.2	30.2	27.6		45.5	44.6	44.6		45.9	45.9	45.9	
IncremntDel:	9.9	9.9	0.0		10.8	10.8	3.2		37.3	8.2	8.2		38.8	38.8	38.8	
InitQueuDel:	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:	37.9	37.9	18.7		41.0	41.0	30.8		82.8	52.8	52.8		84.7	84.7	84.7	
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:	37.9	37.9	18.7		41.0	41.0	30.8		82.8	52.8	52.8		84.7	84.7	84.7	
LOS by Move:	D	D	B		D	D	C		F	D	D		F	F	F	
HCM2kAvgQ:	21	21	0		19	19	11		6	4	4		6	6	6	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.8
Optimal Cycle:	90	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	2351	0	0	837	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	725	216	0	0	500	81	25	0	43	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	725	2567	0	0	1337	81	25	0	43	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	725	2567	0	0	1337	81	25	0	43	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	725	2567	0	0	1337	81	25	0	43	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	725	2567	0	0	1337	81	25	0	43	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.85	0.92	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1805	5187	0	0	5187	1615	3502	0	1615	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.40	0.49	0.00	0.00	0.26	0.05	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****				****							
Green/Cycle:	0.48	0.78	0.00	0.00	0.30	0.30	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.85	0.63	0.00	0.00	0.85	0.16	0.07	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	23.0	4.8	0.0	0.0	32.5	25.4	40.8	0.0	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	7.8	0.3	0.0	0.0	4.4	0.2	0.1	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	30.8	5.1	0.0	0.0	37.0	25.6	40.9	0.0	42.5	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.8	5.1	0.0	0.0	37.0	25.6	40.9	0.0	42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	C	A	A	A	D	C	D	A	D	A	A	A	A	A	A	A
HCM2kAvgQ:	22	13	0	0	17	2	0	0	1	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Near Term 2018 East and West Campuses PM
Command:	Near Term II Project PM
Volume:	Near Term II Project PM
Geometry:	Near Term II Project PM
Impact Fee:	Default Impact Fee
Trip Generation:	Near Term II Project PM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Near Term II Project PM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	E	59.1	1.009	E	63.5	1.042	+ 4.425 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	15.2	0.872	C	35.0	1.056	+19.752 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	20.0	0.874	C	29.8	0.977	+ 9.718 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	21.5	0.733	C	22.9	0.885	+ 1.351 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	27.2	0.623	C	21.8	0.775	-5.344 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.3	0.618	B	14.5	0.646	-0.784 D/V
# 7 Middlefield at Marsh (Town of	C	33.8	0.866	D	45.4	0.999	+11.587 D/V
# 8 Bayfront Exp. & Willow Rd.	D	52.6	0.981	F	122.5	1.238	+69.850 D/V
# 9 Hamilton Ave. & Willow Rd.	C	22.7	0.649	C	25.1	0.849	+ 2.430 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.3	0.581	B	15.9	0.830	+ 3.531 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.0	0.584	A	9.2	0.676	-0.808 D/V
# 12 Newbridge St. & Willow Rd.	C	34.5	0.787	E	65.3	1.116	+30.857 D/V
# 13 Bay Rd. & Willow Rd.	C	20.6	0.781	C	21.7	0.807	+ 1.033 D/V
# 14 Durham St. & Willow Rd.	D	51.3	0.680	B	18.2	0.831	-33.117 D/V
# 15 Coleman Ave. & Willow Rd.	B	12.2	0.782	B	13.0	0.821	+ 0.799 D/V
# 16 Gilbert Ave. & Willow Rd.	B	12.7	0.695	B	12.0	0.763	-0.729 D/V
# 17 Middlefield Rd. & Willow Rd.	F	139.3	1.318	F	180.6	1.427	+41.288 D/V
# 18 Bayfront Exp. & University Ave	F	178.9	1.370	F	214.3	1.482	+35.382 D/V
# 19 O'Brien Dr. & University Ave.	B	13.4	0.714	B	13.6	0.727	+ 0.221 D/V
# 20 University & Kavanaugh	B	16.6	0.687	B	16.2	0.693	-0.386 D/V
# 21 University & Bay	D	35.4	0.862	D	35.0	0.868	-0.350 D/V
# 22 University & Runnymede	C	23.4	0.723	C	23.2	0.729	-0.203 D/V
# 23 University & Bell	A	7.9	0.566	A	7.7	0.572	-0.134 D/V
# 24 University & Donohoe	D	38.1	0.902	D	39.2	0.905	+ 1.055 D/V
# 25 NB 101 & Donohoe St	B	13.9	0.499	B	14.0	0.502	+ 0.057 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	27.1	0.544	C	27.1	0.567	-0.023 D/V
# 27 University Ave. & Woodland	D	49.6	0.920	D	50.0	0.928	+ 0.410 D/V
# 28 Middlefield Rd. & University A	C	33.2	0.575	D	35.3	0.651	+ 2.072 D/V
# 29 Bayfront Exp. & Chrysler Dr.	B	19.5	0.729	F	87.2	1.145	+67.782 D/V
# 30 Bayfront Exp. & Chilco St.	B	14.3	0.625	B	18.1	0.742	+ 3.824 D/V
# 31 Middlefield Rd. & Ravenswood A	C	27.6	0.768	C	27.6	0.785	-0.054 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	28.7	0.647	C	29.5	0.671	+ 0.837 D/V
# 33 Middlefield Rd and Lytton Ave	E	72.0	1.002	F	105.5	1.127	+33.504 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.541	D	36.4	0.929	+35.061 D/V

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

****
Intersection #1 Bayfront Exp. & Marsh Rd.
****

Cycle (sec): 140 Critical Vol./Cap.(X): 1.042
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 63.5
Optimal Cycle: 180 Level Of Service: E

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	1267	52	7		0	370	199		149	43	2089		33	78	12	
Added Vol:	1222	0	0		0	0	0		0	0	84		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2489	52	7		0	370	199		149	43	2173		33	78	12	
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:	2489	52	7		0	370	199		149	43	2173		33	78	12	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2489	52	7		0	370	199		149	43	2173		33	78	12	
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:	2489	52	7		0	370	199		149	43	2173		33	78	12	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.87	0.13		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.48	0.03	0.03		0.00	0.10	0.13		0.11	0.11	0.78		0.07	0.07	0.07	
Crit Moves:	****					****					****				****	
Green/Cycle:	0.46	0.46	0.46		0.00	0.10	0.39		0.28	0.28	0.75		0.07	0.07	0.07	
Volume/Cap:	1.04	0.07	0.07		0.00	1.04	0.33		0.38	0.38	1.04		1.04	1.04	1.04	
Uniform Del:	37.5	20.8	20.8		0.0	63.0	30.3		40.1	40.1	17.6		65.4	65.4	65.4	
IncremntDel:	30.4	0.0	0.0		0.0	59.0	0.3		0.5	0.5	31.6		94.4	94.4	94.4	
InitQueuDel:	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:	67.9	20.8	20.8		0.0	122	30.6		40.6	40.6	49.2		159.9	160	159.9	
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:	67.9	20.8	20.8		0.0	122	30.6		40.6	40.6	49.2		159.9	160	159.9	
LOS by Move:	E	C	C		A	F	C		D	D	D		F	F	F	
HCM2kAvgQ:	46	1	1		0	13	6		7	7	64		9	9	9	

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.056
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 35.0
Optimal Cycle: 180 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2 0	0	0	1	0 0	0	0	0	0 1	1	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	528	0	228		0	0	0		0	2207	542		0	730	846	
Added Vol:	0	0	160		0	0	0		3	146	0		0	862	360	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	528	0	388		0	0	0		3	2353	542		0	1592	1206	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	528	0	388		0	0	0		3	2353	0		0	1592	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	528	0	388		0	0	0		3	2353	0		0	1592	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	528	0	388		0	0	0		3	2353	0		0	1592	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3374	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.00	0.25		0.00	0.00	0.00		0.70	0.70	0.00		0.00	0.45	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.23	0.00	0.23		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.66	0.00	
Volume/Cap:	0.66	0.00	1.06		0.00	0.00	0.00		1.06	1.06	0.00		0.00	0.68	0.00	
Uniform Del:	22.6	0.0	25.0		0.0	0.0	0.0		11.0	11.0	0.0		0.0	6.8	0.0	
IncremntDel:	2.1	0.0	62.6		0.0	0.0	0.0		36.0	36.0	0.0		0.0	0.8	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	24.8	0.0	87.5		0.0	0.0	0.0		47.0	47.0	0.0		0.0	7.7	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:	24.8	0.0	87.5		0.0	0.0	0.0		47.0	47.0	0.0		0.0	7.7	0.0	
LOS by Move:	C	A	F		A	A	A		D	D	A		A	A	A	
HCM2kAvgQ:	6	0	15		0	0	0		40	40	0		0	11	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.977
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 29.8
Optimal Cycle: 123 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0 0	0	0	0	2 0	0	0	1	0 0	2	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		1450	0	485		0	1264	697		0	1006	302	
Added Vol:	0	0	0		78	0	8		0	78	0		0	503	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1528	0	493		0	1342	697		0	1509	302	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1528	0	493		0	1342	0		0	1509	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1528	0	493		0	1342	0		0	1509	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1528	0	493		0	1342	0		0	1509	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.45	0.00	0.31		0.00	0.38	0.00		0.00	0.43	0.00	
Crit Moves:					****									****		
Green/Cycle:	0.00	0.00	0.00		0.46	0.00	0.46		0.00	0.44	0.00		0.00	0.44	0.00	
Volume/Cap:	0.00	0.00	0.00		0.98	0.00	0.68		0.00	0.87	0.00		0.00	0.98	0.00	
Uniform Del:	0.0	0.0	0.0		17.4	0.0	14.0		0.0	16.6	0.0		0.0	18.0	0.0	
IncremntDel:	0.0	0.0	0.0		17.5	0.0	2.7		0.0	5.6	0.0		0.0	17.6	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		34.8	0.0	16.7		0.0	22.2	0.0		0.0	35.6	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:	0.0	0.0	0.0		34.8	0.0	16.7		0.0	22.2	0.0		0.0	35.6	0.0	
LOS by Move:	A	A	A		C	A	B		A	C	A		A	D	A	
HCM2kAvgQ:	0	0	0		23	0	9		0	16	0		0	23	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.885
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 73 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM																
Base Vol:	28	15	267		254	9	2		42	1314	17		78	1109	214	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	30	16	286		272	10	2		45	1406	18		83	1187	229	
Added Vol:	0	0	0		0	0	0		0	80	0		0	510	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	30	16	286		272	10	2		45	1486	18		83	1697	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:	30	16	286		272	10	2		45	1486	18		83	1697	229	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	30	16	286		272	10	2		45	1486	18		83	1697	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	
FinalVolume:	30	16	286		272	10	2		45	1486	18		83	1697	229	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.73		0.93	0.93	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.65	0.35	2.00		0.97	0.03	1.00		1.00	2.96	0.04		2.00	1.76	0.24	
Final Sat.:	1174	629	2786		1716	61	1583		1769	5012	61		3432	3061	413	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.03	0.10		0.16	0.16	0.00		0.03	0.30	0.30		0.02	0.55	0.55	
Crit Moves:			****			****			****					****		
Green/Cycle:	0.11	0.11	0.11		0.17	0.17	0.17		0.05	0.57	0.57		0.10	0.61	0.61	
Volume/Cap:	0.23	0.23	0.91		0.91	0.91	0.01		0.51	0.52	0.52		0.25	0.91	0.91	
Uniform Del:	32.3	32.3	35.0		32.4	32.4	27.3		37.0	10.7	10.7		33.5	13.5	13.5	
IncremntDel:	0.6	0.6	28.1		28.4	28.4	0.0		4.8	0.2	0.2		0.4	6.1	6.1	
InitQueuDel:	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:	32.8	32.8	63.1		60.7	60.7	27.3		41.8	10.9	10.9		34.0	19.6	19.6	
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:	32.8	32.8	63.1		60.7	60.7	27.3		41.8	10.9	10.9		34.0	19.6	19.6	
LOS by Move:	C	C	E		E	E	C		D	B	B		C	B	B	
HCM2kAvgQ:	1	1	7		11	11	0		2	9	9		1	26	26	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.775
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 44 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm																
Base Vol:	95	32	58		428	30	128		239	885	55		26	833	316	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	102	34	62		458	32	137		256	947	59		28	891	338	
Added Vol:	0	0	0		0	0	0		0	80	0		0	510	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	102	34	62		458	32	137		256	1027	59		28	1401	338	
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	34	62		458	32	137		256	1027	59		28	1401	338	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	102	34	62		458	32	137		256	1027	59		28	1401	338	
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:	102	34	62		458	32	137		256	1027	59		28	1401	338	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.88	0.88		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.36	0.64		1.87	0.13	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	598	1084		3323	233	1583		1769	3319	190		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.14	0.14	0.09		0.14	0.31	0.31		0.02	0.40	0.21	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.07	0.07	0.07		0.18	0.18	0.18		0.19	0.60	0.60		0.10	0.51	0.51	
Volume/Cap:	0.77	0.77	0.77		0.77	0.77	0.49		0.77	0.51	0.51		0.16	0.77	0.42	
Uniform Del:	36.4	36.4	36.4		31.4	31.4	29.6		30.9	9.2	9.2		33.1	15.8	12.1	
IncremntDel:	24.5	25.2	25.2		6.0	6.0	1.3		10.9	0.2	0.2		0.4	2.2	0.4	
InitQueuDel:	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:	60.9	61.5	61.5		37.3	37.3	30.9		41.8	9.4	9.4		33.6	18.0	12.5	
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:	60.9	61.5	61.5		37.3	37.3	30.9		41.8	9.4	9.4		33.6	18.0	12.5	
LOS by Move:	E	E	E		D	D	C		D	A	A		C	B	B	
HCM2kAvgQ:	4	4	4		8	8	4		8	8	8		1	16	5	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.646
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 30 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		6	6	6		4	6	6	
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1	0	1	0	1	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	57	8	180		55	31	3		5	819	90		200	891	47	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	61	9	193		59	33	3		5	876	96		214	953	50	
Added Vol:	2	0	0		0	0	0		0	80	2		0	510	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	63	9	193		59	33	3		5	956	98		214	1463	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:	63	9	193		59	33	3		5	956	98		214	1463	50	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	63	9	193		59	33	3		5	956	98		214	1463	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	
FinalVolume:	63	9	193		59	33	3		5	956	98		214	1463	50	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.81	0.81	0.81		0.68	0.68	0.68		0.87	0.87	0.87		0.93	0.93	0.93	
Lanes:	0.24	0.03	0.73		0.62	0.35	0.03		0.01	1.80	0.19		1.00	1.93	0.07	
Final Sat.:	366	50	1118		797	449	43		17	2984	307		1769	3403	117	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.07	0.07	0.07		0.32	0.32	0.32		0.12	0.43	0.43	
Crit Moves:		****								****			****			
Green/Cycle:	0.27	0.27	0.27		0.27	0.27	0.27		0.50	0.50	0.50		0.19	0.68	0.68	
Volume/Cap:	0.65	0.65	0.65		0.28	0.28	0.28		0.65	0.65	0.65		0.64	0.63	0.63	
Uniform Del:	26.0	26.0	26.0		23.3	23.3	23.3		14.9	14.9	14.9		30.0	7.0	7.0	
IncremntDel:	3.6	3.6	3.6		0.4	0.4	0.4		0.9	0.9	0.9		4.3	0.5	0.5	
InitQueuDel:	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:	29.7	29.7	29.7		23.7	23.7	23.7		15.8	15.8	15.8		34.4	7.5	7.5	
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:	29.7	29.7	29.7		23.7	23.7	23.7		15.8	15.8	15.8		34.4	7.5	7.5	
LOS by Move:	C	C	C		C	C	C		B	B	B		C	A	A	
HCM2kAvgQ:	7	7	7		2	2	2		11	11	11		6	11	11	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.999
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 45.4
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.																
Base Vol:	0	426	548		408	269	0		0	0	0		515	0	447	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	456	586		437	288	0		0	0	0		551	0	478	
Added Vol:	0	58	45		37	11	0		0	0	0		127	0	386	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	514	631		474	299	0		0	0	0		678	0	864	
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	514	631		474	299	0		0	0	0		678	0	864	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	514	631		474	299	0		0	0	0		678	0	864	
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:	0	514	631		474	299	0		0	0	0		678	0	864	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.27	0.39		0.26	0.16	0.00		0.00	0.00	0.00		0.38	0.00	0.54	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.27	0.65		0.26	0.53	0.00		0.00	0.00	0.00		0.38	0.00	0.64	
Volume/Cap:	0.00	1.00	0.60		1.00	0.29	0.00		0.00	0.00	0.00		1.00	0.00	0.84	
Uniform Del:	0.0	40.1	11.3		40.5	14.2	0.0		0.0	0.0	0.0		34.3	0.0	15.5	
IncremntDel:	0.0	39.5	1.0		41.1	0.2	0.0		0.0	0.0	0.0		34.4	0.0	6.2	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	79.6	12.3		81.7	14.4	0.0		0.0	0.0	0.0		68.7	0.0	21.6	
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:	0.0	79.6	12.3		81.7	14.4	0.0		0.0	0.0	0.0		68.7	0.0	21.6	
LOS by Move:	A	E	B		F	B	A		A	A	A		E	A	C	
HCM2kAvgQ:	0	24	13		22	5	0		0	0	0		30	0	25	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.238
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 122.5
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM																				
Base Vol:	362	664	1	0	2199	108	36	13	1424	44	105	8								
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07								
Initial Bse:	387	710	1	0	2353	116	39	14	1524	47	112	9								
Added Vol:	393	278	3	49	341	255	45	94	5	317	391	181								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	780	988	4	49	2694	371	84	108	1529	364	503	190								
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:	780	988	4	49	2694	371	84	108	1529	364	503	190								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	780	988	4	49	2694	371	84	108	1529	364	503	190								
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:	780	988	4	49	2694	371	84	108	1529	364	503	190								
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.91	0.91	0.88	0.93	0.93	0.83								
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.31	1.69	2.00	1.00	2.00	1.00								
Final Sat.:	3432	5846	1583	3432	5846	1583	2267	2929	3343	1769	3538	1583								
Capacity Analysis Module:																				
Vol/Sat:	0.23	0.17	0.00	0.01	0.46	0.23	0.04	0.04	0.46	0.21	0.14	0.12								
Crit Moves:	****				****				****	****										
Green/Cycle:	0.18	0.45	0.62	0.10	0.37	0.37	0.19	0.19	0.37	0.17	0.17	0.27								
Volume/Cap:	1.24	0.37	0.00	0.14	1.24	0.63	0.20	0.20	1.24	1.24	0.86	0.44								
Uniform Del:	53.1	23.4	9.5	53.1	40.8	33.5	44.8	44.8	41.0	54.2	52.7	39.4								
IncremntDel:	120.4	0.1	0.0	0.2	111	2.2	0.1	0.1	114.3	132.9	11.8	0.7								
InitQueuDel:	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:	173.5	23.5	9.5	53.2	152	35.6	44.9	44.9	155.3	187.1	64.5	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:	173.5	23.5	9.5	53.2	152	35.6	44.9	44.9	155.3	187.1	64.5	40.2								
LOS by Move:	F	C	A	D	F	D	D	D	F	F	E	D								
HCM2kAvgQ:	28	9	0	1	64	13	2	2	57	26	13	6								

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.849
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 93 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM																				
Base Vol:	129	6	49		73	5	73		130	1351	5		20	553	67	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	138	6	52		78	5	78		139	1446	5		21	592	72	
Added Vol:	0	0	0		0	0	4		6	144	0		0	1155	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	138	6	52		78	5	82		145	1590	5		21	1747	72	
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:	138	6	52		78	5	82		145	1590	5		21	1747	72	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	138	6	52		78	5	82		145	1590	5		21	1747	72	
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:	138	6	52		78	5	82		145	1590	5		21	1747	72	
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.60	0.60	0.60		0.74	0.74	0.74		0.93	0.93	0.93		0.93	0.93	0.93	
Lanes:	0.70	0.03	0.27		0.47	0.03	0.50		1.00	1.99	0.01		1.00	1.92	0.08	
Final Sat.:	804	37	305		660	45	694		1769	3526	12		1769	3378	139	
Capacity Analysis Module:																				
Vol/Sat:	0.17	0.17	0.17		0.12	0.12	0.12		0.08	0.45	0.45		0.01	0.52	0.52	
Crit Moves:		****							****					****		
Green/Cycle:	0.20	0.20	0.20		0.20	0.20	0.20		0.10	0.65	0.65		0.06	0.61	0.61	
Volume/Cap:	0.85	0.85	0.85		0.59	0.59	0.59		0.85	0.70	0.70		0.20	0.85	0.85	
Uniform Del:	46.1	46.1	46.1		43.3	43.3	43.3		53.3	13.7	13.7		53.7	19.0	19.0	
IncremntDel:	24.3	24.3	24.3		3.1	3.1	3.1		30.8	1.0	1.0		0.9	3.4	3.4	
InitQueuDel:	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:	70.4	70.4	70.4		46.5	46.5	46.5		84.1	14.6	14.6		54.6	22.4	22.4	
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:	70.4	70.4	70.4		46.5	46.5	46.5		84.1	14.6	14.6		54.6	22.4	22.4	
LOS by Move:	E	E	E		D	D	D		F	B	B		D	C	C	
HCM2kAvgQ:	10	10	10		6	6	6		8	20	20		1	30	30	

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.830
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 87 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	22	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		11	0	131		105	1559	0		0	856	24	
Added Vol:	0	0	0		21	0	10		10	129	0		0	1000	159	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		32	0	141		115	1688	0		0	1856	183	
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	0	0		32	0	141		115	1688	0		0	1856	183	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		32	0	141		115	1688	0		0	1856	183	
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:	0	0	0		32	0	141		115	1688	0		0	1856	183	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.86	1.00	0.86		0.93	0.93	1.00		1.00	0.92	0.92	
Lanes:	0.00	0.00	0.00		0.18	0.00	0.82		1.00	2.00	0.00		0.00	1.82	0.18	
Final Sat.:	0	0	0		302	0	1340		1769	3538	0		0	3179	313	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.10	0.00	0.10		0.06	0.48	0.00		0.00	0.58	0.58	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.13	0.00	0.13		0.08	0.78	0.00		0.00	0.70	0.70	
Volume/Cap:	0.00	0.00	0.00		0.83	0.00	0.83		0.83	0.61	0.00		0.00	0.83	0.83	
Uniform Del:	0.0	0.0	0.0		51.2	0.0	51.2		54.5	5.5	0.0		0.0	12.7	12.7	
IncremntDel:	0.0	0.0	0.0		23.5	0.0	23.5		32.4	0.4	0.0		0.0	2.5	2.5	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		74.7	0.0	74.7		86.9	5.9	0.0		0.0	15.2	15.2	
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:	0.0	0.0	0.0		74.7	0.0	74.7		86.9	5.9	0.0		0.0	15.2	15.2	
LOS by Move:	A	A	A		E	A	E		F	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		9	0	9		6	14	0		0	30	30	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.676
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.2
Optimal Cycle: 55 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	128	0	37		0	0	0		0	1512	218		78	950	0	
Added Vol:	4	0	0		0	0	0		0	138	11		0	1010	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	132	0	37		0	0	0		0	1650	229		78	1960	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:	132	0	37		0	0	0		0	1650	229		78	1960	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	132	0	37		0	0	0		0	1650	229		78	1960	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:	132	0	37		0	0	0		0	1650	229		78	1960	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.64	0.00	0.36		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2838	0	626		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.06		0.00	0.00	0.00		0.00	0.47	0.14		0.04	0.55	0.00	
Crit Moves:			****						****					****		
Green/Cycle:	0.09	0.00	0.09		0.00	0.00	0.00		0.00	0.75	0.75		0.07	0.82	0.00	
Volume/Cap:	0.53	0.00	0.68		0.00	0.00	0.00		0.00	0.62	0.19		0.62	0.68	0.00	
Uniform Del:	52.3	0.0	53.0		0.0	0.0	0.0		0.0	7.1	4.4		54.2	4.4	0.0	
IncremntDel:	1.6	0.0	7.1		0.0	0.0	0.0		0.0	0.5	0.1		9.3	0.6	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	53.9	0.0	60.2		0.0	0.0	0.0		0.0	7.6	4.5		63.5	5.0	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:	53.9	0.0	60.2		0.0	0.0	0.0		0.0	7.6	4.5		63.5	5.0	0.0	
LOS by Move:	D	A	E		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	4	0	5		0	0	0		0	15	2		4	16	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 1.116
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 65.3
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	34	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	265	182	59		41	178	234		346	1537	363		109	1043	36	
Added Vol:	0	0	0		0	0	9		6	149	0		0	1015	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	265	182	59		41	178	243		352	1686	363		109	2058	36	
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:	265	182	59		41	178	243		352	1686	363		109	2058	36	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	265	182	59		41	178	243		352	1686	363		109	2058	36	
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:	265	182	59		41	178	243		352	1686	363		109	2058	36	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.47	0.53		1.00	1.97	0.03	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4070	876		1769	3466	61	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.10	0.04		0.02	0.10	0.15		0.20	0.41	0.41		0.06	0.59	0.59	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.09	0.09	0.18		0.09	0.09	0.26		0.18	0.62	0.62		0.09	0.53	0.53	
Volume/Cap:	0.88	1.12	0.21		0.27	1.12	0.58		1.12	0.67	0.67		0.67	1.12	1.12	
Uniform Del:	54.1	54.7	41.9		51.4	54.9	38.4		49.3	14.9	14.9		52.7	28.1	28.1	
IncremntDel:	25.0	105	0.4		1.0	106	2.1		85.6	0.6	0.6		10.3	60.2	60.2	
InitQueuDel:	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:	79.1	160	42.3		52.3	161	40.6		135.0	15.5	15.5		63.0	88.2	88.2	
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:	79.1	160	42.3		52.3	161	40.6		135.0	15.5	15.5		63.0	88.2	88.2	
LOS by Move:	E	F	D		D	F	D		F	B	B		E	F	F	
HCM2kAvgQ:	8	12	2		2	12	8		21	18	18		5	58	58	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 21.7
Optimal Cycle: 73 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	0	0		445	0	58		43	1537	0		0	1135	273	
Added Vol:	0	0	0		4	0	0		0	70	0		0	244	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		449	0	58		43	1607	0		0	1379	280	
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	0	0		449	0	58		43	1607	0		0	1379	280	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		449	0	58		43	1607	0		0	1379	280	
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:	0	0	0		449	0	58		43	1607	0		0	1379	280	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.25	0.00	0.04		0.02	0.45	0.00		0.00	0.39	0.18	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.31	0.00	0.31		0.07	0.56	0.00		0.00	0.49	0.49	
Volume/Cap:	0.00	0.00	0.00		0.81	0.00	0.12		0.34	0.81	0.00		0.00	0.79	0.36	
Uniform Del:	0.0	0.0	0.0		28.3	0.0	21.9		39.9	15.7	0.0		0.0	19.0	14.1	
IncremntDel:	0.0	0.0	0.0		8.5	0.0	0.1		1.7	2.5	0.0		0.0	2.5	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		36.8	0.0	22.0		41.5	18.3	0.0		0.0	21.5	14.3	
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:	0.0	0.0	0.0		36.8	0.0	22.0		41.5	18.3	0.0		0.0	21.5	14.3	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	C	B	
HCM2kAvgQ:	0	0	0		14	0	1		2	21	0		0	18	5	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.831
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.2
Optimal Cycle: 70 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33	7	85		122	5	31		11	1125	10		90	818	51	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	35	7	91		131	5	33		12	1204	11		96	875	55	
Added Vol:	0	0	0		0	0	0		0	70	0		0	244	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	35	7	91		131	5	33		12	1274	11		96	1119	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:	35	7	91		131	5	33		12	1274	11		96	1119	55	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	35	7	91		131	5	33		12	1274	11		96	1119	55	
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:	35	7	91		131	5	33		12	1274	11		96	1119	55	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.46	0.84	0.84		0.53	0.53	0.83		0.93	0.93	0.93		0.93	0.97	0.97	
Lanes:	1.00	0.08	0.92		0.96	0.04	1.00		1.00	1.98	0.02		1.00	0.95	0.05	
Final Sat.:	868	122	1481		975	40	1583		1769	3505	29		1769	1763	86	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.06	0.06		0.13	0.13	0.02		0.01	0.36	0.36		0.05	0.63	0.63	
Crit Moves:						****			****					****		
Green/Cycle:	0.16	0.16	0.16		0.16	0.16	0.16		0.04	0.68	0.68		0.10	0.74	0.74	
Volume/Cap:	0.26	0.39	0.39		0.86	0.86	0.13		0.17	0.54	0.54		0.54	0.86	0.86	
Uniform Del:	39.0	39.8	39.8		43.2	43.2	38.2		48.9	8.7	8.7		44.8	9.8	9.8	
IncremntDel:	1.0	1.0	1.0		34.6	34.6	0.2		1.2	0.2	0.2		3.2	5.7	5.7	
InitQueuDel:	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:	40.0	40.9	40.9		77.8	77.8	38.5		50.1	8.9	8.9		48.1	15.5	15.5	
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:	40.0	40.9	40.9		77.8	77.8	38.5		50.1	8.9	8.9		48.1	15.5	15.5	
LOS by Move:	D	D	D		E	E	D		D	A	A		D	B	B	
HCM2kAvgQ:	1	3	3		7	7	1		1	11	11		4	29	29	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.821
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 13.0
Optimal Cycle: 68 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	13	12	7		98	6	37		26	1159	6		5	851	117	
Added Vol:	0	0	0		0	0	0		0	70	0		0	244	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	13	12	7		98	6	37		26	1229	6		5	1095	117	
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:	13	12	7		98	6	37		26	1229	6		5	1095	117	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	13	12	7		98	6	37		26	1229	6		5	1095	117	
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:	13	12	7		98	6	37		26	1229	6		5	1095	117	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.13	0.98	0.98		0.12	0.97	0.97	
Lanes:	0.40	0.37	0.23		0.69	0.05	0.26		1.00	0.99	0.01		1.00	0.90	0.10	
Final Sat.:	654	599	381		961	63	366		255	1850	10		235	1659	177	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.10	0.10	0.10		0.10	0.66	0.66		0.02	0.66	0.66	
Crit Moves:						****				****						
Green/Cycle:	0.12	0.12	0.12		0.12	0.12	0.12		0.81	0.81	0.81		0.81	0.81	0.81	
Volume/Cap:	0.16	0.16	0.16		0.82	0.82	0.82		0.12	0.82	0.82		0.03	0.82	0.82	
Uniform Del:	41.0	41.0	41.0		44.8	44.8	44.8		2.1	5.7	5.7		2.0	5.7	5.7	
IncremntDel:	0.4	0.4	0.4		25.8	25.8	25.8		0.3	3.8	3.8		0.1	3.6	3.6	
InitQueuDel:	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:	41.4	41.4	41.4		70.6	70.6	70.6		2.4	9.5	9.5		2.0	9.3	9.3	
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:	41.4	41.4	41.4		70.6	70.6	70.6		2.4	9.5	9.5		2.0	9.3	9.3	
LOS by Move:	D	D	D		E	E	E		A	A	A		A	A	A	
HCM2kAvgQ:	1	1	1		7	7	7		0	25	25		0	24	24	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.763
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 12.0
Optimal Cycle: 55 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	98	33	80		31	32	4		4	1037	39		40	890	18	
Added Vol:	18	0	8		0	0	0		0	62	22		32	212	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	116	33	88		31	32	4		4	1099	61		72	1102	18	
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:	116	33	88		31	32	4		4	1099	61		72	1102	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	116	33	88		31	32	4		4	1099	61		72	1102	18	
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:	116	33	88		31	32	4		4	1099	61		72	1102	18	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.87	0.87		0.48	0.96	0.96		0.18	0.97	0.97		0.17	0.98	0.98	
Lanes:	1.00	0.27	0.73		1.00	0.88	0.12		1.00	0.95	0.05		1.00	0.98	0.02	
Final Sat.:	1376	453	1206		909	1613	215		343	1751	96		315	1828	30	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.07	0.07		0.03	0.02	0.02		0.01	0.63	0.63		0.23	0.60	0.60	
Crit Moves:	****									****						
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.82	0.82	0.82		0.82	0.82	0.82	
Volume/Cap:	0.76	0.66	0.66		0.31	0.18	0.18		0.02	0.76	0.76		0.28	0.73	0.73	
Uniform Del:	45.3	44.8	44.8		43.0	42.3	42.3		1.7	4.4	4.4		2.1	4.2	4.2	
IncremntDel:	20.1	8.6	8.6		1.7	0.4	0.4		0.0	2.3	2.3		0.6	1.9	1.9	
InitQueuDel:	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:	65.4	53.3	53.3		44.7	42.8	42.8		1.7	6.8	6.8		2.7	6.0	6.0	
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:	65.4	53.3	53.3		44.7	42.8	42.8		1.7	6.8	6.8		2.7	6.0	6.0	
LOS by Move:	E	D	D		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	5	5	5		1	1	1		0	19	19		1	17	17	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.427
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 180.6
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	104	469	525		510	442	20		39	182	169		409	102	439	
Added Vol:	15	8	32		18	8	0		0	34	24		127	37	66	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	119	477	557		528	450	20		39	216	193		536	139	505	
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:	119	477	557		528	450	20		39	216	193		536	139	505	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	119	477	557		528	450	20		39	216	193		536	139	505	
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:	119	477	557		528	450	20		39	216	193		536	139	505	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.59	1.35	0.06		1.00	1.00	1.00		1.59	0.41	1.00	
Final Sat.:	1769	3538	791		2727	2322	105		1769	1862	1583		2846	737	1583	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.13	0.70		0.19	0.19	0.19		0.02	0.12	0.12		0.19	0.19	0.32	
Crit Moves:			****			****					****				****	
Green/Cycle:	0.49	0.49	0.49		0.14	0.14	0.14		0.09	0.09	0.09		0.22	0.22	0.22	
Volume/Cap:	0.14	0.27	1.43		1.43	1.43	1.43		0.25	1.36	1.43		0.84	0.84	1.43	
Uniform Del:	17.9	19.3	32.9		56.2	56.2	56.2		55.6	59.4	59.4		48.3	48.3	50.5	
IncremntDel:	0.1	0.1	206.4		200.3	200	200.3		0.9	196	229.3		8.1	8.1	207.8	
InitQueuDel:	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:	17.9	19.3	239.3		256.5	256	256.5		56.5	255	288.7		56.3	56.3	258.2	
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:	17.9	19.3	239.3		256.5	256	256.5		56.5	255	288.7		56.3	56.3	258.2	
LOS by Move:	B	B	F		F	F	F		E	F	F		E	E	F	
HCM2kAvgQ:	2	6	44		29	29	29		2	18	17		15	15	40	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.482
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 214.3
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	403	1036	0	0	3732	136	64	0	1784	0	0	0				
Added Vol:	4	119	0	0	513	150	19	0	11	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	407	1155	0	0	4245	286	83	0	1795	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:	407	1155	0	0	4245	286	83	0	1795	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	407	1155	0	0	4245	286	83	0	1795	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				
FinalVolume:	407	1155	0	0	4245	286	83	0	1795	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.12	0.23	0.00	0.00	0.84	0.18	0.02	0.00	0.43	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.08	0.64	0.00	0.00	0.56	0.56	0.29	0.00	0.29	0.00	0.00	0.00				
Volume/Cap:	1.48	0.35	0.00	0.00	1.48	0.32	0.08	0.00	1.48	0.00	0.00	0.00				
Uniform Del:	69.0	12.3	0.0	0.0	32.7	17.4	38.8	0.0	53.3	0.0	0.0	0.0				
IncremntDel:	235.5	0.1	0.0	0.0	219	0.2	0.0	0.0	221.5	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	304.5	12.4	0.0	0.0	252	17.7	38.8	0.0	274.7	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:	304.5	12.4	0.0	0.0	252	17.7	38.8	0.0	274.7	0.0	0.0	0.0				
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A				
HCM2kAvgQ:	20	9	0	0	131	7	1	0	59	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.727
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	5	0	5	0	5	5	0	0	5	5		
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	0	120	0	99	0	20	1599	0	0	454	16		
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	0	0	0	0	128	0	106	0	21	1711	0	0	486	17		
Added Vol:	0	0	0	0	11	0	0	0	0	19	0	0	150	4		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	0	0	0	0	139	0	106	0	21	1730	0	0	636	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:	0	0	0	0	139	0	106	0	21	1730	0	0	636	21		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	0	0	0	0	139	0	106	0	21	1730	0	0	636	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				
FinalVolume:	0	0	0	0	139	0	106	0	21	1730	0	0	636	21		
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.57	0.00	0.43	1.00	2.00	0.00	0.00	1.94	0.06				
Final Sat.:	0	0	0	969	0	736	1769	3538	0	0	3407	113				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.01	0.49	0.00	0.00	0.19	0.19				
Crit Moves:				****				****		****						
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.16	0.67	0.00	0.00	0.51	0.51				
Volume/Cap:	0.00	0.00	0.00	0.73	0.00	0.73	0.08	0.73	0.00	0.00	0.36	0.36				
Uniform Del:	0.0	0.0	0.0	31.9	0.0	31.9	30.3	8.9	0.0	0.0	12.5	12.5				
IncremntDel:	0.0	0.0	0.0	7.7	0.0	7.7	0.1	1.2	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	39.7	0.0	39.7	30.4	10.1	0.0	0.0	12.6	12.6				
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:	0.0	0.0	0.0	39.7	0.0	39.7	30.4	10.1	0.0	0.0	12.6	12.6				
LOS by Move:	A	A	A	D	A	D	C	B	A	A	B	B				
HCM2kAvgQ:	0	0	0	8	0	8	1	16	0	0	5	5				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	13	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	37	33	13		20	31	88		28	1690	20		19	564	14	
Added Vol:	0	0	0		0	0	0		0	19	0		0	150	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	37	33	13		20	31	88		28	1709	20		19	714	14	
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	33	13		20	31	88		28	1709	20		19	714	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	37	33	13		20	31	88		28	1709	20		19	714	14	
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:	37	33	13		20	31	88		28	1709	20		19	714	14	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.96	0.04	
Final Sat.:	816	723	280		252	385	1089		1805	3560	42		1805	3530	69	
Capacity Analysis Module:																		
Vol/Sat:	0.05	0.05	0.05		0.08	0.08	0.08		0.02	0.48	0.48		0.01	0.20	0.20	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.07	0.06	0.06		0.11	0.11	0.11		0.14	0.66	0.66		0.05	0.57	0.57	
Volume/Cap:	0.68	0.72	0.72		0.72	0.75	0.75		0.11	0.72	0.72		0.21	0.35	0.35	
Uniform Del:	45.6	46.0	46.0		42.9	43.3	43.3		37.4	10.8	10.8		45.6	11.4	11.4	
IncremntDel:	14.9	19.9	19.9		12.6	15.1	15.1		0.2	1.1	1.1		1.2	0.1	0.1	
InitQueuDel:	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:	60.5	65.8	65.8		55.5	58.3	58.3		37.6	11.9	11.9		46.8	11.5	11.5	
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:	60.5	65.8	65.8		55.5	58.3	58.3		37.6	11.9	11.9		46.8	11.5	11.5	
LOS by Move:	E	E	E		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	4	4	4		6	6	6		1	19	19		1	6	6	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.0
Optimal Cycle: 94 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	161	234	369		101	280	118		100	1381	93		127	578	52	
Added Vol:	0	0	0		0	0	0		0	19	0		0	150	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	161	234	369		101	280	118		100	1400	93		127	728	52	
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:	161	234	369		101	280	118		100	1400	93		127	728	52	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	161	234	369		101	280	118		100	1400	93		127	728	52	
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:	161	234	369		101	280	118		100	1400	93		127	728	52	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.88	0.12		1.00	1.87	0.13	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3355	223		1805	3334	240	
Capacity Analysis Module:																		
Vol/Sat:	0.09	0.13	0.23		0.06	0.15	0.07		0.06	0.42	0.42		0.07	0.22	0.22	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.12	0.26	0.26		0.06	0.21	0.21		0.11	0.48	0.48		0.08	0.45	0.45	
Volume/Cap:	0.71	0.48	0.87		0.87	0.71	0.35		0.49	0.87	0.87		0.87	0.49	0.49	
Uniform Del:	42.3	31.0	35.2		46.4	36.9	33.9		41.6	23.1	23.1		45.4	19.4	19.4	
IncremntDel:	4.4	0.4	17.0		45.5	6.1	0.6		1.8	5.0	5.0		38.5	0.2	0.2	
InitQueuDel:	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:	46.7	31.5	52.2		91.9	43.0	34.6		43.4	28.1	28.1		83.9	19.7	19.7	
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:	46.7	31.5	52.2		91.9	43.0	34.6		43.4	28.1	28.1		83.9	19.7	19.7	
LOS by Move:	D	C	D		F	D	C		D	C	C		F	B	B	
HCM2kAvgQ:	6	6	14		5	9	3		3	24	24		6	9	9	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.729
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.2
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	78	109	59		17	76	27		29	1264	78		44	793	17	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	83	117	63		18	81	29		31	1352	83		47	849	18	
Added Vol:	0	0	0		0	0	0		0	19	0		0	150	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	83	117	63		18	81	29		31	1371	83		47	999	18	
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	117	63		18	81	29		31	1371	83		47	999	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	83	117	63		18	81	29		31	1371	83		47	999	18	
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:	83	117	63		18	81	29		31	1371	83		47	999	18	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.96	0.96	0.96		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.32	0.44	0.24		0.14	0.63	0.23		1.00	1.89	0.11		1.00	1.96	0.04	
Final Sat.:	574	802	434		259	1159	412		1805	3372	205		1805	3535	64	
Capacity Analysis Module:																		
Vol/Sat:	0.15	0.15	0.15		0.07	0.07	0.07		0.02	0.41	0.41		0.03	0.28	0.28	
Crit Moves:	****					****				****			****			
Green/Cycle:	0.20	0.20	0.20		0.09	0.09	0.09		0.09	0.55	0.55		0.05	0.51	0.51	
Volume/Cap:	0.74	0.74	0.74		0.74	0.74	0.74		0.19	0.74	0.74		0.52	0.56	0.56	
Uniform Del:	37.8	37.8	37.8		44.1	44.1	44.1		42.1	17.1	17.1		46.3	16.8	16.8	
IncremntDel:	8.1	8.1	8.1		15.6	15.6	15.6		0.6	1.5	1.5		5.4	0.4	0.4	
InitQueuDel:	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:	45.9	45.9	45.9		59.7	59.7	59.7		42.7	18.7	18.7		51.7	17.2	17.2	
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:	45.9	45.9	45.9		59.7	59.7	59.7		42.7	18.7	18.7		51.7	17.2	17.2	
LOS by Move:	D	D	D		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	9	9	9		6	6	6		1	19	19		2	11	11	

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.572
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.7
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18	18		18	18	18		64	64	64		64	64	64	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	60	83	38		11	68	22		42	1322	87		37	787	22	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	64	89	41		12	73	24		45	1415	93		40	842	24	
Added Vol:	0	0	0		0	0	0		0	19	0		0	150	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	64	89	41		12	73	24		45	1434	93		40	992	24	
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:	64	89	41		12	73	24		45	1434	93		40	992	24	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	64	89	41		12	73	24		45	1434	93		40	992	24	
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:	64	89	41		12	73	24		45	1434	93		40	992	24	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.85	0.85	0.85		0.94	0.94	0.94		0.25	0.94	0.94		0.13	0.95	0.95	
Lanes:	0.33	0.46	0.21		0.11	0.67	0.22		1.00	1.88	0.12		1.00	1.95	0.05	
Final Sat.:	536	742	340		195	1205	390		475	3359	218		241	3516	83	
Capacity Analysis Module:																		
Vol/Sat:	0.12	0.12	0.12		0.06	0.06	0.06		0.09	0.43	0.43		0.16	0.28	0.28	
Crit Moves:		****								****						
Green/Cycle:	0.21	0.21	0.21		0.21	0.21	0.21		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.57	0.57	0.57		0.29	0.29	0.29		0.13	0.57	0.57		0.22	0.38	0.38	
Uniform Del:	32.0	32.0	32.0		29.9	29.9	29.9		3.2	5.1	5.1		3.5	4.0	4.0	
IncremntDel:	2.3	2.3	2.3		0.4	0.4	0.4		0.2	0.3	0.3		0.6	0.1	0.1	
InitQueuDel:	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:	34.3	34.3	34.3		30.4	30.4	30.4		3.4	5.4	5.4		4.1	4.1	4.1	
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:	34.3	34.3	34.3		30.4	30.4	30.4		3.4	5.4	5.4		4.1	4.1	4.1	
LOS by Move:	C	C	C		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	6	6	6		3	3	3		0	10	10		1	5	5	

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.905
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 110 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1 0	1	1	1	0 1	0	1	1	0 1	1	0	2	0 1	1	0
Volume Module:																
Base Vol:	315	485	599		32	175	224		217	784	540		115	663	173	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	337	519	641		34	187	240		232	839	578		123	709	185	
Added Vol:	0	0	10		0	0	0		0	8	0		0	150	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	337	519	651		34	187	240		232	847	578		123	859	185	
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	519	651		34	187	240		232	847	578		123	859	185	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	337	519	651		34	187	240		232	847	578		123	859	185	
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:	337	519	651		34	187	240		232	847	578		123	859	185	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.88	0.88	0.88		0.95	1.00	0.85		0.95	0.89	0.89		0.92	0.92	0.92	
Lanes:	1.00	1.33	1.67		1.00	1.00	1.00		1.00	1.19	0.81		2.00	1.65	0.35	
Final Sat.:	1669	2221	2786		1805	1900	1615		1805	2015	1375		3502	2890	622	
Capacity Analysis Module:																
Vol/Sat:	0.20	0.23	0.23		0.02	0.10	0.15		0.13	0.42	0.42		0.04	0.30	0.30	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.22	0.31	0.31		0.07	0.16	0.16		0.15	0.46	0.46		0.05	0.35	0.35	
Volume/Cap:	0.92	0.74	0.74		0.28	0.61	0.92		0.84	0.92	0.92		0.70	0.84	0.84	
Uniform Del:	38.1	30.7	30.7		44.3	39.0	41.3		41.1	25.3	25.3		46.8	29.6	29.6	
IncremntDel:	8.6	1.5	1.5		1.3	3.5	34.5		19.7	9.0	9.0		12.1	5.2	5.2	
InitQueuDel:	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:	46.7	32.2	32.2		45.6	42.5	75.7		60.8	34.3	34.3		58.9	34.8	34.8	
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:	46.7	32.2	32.2		45.6	42.5	75.7		60.8	34.3	34.3		58.9	34.8	34.8	
LOS by Move:	D	C	C		D	D	E		E	C	C		E	C	C	
HCM2kAvgQ:	15	13	13		1	6	11		10	26	26		3	18	18	

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.502
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 82 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	32	32		0	32	0		28	0	28		0	0	18	
Lanes:	0	0 2	1	0	0	0 2	0	0	2	0 0	0	1	0	0 0	0	1
Volume Module:																
Base Vol:	0	802	19		0	783	0		765	0	277		0	0	16	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	0	858	20		0	838	0		819	0	296		0	0	17	
Added Vol:	0	0	0		0	0	0		10	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	858	20		0	838	0		829	0	296		0	0	17	
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	858	20		0	838	0		829	0	296		0	0	17	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	858	20		0	838	0		829	0	296		0	0	17	
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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	944	22		0	880	0		853	0	296		0	0	17	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.93	0.07		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5568	132		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.17	0.17		0.00	0.23	0.00		0.24	0.00	0.18		0.00	0.00	0.01	
Crit Moves:	****					****			****						****	
Green/Cycle:	0.00	0.37	0.37		0.00	0.37	0.00		0.38	0.00	0.58		0.00	0.00	0.20	
Volume/Cap:	0.00	0.45	0.45		0.00	0.62	0.00		0.62	0.00	0.32		0.00	0.00	0.06	
Uniform Del:	0.0	16.1	16.1		0.0	17.4	0.0		17.1	0.0	7.3		0.0	0.0	22.1	
IncremntDel:	0.0	0.1	0.1		0.0	0.6	0.0		0.6	0.0	0.1		0.0	0.0	0.0	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	13.8	13.8		0.0	15.4	0.0		15.2	0.0	6.3		0.0	0.0	18.8	
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:	0.0	13.8	13.8		0.0	15.4	0.0		15.2	0.0	6.3		0.0	0.0	18.8	
DesignQueue:	0	11	11		0	15	0		14	0	6		0	0	1	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.567
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.1
Optimal Cycle: 180 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	18	18	18		0	0	0		0	39	57		21	64	0	
Lanes:	1	0 1!	0	1	0	0	0	0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	305	1	439		0	0	0		0	1391	388		487	927	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	326	1	470		0	0	0		0	1488	415		521	992	0	
Added Vol:	0	0	0		0	0	0		0	8	16		83	80	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	326	1	470		0	0	0		0	1496	431		604	1072	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:	326	1	470		0	0	0		0	1496	431		604	1072	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	326	1	470		0	0	0		0	1496	431		604	1072	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:	326	1	470		0	0	0		0	1496	431		604	1072	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		1.00	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00	
Lanes:	1.41	0.01	1.58		0.00	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00	
Final Sat.:	2292	4	2585		0	0	0		0	3610	2842		3502	3610	0	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.25	0.18		0.00	0.00	0.00		0.00	0.41	0.15		0.17	0.30	0.00	
Crit Moves:		****												****		
Green/Cycle:	0.20	0.20	0.20		0.00	0.00	0.00		0.00	0.43	0.43		0.32	0.76	0.00	
Volume/Cap:	0.71	1.23	0.91		0.00	0.00	0.00		0.00	0.96	0.35		0.54	0.39	0.00	
Uniform Del:	33.6	36.0	35.2		0.0	0.0	0.0		0.0	24.7	17.0		25.0	3.8	0.0	
IncremntDel:	2.2	115	13.2		0.0	0.0	0.0		0.0	13.8	0.2		0.5	0.1	0.0	
InitQueuDel:	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	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	35.8	151	48.4		0.0	0.0	0.0		0.0	38.5	17.2		25.5	3.9	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:	35.8	151	48.4		0.0	0.0	0.0		0.0	38.5	17.2		25.5	3.9	0.0	
LOS by Move:	D	F	D		A	A	A		A	D	B		C	A	A	
HCM2kAvgQ:	7	23	12		0	0	0		0	27	5		7	6	0	

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 0.928
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 50.0
Optimal Cycle: 130 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0 1!	0	0	2	0	0	1	0	1	0	1	1	0	1	0 2	0 1
Volume Module:																
Base Vol:	16	87	274		612	119	34		28	809	9		274	800	327	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	17	93	293		655	127	36		30	866	10		293	856	350	
Added Vol:	0	0	0		0	0	0		0	25	0		0	80	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	17	93	293		655	127	36		30	891	10		293	936	350	
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:	17	93	293		655	127	36		30	891	10		293	936	350	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	17	93	293		655	127	36		30	891	10		293	936	350	
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:	17	93	293		655	127	36		30	891	10		293	936	350	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.90	0.90		0.92	0.97	0.97		0.95	0.95	0.95		0.95	0.95	0.85	
Lanes:	0.04	0.23	0.73		2.00	0.78	0.22		1.00	1.98	0.02		1.00	2.00	1.00	
Final Sat.:	73	395	1243		3502	1429	408		1805	3564	39		1805	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.24	0.24	0.24		0.19	0.09	0.09		0.02	0.25	0.25		0.16	0.26	0.22	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.33	0.25	0.25		0.20	0.12	0.12		0.07	0.27	0.27		0.18	0.38	0.38	
Volume/Cap:	0.71	0.93	0.93		0.93	0.71	0.71		0.25	0.93	0.93		0.93	0.69	0.57	
Uniform Del:	32.2	40.0	40.0		43.1	46.2	46.2		48.8	39.2	39.2		44.7	28.7	27.2	
IncremntDel:	4.3	26.1	26.1		18.5	10.1	10.1		1.1	14.6	14.6		32.4	1.5	1.3	
InitQueuDel:	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:	36.5	66.2	66.2		61.6	56.3	56.3		49.9	53.7	53.7		77.1	30.2	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:	36.5	66.2	66.2		61.6	56.3	56.3		49.9	53.7	53.7		77.1	30.2	28.5	
LOS by Move:	D	E	E		E	E	E		D	D	D		E	C	C	
HCM2kAvgQ:	13	17	17		15	7	7		1	20	20		14	15	10	

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.651
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.3
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 1	0		0 1	0 1	0		1 0	1 1	0		1 0	1 1	0	
Volume Module:																
Base Vol:	30	377	86		82	384	76		59	328	23		71	442	88	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	32	403	92		88	411	81		63	351	25		76	473	94	
Added Vol:	0	40	7		16	116	27		3	1	0		56	11	12	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	32	443	99		104	527	108		66	352	25		132	484	106	
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:	32	443	99		104	527	108		66	352	25		132	484	106	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	32	443	99		104	527	108		66	352	25		132	484	106	
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:	32	443	99		104	527	108		66	352	25		132	484	106	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.92	0.92	0.92		0.95	0.94	0.94		0.95	0.92	0.92	
Lanes:	0.11	1.55	0.34		0.28	1.43	0.29		1.00	1.87	0.13		1.00	1.64	0.36	
Final Sat.:	196	2706	604		492	2500	514		1805	3340	234		1805	2881	632	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.16	0.16		0.21	0.21	0.21		0.04	0.11	0.11		0.07	0.17	0.17	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.25	0.25		0.32	0.32	0.32		0.06	0.19	0.19		0.13	0.26	0.26	
Volume/Cap:	0.65	0.65	0.65		0.65	0.65	0.65		0.65	0.57	0.57		0.57	0.65	0.65	
Uniform Del:	33.5	33.5	33.5		29.0	29.0	29.0		46.2	37.1	37.1		40.9	33.1	33.1	
IncremntDel:	1.7	1.7	1.7		1.4	1.4	1.4		14.0	1.2	1.2		3.3	1.7	1.7	
InitQueuDel:	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:	35.2	35.2	35.2		30.3	30.3	30.3		60.2	38.2	38.2		44.2	34.8	34.8	
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:	35.2	35.2	35.2		30.3	30.3	30.3		60.2	38.2	38.2		44.2	34.8	34.8	
LOS by Move:	D	D	D		C	C	C		E	D	D		D	C	C	
HCM2kAvgQ:	9	9	9		11	11	11		3	6	6		5	9	9	

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.145
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 87.2
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1 0	3 0	0		0 0	3 0	1		1 0	0 0	1		0 0	0 0	0	
Volume Module:5:00 - 6:00 AM																
Base Vol:	10	932	0		0	2235	16		334	0	76		0	0	0	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	11	997	0		0	2391	17		357	0	81		0	0	0	
Added Vol:	38	605	0		0	84	0		617	0	86		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	49	1602	0		0	2475	17		974	0	167		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:	49	1602	0		0	2475	17		974	0	167		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	49	1602	0		0	2475	17		974	0	167		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	
FinalVolume:	49	1602	0		0	2475	17		974	0	167		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.32	0.00		0.00	0.49	0.01		0.55	0.00	0.11		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.04	0.46	0.00		0.00	0.42	0.42		0.47	0.00	0.47		0.00	0.00	0.00	
Volume/Cap:	0.72	0.69	0.00		0.00	1.16	0.03		1.16	0.00	0.22		0.00	0.00	0.00	
Uniform Del:	61.8	28.0	0.0		0.0	37.8	22.2		34.2	0.0	20.1		0.0	0.0	0.0	
IncremntDel:	30.3	0.9	0.0		0.0	79.0	0.0		86.4	0.0	0.2		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	92.1	28.9	0.0		0.0	117	22.2		120.6	0.0	20.3		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:	92.1	28.9	0.0		0.0	117	22.2		120.6	0.0	20.3		0.0	0.0	0.0	
LOS by Move:	F	C	A		A	F	C		F	A	C		A	A	A	
HCM2kAvgQ:	3	19	0		0	54	0		58	0	4		0	0	0	

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.742
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	15	838	0	0	2275	171	203	0	199	0	0	0				
Added Vol:	38	642	0	0	166	3	1	0	86	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	53	1480	0	0	2441	174	204	0	285	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:	53	1480	0	0	2441	174	204	0	285	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	53	1480	0	0	2441	174	204	0	285	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				
FinalVolume:	53	1480	0	0	2441	174	204	0	285	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.29	0.00	0.00	0.48	0.11	0.12	0.00	0.18	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.04	0.69	0.00	0.00	0.65	0.65	0.24	0.00	0.24	0.00	0.00	0.00				
Volume/Cap:	0.74	0.42	0.00	0.00	0.74	0.17	0.48	0.00	0.74	0.00	0.00	0.00				
Uniform Del:	61.7	8.9	0.0	0.0	15.5	9.1	42.1	0.0	45.4	0.0	0.0	0.0				
IncremntDel:	33.6	0.1	0.0	0.0	0.9	0.1	0.8	0.0	7.5	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	95.3	9.0	0.0	0.0	16.5	9.2	43.0	0.0	53.0	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:	95.3	9.0	0.0	0.0	16.5	9.2	43.0	0.0	53.0	0.0	0.0	0.0				
LOS by Move:	F	A	A	A	B	A	D	A	D	A	A	A				
HCM2kAvgQ:	4	9	0	0	25	3	7	0	12	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.785
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.6
Optimal Cycle: 48 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	0	0	0				
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07				
Initial Bse:	521	606	0	0	382	98	275	0	754	0	0	0				
Added Vol:	14	58	0	0	21	6	3	0	3	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	535	664	0	0	403	104	278	0	757	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:	535	664	0	0	403	104	278	0	757	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	535	664	0	0	403	104	278	0	757	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				
FinalVolume:	535	664	0	0	403	104	278	0	757	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1437	373	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.30	0.36	0.00	0.00	0.28	0.28	0.16	0.00	0.48	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.39	0.74	0.00	0.00	0.36	0.36	0.22	0.00	0.61	0.00	0.00	0.00				
Volume/Cap:	0.79	0.48	0.00	0.00	0.79	0.79	0.70	0.00	0.79	0.00	0.00	0.00				
Uniform Del:	32.5	6.2	0.0	0.0	34.5	34.5	42.8	0.0	17.5	0.0	0.0	0.0				
IncremntDel:	6.0	0.3	0.0	0.0	6.3	6.3	5.5	0.0	4.3	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	38.5	6.4	0.0	0.0	40.8	40.8	48.4	0.0	21.8	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:	38.5	6.4	0.0	0.0	40.8	40.8	48.4	0.0	21.8	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	C	A	A	A				
HCM2kAvgQ:	19	10	0	0	18	18	11	0	22	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 29.5
Optimal Cycle: 33 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	52	814	136		381	672	39		80	81	66		78	9	285	
Added Vol:	0	68	0		2	23	0		0	0	0		0	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	52	882	136		383	695	39		80	81	66		78	9	290	
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:	52	882	136		383	695	39		80	81	66		78	9	290	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	52	882	136		383	695	39		80	81	66		78	9	290	
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:	52	882	136		383	695	39		80	81	66		78	9	290	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.62	0.91	0.91		0.63	0.63	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1179	957	781		1071	117	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.25	0.09		0.22	0.20	0.02		0.07	0.08	0.08		0.07	0.07	0.18	
Crit Moves:		****			****										****	
Green/Cycle:	0.10	0.37	0.37		0.32	0.59	0.59		0.27	0.27	0.27		0.27	0.27	0.27	
Volume/Cap:	0.29	0.67	0.23		0.67	0.33	0.04		0.25	0.31	0.31		0.27	0.27	0.67	
Uniform Del:	50.0	31.6	25.9		35.1	12.3	10.2		34.1	34.7	34.7		34.2	34.2	38.9	
IncremntDel:	0.9	1.4	0.2		3.1	0.1	0.0		0.4	0.4	0.4		0.4	0.4	4.1	
InitQueuDel:	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	32.9	26.1		38.3	12.4	10.2		34.5	35.1	35.1		34.7	34.7	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:	50.9	32.9	26.1		38.3	12.4	10.2		34.5	35.1	35.1		34.7	34.7	42.9	
LOS by Move:	D	C	C		D	B	B		C	D	D		C	C	D	
HCM2kAvgQ:	2	15	3		13	7	1		2	4	4		3	3	10	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 1.127
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 105.5
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
Growth Adj:	1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07		1.07	1.07	1.07	
Initial Bse:	95	489	26		26	544	174		448	144	83		7	59	13	
Added Vol:	0	55	0		0	159	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	95	544	26		26	703	174		448	144	83		7	59	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:	95	544	26		26	703	174		448	144	83		7	59	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	95	544	26		26	703	174		448	144	83		7	59	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	
FinalVolume:	95	544	26		26	703	174		448	144	83		7	59	13	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.15	0.85	1.00		0.04	0.96	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	281	1606	1615		67	1829	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.34	0.34	0.02		0.38	0.38	0.11		0.25	0.13	0.13		0.04	0.04	0.04	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.30	0.30	0.30		0.34	0.34	0.34		0.22	0.22	0.22		0.05	0.05	0.05	
Volume/Cap:	1.14	1.14	0.05		1.14	1.14	0.32		1.14	0.58	0.58		0.94	0.94	0.94	
Uniform Del:	38.6	38.6	27.5		36.4	36.4	27.0		43.0	38.5	38.5		52.4	52.4	52.4	
IncremntDel:	81.5	81.5	0.0		79.5	79.5	0.3		88.0	2.2	2.2		78.7	78.7	78.7	
InitQueuDel:	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:	120.1	120	27.6		115.9	116	27.4		131.0	40.7	40.7		131.0	131	131.0	
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:	120.1	120	27.6		115.9	116	27.4		131.0	40.7	40.7		131.0	131	131.0	
LOS by Move:	F	F	C		F	F	C		F	D	D		F	F	F	
HCM2kAvgQ:	34	34	1		39	39	4		25	8	8		5	5	5	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.929
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	36.4
Optimal Cycle:	125	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1 0	3 0	0		0 0	3 0	1		2 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Initial Bse:	0	758	0	0	2468	0	0	0	0	0	0	0
Added Vol:	66	438	0	0	222	7	242	0	424	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	1196	0	0	2690	7	242	0	424	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:	66	1196	0	0	2690	7	242	0	424	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	1196	0	0	2690	7	242	0	424	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
FinalVolume:	66	1196	0	0	2690	7	242	0	424	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.85	0.92	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	5187	0	0	5187	1615	3502	0	1615	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.04	0.23	0.00	0.00	0.52	0.00	0.07	0.00	0.26	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.10	0.62	0.00	0.00	0.52	0.52	0.26	0.00	0.26	0.00	0.00	0.00
Volume/Cap:	0.37	0.37	0.00	0.00	1.00	0.01	0.26	0.00	1.00	0.00	0.00	0.00
Uniform Del:	42.0	9.5	0.0	0.0	24.1	11.7	29.2	0.0	36.9	0.0	0.0	0.0
IncremntDel:	1.3	0.1	0.0	0.0	17.7	0.0	0.2	0.0	44.1	0.0	0.0	0.0
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	43.3	9.6	0.0	0.0	41.8	11.7	29.4	0.0	81.0	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:	43.3	9.6	0.0	0.0	41.8	11.7	29.4	0.0	81.0	0.0	0.0	0.0
LOS by Move:	D	A	A	A	D	B	C	A	F	A	A	A
HCM2kAvgQ:	2	7	0	0	39	0	3	0	19	0	0	0

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

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Scenario Report

Scenario:	Cumulative 2025 AM
Command:	Long Term No Project I AM
Volume:	Long Term No Project I AM
Geometry:	Long Term No Project I AM
Impact Fee:	Default Impact Fee
Trip Generation:	Long Term No Project I AM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Long Term No Project I AM

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in D/V
# 1 Bayfront Exp. & Marsh Rd.	C	25.2	0.842	C	26.2	0.879	+ 0.975
# 2 US 101 NB Ramps & Marsh Rd.	B	16.9	0.700	D	42.3	1.054	+25.428
# 3 US 101 SB Ramps & Marsh Rd.	C	26.5	0.944	C	31.7	0.985	+ 5.106
# 4 Scott Dr/Rolison at Marsh Rd.	D	41.1	0.901	D	35.6	0.932	-5.434
# 5 Bohannon/ Florence & Marsh Rd.	C	20.8	0.620	B	15.7	0.647	-5.128
# 6 Bay Rd. & Marsh Rd.	B	17.4	0.644	B	17.4	0.706	+ 0.053
# 7 Middlefield at Marsh (Town of	C	29.8	0.669	C	27.0	0.766	-2.790
# 8 Bayfront Exp. & Willow Rd.	C	28.6	0.668	D	35.4	0.750	+ 6.766
# 9 Hamilton Ave. & Willow Rd.	C	23.7	0.613	C	22.4	0.647	-1.360
# 10 Ivy Dr. & Willow Rd.	B	18.7	0.567	C	21.3	0.643	+ 2.627
# 11 O'Brien Dr. & Willow Rd.	B	15.4	0.508	B	14.7	0.552	-0.676
# 12 Newbridge St. & Willow Rd.	E	59.2	0.990	E	62.5	1.028	+ 3.286
# 13 Bay Rd. & Willow Rd.	C	21.6	0.760	C	22.2	0.818	+ 0.602
# 14 Durham St. & Willow Rd.	D	35.1	0.782	B	15.6	0.844	-19.481
# 15 Coleman Ave. & Willow Rd.	B	15.3	0.784	B	18.8	0.868	+ 3.487
# 16 Gilbert Ave. & Willow Rd.	B	15.7	0.726	B	18.0	0.836	+ 2.327
# 17 Middlefield Rd. & Willow Rd.	F	114.7	1.038	F	123.8	1.225	+ 9.150
# 18 Bayfront Exp. & University Ave	C	32.7	0.882	D	35.1	0.905	+ 2.452
# 19 O'Brien Dr. & University Ave.	A	6.8	0.600	A	6.8	0.611	-0.015
# 20 University & Kavanaugh	B	14.4	0.617	B	14.2	0.623	-0.161
# 21 University & Bay	C	29.3	0.724	C	29.0	0.730	-0.230
# 22 University & Runnymede	C	21.7	0.687	C	21.6	0.693	-0.129
# 23 University & Bell	A	7.7	0.270	A	7.4	0.289	-0.275
# 24 University & Donohoe	D	51.0	1.014	D	53.5	1.030	+ 2.541
# 25 NB 101 & Donohoe St	B	9.1	0.418	B	9.3	0.436	+ 0.130

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Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	18.1	0.704	B	18.3	0.718	+ 0.243 D/V
# 27 University Ave. & Woodland	D	50.1	0.977	D	52.3	0.991	+ 2.164 D/V
# 28 Middlefield Rd. & University A	D	38.2	0.805	D	46.5	0.888	+ 8.251 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.6	0.640	B	17.5	0.738	+ 9.814 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.8	0.650	C	20.0	0.675	+ 2.230 D/V
# 31 Middlefield Rd. & Ravenswood A	C	23.4	0.664	C	25.7	0.731	+ 2.288 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.2	0.515	C	25.7	0.540	-3.470 D/V
# 33 Middlefield Rd and Lytton Ave	D	38.1	0.783	D	44.8	0.869	+ 6.657 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.549	A	1.5	0.593	+ 0.123 D/V

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

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Intersection #1 Bayfront Exp. & Marsh Rd.

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.879
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 113 Level Of Service: C

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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:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	2619	215	26		8	66	169		207	23	1137		8	22	6	
Added Vol:	173	0	0		0	0	0		0	0	256		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2792	215	26		8	66	169		207	23	1393		8	22	6	
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:	2792	215	26		8	66	169		207	23	1393		8	22	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2792	215	26		8	66	169		207	23	1393		8	22	6	
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:	2792	215	26		8	66	169		207	23	1393		8	22	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.54	0.13	0.13		0.02	0.02	0.11		0.13	0.13	0.50		0.02	0.02	0.02	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.61	0.61	0.61		0.12	0.12	0.12		0.14	0.14	0.75		0.04	0.04	0.04	
Volume/Cap:	0.90	0.22	0.22		0.18	0.18	0.90		0.90	0.90	0.67		0.51	0.51	0.51	
Uniform Del:	22.1	11.6	11.6		51.5	51.5	56.5		54.7	54.7	8.1		61.3	61.3	61.3	
IncremntDel:	3.8	0.1	0.1		0.2	0.2	37.7		30.3	30.3	0.8		6.2	6.2	6.2	
InitQueuDel:	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	11.7	11.7		51.7	51.7	94.2		84.9	84.9	8.9		67.5	67.5	67.5	
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:	25.9	11.7	11.7		51.7	51.7	94.2		84.9	84.9	8.9		67.5	67.5	67.5	
LOS by Move:	C	B	B		D	D	F		F	F	A		E	E	E	
HCM2kAvgQ:	36	4	4		1	1	10		12	12	16		2	2	2	

****

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 1.054
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 42.3
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0	1	0	0	0	0	0	0	1	1	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	933	0	329		0	0	0		0	1297	577		0	936	1937	
Added Vol:	2	0	394		0	0	0		2	407	0		0	144	30	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	935	0	723		0	0	0		2	1704	577		0	1080	1967	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	935	0	723		0	0	0		2	1704	0		0	1080	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	935	0	723		0	0	0		2	1704	0		0	1080	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	935	0	723		0	0	0		2	1704	0		0	1080	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3375	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.27	0.00	0.46		0.00	0.00	0.00		0.51	0.51	0.00		0.00	0.31	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.43	0.00	0.43		0.00	0.00	0.00		0.48	0.48	0.00		0.00	0.48	0.00	
Volume/Cap:	0.63	0.00	1.05		0.00	0.00	0.00		1.05	1.05	0.00		0.00	0.64	0.00	
Uniform Del:	17.6	0.0	22.7		0.0	0.0	0.0		20.8	20.8	0.0		0.0	15.6	0.0	
IncremntDel:	0.9	0.0	49.6		0.0	0.0	0.0		38.3	38.3	0.0		0.0	0.8	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	18.5	0.0	72.2		0.0	0.0	0.0		59.1	59.1	0.0		0.0	16.4	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:	18.5	0.0	72.2		0.0	0.0	0.0		59.1	59.1	0.0		0.0	16.4	0.0	
LOS by Move:	B	A	E		A	A	A		E	E	A		A	B	A	
HCM2kAvgQ:	10	0	28		0	0	0		34	34	0		0	11	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.985
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 31.7
Optimal Cycle: 155 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0	0	2	0	0	0	1	0	0	2	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	86	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1002	0	636		0	951	665		0	1626	98	
Added Vol:	0	0	0		221	0	33		0	199	0		0	57	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1223	0	669		0	1150	665		0	1683	98	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1223	0	669		0	1150	0		0	1683	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1223	0	669		0	1150	0		0	1683	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1223	0	669		0	1150	0		0	1683	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.36	0.00	0.42		0.00	0.32	0.00		0.00	0.48	0.00	
Crit Moves:							****							****		
Green/Cycle:	0.00	0.00	0.00		0.43	0.00	0.43		0.00	0.48	0.00		0.00	0.48	0.00	
Volume/Cap:	0.00	0.00	0.00		0.83	0.00	0.98		0.00	0.67	0.00		0.00	0.98	0.00	
Uniform Del:	0.0	0.0	0.0		20.2	0.0	22.6		0.0	15.8	0.0		0.0	20.4	0.0	
IncremntDel:	0.0	0.0	0.0		4.1	0.0	30.5		0.0	1.1	0.0		0.0	18.1	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		24.4	0.0	53.1		0.0	16.9	0.0		0.0	38.5	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:	0.0	0.0	0.0		24.4	0.0	53.1		0.0	16.9	0.0		0.0	38.5	0.0	
LOS by Move:	A	A	A		C	A	D		A	B	A		A	D	A	
HCM2kAvgQ:	0	0	0		16	0	23		0	12	0		0	29	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.932
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 35.6
Optimal Cycle: 111 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	31	3	56		253	21	3		17	1289	33		306	1614	319	
Added Vol:	0	0	0		0	0	0		0	199	0		0	90	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	31	3	56		253	21	3		17	1488	33		306	1704	319	
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	3	56		253	21	3		17	1488	33		306	1704	319	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	31	3	56		253	21	3		17	1488	33		306	1704	319	
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:	31	3	56		253	21	3		17	1488	33		306	1704	319	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.93	0.07	1.00		1.00	2.93	0.07		2.00	1.68	0.32	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4958	110		3432	2908	545	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.15	0.15	0.00		0.01	0.30	0.30		0.09	0.59	0.59	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.05	0.05	0.05		0.15	0.15	0.15		0.05	0.48	0.48		0.14	0.57	0.57	
Volume/Cap:	0.38	0.38	0.40		1.02	1.02	0.01		0.19	0.62	0.62		0.62	1.02	1.02	
Uniform Del:	36.8	36.8	36.8		34.0	34.0	28.9		36.5	15.4	15.4		32.3	17.0	17.0	
IncremntDel:	2.7	2.7	1.9		60.3	60.3	0.0		1.1	0.5	0.5		2.5	25.5	25.5	
InitQueuDel:	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:	39.5	39.5	38.7		94.2	94.2	28.9		37.5	15.9	15.9		34.8	42.5	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:	39.5	39.5	38.7		94.2	94.2	28.9		37.5	15.9	15.9		34.8	42.5	42.5	
LOS by Move:	D	D	D		F	F	C		D	B	B		C	D	D	
HCM2kAvgQ:	1	1	1		12	12	0		1	11	11		5	37	37	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: 30 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	17	10	9		445	34	104		133	907	66		52	1301	368	
Added Vol:	0	0	0		0	0	0		0	199	0		0	90	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	17	10	9		445	34	104		133	1106	66		52	1391	368	
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:	17	10	9		445	34	104		133	1106	66		52	1391	368	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	17	10	9		445	34	104		133	1106	66		52	1391	368	
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:	17	10	9		445	34	104		133	1106	66		52	1391	368	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	916	814		3306	254	1583		1769	3312	198		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.13	0.13	0.07		0.08	0.33	0.33		0.03	0.39	0.23	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.20	0.20	0.20		0.11	0.61	0.61		0.09	0.59	0.59	
Volume/Cap:	0.19	0.22	0.22		0.67	0.67	0.33		0.67	0.55	0.55		0.33	0.67	0.40	
Uniform Del:	36.5	36.5	36.5		29.5	29.5	27.3		34.1	9.2	9.2		34.1	11.3	8.9	
IncremntDel:	1.1	1.3	1.3		2.5	2.5	0.6		8.5	0.3	0.3		1.2	0.9	0.3	
InitQueuDel:	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:	37.5	37.8	37.8		32.0	32.0	27.9		42.6	9.5	9.5		35.2	12.1	9.2	
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:	37.5	37.8	37.8		32.0	32.0	27.9		42.6	9.5	9.5		35.2	12.1	9.2	
LOS by Move:	D	D	D		C	C	C		D	A	A		D	B	A	
HCM2kAvgQ:	1	1	1		7	7	2		5	9	9		2	13	5	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.706
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 35 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	1	0	1 0	1	0	1	1 0
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177		112	28	5		2	665	66		264	982	22	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	80	3	202		128	32	6		2	758	75		301	1119	25	
Added Vol:	1	0	0		0	0	0		0	199	2		0	90	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	81	3	202		128	32	6		2	957	77		301	1209	25	
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:	81	3	202		128	32	6		2	957	77		301	1209	25	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	81	3	202		128	32	6		2	957	77		301	1209	25	
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:	81	3	202		128	32	6		2	957	77		301	1209	25	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.79	0.79	0.79		0.53	0.53	0.53		0.88	0.88	0.88		0.93	0.93	0.93	
Lanes:	0.28	0.01	0.71		0.78	0.19	0.03		0.01	1.84	0.15		1.00	1.96	0.04	
Final Sat.:	425	18	1060		776	194	35		7	3085	249		1769	3456	72	
Capacity Analysis Module:																
Vol/Sat:	0.19	0.19	0.19		0.16	0.16	0.16		0.31	0.31	0.31		0.17	0.35	0.35	
Crit Moves:		****								****			****			
Green/Cycle:	0.27	0.27	0.27		0.27	0.27	0.27		0.44	0.44	0.44		0.24	0.68	0.68	
Volume/Cap:	0.70	0.70	0.70		0.60	0.60	0.60		0.71	0.71	0.71		0.71	0.52	0.52	
Uniform Del:	26.2	26.2	26.2		25.3	25.3	25.3		18.3	18.3	18.3		27.8	6.4	6.4	
IncremntDel:	5.3	5.3	5.3		3.8	3.8	3.8		1.6	1.6	1.6		5.5	0.2	0.2	
InitQueuDel:	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:	31.4	31.4	31.4		29.2	29.2	29.2		20.0	20.0	20.0		33.3	6.6	6.6	
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:	31.4	31.4	31.4		29.2	29.2	29.2		20.0	20.0	20.0		33.3	6.6	6.6	
LOS by Move:	C	C	C		C	C	C		B	B	B		C	A	A	
HCM2kAvgQ:	8	8	8		5	5	5		12	12	12		8	8	8	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 66 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0 1	1	0	1	0 0	0	0	0	0 0	1	0	0	0 1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397		342	367	0		0	0	0		463	0	169	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	189	453		390	418	0		0	0	0		528	0	193	
Added Vol:	0	7	100		101	40	0		0	0	0		51	0	41	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	196	553		491	458	0		0	0	0		579	0	234	
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	196	553		491	458	0		0	0	0		579	0	234	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	196	553		491	458	0		0	0	0		579	0	234	
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:	0	196	553		491	458	0		0	0	0		579	0	234	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.10	0.34		0.27	0.24	0.00		0.00	0.00	0.00		0.32	0.00	0.14	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.13	0.55		0.36	0.49	0.00		0.00	0.00	0.00		0.42	0.00	0.77	
Volume/Cap:	0.00	0.77	0.62		0.77	0.49	0.00		0.00	0.00	0.00		0.77	0.00	0.19	
Uniform Del:	0.0	45.9	16.6		31.4	18.8	0.0		0.0	0.0	0.0		27.3	0.0	3.3	
IncremntDel:	0.0	12.9	1.3		5.5	0.4	0.0		0.0	0.0	0.0		4.7	0.0	0.1	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	58.8	18.0		36.9	19.3	0.0		0.0	0.0	0.0		32.0	0.0	3.4	
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:	0.0	58.8	18.0		36.9	19.3	0.0		0.0	0.0	0.0		32.0	0.0	3.4	
LOS by Move:	A	E	B		D	B	A		A	A	A		C	A	A	
HCM2kAvgQ:	0	8	13		16	10	0		0	0	0		18	0	2	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.750
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 35.4
Optimal Cycle: 71 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:		Ovl			Include			Include			Include	
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	2 0	3 0	1	2 0	3 0	1	1 1	1 0	2	1 0	2 0	1
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM												
Base Vol:	1034	2108	6	13	677	92	84	34	379	3	6	5
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	1179	2403	7	15	772	105	96	39	432	3	7	6
Added Vol:	55	195	14	254	42	0	0	483	14	13	16	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1234	2598	21	269	814	105	96	522	446	16	23	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:	1234	2598	21	269	814	105	96	522	446	16	23	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1234	2598	21	269	814	105	96	522	446	16	23	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
FinalVolume:	1234	2598	21	269	814	105	96	522	446	16	23	13
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.92	0.92	0.88	0.93	0.93	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00
Final Sat.:	3432	5846	1583	3432	5846	1583	1755	3509	3343	1769	3538	1583
Capacity Analysis Module:												
Vol/Sat:	0.36	0.44	0.01	0.08	0.14	0.07	0.05	0.15	0.13	0.01	0.01	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.49	0.58	0.61	0.10	0.19	0.19	0.19	0.19	0.19	0.04	0.04	0.04
Volume/Cap:	0.74	0.77	0.02	0.77	0.74	0.35	0.28	0.77	0.69	0.24	0.17	0.21
Uniform Del:	26.6	21.1	9.8	56.9	49.7	45.8	44.8	49.8	48.9	60.7	60.5	60.6
IncremntDel:	1.8	1.2	0.0	10.2	2.6	0.7	0.1	4.7	3.3	1.8	0.6	1.7
InitQueuDel:	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:	28.4	22.2	9.8	67.2	52.3	46.5	44.9	54.5	52.2	62.5	61.1	62.3
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:	28.4	22.2	9.8	67.2	52.3	46.5	44.9	54.5	52.2	62.5	61.1	62.3
LOS by Move:	C	C	A	E	D	D	D	D	D	E	E	E
HCM2kAvgQ:	21	29	0	7	13	4	4	12	11	1	1	1

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:		Include			Include			Include			Include	
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am												
Base Vol:	18	13	26	71	19	72	115	415	52	56	1037	74
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	21	15	30	81	22	82	131	473	59	64	1182	84
Added Vol:	0	0	0	1	0	13	4	496	0	0	70	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	15	30	82	22	95	135	969	59	64	1252	84
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	15	30	82	22	95	135	969	59	64	1252	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	15	30	82	22	95	135	969	59	64	1252	84
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:	21	15	30	82	22	95	135	969	59	64	1252	84
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	0.82	0.82	0.78	0.78	0.78	0.93	0.92	0.92	0.93	0.92	0.92
Lanes:	0.31	0.23	0.46	0.41	0.11	0.48	1.00	1.88	0.12	1.00	1.87	0.13
Final Sat.:	491	355	710	610	161	707	1769	3304	202	1769	3285	221
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.13	0.13	0.13	0.08	0.29	0.29	0.04	0.38	0.38
Crit Moves:					****		****				****	
Green/Cycle:	0.21	0.21	0.21	0.21	0.21	0.21	0.12	0.63	0.63	0.08	0.59	0.59
Volume/Cap:	0.20	0.20	0.20	0.65	0.65	0.65	0.65	0.47	0.47	0.44	0.65	0.65
Uniform Del:	42.6	42.6	42.6	47.1	47.1	47.1	54.7	12.9	12.9	56.8	17.7	17.7
IncremntDel:	0.3	0.3	0.3	4.7	4.7	4.7	6.9	0.2	0.2	2.1	0.7	0.7
InitQueuDel:	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:	42.9	42.9	42.9	51.9	51.9	51.9	61.6	13.1	13.1	59.0	18.4	18.4
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:	42.9	42.9	42.9	51.9	51.9	51.9	61.6	13.1	13.1	59.0	18.4	18.4
LOS by Move:	D	D	D	D	D	D	E	B	B	E	B	B
HCM2kAvgQ:	2	2	2	8	8	8	6	11	11	3	19	19

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.643
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.3
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1	0	212		93	743	0		0	1164	16	
Added Vol:	0	0	0		67	0	6		7	433	0		0	78	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		68	0	218		100	1176	0		0	1242	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:	0	0	0		68	0	218		100	1176	0		0	1242	21	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		68	0	218		100	1176	0		0	1242	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	
FinalVolume:	0	0	0		68	0	218		100	1176	0		0	1242	21	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.87	1.00	0.87		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.24	0.00	0.76		1.00	2.00	0.00		0.00	1.97	0.03	
Final Sat.:	0	0	0		393	0	1257		1769	3538	0		0	3469	59	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.17	0.00	0.17		0.06	0.33	0.00		0.00	0.36	0.36	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.27	0.00	0.27		0.09	0.65	0.00		0.00	0.56	0.56	
Volume/Cap:	0.00	0.00	0.00		0.64	0.00	0.64		0.64	0.52	0.00		0.00	0.64	0.64	
Uniform Del:	0.0	0.0	0.0		41.9	0.0	41.9		57.3	12.2	0.0		0.0	19.9	19.9	
IncremntDel:	0.0	0.0	0.0		3.2	0.0	3.2		8.8	0.2	0.0		0.0	0.7	0.7	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		45.1	0.0	45.1		66.1	12.4	0.0		0.0	20.6	20.6	
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:	0.0	0.0	0.0		45.1	0.0	45.1		66.1	12.4	0.0		0.0	20.6	20.6	
LOS by Move:	A	A	A		D	A	D		E	B	A		A	C	C	
HCM2kAvgQ:	0	0	0		11	0	11		5	13	0		0	18	18	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.552
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 43 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	148	0	76		0	0	0		0	795	285		116	1335	0	
Added Vol:	10	0	0		0	0	0		0	440	2		0	84	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	158	0	76		0	0	0		0	1235	287		116	1419	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:	158	0	76		0	0	0		0	1235	287		116	1419	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	158	0	76		0	0	0		0	1235	287		116	1419	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:	158	0	76		0	0	0		0	1235	287		116	1419	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.51	0.00	0.49		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2583	0	841		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.00	0.09		0.00	0.00	0.00		0.00	0.35	0.18		0.07	0.40	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.16	0.00	0.16		0.00	0.00	0.00		0.00	0.63	0.63		0.12	0.75	0.00	
Volume/Cap:	0.37	0.00	0.55		0.00	0.00	0.00		0.00	0.55	0.29		0.55	0.53	0.00	
Uniform Del:	48.3	0.0	49.9		0.0	0.0	0.0		0.0	13.5	10.8		54.0	6.7	0.0	
IncremntDel:	0.4	0.0	1.6		0.0	0.0	0.0		0.0	0.3	0.2		3.2	0.2	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	48.7	0.0	51.5		0.0	0.0	0.0		0.0	13.8	10.9		57.1	6.9	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:	48.7	0.0	51.5		0.0	0.0	0.0		0.0	13.8	10.9		57.1	6.9	0.0	
LOS by Move:	D	A	D		A	A	A		A	B	B		E	A	A	
HCM2kAvgQ:	4	0	6		0	0	0		0	14	5		5	12	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.028
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 62.5
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	399	127	41		32	203	438		169	942	177		32	1392	5	
Added Vol:	0	0	0		0	0	4		10	442	0		0	93	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	399	127	41		32	203	442		179	1384	177		32	1485	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:	399	127	41		32	203	442		179	1384	177		32	1485	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	399	127	41		32	203	442		179	1384	177		32	1485	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	
FinalVolume:	399	127	41		32	203	442		179	1384	177		32	1485	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.88	0.88		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.66	0.34		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4431	566		1769	3527	11	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.07	0.03		0.02	0.11	0.28		0.10	0.31	0.31		0.02	0.41	0.42	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.11	0.11	0.11		0.27	0.27	0.27		0.10	0.45	0.45		0.06	0.41	0.41	
Volume/Cap:	1.03	0.60	0.23		0.07	0.40	1.03		1.03	0.69	0.69		0.32	1.03	1.03	
Uniform Del:	57.6	54.9	52.5		35.1	38.7	47.4		58.6	28.4	28.4		59.0	38.4	38.4	
IncremntDel:	53.1	4.8	0.7		0.1	0.5	50.8		75.8	0.9	0.9		1.9	31.1	31.1	
InitQueuDel:	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:	110.7	59.6	53.1		35.2	39.2	98.2		134.5	29.3	29.3		60.9	69.5	69.5	
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:	110.7	59.6	53.1		35.2	39.2	98.2		134.5	29.3	29.3		60.9	69.5	69.5	
LOS by Move:	F	E	D		D	D	F		F	C	C		E	E	E	
HCM2kAvgQ:	13	6	2		1	7	24		11	19	19		2	40	40	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 79 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		412	0	85		73	1571	0		0	1270	364	
Added Vol:	0	0	0		2	0	0		0	177	0		0	105	3	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		414	0	85		73	1748	0		0	1375	367	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		414	0	85		73	1748	0		0	1375	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		414	0	85		73	1748	0		0	1375	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		414	0	86		73	1748	0		0	1375	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.23	0.00	0.05		0.04	0.49	0.00		0.00	0.39	0.00	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.29	0.00	0.29		0.07	0.60	0.00		0.00	0.54	0.00	
Volume/Cap:	0.00	0.00	0.00		0.82	0.00	0.19		0.60	0.82	0.00		0.00	0.73	0.00	
Uniform Del:	0.0	0.0	0.0		33.3	0.0	27.0		45.2	15.5	0.0		0.0	17.7	0.0	
IncremntDel:	0.0	0.0	0.0		10.1	0.0	0.2		8.0	2.6	0.0		0.0	1.4	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		43.4	0.0	27.2		53.2	18.1	0.0		0.0	19.1	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:	0.0	0.0	0.0		43.4	0.0	27.2		53.2	18.1	0.0		0.0	19.1	0.0	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		14	0	2		3	24	0		0	18	0	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.844
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1	0	0	1 0	0	1	0	0 1	1	0	1	1 0	1	0	0	1 0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	71	18	143		43	2	2		14	1141	10		47	969	162	
Added Vol:	0	0	0		0	0	0		0	177	0		0	105	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	71	18	143		43	2	2		14	1318	10		47	1074	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:	71	18	143		43	2	2		14	1318	10		47	1074	162	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	71	18	143		43	2	2		14	1318	10		47	1074	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	
FinalVolume:	71	18	143		43	2	2		14	1318	10		47	1074	162	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.41	0.41	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.98	0.02		1.00	0.87	0.13	
Final Sat.:	1359	183	1431		732	39	1583		1769	3507	27		1769	1586	239	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.10	0.10		0.06	0.06	0.00		0.01	0.38	0.38		0.03	0.68	0.68	
Crit Moves:		****							****					****		
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.04	0.74	0.74		0.08	0.78	0.78	
Volume/Cap:	0.46	0.87	0.87		0.52	0.52	0.01		0.19	0.51	0.51		0.34	0.87	0.87	
Uniform Del:	41.4	43.6	43.6		41.7	41.7	39.3		46.4	5.5	5.5		43.6	7.8	7.8	
IncremntDel:	2.1	33.7	33.7		5.4	5.4	0.0		1.3	0.2	0.2		1.4	6.3	6.3	
InitQueuDel:	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:	43.5	77.2	77.2		47.1	47.1	39.3		47.8	5.7	5.7		45.1	14.0	14.0	
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:	43.5	77.2	77.2		47.1	47.1	39.3		47.8	5.7	5.7		45.1	14.0	14.0	
LOS by Move:	D	E	E		D	D	D		D	A	A		D	B	B	
HCM2kAvgQ:	3	8	8		2	2	0		1	9	9		2	29	29	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.8
Optimal Cycle: 82 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0	0	1! 0	0	0	0	1! 0	0	1	0	0	1 0	1	0	0	1 0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	62	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	3	3	9		162	7	55		19	1017	6		7	974	71	
Added Vol:	0	0	0		0	0	0		0	177	0		0	105	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	3	9		162	7	55		19	1194	6		7	1079	71	
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:	3	3	9		162	7	55		19	1194	6		7	1079	71	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	9		162	7	55		19	1194	6		7	1079	71	
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:	3	3	9		162	7	55		19	1194	6		7	1079	71	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.72	0.72	0.72		0.11	0.98	0.98		0.09	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.94	0.06	
Final Sat.:	351	351	937		998	42	337		212	1851	9		166	1732	113	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.16	0.16	0.16		0.09	0.64	0.64		0.04	0.62	0.62	
Crit Moves:						****				****						
Green/Cycle:	0.19	0.19	0.19		0.19	0.19	0.19		0.74	0.74	0.74		0.74	0.74	0.74	
Volume/Cap:	0.05	0.05	0.05		0.87	0.87	0.87		0.12	0.87	0.87		0.06	0.84	0.84	
Uniform Del:	33.4	33.4	33.4		39.5	39.5	39.5		3.6	9.3	9.3		3.4	8.7	8.7	
IncremntDel:	0.1	0.1	0.1		25.4	25.4	25.4		0.4	6.1	6.1		0.2	4.7	4.7	
InitQueuDel:	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:	33.5	33.5	33.5		64.8	64.8	64.8		4.0	15.4	15.4		3.6	13.5	13.5	
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:	33.5	33.5	33.5		64.8	64.8	64.8		4.0	15.4	15.4		3.6	13.5	13.5	
LOS by Move:	C	C	C		E	E	E		A	B	B		A	B	B	
HCM2kAvgQ:	0	0	0		10	10	10		0	29	29		0	26	26	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.836
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.0
Optimal Cycle: 71 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	12		72	41	869	5
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	1.14
Initial Bse:	115	97	139		35	47	8		5	905	82		47	991	6	
Added Vol:	11	0	19		0	0	0		0	157	8		4	102	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	126	97	158		35	47	8		5	1062	90		51	1093	6	
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:	126	97	158		35	47	8		5	1062	90		51	1093	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	126	97	158		35	47	8		5	1062	90		51	1093	6	
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:	126	97	158		35	47	8		5	1062	90		51	1093	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.89	0.89		0.26	0.96	0.96		0.14	0.97	0.97		0.12	0.98	0.98	
Lanes:	1.00	0.38	0.62		1.00	0.85	0.15		1.00	0.92	0.08		1.00	0.99	0.01	
Final Sat.:	1346	642	1047		493	1555	266		268	1696	144		220	1850	10	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.15	0.15		0.07	0.03	0.03		0.02	0.63	0.63		0.23	0.59	0.59	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.52	0.84	0.84		0.40	0.17	0.17		0.02	0.84	0.84		0.31	0.79	0.79	
Uniform Del:	37.0	39.5	39.5		36.2	34.6	34.6		3.2	8.4	8.4		4.1	7.7	7.7	
IncremntDel:	2.0	17.8	17.8		2.9	0.2	0.2		0.0	4.6	4.6		1.1	3.1	3.1	
InitQueuDel:	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:	39.0	57.4	57.4		39.0	34.8	34.8		3.2	13.0	13.0		5.2	10.8	10.8	
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:	39.0	57.4	57.4		39.0	34.8	34.8		3.2	13.0	13.0		5.2	10.8	10.8	
LOS by Move:	D	E	E		D	C	C		A	B	B		A	B	B	
HCM2kAvgQ:	4	10	10		1	1	1		0	26	26		1	22	22	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.225
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 123.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0	1	1	0	0
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	76	390	279		465	367	11		18	189	133		479	73	563	
Added Vol:	15	9	87		70	7	0		0	9	10		17	18	78	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	91	399	366		535	374	11		18	198	143		496	91	641	
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:	91	399	366		535	374	11		18	198	143		496	91	641	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	91	399	363		535	374	11		18	198	143		496	91	641	
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:	91	399	363		535	374	11		18	198	143		496	91	641	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.74	1.22	0.04		1.00	1.00	1.00		1.69	0.31	1.00	
Final Sat.:	1769	3538	791		2992	2092	64		1769	1862	1583		3018	554	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.11	0.46		0.18	0.18	0.18		0.01	0.11	0.09		0.16	0.16	0.41	
Crit Moves:			****		****					****					****	
Green/Cycle:	0.37	0.37	0.37		0.15	0.15	0.15		0.09	0.09	0.09		0.33	0.33	0.33	
Volume/Cap:	0.14	0.30	1.22		1.22	1.22	1.22		0.12	1.22	1.04		0.50	0.50	1.22	
Uniform Del:	26.8	28.6	40.6		55.5	55.5	55.5		54.8	59.4	59.4		34.8	34.8	43.5	
IncremntDel:	0.1	0.1	127.4		112.9	113	112.9		0.3	144	88.4		0.3	0.3	117.3	
InitQueuDel:	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:	26.9	28.8	168.1		168.4	168	168.4		55.1	203	147.8		35.2	35.2	160.8	
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:	26.9	28.8	168.1		168.4	168	168.4		55.1	203	147.8		35.2	35.2	160.8	
LOS by Move:	C	C	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	6	25		23	23	23		1	15	10		9	9	42	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.905
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 35.1
Optimal Cycle: 132 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0	3	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0	0	884	188	179	0	429	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	1757	3285	0	0	1008	214	204	0	489	0	0	0				
Added Vol:	23	368	0	0	65	4	63	0	7	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	1780	3653	0	0	1073	218	267	0	496	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:	1780	3653	0	0	1073	218	267	0	496	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	1780	3653	0	0	1073	218	267	0	496	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				
FinalVolume:	1780	3653	0	0	1073	218	267	0	496	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.52	0.72	0.00	0.00	0.21	0.14	0.08	0.00	0.12	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.57	0.81	0.00	0.00	0.23	0.23	0.13	0.00	0.13	0.00	0.00	0.00				
Volume/Cap:	0.90	0.89	0.00	0.00	0.90	0.59	0.59	0.00	0.90	0.00	0.00	0.00				
Uniform Del:	30.3	10.7	0.0	0.0	59.6	54.6	65.5	0.0	68.5	0.0	0.0	0.0				
IncremntDel:	6.4	2.8	0.0	0.0	9.9	2.6	2.1	0.0	18.5	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	36.7	13.5	0.0	0.0	69.6	57.1	67.6	0.0	87.0	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:	36.7	13.5	0.0	0.0	69.6	57.1	67.6	0.0	87.0	0.0	0.0	0.0				
LOS by Move:	D	B	A	A	E	E	E	A	F	A	A	A				
HCM2kAvgQ:	42	47	0	0	22	10	7	0	12	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.611
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.8
Optimal Cycle: 46 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	5	0	5	5	5	0	0	5	5				
Lanes:	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0	22	0	22	68	526	0	0	1341	46				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	0	0	0	25	0	25	78	600	0	0	1529	52				
Added Vol:	0	0	0	2	0	0	0	68	0	0	18	10				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	27	0	25	78	668	0	0	1547	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:	0	0	0	27	0	25	78	668	0	0	1547	62				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	27	0	25	78	668	0	0	1547	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				
FinalVolume:	0	0	0	27	0	25	78	668	0	0	1547	62				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.89	1.00	0.89	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.52	0.00	0.48	1.00	2.00	0.00	0.00	1.92	0.08				
Final Sat.:	0	0	0	881	0	816	1769	3538	0	0	3380	136				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.03	0.04	0.19	0.00	0.00	0.46	0.46				
Crit Moves:				****			****				****					
Green/Cycle:	0.00	0.00	0.00	0.06	0.00	0.06	0.07	0.81	0.00	0.00	0.74	0.74				
Volume/Cap:	0.00	0.00	0.00	0.52	0.00	0.52	0.62	0.23	0.00	0.00	0.62	0.62				
Uniform Del:	0.0	0.0	0.0	38.8	0.0	38.8	38.4	1.9	0.0	0.0	5.3	5.3				
IncremntDel:	0.0	0.0	0.0	4.9	0.0	4.9	9.0	0.0	0.0	0.0	0.5	0.5				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	43.8	0.0	43.8	47.4	1.9	0.0	0.0	5.7	5.7				
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:	0.0	0.0	0.0	43.8	0.0	43.8	47.4	1.9	0.0	0.0	5.7	5.7				
LOS by Move:	A	A	A	D	A	D	D	A	A	A	A	A				
HCM2kAvgQ:	0	0	0	2	0	2	3	2	0	0	11	11				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.623
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	36	42	23		9	24	50		46	663	49		28	1484	28	
Added Vol:	0	0	0		0	0	0		0	68	0		0	18	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	36	42	23		9	24	50		46	731	49		28	1502	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:	36	42	23		9	24	50		46	731	49		28	1502	28	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	36	42	23		9	24	50		46	731	49		28	1502	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	
FinalVolume:	36	42	23		9	24	50		46	731	49		29	1502	29	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.91	0.91	0.91		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.36	0.42	0.22		0.11	0.29	0.60		1.00	1.87	0.13		1.00	1.96	0.04	
Final Sat.:	651	752	407		190	500	1047		1805	3353	225		1805	3532	67	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.05	0.05	0.05		0.03	0.22	0.22		0.02	0.43	0.43	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.09	0.09	0.09		0.08	0.08	0.08		0.05	0.59	0.59		0.14	0.68	0.68	
Volume/Cap:	0.63	0.64	0.64		0.62	0.63	0.63		0.51	0.37	0.37		0.12	0.63	0.63	
Uniform Del:	44.0	44.1	44.1		44.7	44.8	44.8		46.3	10.8	10.8		38.0	9.2	9.2	
IncremntDel:	7.8	8.7	8.7		8.3	9.4	9.4		4.6	0.1	0.1		0.2	0.5	0.5	
InitQueuDel:	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:	51.8	52.9	52.9		52.9	54.2	54.2		50.9	10.9	10.9		38.2	9.7	9.7	
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:	51.8	52.9	52.9		52.9	54.2	54.2		50.9	10.9	10.9		38.2	9.7	9.7	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	A	A	
HCM2kAvgQ:	4	4	4		4	4	4		2	7	7		1	14	14	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.730
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 29.0
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	123	257	129		57	223	98		161	567	89		111	1271	56	
Added Vol:	0	0	0		0	0	0		0	68	0		0	18	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	257	129		57	223	98		161	635	89		111	1289	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:	123	257	129		57	223	98		161	635	89		111	1289	56	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	257	129		57	223	98		161	635	89		111	1289	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	
FinalVolume:	123	257	129		57	223	98		161	635	89		111	1289	56	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.75	0.25		1.00	1.92	0.08	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3109	436		1805	3439	149	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.14	0.08		0.03	0.12	0.06		0.09	0.20	0.20		0.06	0.37	0.37	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.19	0.19		0.07	0.16	0.16		0.12	0.49	0.49		0.15	0.51	0.51	
Volume/Cap:	0.73	0.73	0.43		0.46	0.73	0.38		0.73	0.42	0.42		0.42	0.73	0.73	
Uniform Del:	44.1	38.3	36.0		44.8	39.9	37.5		42.3	16.4	16.4		38.8	18.9	18.9	
IncremntDel:	15.0	7.4	1.0		2.7	8.6	0.9		11.7	0.2	0.2		1.1	1.5	1.5	
InitQueuDel:	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:	59.1	45.7	37.0		47.4	48.5	38.4		54.0	16.6	16.6		39.8	20.4	20.4	
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:	59.1	45.7	37.0		47.4	48.5	38.4		54.0	16.6	16.6		39.8	20.4	20.4	
LOS by Move:	E	D	D		D	D	D		D	B	B		D	C	C	
HCM2kAvgQ:	5	9	4		2	8	3		6	8	8		3	18	18	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	47	105	12		16	59	56		18	626	48		88	1246	61	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	54	120	14		18	67	64		21	714	55		100	1420	70	
Added Vol:	0	0	0		0	0	0		0	68	0		0	18	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	54	120	14		18	67	64		21	782	55		100	1438	70	
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	120	14		18	67	64		21	782	55		100	1438	70	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	54	120	14		18	67	64		21	782	55		100	1438	70	
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:	54	120	14		18	67	64		21	782	55		100	1438	70	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.98		0.94	0.94	0.94		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	0.29	0.64	0.07		0.12	0.45	0.43		1.00	1.87	0.13		1.00	1.91	0.09	
Final Sat.:	532	1187	136		217	801	761		1805	3340	234		1805	3419	165	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.10	0.10		0.08	0.08	0.08		0.01	0.23	0.23		0.06	0.42	0.42	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.14	0.14	0.14		0.12	0.12	0.12		0.05	0.51	0.51		0.12	0.58	0.58	
Volume/Cap:	0.72	0.72	0.72		0.72	0.72	0.72		0.23	0.46	0.46		0.46	0.72	0.72	
Uniform Del:	41.1	41.1	41.1		42.6	42.6	42.6		45.6	15.5	15.5		40.8	15.0	15.0	
IncremntDel:	9.5	9.5	9.5		11.7	11.7	11.7		1.3	0.2	0.2		1.5	1.3	1.3	
InitQueuDel:	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:	50.6	50.6	50.6		54.3	54.3	54.3		46.9	15.7	15.7		42.4	16.2	16.2	
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:	50.6	50.6	50.6		54.3	54.3	54.3		46.9	15.7	15.7		42.4	16.2	16.2	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	B	B	
HCM2kAvgQ:	7	7	7		6	6	6		1	9	9		3	18	18	

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

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

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap.(X): 0.289
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	14	14	14		14	14	14		73	73	73		73	73	73	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	18	59	9		7	43	11		15	614	24		15	123	24	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	21	67	10		8	49	13		17	700	27		17	140	27	
Added Vol:	0	0	0		0	0	0		0	68	0		0	18	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	21	67	10		8	49	13		17	768	27		17	158	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:	21	67	10		8	49	13		17	768	27		17	158	27	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	21	67	10		8	49	13		17	768	27		17	158	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	
FinalVolume:	21	67	10		8	49	13		17	768	27		17	158	27	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.93		0.95	0.95	0.95		0.63	0.95	0.95		0.32	0.93	0.93	
Lanes:	0.21	0.69	0.10		0.11	0.71	0.18		1.00	1.93	0.07		1.00	1.71	0.29	
Final Sat.:	369	1209	184		207	1271	325		1191	3468	124		616	3010	521	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.04	0.04	0.04		0.01	0.22	0.22		0.03	0.05	0.05	
Crit Moves:		****								****						
Green/Cycle:	0.19	0.19	0.19		0.19	0.19	0.19		0.77	0.77	0.77		0.77	0.77	0.77	
Volume/Cap:	0.29	0.29	0.29		0.20	0.20	0.20		0.02	0.29	0.29		0.04	0.07	0.07	
Uniform Del:	33.0	33.0	33.0		32.5	32.5	32.5		2.6	3.3	3.3		2.6	2.7	2.7	
IncremntDel:	0.5	0.5	0.5		0.3	0.3	0.3		0.0	0.1	0.1		0.0	0.0	0.0	
InitQueuDel:	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:	33.5	33.5	33.5		32.8	32.8	32.8		2.6	3.3	3.3		2.7	2.7	2.7	
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:	33.5	33.5	33.5		32.8	32.8	32.8		2.6	3.3	3.3		2.7	2.7	2.7	
LOS by Move:	C	C	C		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	3	3	3		2	2	2		0	4	4		0	1	1	

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 1.030
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 53.5
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1 1	1	0	1	0 1	2	0	2	0 1	1	0	1	1 0
Volume Module:																
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	413	498	374		13	141	437		133	401	323		56	1374	78	
Added Vol:	22	0	35		0	0	0		0	33	0		0	18	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	435	498	409		13	141	437		133	434	323		56	1392	78	
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:	435	498	409		13	141	437		133	434	323		56	1392	78	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	435	498	409		13	141	437		133	434	323		56	1392	78	
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:	435	498	409		13	141	437		133	434	323		56	1392	78	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.30	1.48	1.22		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.89	0.11	
Final Sat.:	2196	2516	2066		1805	1900	1615		3502	3610	1615		1805	3392	189	
Capacity Analysis Module:																
Vol/Sat:	0.20	0.20	0.20		0.01	0.07	0.27		0.04	0.12	0.20		0.03	0.41	0.41	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.19	0.36	0.36		0.09	0.26	0.26		0.05	0.35	0.35		0.09	0.39	0.39	
Volume/Cap:	1.05	0.55	0.55		0.08	0.29	1.05		0.76	0.34	0.56		0.35	1.05	1.05	
Uniform Del:	40.5	25.7	25.7		41.7	29.7	37.1		46.9	23.7	26.1		42.9	30.4	30.4	
IncremntDel:	38.0	0.3	0.3		0.2	0.3	56.6		17.7	0.2	1.3		1.3	37.0	37.0	
InitQueuDel:	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:	78.6	26.0	26.0		41.9	30.0	93.6		64.6	23.9	27.4		44.2	67.4	67.4	
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:	78.6	26.0	26.0		41.9	30.0	93.6		64.6	23.9	27.4		44.2	67.4	67.4	
LOS by Move:	E	C	C		D	C	F		E	C	C		D	E	E	
HCM2kAvgQ:	17	9	9		0	4	21		4	5	8		2	34	34	

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.436
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.3
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0	2	1 0	0	0	2	0 0	2	0	0	0 1	0	0	0	0 1
Volume Module:																
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	113	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	954	9		0	514	0		416	0	160		0	0	129	
Added Vol:	0	0	0		0	0	0		57	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	954	9		0	514	0		473	0	160		0	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:	0	954	9		0	514	0		473	0	160		0	0	129	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	954	9		0	514	0		473	0	160		0	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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	1050	10		0	540	0		487	0	160		0	0	129	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5646	54		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.19	0.19		0.00	0.14	0.00		0.13	0.00	0.10		0.00	0.00	0.09	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.00	0.43	0.43		0.00	0.43	0.00		0.31	0.00	0.51		0.00	0.00	0.20	
Volume/Cap:	0.00	0.44	0.44		0.00	0.33	0.00		0.44	0.00	0.19		0.00	0.00	0.44	
Uniform Del:	0.0	10.0	10.0		0.0	9.5	0.0		13.6	0.0	6.5		0.0	0.0	17.2	
IncremntDel:	0.0	0.1	0.1		0.0	0.0	0.0		0.2	0.0	0.0		0.0	0.0	0.7	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	8.6	8.6		0.0	8.1	0.0		11.7	0.0	5.6		0.0	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:	0.0	8.6	8.6		0.0	8.1	0.0		11.7	0.0	5.6		0.0	0.0	15.3	
DesignQueue:	0	8	8		0	6	0		6	0	3		0	0	4	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.718
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.3
Optimal Cycle: 180 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	16		16	16	0		0	0	0		29	45	28		61	0
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	317		1	220	0		0	0	0	828	379	798	1527			0
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	1.14	1.14	1.14			1.14
Initial Bse:	361		1	251	0		0	0	0	944	432	910	1741			0
Added Vol:	0		0	0	0		0	0	0	33	14	2	46			0
PasserByVol:	0		0	0	0		0	0	0	0	0	0	0			0
Initial Fut:	361		1	251	0		0	0	0	977	446	912	1787			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:	361		1	251	0		0	0	0	977	446	912	1787			0
Reduct Vol:	0		0	0	0		0	0	0	0	0	0	0			0
Reduced Vol:	361		1	251	0		0	0	0	977	446	912	1787			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:	361		1	251	0		0	0	0	977	446	912	1787			0
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900	1900	1900	1900			1900
Adjustment:	0.86	0.86		0.86	1.00	1.00		1.00	1.00	0.95	0.75	0.92	0.95			1.00
Lanes:	1.58	0.01		1.41	0.00	0.00		0.00	0.00	2.00	2.00	2.00	2.00			0.00
Final Sat.:	2584		6	2291	0		0	0	0	3610	2842	3502	3610			0
Capacity Analysis Module:																
Vol/Sat:	0.14	0.19		0.11	0.00	0.00		0.00	0.00	0.27	0.16	0.26	0.49			0.00
Crit Moves:		****											****			
Green/Cycle:	0.19	0.19		0.19	0.00	0.00		0.00	0.00	0.34	0.34	0.42	0.76			0.00
Volume/Cap:	0.74	1.00		0.58	0.00	0.00		0.00	0.00	0.79	0.46	0.61	0.65			0.00
Uniform Del:	32.6	34.5		31.5	0.0	0.0		0.0	0.0	25.3	21.9	19.1	4.7			0.0
IncremntDel:	3.7	37.2		0.8	0.0	0.0		0.0	0.0	3.6	0.3	0.8	0.5			0.0
InitQueuDel:	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	0.00		0.00	0.00	1.00	1.00	1.00	1.00			0.00
Delay/Veh:	36.2	71.7		32.3	0.0	0.0		0.0	0.0	28.9	22.2	19.9	5.2			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:	36.2	71.7		32.3	0.0	0.0		0.0	0.0	28.9	22.2	19.9	5.2			0.0
LOS by Move:	D	E		C	A	A		A	A	C	C	B	A			A
HCM2kAvgQ:	7	14		5	0	0		0	0	14	6	10	12			0

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.3
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5		5	5	5		5	5	5		5	5	5		5	5
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	14		78	250	410		115	41	51	538		13	238	1506		420
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	1.14	1.14	1.14	1.14		1.14
Initial Bse:	16		89	285	467		131	47	58	613		15	271	1717		479
Added Vol:	0		0	0	0		0	0	0	48		0	0	46		0
PasserByVol:	0		0	0	0		0	0	0	0		0	0	0		0
Initial Fut:	16		89	285	467		131	47	58	661		15	271	1763		479
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		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		1.00
PHF Volume:	16		89	285	467		131	47	58	661		15	271	1763		479
Reduct Vol:	0		0	0	0		0	0	0	0		0	0	0		0
Reduced Vol:	16		89	285	467		131	47	58	661		15	271	1763		479
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		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		1.00
FinalVolume:	16		89	285	467		131	47	58	661		15	271	1763		479
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900	1900	1900	1900	1900		1900
Adjustment:	0.90	0.90		0.90	0.92	0.96		0.96	0.95	0.95	0.95	0.95	0.95	0.95		0.85
Lanes:	0.04	0.23		0.73	2.00	0.74		0.26	1.00	1.96		0.04	1.00	2.00		1.00
Final Sat.:	70	390		1249	3502	1346		480	1805	3520		79	1805	3610		1615
Capacity Analysis Module:																
Vol/Sat:	0.23	0.23		0.23	0.13	0.10		0.10	0.03	0.19		0.19	0.15	0.49		0.30
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.23		0.23	0.13	0.11		0.11	0.05	0.30		0.30	0.24	0.48		0.48
Volume/Cap:	0.91	1.01		1.01	1.01	0.91		0.91	0.64	0.63		0.63	0.63	1.01		0.61
Uniform Del:	36.4	38.7		38.7	43.4	44.2		44.2	46.6	30.5		30.5	34.3	25.9		19.0
IncremntDel:	23.3	48.9		48.9	44.9	40.3		40.3	14.9	1.3		1.3	3.1	24.5		1.5
InitQueuDel:	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:	59.7	87.6		87.6	88.3	84.5		84.5	61.5	31.8		31.8	37.4	50.4		20.5
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:	59.7	87.6		87.6	88.3	84.5		84.5	61.5	31.8		31.8	37.4	50.4		20.5
LOS by Move:	E	F		F	F	F		F	E	C		C	D	D		C
HCM2kAvgQ:	16	18		18	12	9		9	3	10		10	8	37		11

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.888
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 46.5
Optimal Cycle: 102 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1
Volume Module:																
Base Vol:	37	264	51		92	391	62		15	228	24		73	584	95	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	42	301	58		105	446	71		17	260	27		83	666	108	
Added Vol:	1	87	24		6	27	1		15	18	0		2	36	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	43	388	82		111	473	72		32	278	27		85	702	117	
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	82		111	473	72		32	278	27		85	702	117	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	43	388	82		111	473	72		32	278	27		85	702	117	
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:	43	388	82		111	473	72		32	278	27		85	702	117	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.93	0.93	0.93		0.95	0.99	0.99		0.95	0.98	0.98	
Lanes:	0.17	1.51	0.32		0.34	1.44	0.22		1.00	0.91	0.09		1.00	0.86	0.14	
Final Sat.:	295	2652	562		596	2542	385		1805	1707	168		1805	1594	266	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.15	0.15		0.19	0.19	0.19		0.02	0.16	0.16		0.05	0.44	0.44	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.16	0.16	0.16		0.20	0.20	0.20		0.05	0.40	0.40		0.12	0.48	0.48	
Volume/Cap:	0.92	0.92	0.92		0.92	0.92	0.92		0.36	0.40	0.40		0.38	0.92	0.92	
Uniform Del:	41.4	41.4	41.4		39.1	39.1	39.1		45.9	21.2	21.2		40.2	24.3	24.3	
IncremntDel:	20.5	20.5	20.5		17.1	17.1	17.1		2.4	0.4	0.4		1.1	14.4	14.4	
InitQueuDel:	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:	62.0	62.0	62.0		56.2	56.2	56.2		48.3	21.5	21.5		41.3	38.7	38.7	
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:	62.0	62.0	62.0		56.2	56.2	56.2		48.3	21.5	21.5		41.3	38.7	38.7	
LOS by Move:	E	E	E		E	E	E		D	C	C		D	D	D	
HCM2kAvgQ:	12	12	12		14	14	14		1	7	7		3	28	28	

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.738
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 59 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	45	2362	0		0	1034	31		103	0	6		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	51	2693	0		0	1179	35		117	0	7		0	0	0	
Added Vol:	94	19	0		0	256	0		154	0	21		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	145	2712	0		0	1435	35		271	0	28		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:	145	2712	0		0	1435	35		271	0	28		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	145	2712	0		0	1435	35		271	0	28		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	
FinalVolume:	145	2712	0		0	1435	35		271	0	28		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.53	0.00		0.00	0.28	0.02		0.15	0.00	0.02		0.00	0.00	0.00	
Crit Moves:		****			****				****							
Green/Cycle:	0.16	0.72	0.00		0.00	0.56	0.56		0.21	0.00	0.21		0.00	0.00	0.00	
Volume/Cap:	0.50	0.74	0.00		0.00	0.50	0.04		0.74	0.00	0.08		0.00	0.00	0.00	
Uniform Del:	49.6	10.7	0.0		0.0	17.5	12.9		48.2	0.0	41.5		0.0	0.0	0.0	
IncremntDel:	1.4	0.8	0.0		0.0	0.1	0.0		7.7	0.0	0.1		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	51.0	11.5	0.0		0.0	17.7	12.9		55.8	0.0	41.6		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:	51.0	11.5	0.0		0.0	17.7	12.9		55.8	0.0	41.6		0.0	0.0	0.0	
LOS by Move:	D	B	A		A	B	B		E	A	D		A	A	A	
HCM2kAvgQ:	6	24	0		0	13	1		12	0	1		0	0	0	

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.675
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	0	5	5	5	5	0	5	0	0	0	0	0
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0	0	851	196	218	0	31	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	166	2360	0	0	970	223	249	0	35	0	0	0				
Added Vol:	94	109	0	0	275	2	4	0	21	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	260	2469	0	0	1245	225	253	0	56	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:	260	2469	0	0	1245	225	253	0	56	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	260	2469	0	0	1245	225	253	0	56	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				
FinalVolume:	260	2469	0	0	1245	225	253	0	56	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.15	0.49	0.00	0.00	0.24	0.14	0.14	0.00	0.04	0.00	0.00	0.00				
Crit Moves:		****		****			****									
Green/Cycle:	0.27	0.72	0.00	0.00	0.45	0.45	0.21	0.00	0.21	0.00	0.00	0.00				
Volume/Cap:	0.55	0.68	0.00	0.00	0.55	0.32	0.68	0.00	0.17	0.00	0.00	0.00				
Uniform Del:	40.6	10.0	0.0	0.0	26.1	23.0	47.2	0.0	41.9	0.0	0.0	0.0				
IncremntDel:	1.3	0.5	0.0	0.0	0.3	0.3	4.8	0.0	0.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	41.9	10.5	0.0	0.0	26.4	23.2	52.0	0.0	42.2	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:	41.9	10.5	0.0	0.0	26.4	23.2	52.0	0.0	42.2	0.0	0.0	0.0				
LOS by Move:	D	B	A	A	C	C	D	A	D	A	A	A				
HCM2kAvgQ:	9	20	0	0	13	6	10	0	2	0	0	0				

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

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

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.731
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 40 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0	0	0	10	10	4	0	4	0	0	0	0	0	0
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0	0	398	66	83	0	561	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	529	417	0	0	454	75	95	0	640	0	0	0				
Added Vol:	61	22	0	0	47	2	7	0	28	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	590	439	0	0	501	77	102	0	668	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	590	439	0	0	501	77	102	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	590	439	0	0	501	77	102	0	0	0	0	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	590	439	0	0	501	77	102	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1584	244	1769	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.33	0.24	0.00	0.00	0.32	0.32	0.06	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.46	0.89	0.00	0.00	0.43	0.43	0.08	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.73	0.27	0.00	0.00	0.73	0.73	0.73	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	26.6	1.0	0.0	0.0	28.3	28.3	54.1	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	3.5	0.1	0.0	0.0	3.5	3.5	17.9	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	30.1	1.1	0.0	0.0	31.8	31.8	72.0	0.0	0.0	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:	30.1	1.1	0.0	0.0	31.8	31.8	72.0	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	C	E	A	A	A	A	A				
HCM2kAvgQ:	19	3	0	0	18	18	5	0	0	0	0	0				

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

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

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.540
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 24 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1	0 2	0 1		1	0 2	0 1		1	0 0	1 0		0	1 0	0 1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	708	68		3	3	3		123	53	241	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	65	710	56		219	808	78		3	3	3		140	60	275	
Added Vol:	0	82	0		1	74	0		0	0	0		0	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	65	792	56		220	882	78		3	3	3		140	60	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:	65	792	56		220	882	78		3	3	3		140	60	276	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	65	792	56		220	882	78		3	3	3		140	60	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	
FinalVolume:	65	792	56		220	882	78		3	3	3		140	60	276	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.47	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		896	861	861		1020	440	1583	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.22	0.04		0.12	0.25	0.05		0.00	0.00	0.00		0.14	0.14	0.17	
Crit Moves:		****			****										****	
Green/Cycle:	0.08	0.41	0.41		0.23	0.56	0.56		0.32	0.32	0.32		0.32	0.32	0.32	
Volume/Cap:	0.44	0.54	0.09		0.54	0.44	0.09		0.01	0.01	0.01		0.43	0.43	0.54	
Uniform Del:	52.4	26.5	21.3		40.6	15.4	12.1		27.7	27.7	27.7		31.9	31.9	33.4	
IncremntDel:	2.1	0.4	0.1		1.5	0.2	0.0		0.0	0.0	0.0		0.6	0.6	1.2	
InitQueuDel:	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:	54.6	26.9	21.4		42.1	15.5	12.2		27.7	27.7	27.7		32.6	32.6	34.5	
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:	54.6	26.9	21.4		42.1	15.5	12.2		27.7	27.7	27.7		32.6	32.6	34.5	
LOS by Move:	D	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	3	12	1		8	10	1		0	0	0		6	6	9	

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

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

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.869
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.8
Optimal Cycle: 94 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1 0	0 1		0	1 0	0 1		1	0 0	1 0		0	0 1!	0 0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	131	358	9		8	559	405		130	39	51		7	111	6	
Added Vol:	0	111	0		0	34	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	131	469	9		8	593	405		130	39	51		7	111	6	
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:	131	469	9		8	593	405		130	39	51		7	111	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	131	469	9		8	593	405		130	39	51		7	111	6	
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:	131	469	9		8	593	405		130	39	51		7	111	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.22	0.78	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	411	1469	1615		25	1873	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.32	0.32	0.01		0.32	0.32	0.25		0.07	0.05	0.05		0.07	0.07	0.07	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.37	0.37	0.37		0.36	0.36	0.36		0.08	0.08	0.08		0.08	0.08	0.08	
Volume/Cap:	0.87	0.87	0.02		0.87	0.87	0.69		0.87	0.63	0.63		0.87	0.87	0.87	
Uniform Del:	29.4	29.4	20.1		29.6	29.6	27.0		45.3	44.4	44.4		45.7	45.7	45.7	
IncremntDel:	11.4	11.4	0.0		11.4	11.4	3.4		38.2	8.3	8.3		39.7	39.7	39.7	
InitQueuDel:	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:	40.8	40.8	20.1		41.0	41.0	30.4		83.5	52.7	52.7		85.4	85.4	85.4	
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:	40.8	40.8	20.1		41.0	41.0	30.4		83.5	52.7	52.7		85.4	85.4	85.4	
LOS by Move:	D	D	C		D	D	C		F	D	D		F	F	F	
HCM2kAvgQ:	20	20	0		20	20	12		7	4	4		6	6	6	

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

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

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.593
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.5
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0 0	0	0	3	0 1	2	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	2505	0	0	891	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	203	0	0	296	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2708	0	0	1187	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	2708	0	0	1187	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2708	0	0	1187	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	2708	0	0	1187	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.52	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****		****												
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.59	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.7	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.7	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	8	0	0	2	0	0	0	0	0	0	0	0	0	0	0

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

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Scenario Report

Scenario:	Cumulative 2025 PM
Command:	Long Term No Project I PM
Volume:	Long Term No Project I PM
Geometry:	Long Term No Project I PM
Impact Fee:	Default Impact Fee
Trip Generation:	Long Term No Project I PM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Long Term No Project I PM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	E	77.7	1.075	E	79.6	1.085	+ 1.883 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	19.2	0.929	D	44.9	1.096	+25.633 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	23.8	0.931	C	29.9	0.972	+ 6.065 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.3	0.781	C	22.4	0.860	-1.924 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	29.2	0.664	C	22.2	0.743	-6.988 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.9	0.659	B	15.4	0.686	-0.557 D/V
# 7 Middlefield at Marsh (Town of	D	39.4	0.922	D	44.4	0.998	+ 5.015 D/V
# 8 Bayfront Exp. & Willow Rd.	E	67.9	1.045	F	103.7	1.160	+35.776 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7	0.693	C	24.0	0.720	+ 0.345 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.8	0.619	B	13.9	0.655	+ 1.068 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.4	0.622	B	10.1	0.652	-0.332 D/V
# 12 Newbridge St. & Willow Rd.	D	36.8	0.838	D	41.1	0.937	+ 4.274 D/V
# 13 Bay Rd. & Willow Rd.	C	22.2	0.833	C	23.5	0.874	+ 1.272 D/V
# 14 Durham St. & Willow Rd.	E	56.1	0.728	B	18.3	0.813	-37.783 D/V
# 15 Coleman Ave. & Willow Rd.	B	14.3	0.833	B	15.9	0.901	+ 1.604 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.1	0.745	B	13.9	0.839	-0.183 D/V
# 17 Middlefield Rd. & Willow Rd.	F	153.6	1.404	F	205.7	1.505	+52.106 D/V
# 18 Bayfront Exp. & University Ave	F	211.8	1.460	F	235.7	1.531	+23.859 D/V
# 19 O'Brien Dr. & University Ave.	B	14.3	0.760	B	14.7	0.774	+ 0.459 D/V
# 20 University & Kavanaugh	B	17.7	0.732	B	17.7	0.739	-0.032 D/V
# 21 University & Bay	D	39.5	0.918	D	39.8	0.924	+ 0.289 D/V
# 22 University & Runnymede	C	24.8	0.770	C	24.8	0.776	+ 0.005 D/V
# 23 University & Bell	A	8.2	0.605	A	8.2	0.611	-0.043 D/V
# 24 University & Donohoe	D	43.4	0.962	D	44.9	0.972	+ 1.462 D/V
# 25 NB 101 & Donohoe St	B	14.3	0.532	B	14.3	0.535	+ 0.060 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	33.4	0.580	C	34.2	0.592	+ 0.748 D/V
# 27 University Ave. & Woodland	E	57.6	0.980	E	60.0	0.998	+ 2.427 D/V
# 28 Middlefield Rd. & University A	C	33.8	0.613	D	35.1	0.666	+ 1.255 D/V
# 29 Bayfront Exp. & Chrysler Dr.	C	20.8	0.777	F	102.7	1.180	+81.881 D/V
# 30 Bayfront Exp. & Chilco St.	B	15.0	0.666	B	19.6	0.770	+ 4.654 D/V
# 31 Middlefield Rd. & Ravenswood A	C	30.5	0.818	C	32.6	0.874	+ 2.127 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.6	0.689	C	30.0	0.708	+ 0.396 D/V
# 33 Middlefield Rd and Lytton Ave	F	87.3	1.067	F	113.7	1.155	+26.350 D/V
# 34 Bayfront Expy. and Facebook We	A	1.5	0.576	A	1.6	0.618	+ 0.133 D/V

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

****

Intersection #1 Bayfront Exp. & Marsh Rd.

****

Cycle (sec): 140 Critical Vol./Cap.(X): 1.085
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 79.6
Optimal Cycle: 180 Level Of Service: E

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	1350	56	8		0	394	212		158	46	2225		35	83	13	
Added Vol:	759	0	0		0	0	0		0	0	25		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2109	56	8		0	394	212		158	46	2250		35	83	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:	2109	56	8		0	394	212		158	46	2250		35	83	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2109	56	8		0	394	212		158	46	2250		35	83	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	
FinalVolume:	2109	56	8		0	394	212		158	46	2250		35	83	13	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.87	0.13		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.41	0.03	0.03		0.00	0.11	0.13		0.11	0.11	0.81		0.07	0.07	0.07	
Crit Moves:	****					****					****				****	
Green/Cycle:	0.38	0.38	0.38		0.00	0.10	0.47		0.37	0.37	0.74		0.07	0.07	0.07	
Volume/Cap:	1.08	0.09	0.09		0.00	1.08	0.29		0.31	0.31	1.08		1.08	1.08	1.08	
Uniform Del:	43.6	28.1	28.1		0.0	62.8	22.7		31.6	31.6	17.9		65.3	65.3	65.3	
IncremntDel:	47.6	0.1	0.1		0.0	71.7	0.2		0.3	0.3	47.1		106.4	106	106.4	
InitQueuDel:	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:	91.1	28.1	28.1		0.0	135	22.9		31.9	31.9	64.9		171.7	172	171.7	
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:	91.1	28.1	28.1		0.0	135	22.9		31.9	31.9	64.9		171.7	172	171.7	
LOS by Move:	F	C	C		A	F	C		C	C	E		F	F	F	
HCM2kAvgQ:	42	2	2		0	14	5		6	6	70		10	10	10	

****

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

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

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.096
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 44.9
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0	1	0	0	0	0	0	0	1	1	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	562	0	243		0	0	0		0	2352	578		0	777	902	
Added Vol:	0	0	160		0	0	0		3	88	0		0	609	150	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	562	0	403		0	0	0		3	2440	578		0	1386	1052	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	562	0	403		0	0	0		3	2440	0		0	1386	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	562	0	403		0	0	0		3	2440	0		0	1386	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	562	0	403		0	0	0		3	2440	0		0	1386	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3374	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.00	0.25		0.00	0.00	0.00		0.72	0.72	0.00		0.00	0.39	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.23	0.00	0.23		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.66	0.00	
Volume/Cap:	0.70	0.00	1.10		0.00	0.00	0.00		1.10	1.10	0.00		0.00	0.59	0.00	
Uniform Del:	22.9	0.0	24.9		0.0	0.0	0.0		11.1	11.1	0.0		0.0	6.2	0.0	
IncremntDel:	2.9	0.0	75.1		0.0	0.0	0.0		50.8	50.8	0.0		0.0	0.4	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	25.8	0.0	100.1		0.0	0.0	0.0		61.9	61.9	0.0		0.0	6.6	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:	25.8	0.0	100.1		0.0	0.0	0.0		61.9	61.9	0.0		0.0	6.6	0.0	
LOS by Move:	C	A	F		A	A	A		E	E	A		A	A	A	
HCM2kAvgQ:	7	0	17		0	0	0		45	45	0		0	9	0	

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

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

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.972
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 29.9
Optimal Cycle: 119 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0	0	2	0	0	0	1	0	0	2	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1545	0	516		0	1346	742		0	1072	321	
Added Vol:	0	0	0		50	0	17		0	77	0		0	249	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1595	0	533		0	1423	742		0	1321	321	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1595	0	533		0	1423	0		0	1321	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1595	0	533		0	1423	0		0	1321	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1595	0	533		0	1423	0		0	1321	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.46	0.00	0.34		0.00	0.40	0.00		0.00	0.37	0.00	
Crit Moves:					****					****						
Green/Cycle:	0.00	0.00	0.00		0.48	0.00	0.48		0.00	0.41	0.00		0.00	0.41	0.00	
Volume/Cap:	0.00	0.00	0.00		0.97	0.00	0.70		0.00	0.97	0.00		0.00	0.90	0.00	
Uniform Del:	0.0	0.0	0.0		16.5	0.0	13.3		0.0	18.7	0.0		0.0	17.8	0.0	
IncremntDel:	0.0	0.0	0.0		16.0	0.0	3.0		0.0	17.2	0.0		0.0	8.0	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		32.5	0.0	16.4		0.0	35.8	0.0		0.0	25.8	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:	0.0	0.0	0.0		32.5	0.0	16.4		0.0	35.8	0.0		0.0	25.8	0.0	
LOS by Move:	A	A	A		C	A	B		A	D	A		A	C	A	
HCM2kAvgQ:	0	0	0		23	0	10		0	22	0		0	17	0	

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

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

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.860
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: 64 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0	1	0	0	2	0	1	0	0	1	1	0	2	1	0	
Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM																
Base Vol:	28	15	267		254	9	2		42	1314	17		78	1109	214	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	32	17	304		290	10	2		48	1498	19		89	1264	244	
Added Vol:	0	0	0		0	0	0		0	79	0		0	266	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	32	17	304		290	10	2		48	1577	19		89	1530	244	
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:	32	17	304		290	10	2		48	1577	19		89	1530	244	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	32	17	304		290	10	2		48	1577	19		89	1530	244	
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:	32	17	304		290	10	2		48	1577	19		89	1530	244	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.73		0.93	0.93	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.65	0.35	2.00		0.97	0.03	1.00		1.00	2.96	0.04		2.00	1.72	0.28	
Final Sat.:	1174	629	2786		1716	61	1583		1769	5012	62		3432	2987	476	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.03	0.11		0.17	0.17	0.00		0.03	0.31	0.31		0.03	0.51	0.51	
Crit Moves:			****			****			****					****		
Green/Cycle:	0.12	0.12	0.12		0.19	0.19	0.19		0.05	0.55	0.55		0.09	0.58	0.58	
Volume/Cap:	0.22	0.22	0.88		0.88	0.88	0.01		0.54	0.58	0.58		0.30	0.88	0.88	
Uniform Del:	31.5	31.5	34.4		31.4	31.4	26.1		37.1	12.0	12.0		34.2	14.2	14.2	
IncremntDel:	0.5	0.5	21.6		21.9	21.9	0.0		6.7	0.3	0.3		0.6	4.8	4.8	
InitQueuDel:	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:	32.0	32.0	56.0		53.3	53.3	26.1		43.8	12.3	12.3		34.8	19.0	19.0	
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:	32.0	32.0	56.0		53.3	53.3	26.1		43.8	12.3	12.3		34.8	19.0	19.0	
LOS by Move:	C	C	E		D	D	C		D	B	B		C	B	B	
HCM2kAvgQ:	1	1	7		11	11	0		2	10	10		1	23	23	

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

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

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.743
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 39 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1	0	0	1	0	1	1	0	0	1	1	0	1	0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm																
Base Vol:	95	32	58		428	30	128		239	885	55		26	833	316	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	108	36	66		488	34	146		272	1009	63		30	950	360	
Added Vol:	0	0	0		0	0	0		0	79	0		0	266	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	108	36	66		488	34	146		272	1088	63		30	1216	360	
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:	108	36	66		488	34	146		272	1088	63		30	1216	360	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	108	36	66		488	34	146		272	1088	63		30	1216	360	
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:	108	36	66		488	34	146		272	1088	63		30	1216	360	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.88	0.88		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.36	0.64		1.87	0.13	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	598	1084		3323	233	1583		1769	3318	191		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.15	0.15	0.09		0.15	0.33	0.33		0.02	0.34	0.23	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.08	0.08	0.08		0.20	0.20	0.20		0.21	0.58	0.58		0.09	0.46	0.46	
Volume/Cap:	0.74	0.74	0.74		0.74	0.74	0.47		0.74	0.56	0.56		0.19	0.74	0.49	
Uniform Del:	35.9	35.9	35.9		30.2	30.2	28.4		29.7	10.4	10.4		33.8	17.6	15.0	
IncremntDel:	18.5	19.0	19.0		4.3	4.3	1.1		8.0	0.4	0.4		0.6	1.9	0.5	
InitQueuDel:	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:	54.3	54.9	54.9		34.5	34.5	29.5		37.7	10.8	10.8		34.4	19.5	15.5	
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:	54.3	54.9	54.9		34.5	34.5	29.5		37.7	10.8	10.8		34.4	19.5	15.5	
LOS by Move:	D	D	D		D	C	C		D	B	B		C	B	B	
HCM2kAvgQ:	4	4	4		8	8	4		8	10	10		1	14	7	

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

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

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.686
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		6	6	6		4	6	6	
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1	0	1	0	1	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	57	8	180		55	31	3		5	819	90		200	891	47	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	65	9	205		63	35	3		6	934	103		228	1016	54	
Added Vol:	2	0	0		0	0	0		0	79	2		0	266	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	67	9	205		63	35	3		6	1013	105		228	1282	54	
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	9	205		63	35	3		6	1013	105		228	1282	54	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	67	9	205		63	35	3		6	1013	105		228	1282	54	
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:	67	9	205		63	35	3		6	1013	105		228	1282	54	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.81	0.81	0.81		0.65	0.65	0.65		0.87	0.87	0.87		0.93	0.93	0.93	
Lanes:	0.24	0.03	0.73		0.62	0.35	0.03		0.01	1.80	0.19		1.00	1.92	0.08	
Final Sat.:	365	50	1119		768	433	42		17	2985	308		1769	3375	141	
Capacity Analysis Module:																
Vol/Sat:	0.18	0.18	0.18		0.08	0.08	0.08		0.34	0.34	0.34		0.13	0.38	0.38	
Crit Moves:		****								****			****			
Green/Cycle:	0.27	0.27	0.27		0.27	0.27	0.27		0.50	0.50	0.50		0.19	0.68	0.68	
Volume/Cap:	0.69	0.69	0.69		0.31	0.31	0.31		0.68	0.68	0.68		0.68	0.56	0.56	
Uniform Del:	26.4	26.4	26.4		23.5	23.5	23.5		15.4	15.4	15.4		30.2	6.4	6.4	
IncremntDel:	4.9	4.9	4.9		0.5	0.5	0.5		1.2	1.2	1.2		5.8	0.3	0.3	
InitQueuDel:	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:	31.3	31.3	31.3		24.0	24.0	24.0		16.6	16.6	16.6		36.0	6.7	6.7	
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:	31.3	31.3	31.3		24.0	24.0	24.0		16.6	16.6	16.6		36.0	6.7	6.7	
LOS by Move:	C	C	C		C	C	C		B	B	B		D	A	A	
HCM2kAvgQ:	8	8	8		2	2	2		12	12	12		7	9	9	

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

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

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.998
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.																
Base Vol:	0	426	548		408	269	0		0	0	0		515	0	447	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	486	625		465	307	0		0	0	0		587	0	510	
Added Vol:	0	26	68		13	7	0		0	0	0		86	0	183	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	512	693		478	314	0		0	0	0		673	0	693	
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	512	693		478	314	0		0	0	0		673	0	693	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	512	693		478	314	0		0	0	0		673	0	693	
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:	0	512	693		478	314	0		0	0	0		673	0	693	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.27	0.43		0.26	0.17	0.00		0.00	0.00	0.00		0.37	0.00	0.43	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.27	0.64		0.27	0.54	0.00		0.00	0.00	0.00		0.37	0.00	0.64	
Volume/Cap:	0.00	1.00	0.67		1.00	0.31	0.00		0.00	0.00	0.00		1.00	0.00	0.67	
Uniform Del:	0.0	40.1	12.2		40.4	14.2	0.0		0.0	0.0	0.0		34.4	0.0	12.5	
IncremntDel:	0.0	39.1	1.7		40.5	0.2	0.0		0.0	0.0	0.0		34.1	0.0	1.7	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	79.3	13.9		80.9	14.4	0.0		0.0	0.0	0.0		68.5	0.0	14.3	
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:	0.0	79.3	13.9		80.9	14.4	0.0		0.0	0.0	0.0		68.5	0.0	14.3	
LOS by Move:	A	E	B		F	B	A		A	A	A		E	A	B	
HCM2kAvgQ:	0	24	15		22	6	0		0	0	0		30	0	15	

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

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

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.160
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 103.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM																				
Base Vol:	362	664	1	0	2199	108	36	13	1424	44	105	8								
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14								
Initial Bse:	413	757	1	0	2507	123	41	15	1623	50	120	9								
Added Vol:	163	145	1	19	171	0	0	37	40	122	150	69								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	576	902	2	19	2678	123	41	52	1663	172	270	78								
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:	576	902	2	19	2678	123	41	52	1663	172	270	78								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	576	902	2	19	2678	123	41	52	1663	172	270	78								
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:	576	902	2	19	2678	123	41	52	1663	172	270	78								
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.91	0.91	0.88	0.93	0.93	0.83								
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.33	1.67	2.00	1.00	2.00	1.00								
Final Sat.:	3432	5846	1583	3432	5846	1583	2294	2896	3343	1769	3538	1583								
Capacity Analysis Module:																				
Vol/Sat:	0.17	0.15	0.00	0.01	0.46	0.08	0.02	0.02	0.50	0.10	0.08	0.05								
Crit Moves:	****				****				****	****										
Green/Cycle:	0.14	0.43	0.52	0.11	0.39	0.39	0.28	0.28	0.43	0.08	0.08	0.19								
Volume/Cap:	1.16	0.36	0.00	0.05	1.16	0.20	0.06	0.06	1.16	1.16	0.91	0.26								
Uniform Del:	55.6	24.8	15.3	52.0	39.3	25.8	33.9	33.9	37.1	59.5	59.1	44.7								
IncremntDel:	92.5	0.1	0.0	0.1	77.3	0.2	0.0	0.0	80.2	123.4	29.9	0.5								
InitQueuDel:	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:	148.1	24.9	15.3	52.1	117	26.0	33.9	33.9	117.3	182.9	88.9	45.1								
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:	148.1	24.9	15.3	52.1	117	26.0	33.9	33.9	117.3	182.9	88.9	45.1								
LOS by Move:	F	C	B	D	F	C	C	C	F	F	F	D								
HCM2kAvgQ:	20	9	0	0	58	3	1	1	56	13	8	3								

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

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

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.0
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM																				
Base Vol:	129	6	49		73	5	73		130	1351	5		20	553	67	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	147	7	56		83	6	83		148	1540	6		23	630	76	
Added Vol:	0	0	0		0	0	7		11	77	0		0	312	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	147	7	56		83	6	90		159	1617	6		23	942	77	
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:	147	7	56		83	6	90		159	1617	6		23	942	77	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	147	7	56		83	6	90		159	1617	6		23	942	77	
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:	147	7	56		83	6	90		159	1617	6		23	942	77	
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.61	0.61	0.61		0.73	0.73	0.73		0.93	0.93	0.93		0.93	0.92	0.92	
Lanes:	0.70	0.03	0.27		0.46	0.03	0.51		1.00	1.99	0.01		1.00	1.85	0.15	
Final Sat.:	807	38	306		643	44	697		1769	3522	12		1769	3233	265	
Capacity Analysis Module:																				
Vol/Sat:	0.18	0.18	0.18		0.13	0.13	0.13		0.09	0.46	0.46		0.01	0.29	0.29	
Crit Moves:		****								****			****			
Green/Cycle:	0.25	0.25	0.25		0.25	0.25	0.25		0.16	0.62	0.62		0.04	0.51	0.51	
Volume/Cap:	0.74	0.74	0.74		0.53	0.53	0.53		0.58	0.74	0.74		0.31	0.58	0.58	
Uniform Del:	41.7	41.7	41.7		39.1	39.1	39.1		46.9	16.0	16.0		55.8	20.7	20.7	
IncremntDel:	9.9	9.9	9.9		1.5	1.5	1.5		3.0	1.4	1.4		2.4	0.5	0.5	
InitQueuDel:	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:	51.6	51.6	51.6		40.7	40.7	40.7		49.9	17.4	17.4		58.2	21.2	21.2	
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:	51.6	51.6	51.6		40.7	40.7	40.7		49.9	17.4	17.4		58.2	21.2	21.2	
LOS by Move:	D	D	D		D	D	D		D	B	B		E	C	C	
HCM2kAvgQ:	9	9	9		6	6	6		6	23	23		1	14	14	

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

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

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.655
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 13.9
Optimal Cycle: 53 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	22	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		11	0	139		112	1661	0		0	912	25	
Added Vol:	0	0	0		6	0	10		10	82	0		0	279	41	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		17	0	149		122	1743	0		0	1191	66	
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	0	0		17	0	149		122	1743	0		0	1191	66	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		17	0	149		122	1743	0		0	1191	66	
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:	0	0	0		17	0	149		122	1743	0		0	1191	66	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.86	1.00	0.86		0.93	0.93	1.00		1.00	0.92	0.92	
Lanes:	0.00	0.00	0.00		0.10	0.00	0.90		1.00	2.00	0.00		0.00	1.89	0.11	
Final Sat.:	0	0	0		170	0	1458		1769	3538	0		0	3325	184	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.10	0.00	0.10		0.07	0.49	0.00		0.00	0.36	0.36	
Crit Moves:							****			****			****			
Green/Cycle:	0.00	0.00	0.00		0.16	0.00	0.16		0.12	0.75	0.00		0.00	0.63	0.63	
Volume/Cap:	0.00	0.00	0.00		0.65	0.00	0.65		0.57	0.65	0.00		0.00	0.57	0.57	
Uniform Del:	0.0	0.0	0.0		47.6	0.0	47.6		49.8	7.3	0.0		0.0	12.7	12.7	
IncremntDel:	0.0	0.0	0.0		6.1	0.0	6.1		3.6	0.6	0.0		0.0	0.3	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		53.6	0.0	53.6		53.3	7.9	0.0		0.0	13.1	13.1	
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:	0.0	0.0	0.0		53.6	0.0	53.6		53.3	7.9	0.0		0.0	13.1	13.1	
LOS by Move:	A	A	A		D	A	D		A	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		7	0	7		5	17	0		0	14	14	

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

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

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.652
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 10.1
Optimal Cycle: 52 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	137	0	40		0	0	0		0	1611	233		83	1012	0	
Added Vol:	4	0	0		0	0	0		0	92	11		0	289	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	141	0	40		0	0	0		0	1703	244		83	1301	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:	141	0	40		0	0	0		0	1703	244		83	1301	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	141	0	40		0	0	0		0	1703	244		83	1301	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:	141	0	40		0	0	0		0	1703	244		83	1301	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.64	0.00	0.36		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2841	0	627		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.06		0.00	0.00	0.00		0.00	0.48	0.15		0.05	0.37	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.10	0.00	0.10		0.00	0.00	0.00		0.00	0.74	0.74		0.07	0.81	0.00	
Volume/Cap:	0.51	0.00	0.65		0.00	0.00	0.00		0.00	0.65	0.21		0.65	0.45	0.00	
Uniform Del:	51.4	0.0	52.2		0.0	0.0	0.0		0.0	7.9	4.8		54.2	3.4	0.0	
IncremntDel:	1.2	0.0	5.4		0.0	0.0	0.0		0.0	0.6	0.1		11.4	0.1	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	52.6	0.0	57.6		0.0	0.0	0.0		0.0	8.5	4.9		65.6	3.5	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:	52.6	0.0	57.6		0.0	0.0	0.0		0.0	8.5	4.9		65.6	3.5	0.0	
LOS by Move:	D	A	E		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	4	0	5		0	0	0		0	17	3		4	8	0	

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

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

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.937
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 41.1
Optimal Cycle: 148 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0 1	0 1		1	0 1	0 1		1	0 2	1 0		1	0 1	1 0	
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	34	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	283	194	63		43	189	250		368	1637	386		116	1112	39	
Added Vol:	0	0	0		0	0	9		7	103	0		0	293	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	283	194	63		43	189	259		375	1740	386		116	1405	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:	283	194	63		43	189	259		375	1740	386		116	1405	39	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	283	194	63		43	189	259		375	1740	386		116	1405	39	
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:	283	194	63		43	189	259		375	1740	386		116	1405	39	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.45	0.55		1.00	1.95	0.05	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4047	899		1769	3429	95	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.10	0.04		0.02	0.10	0.16		0.21	0.43	0.43		0.07	0.41	0.41	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.11	0.11	0.20		0.11	0.11	0.33		0.23	0.58	0.58		0.09	0.44	0.44	
Volume/Cap:	0.74	0.94	0.20		0.23	0.94	0.49		0.94	0.75	0.75		0.75	0.94	0.94	
Uniform Del:	51.7	52.9	40.1		48.9	53.1	31.7		45.6	18.9	18.9		53.4	32.2	32.2	
IncremntDel:	7.6	44.9	0.3		0.6	45.6	0.7		29.4	1.1	1.1		17.9	11.2	11.2	
InitQueuDel:	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:	59.3	97.8	40.4		49.5	98.7	32.4		75.0	20.1	20.1		71.3	43.3	43.3	
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:	59.3	97.8	40.4		49.5	98.7	32.4		75.0	20.1	20.1		71.3	43.3	43.3	
LOS by Move:	E	F	D		D	F	C		E	C	C		E	D	D	
HCM2kAvgQ:	7	11	2		2	10	8		18	22	22		6	31	31	

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

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

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.874
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 23.5
Optimal Cycle: 92 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0 0	0 0		1	0 0	0 1		1	0 2	0 0		0	0 2	0 1	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		474	0	62		46	1637	0		0	1210	291	
Added Vol:	0	0	0		4	0	0		0	120	0		0	133	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		478	0	62		46	1757	0		0	1343	298	
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	0	0		478	0	62		46	1757	0		0	1343	298	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		478	0	62		46	1757	0		0	1343	298	
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:	0	0	0		478	0	62		46	1757	0		0	1343	298	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.27	0.00	0.04		0.03	0.50	0.00		0.00	0.38	0.19	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.31	0.00	0.31		0.07	0.57	0.00		0.00	0.50	0.50	
Volume/Cap:	0.00	0.00	0.00		0.87	0.00	0.13		0.36	0.87	0.00		0.00	0.77	0.38	
Uniform Del:	0.0	0.0	0.0		29.4	0.0	22.3		39.7	16.7	0.0		0.0	18.4	14.1	
IncremntDel:	0.0	0.0	0.0		14.5	0.0	0.1		1.7	4.6	0.0		0.0	2.1	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		43.9	0.0	22.4		41.4	21.2	0.0		0.0	20.5	14.4	
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:	0.0	0.0	0.0		43.9	0.0	22.4		41.4	21.2	0.0		0.0	20.5	14.4	
LOS by Move:	A	A	A		D	A	C		D	C	A		A	C	B	
HCM2kAvgQ:	0	0	0		16	0	1		2	25	0		0	17	5	

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

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

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.813
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.3
Optimal Cycle: 66 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33	7	85		122	5	31		11	1125	10		90	818	51	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	38	8	97		139	6	35		13	1283	11		103	933	58	
Added Vol:	0	0	0		0	0	0		0	120	0		0	133	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	38	8	97		139	6	35		13	1403	11		103	1066	58	
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	8	97		139	6	35		13	1403	11		103	1066	58	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	38	8	97		139	6	35		13	1403	11		103	1066	58	
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:	38	8	97		139	6	35		13	1403	11		103	1066	58	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.46	0.84	0.84		0.53	0.53	0.83		0.93	0.93	0.93		0.93	0.97	0.97	
Lanes:	1.00	0.08	0.92		0.96	0.04	1.00		1.00	1.98	0.02		1.00	0.95	0.05	
Final Sat.:	866	122	1481		968	40	1583		1769	3506	28		1769	1752	96	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.07	0.07		0.14	0.14	0.02		0.01	0.40	0.40		0.06	0.61	0.61	
Crit Moves:						****			****					****		
Green/Cycle:	0.17	0.17	0.17		0.17	0.17	0.17		0.04	0.67	0.67		0.10	0.72	0.72	
Volume/Cap:	0.25	0.38	0.38		0.84	0.84	0.13		0.19	0.60	0.60		0.60	0.84	0.84	
Uniform Del:	37.7	38.6	38.6		42.1	42.1	36.9		48.9	9.8	9.8		45.5	10.2	10.2	
IncremntDel:	0.9	0.9	0.9		29.1	29.1	0.2		1.3	0.4	0.4		5.9	4.9	4.9	
InitQueuDel:	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:	38.6	39.5	39.5		71.2	71.2	37.1		50.3	10.2	10.2		51.4	15.1	15.1	
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:	38.6	39.5	39.5		71.2	71.2	37.1		50.3	10.2	10.2		51.4	15.1	15.1	
LOS by Move:	D	D	D		E	E	D		D	B	B		D	B	B	
HCM2kAvgQ:	1	3	3		7	7	1		1	14	14		4	28	28	

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

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

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.901
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 99 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	14	13	8		105	7	40		27	1235	7		6	906	124	
Added Vol:	0	0	0		0	0	0		0	120	0		0	133	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	14	13	8		105	7	40		27	1355	7		6	1039	124	
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:	14	13	8		105	7	40		27	1355	7		6	1039	124	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	14	13	8		105	7	40		27	1355	7		6	1039	124	
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:	14	13	8		105	7	40		27	1355	7		6	1039	124	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.16	0.98	0.98		0.07	0.96	0.96	
Lanes:	0.40	0.37	0.23		0.69	0.05	0.26		1.00	0.99	0.01		1.00	0.89	0.11	
Final Sat.:	650	596	379		965	63	367		298	1851	9		130	1637	196	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.11	0.11	0.11		0.09	0.73	0.73		0.04	0.64	0.64	
Crit Moves:						****				****						
Green/Cycle:	0.12	0.12	0.12		0.12	0.12	0.12		0.81	0.81	0.81		0.81	0.81	0.81	
Volume/Cap:	0.17	0.17	0.17		0.90	0.90	0.90		0.11	0.90	0.90		0.05	0.78	0.78	
Uniform Del:	41.5	41.5	41.5		45.5	45.5	45.5		2.0	6.9	6.9		1.9	5.1	5.1	
IncremntDel:	0.4	0.4	0.4		42.0	42.0	42.0		0.2	7.7	7.7		0.2	2.8	2.8	
InitQueuDel:	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:	41.9	41.9	41.9		87.6	87.6	87.6		2.2	14.6	14.6		2.1	7.8	7.8	
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:	41.9	41.9	41.9		87.6	87.6	87.6		2.2	14.6	14.6		2.1	7.8	7.8	
LOS by Move:	D	D	D		F	F	F		A	B	B		A	A	A	
HCM2kAvgQ:	1	1	1		8	8	8		0	34	34		0	21	21	

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

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

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.839
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 13.9
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	105	35	85		33	34	5		5	1105	41		42	948	19	
Added Vol:	18	0	6		0	0	0		0	114	22		15	118	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	35	91		33	34	5		5	1219	63		57	1066	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:	123	35	91		33	34	5		5	1219	63		57	1066	19	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	35	91		33	34	5		5	1219	63		57	1066	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	
FinalVolume:	123	35	92		33	34	5		5	1219	63		57	1066	19	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.87	0.87		0.44	0.96	0.96		0.20	0.97	0.97		0.12	0.98	0.98	
Lanes:	1.00	0.28	0.72		1.00	0.88	0.12		1.00	0.95	0.05		1.00	0.98	0.02	
Final Sat.:	1370	463	1198		845	1613	215		372	1758	91		223	1823	33	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.08	0.08		0.04	0.02	0.02		0.01	0.69	0.69		0.26	0.58	0.58	
Crit Moves:	****									****						
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.83	0.83	0.83		0.83	0.83	0.83	
Volume/Cap:	0.84	0.71	0.71		0.37	0.20	0.20		0.01	0.84	0.84		0.31	0.71	0.71	
Uniform Del:	46.0	45.3	45.3		43.6	42.8	42.8		1.6	5.2	5.2		2.1	3.8	3.8	
IncremntDel:	32.7	12.9	12.9		2.5	0.5	0.5		0.0	4.3	4.3		1.0	1.5	1.5	
InitQueuDel:	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:	78.7	58.2	58.2		46.1	43.3	43.3		1.6	9.4	9.4		3.1	5.4	5.4	
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:	78.7	58.2	58.2		46.1	43.3	43.3		1.6	9.4	9.4		3.1	5.4	5.4	
LOS by Move:	E	E	E		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	6	5	5		1	1	1		0	26	26		1	16	16	

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

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

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.505
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 205.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	111	499	560		544	471	22		41	194	180		435	108	467	
Added Vol:	15	8	27		77	8	0		0	32	24		68	21	46	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	126	507	587		621	479	22		41	226	204		503	129	513	
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:	126	507	587		621	479	22		41	226	204		503	129	513	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	126	507	587		621	479	22		41	226	204		503	129	513	
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:	126	507	587		621	479	22		41	226	204		503	129	513	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.66	1.28	0.06		1.00	1.00	1.00		1.59	0.41	1.00	
Final Sat.:	1769	3538	791		2850	2198	99		1769	1862	1583		2850	732	1583	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.14	0.74		0.22	0.22	0.22		0.02	0.12	0.13		0.18	0.18	0.32	
Crit Moves:			****				****				****				****	
Green/Cycle:	0.49	0.49	0.49		0.14	0.14	0.14		0.09	0.09	0.09		0.22	0.22	0.22	
Volume/Cap:	0.14	0.29	1.51		1.51	1.51	1.51		0.27	1.42	1.51		0.82	0.82	1.51	
Uniform Del:	18.0	19.5	33.0		55.6	55.6	55.6		55.6	59.4	59.4		48.6	48.6	51.0	
IncremntDel:	0.1	0.1	240.4		234.3	234	234.3		1.0	220	261.7		6.9	6.9	242.1	
InitQueuDel:	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:	18.1	19.6	273.3		289.9	290	289.9		56.6	279	321.1		55.5	55.5	293.1	
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:	18.1	19.6	273.3		289.9	290	289.9		56.6	279	321.1		55.5	55.5	293.1	
LOS by Move:	B	B	F		F	F	F		E	F	F		E	E	F	
HCM2kAvgQ:	3	6	48		33	33	33		2	19	18		14	14	43	

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

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

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.531
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 235.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0	5	5	0	0
Lanes:	2	0	3	0	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	430	1104	0	0	3976	145	68	0	1900	0	0	0				
Added Vol:	9	100	0	0	296	38	5	0	26	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	439	1204	0	0	4272	183	73	0	1926	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:	439	1204	0	0	4272	183	73	0	1926	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	439	1204	0	0	4272	183	73	0	1926	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				
FinalVolume:	439	1204	0	0	4272	183	73	0	1926	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.13	0.24	0.00	0.00	0.84	0.12	0.02	0.00	0.46	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.08	0.63	0.00	0.00	0.55	0.55	0.30	0.00	0.30	0.00	0.00	0.00				
Volume/Cap:	1.53	0.37	0.00	0.00	1.53	0.21	0.07	0.00	1.53	0.00	0.00	0.00				
Uniform Del:	68.7	13.3	0.0	0.0	33.8	17.3	37.4	0.0	52.4	0.0	0.0	0.0				
IncremntDel:	256.1	0.1	0.0	0.0	241	0.1	0.0	0.0	243.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	324.8	13.4	0.0	0.0	275	17.4	37.5	0.0	295.6	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:	324.8	13.4	0.0	0.0	275	17.4	37.5	0.0	295.6	0.0	0.0	0.0				
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A				
HCM2kAvgQ:	22	9	0	0	136	4	1	0	65	0	0	0				

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

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

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.774
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 66 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	5	0	5	5	5	0	0	0	5	5	0	5
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	0	120	0	99	20	1599	0	0	454	16			
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	0	0	0	137	0	113	23	1823	0	0	518	18				
Added Vol:	0	0	0	11	0	0	0	20	0	0	42	4				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	148	0	113	23	1843	0	0	560	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:	0	0	0	148	0	113	23	1843	0	0	560	22				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	148	0	113	23	1843	0	0	560	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				
FinalVolume:	0	0	0	148	0	113	23	1843	0	0	560	22				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.57	0.00	0.43	1.00	2.00	0.00	0.00	1.92	0.08				
Final Sat.:	0	0	0	967	0	738	1769	3538	0	0	3382	134				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.15	0.01	0.52	0.00	0.00	0.17	0.17				
Crit Moves:						****		****		****						
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.18	0.67	0.00	0.00	0.50	0.50				
Volume/Cap:	0.00	0.00	0.00	0.77	0.00	0.77	0.07	0.77	0.00	0.00	0.33	0.33				
Uniform Del:	0.0	0.0	0.0	32.3	0.0	32.3	29.2	9.5	0.0	0.0	12.9	12.9				
IncremntDel:	0.0	0.0	0.0	10.7	0.0	10.7	0.1	1.6	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	43.0	0.0	43.0	29.3	11.1	0.0	0.0	13.0	13.0				
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	0.0	0.0	43.0	0.0	43.0	29.3	11.1	0.0	0.0	13.0	13.0				
LOS by Move:	A	A	A	D	A	D	C	B	A	A	B	B				
HCM2kAvgQ:	0	0	0	9	0	9	1	19	0	0	5	5				

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

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

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.739
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	13	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	40	35	14		22	33	93		30	1800	22		21	601	15	
Added Vol:	0	0	0		0	0	0		0	20	0		0	42	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	40	35	14		22	33	93		30	1820	22		21	643	15	
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:	40	35	14		22	33	93		30	1820	22		21	643	15	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	40	35	14		22	33	93		30	1820	22		21	643	15	
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:	40	35	14		22	33	93		30	1820	22		21	643	15	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.95	0.05	
Final Sat.:	816	723	280		252	385	1089		1805	3560	42		1805	3518	81	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.05	0.05		0.09	0.09	0.09		0.02	0.51	0.51		0.01	0.18	0.18	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.06	0.06	0.06		0.11	0.11	0.11		0.15	0.66	0.66		0.05	0.56	0.56	
Volume/Cap:	0.76	0.77	0.77		0.77	0.78	0.78		0.11	0.77	0.77		0.23	0.33	0.33	
Uniform Del:	46.0	46.1	46.1		43.2	43.3	43.3		36.4	11.5	11.5		45.6	11.8	11.8	
IncremntDel:	24.4	26.3	26.3		17.0	17.8	17.8		0.2	1.6	1.6		1.3	0.1	0.1	
InitQueuDel:	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:	70.4	72.4	72.4		60.2	61.1	61.1		36.6	13.1	13.1		46.9	11.9	11.9	
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:	70.4	72.4	72.4		60.2	61.1	61.1		36.6	13.1	13.1		46.9	11.9	11.9	
LOS by Move:	E	E	E		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	4	4	4		6	6	6		1	22	22		1	6	6	

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

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

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.8
Optimal Cycle: 121 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	171	250	393		107	299	125		106	1472	99		136	616	56	
Added Vol:	0	0	0		0	0	0		0	20	0		0	42	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	171	250	393		107	299	125		106	1492	99		136	658	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:	171	250	393		107	299	125		106	1492	99		136	658	56	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	171	250	393		107	299	125		106	1492	99		136	658	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	
FinalVolume:	171	250	393		107	299	125		106	1492	99		136	658	56	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.88	0.12		1.00	1.84	0.16	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3354	223		1805	3287	279	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.13	0.24		0.06	0.16	0.08		0.06	0.44	0.44		0.08	0.20	0.20	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.12	0.26	0.26		0.06	0.21	0.21		0.13	0.48	0.48		0.08	0.43	0.43	
Volume/Cap:	0.76	0.51	0.92		0.92	0.76	0.38		0.46	0.92	0.92		0.92	0.46	0.46	
Uniform Del:	42.6	31.3	35.9		46.5	37.3	34.1		40.4	24.2	24.2		45.6	20.0	20.0	
IncremntDel:	6.1	0.5	25.9		60.3	8.4	0.7		1.5	8.9	8.9		52.1	0.2	0.2	
InitQueuDel:	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:	48.6	31.9	61.7		106.8	45.7	34.8		41.9	33.2	33.2		97.7	20.2	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:	48.6	31.9	61.7		106.8	45.7	34.8		41.9	33.2	33.2		97.7	20.2	20.2	
LOS by Move:	D	C	E		F	D	C		D	C	C		F	C	C	
HCM2kAvgQ:	7	7	16		6	10	4		4	29	29		7	8	8	

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

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

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.8
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	0	1	1	0
Volume Module:																
Base Vol:	78	109	59	17	76	27	29	1264	78	44	793	17				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	89	124	67	19	87	31	33	1441	89	50	904	19				
Added Vol:	0	0	0	0	0	0	0	20	0	0	42	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	89	124	67	19	87	31	33	1461	89	50	946	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:	89	124	67	19	87	31	33	1461	89	50	946	19				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	89	124	67	19	87	31	33	1461	89	50	946	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				
FinalVolume:	89	124	67	19	87	31	33	1461	89	50	946	19				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.94	0.94	0.95	0.95	0.95				
Lanes:	0.32	0.44	0.24	0.14	0.63	0.23	1.00	1.89	0.11	1.00	1.96	0.04				
Final Sat.:	574	802	434	259	1159	412	1805	3372	205	1805	3527	72				
Capacity Analysis Module:																
Vol/Sat:	0.15	0.15	0.15	0.07	0.07	0.07	0.02	0.43	0.43	0.03	0.27	0.27				
Crit Moves:	****				****			****		****						
Green/Cycle:	0.20	0.20	0.20	0.09	0.09	0.09	0.09	0.55	0.55	0.05	0.50	0.50				
Volume/Cap:	0.79	0.79	0.79	0.79	0.79	0.79	0.19	0.79	0.79	0.56	0.53	0.53				
Uniform Del:	38.2	38.2	38.2	44.3	44.3	44.3	41.8	17.9	17.9	46.4	16.8	16.8				
IncremntDel:	11.3	11.3	11.3	21.1	21.1	21.1	0.6	2.2	2.2	7.4	0.3	0.3				
InitQueuDel:	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:	49.5	49.5	49.5	65.4	65.4	65.4	42.4	20.2	20.2	53.9	17.1	17.1				
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:	49.5	49.5	49.5	65.4	65.4	65.4	42.4	20.2	20.2	53.9	17.1	17.1				
LOS by Move:	D	D	D	E	E	E	D	C	C	D	B	B				
HCM2kAvgQ:	10	10	10	6	6	6	1	21	21	2	11	11				

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

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

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.611
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18	18	18	18	18	18	18	64	64	64	64	64	64	64	64
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	0	1	1	0
Volume Module:																
Base Vol:	60	83	38	11	68	22	42	1322	87	37	787	22				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	68	95	43	13	78	25	48	1507	99	42	897	25				
Added Vol:	0	0	0	0	0	0	0	20	0	0	42	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	68	95	43	13	78	25	48	1527	99	42	939	25				
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	95	43	13	78	25	48	1527	99	42	939	25				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	68	95	43	13	78	25	48	1527	99	42	939	25				
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:	68	95	43	13	78	25	48	1527	99	42	939	25				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.84	0.84	0.84	0.94	0.94	0.94	0.27	0.94	0.94	0.11	0.95	0.95				
Lanes:	0.33	0.46	0.21	0.11	0.67	0.22	1.00	1.88	0.12	1.00	1.95	0.05				
Final Sat.:	528	731	335	195	1205	390	507	3359	218	207	3502	94				
Capacity Analysis Module:																
Vol/Sat:	0.13	0.13	0.13	0.06	0.06	0.06	0.09	0.45	0.45	0.20	0.27	0.27				
Crit Moves:		****						****								
Green/Cycle:	0.21	0.21	0.21	0.21	0.21	0.21	0.74	0.74	0.74	0.74	0.74	0.74				
Volume/Cap:	0.61	0.61	0.61	0.30	0.30	0.30	0.13	0.61	0.61	0.27	0.36	0.36				
Uniform Del:	32.1	32.1	32.1	29.9	29.9	29.9	3.3	5.4	5.4	3.7	4.0	4.0				
IncremntDel:	3.3	3.3	3.3	0.5	0.5	0.5	0.2	0.4	0.4	1.0	0.1	0.1				
InitQueuDel:	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:	35.4	35.4	35.4	30.3	30.3	30.3	3.4	5.8	5.8	4.7	4.1	4.1				
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:	35.4	35.4	35.4	30.3	30.3	30.3	3.4	5.8	5.8	4.7	4.1	4.1				
LOS by Move:	D	D	D	C	C	C	A	A	A	A	A	A				
HCM2kAvgQ:	6	6	6	3	3	3	0	12	12	1	5	5				

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

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

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.972
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 44.9
Optimal Cycle: 159 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1 0	1	1	1	0 1	0	1	1	0 1	1	0	2	0 1	1	0
Volume Module:																
Base Vol:	315	485	599		32	175	224		217	784	540		115	663	173	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	359	553	683		36	199	255		247	894	616		131	756	197	
Added Vol:	8	0	3		0	0	0		0	17	0		0	42	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	367	553	686		36	199	255		247	911	616		131	798	197	
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:	367	553	686		36	199	255		247	911	616		131	798	197	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	367	553	686		36	199	255		247	911	616		131	798	197	
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:	367	553	686		36	200	255		247	911	616		131	798	197	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.88	0.88	0.88		0.95	1.00	0.85		0.95	0.89	0.89		0.92	0.92	0.92	
Lanes:	1.00	1.34	1.66		1.00	1.00	1.00		1.00	1.19	0.81		2.00	1.60	0.40	
Final Sat.:	1671	2237	2775		1805	1900	1615		1805	2025	1369		3502	2808	694	
Capacity Analysis Module:																
Vol/Sat:	0.22	0.25	0.25		0.02	0.11	0.16		0.14	0.45	0.45		0.04	0.28	0.28	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.22	0.32	0.32		0.06	0.16	0.16		0.16	0.46	0.46		0.05	0.34	0.34	
Volume/Cap:	0.99	0.77	0.77		0.31	0.65	0.99		0.83	0.99	0.99		0.75	0.83	0.83	
Uniform Del:	38.7	30.8	30.8		44.7	39.4	41.9		40.4	26.8	26.8		46.9	30.3	30.3	
IncremntDel:	18.8	1.9	1.9		1.5	5.1	51.6		17.7	19.4	19.4		16.3	5.1	5.1	
InitQueuDel:	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:	57.5	32.7	32.7		46.2	44.4	93.5		58.1	46.2	46.2		63.2	35.4	35.4	
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:	57.5	32.7	32.7		46.2	44.4	93.5		58.1	46.2	46.2		63.2	35.4	35.4	
LOS by Move:	E	C	C		D	D	F		E	D	D		E	D	D	
HCM2kAvgQ:	17	14	14		1	7	12		10	31	31		4	17	17	

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

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.535
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 82 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	32	32		0	32	0		28	0	28		0	0	18	
Lanes:	0	0 2	1	0	0	0 2	0	0	2	0 0	0	1	0	0 0	0	1
Volume Module:																
Base Vol:	0	802	19		0	783	0		765	0	277		0	0	16	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	914	22		0	893	0		872	0	316		0	0	18	
Added Vol:	0	0	0		0	0	0		10	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	914	22		0	893	0		882	0	316		0	0	18	
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	914	22		0	893	0		882	0	316		0	0	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	914	22		0	893	0		882	0	316		0	0	18	
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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	1006	24		0	937	0		909	0	316		0	0	18	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.93	0.07		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5568	132		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.18	0.18		0.00	0.25	0.00		0.25	0.00	0.20		0.00	0.00	0.01	
Crit Moves:	****					****			****						****	
Green/Cycle:	0.00	0.37	0.37		0.00	0.37	0.00		0.38	0.00	0.58		0.00	0.00	0.20	
Volume/Cap:	0.00	0.48	0.48		0.00	0.66	0.00		0.66	0.00	0.34		0.00	0.00	0.06	
Uniform Del:	0.0	16.4	16.4		0.0	17.8	0.0		17.5	0.0	7.4		0.0	0.0	22.2	
IncremntDel:	0.0	0.1	0.1		0.0	0.8	0.0		0.8	0.0	0.1		0.0	0.0	0.0	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	14.0	14.0		0.0	15.9	0.0		15.7	0.0	6.4		0.0	0.0	18.8	
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:	0.0	14.0	14.0		0.0	15.9	0.0		15.7	0.0	6.4		0.0	0.0	18.8	
DesignQueue:	0	11	11		0	16	0		15	0	7		0	0	1	

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

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

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.592
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 34.2
Optimal Cycle: 180 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Protected		
Rights:		Include			Include			Ovl			Include	
Min. Green:	18	18	18	0	0	0	0	39	57	21	64	0
Lanes:	1 0	1! 0	1	0 0	0 0	0	0 0	2 0	2	2 0	2 0	0
Volume Module:												
Base Vol:	305	1	439	0	0	0	0	1391	388	487	927	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	348	1	500	0	0	0	0	1586	442	555	1057	0
Added Vol:	0	0	0	0	0	0	0	17	40	21	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	348	1	500	0	0	0	0	1603	482	576	1099	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:	348	1	500	0	0	0	0	1603	482	576	1099	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	348	1	500	0	0	0	0	1603	482	576	1099	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:	348	1	500	0	0	0	0	1603	482	576	1099	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00	1.00	1.00	0.95	0.75	0.92	0.95	1.00
Lanes:	1.41	0.01	1.58	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	0.00
Final Sat.:	2292	4	2585	0	0	0	0	3610	2842	3502	3610	0
Capacity Analysis Module:												
Vol/Sat:	0.15	0.26	0.19	0.00	0.00	0.00	0.00	0.44	0.17	0.16	0.30	0.00
Crit Moves:		****									****	
Green/Cycle:	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.43	0.43	0.32	0.76	0.00
Volume/Cap:	0.76	1.31	0.97	0.00	0.00	0.00	0.00	1.02	0.39	0.51	0.40	0.00
Uniform Del:	33.9	36.0	35.7	0.0	0.0	0.0	0.0	25.5	17.4	24.7	3.9	0.0
IncremntDel:	3.1	149	22.8	0.0	0.0	0.0	0.0	29.2	0.2	0.4	0.1	0.0
InitQueuDel:	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	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	37.0	185	58.5	0.0	0.0	0.0	0.0	54.7	17.6	25.1	4.0	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:	37.0	185	58.5	0.0	0.0	0.0	0.0	54.7	17.6	25.1	4.0	0.0
LOS by Move:	D	F	E	A	A	A	A	D	B	C	A	A
HCM2kAvgQ:	8	26	13	0	0	0	0	33	5	7	6	0

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

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

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 0.998
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 60.0
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:		Include			Include			Include			Include	
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	2 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	16	87	274	612	119	34	28	809	9	274	800	327
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	18	99	312	698	136	39	32	922	10	312	912	373
Added Vol:	0	0	0	0	0	0	0	57	0	0	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	99	312	698	136	39	32	979	10	312	954	373
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:	18	99	312	698	136	39	32	979	10	312	954	373
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	99	312	698	136	39	32	979	10	312	954	373
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:	18	99	312	698	136	39	32	979	10	312	954	373
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.90	0.90	0.92	0.97	0.97	0.95	0.95	0.95	0.95	0.95	0.85
Lanes:	0.04	0.23	0.73	2.00	0.78	0.22	1.00	1.98	0.02	1.00	2.00	1.00
Final Sat.:	73	395	1243	3502	1429	408	1805	3569	37	1805	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.25	0.20	0.09	0.09	0.02	0.27	0.27	0.17	0.26	0.23
Crit Moves:		****		****				****		****		
Green/Cycle:	0.33	0.25	0.25	0.20	0.12	0.12	0.07	0.28	0.28	0.17	0.38	0.38
Volume/Cap:	0.77	1.00	1.00	1.00	0.77	0.77	0.27	1.00	1.00	1.00	0.69	0.60
Uniform Del:	33.2	41.1	41.1	44.0	46.7	46.7	48.9	39.8	39.8	45.4	28.5	27.3
IncremntDel:	6.3	42.7	42.7	33.4	14.5	14.5	1.2	28.0	28.0	50.2	1.5	1.7
InitQueuDel:	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:	39.5	83.8	83.8	77.4	61.1	61.1	50.1	67.8	67.8	95.6	30.0	28.9
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:	39.5	83.8	83.8	77.4	61.1	61.1	50.1	67.8	67.8	95.6	30.0	28.9
LOS by Move:	D	F	F	E	E	E	D	E	E	F	C	C
HCM2kAvgQ:	15	20	20	18	8	8	1	24	24	16	15	11

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

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

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.666
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.1
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																	
Base Vol:	30	377	86		82	384	76		59	328	23		71	442	88	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	34	430	98		93	438	87		67	374	26		81	504	100	
Added Vol:	0	36	2		16	75	9		1	39	1		14	15	12	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	466	100		109	513	96		68	413	27		95	519	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:	34	466	100		109	513	96		68	413	27		95	519	112	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	466	100		109	513	96		68	413	27		95	519	112	
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:	34	466	100		109	513	96		68	413	27		95	519	112	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.92	0.92	0.92		0.95	0.94	0.94		0.95	0.92	0.92	
Lanes:	0.11	1.56	0.33		0.30	1.43	0.27		1.00	1.88	0.12		1.00	1.64	0.36	
Final Sat.:	200	2724	585		535	2507	468		1805	3356	221		1805	2887	625	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.20	0.20	0.20		0.04	0.12	0.12		0.05	0.18	0.18	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.26	0.26	0.26		0.31	0.31	0.31		0.06	0.23	0.23		0.10	0.27	0.27	
Volume/Cap:	0.67	0.67	0.67		0.67	0.67	0.67		0.67	0.54	0.54		0.54	0.67	0.67	
Uniform Del:	33.3	33.3	33.3		30.2	30.2	30.2		46.2	33.9	33.9		43.0	32.5	32.5	
IncremntDel:	1.9	1.9	1.9		1.6	1.6	1.6		15.5	0.7	0.7		3.3	1.8	1.8	
InitQueuDel:	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:	35.2	35.2	35.2		31.8	31.8	31.8		61.7	34.6	34.6		46.2	34.3	34.3	
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:	35.2	35.2	35.2		31.8	31.8	31.8		61.7	34.6	34.6		46.2	34.3	34.3	
LOS by Move:	D	D	D		C	C	C		E	C	C		D	C	C	
HCM2kAvgQ:	10	10	10		11	11	11		3	7	7		4	10	10	

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

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

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.180
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 102.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module:5:00 - 6:00 AM																	
Base Vol:	10	932	0		0	2235	16		334	0	76		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	11	1062	0		0	2548	18		381	0	87		0	0	0	
Added Vol:	38	141	0		0	25	0		618	0	86		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	49	1203	0		0	2573	18		999	0	173		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:	49	1203	0		0	2573	18		999	0	173		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	49	1203	0		0	2573	18		999	0	173		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	
FinalVolume:	49	1203	0		0	2573	18		999	0	173		0	0	0	
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																	
Vol/Sat:	0.03	0.24	0.00		0.00	0.51	0.01		0.56	0.00	0.11		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.04	0.46	0.00		0.00	0.42	0.42		0.47	0.00	0.47		0.00	0.00	0.00	
Volume/Cap:	0.73	0.51	0.00		0.00	1.20	0.03		1.20	0.00	0.23		0.00	0.00	0.00	
Uniform Del:	61.8	24.8	0.0		0.0	37.6	22.0		34.4	0.0	20.5		0.0	0.0	0.0	
IncremntDel:	32.1	0.2	0.0		0.0	94.8	0.0		101.5	0.0	0.2		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	93.9	25.0	0.0		0.0	132	22.0		135.9	0.0	20.6		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:	93.9	25.0	0.0		0.0	132	22.0		135.9	0.0	20.6		0.0	0.0	0.0	
LOS by Move:	F	C	A		A	F	C		F	A	C		A	A	A	
HCM2kAvgQ:	3	12	0		0	58	0		62	0	4		0	0	0	

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

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

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.770
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 66 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	16	893	0	0	2424	182	217	0	212	0	0	0				
Added Vol:	38	177	0	0	105	5	2	0	86	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	54	1070	0	0	2529	187	219	0	298	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:	54	1070	0	0	2529	187	219	0	298	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	54	1070	0	0	2529	187	219	0	298	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				
FinalVolume:	54	1070	0	0	2529	187	219	0	298	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.21	0.00	0.00	0.50	0.12	0.12	0.00	0.19	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.04	0.69	0.00	0.00	0.65	0.65	0.24	0.00	0.24	0.00	0.00	0.00				
Volume/Cap:	0.77	0.31	0.00	0.00	0.77	0.18	0.51	0.00	0.77	0.00	0.00	0.00				
Uniform Del:	61.8	8.1	0.0	0.0	16.2	9.2	42.3	0.0	45.7	0.0	0.0	0.0				
IncremntDel:	39.5	0.1	0.0	0.0	1.2	0.1	1.0	0.0	9.1	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	101.4	8.2	0.0	0.0	17.3	9.3	43.3	0.0	54.8	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:	101.4	8.2	0.0	0.0	17.3	9.3	43.3	0.0	54.8	0.0	0.0	0.0				
LOS by Move:	F	A	A	A	B	A	D	A	D	A	A	A				
HCM2kAvgQ:	4	6	0	0	27	3	8	0	13	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.874
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 32.6
Optimal Cycle: 75 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	555	645	0	0	407	105	293	0	804	0	0	0				
Added Vol:	26	27	0	0	17	6	3	0	66	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	581	672	0	0	424	111	296	0	870	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:	581	672	0	0	424	111	296	0	870	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	581	672	0	0	424	111	296	0	870	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				
FinalVolume:	581	672	0	0	424	111	296	0	870	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1435	375	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.33	0.36	0.00	0.00	0.30	0.30	0.17	0.00	0.55	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.38	0.71	0.00	0.00	0.34	0.34	0.25	0.00	0.63	0.00	0.00	0.00				
Volume/Cap:	0.87	0.51	0.00	0.00	0.87	0.87	0.66	0.00	0.87	0.00	0.00	0.00				
Uniform Del:	34.8	7.7	0.0	0.0	37.3	37.3	40.2	0.0	18.4	0.0	0.0	0.0				
IncremntDel:	12.3	0.3	0.0	0.0	13.2	13.2	3.7	0.0	8.7	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	47.1	8.0	0.0	0.0	50.5	50.5	43.9	0.0	27.1	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:	47.1	8.0	0.0	0.0	50.5	50.5	43.9	0.0	27.1	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	C	A	A	A				
HCM2kAvgQ:	23	11	0	0	21	21	11	0	29	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.708
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 37 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	56	868	145		406	716	41		85	87	71		83	9	303	
Added Vol:	0	48	0		2	81	0		0	0	0		0	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	56	916	145		408	797	41		85	87	71		83	9	308	
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	916	145		408	797	41		85	87	71		83	9	308	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	56	916	145		408	797	41		85	87	71		83	9	308	
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	916	145		408	797	41		86	87	71		83	9	308	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.61	0.91	0.91		0.60	0.60	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1164	957	781		1029	113	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.26	0.09		0.23	0.23	0.03		0.07	0.09	0.09		0.08	0.08	0.19	
Crit Moves:		****			****										****	
Green/Cycle:	0.09	0.37	0.37		0.33	0.60	0.60		0.28	0.28	0.28		0.28	0.28	0.28	
Volume/Cap:	0.35	0.71	0.25		0.71	0.37	0.04		0.27	0.33	0.33		0.29	0.29	0.71	
Uniform Del:	51.4	32.6	26.6		35.4	12.2	9.7		34.0	34.7	34.7		34.3	34.3	39.1	
IncremntDel:	1.4	1.8	0.2		4.0	0.1	0.0		0.4	0.4	0.4		0.5	0.5	5.3	
InitQueuDel:	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:	52.8	34.4	26.8		39.5	12.4	9.8		34.5	35.1	35.1		34.8	34.8	44.4	
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:	52.8	34.4	26.8		39.5	12.4	9.8		34.5	35.1	35.1		34.8	34.8	44.4	
LOS by Move:	D	C	C		D	B	A		C	D	D		C	C	D	
HCM2kAvgQ:	2	16	4		14	8	1		3	5	5		3	3	11	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 1.155
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 113.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	101	521	27		27	579	186		478	154	89		8	63	14	
Added Vol:	0	50	0		0	100	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	101	571	27		27	679	186		478	154	89		8	63	14	
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:	101	571	27		27	679	186		478	154	89		8	63	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	101	571	27		27	679	186		478	154	89		8	63	14	
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:	101	571	27		27	679	186		478	154	89		8	63	14	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.15	0.85	1.00		0.04	0.96	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	285	1602	1615		73	1823	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.36	0.36	0.02		0.37	0.37	0.12		0.26	0.14	0.14		0.05	0.05	0.05	
Crit Moves:		****				****			****						****	
Green/Cycle:	0.31	0.31	0.31		0.32	0.32	0.32		0.23	0.23	0.23		0.05	0.05	0.05	
Volume/Cap:	1.16	1.16	0.06		1.16	1.16	0.36		1.16	0.59	0.59		1.00	1.00	1.00	
Uniform Del:	38.1	38.1	26.9		37.4	37.4	28.7		42.5	37.9	37.9		52.5	52.5	52.5	
IncremntDel:	91.1	91.1	0.0		90.4	90.4	0.4		96.9	2.4	2.4		99.2	99.2	99.2	
InitQueuDel:	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:	129.3	129	27.0		127.8	128	29.1		139.4	40.3	40.3		151.7	152	151.7	
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:	129.3	129	27.0		127.8	128	29.1		139.4	40.3	40.3		151.7	152	151.7	
LOS by Move:	F	F	C		F	F	C		F	D	D		F	F	F	
HCM2kAvgQ:	37	37	1		39	39	5		28	8	8		6	6	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.6
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0 0	0	0	3	0 1	2	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	0	807	0	0	2630	0	0	0	0	0	0	0				
Added Vol:	0	214	0	0	191	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	1021	0	0	2821	0	0	0	0	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	1021	0	0	2821	0	0	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	1021	0	0	2821	0	0	0	0	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				
FinalVolume:	0	1021	0	0	2821	0	0	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.20	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****											
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.00	0.22	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	0.0	0.9	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	0.0	0.9	0.0	0.0	1.8	0.0	0.0	0.0	0.0	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	0.9	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A				
HCM2kAvgQ:	0	2	0	0	9	0	0	0	0	0	0	0				

Note: Queue reported is the number of cars per lane.

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Scenario Report

Scenario:	Cumulative 2025 East Campus Only AM
Command:	Long Term Project I AM
Volume:	Long Term Project I AM
Geometry:	Long Term Project I AM
Impact Fee:	Default Impact Fee
Trip Generation:	Long Term Project I AM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Long Term Project I AM

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	C	25.2	0.842	C	26.3	0.882	+ 1.101 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.9	0.700	E	55.2	1.115	+38.251 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	26.5	0.944	C	32.9	0.987	+ 6.398 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	D	41.1	0.901	D	35.8	0.934	-5.295 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	20.8	0.620	B	15.6	0.649	-5.200 D/V
# 6 Bay Rd. & Marsh Rd.	B	17.4	0.644	B	17.9	0.735	+ 0.508 D/V
# 7 Middlefield at Marsh (Town of	C	29.8	0.669	C	29.2	0.812	-0.601 D/V
# 8 Bayfront Exp. & Willow Rd.	C	28.6	0.668	D	48.8	0.929	+20.166 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7	0.613	C	21.8	0.656	-1.898 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.7	0.567	C	23.9	0.681	+ 5.178 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.4	0.508	B	14.0	0.647	-1.381 D/V
# 12 Newbridge St. & Willow Rd.	E	59.2	0.990	E	62.7	1.036	+ 3.424 D/V
# 13 Bay Rd. & Willow Rd.	C	21.6	0.760	C	22.5	0.838	+ 0.865 D/V
# 14 Durham St. & Willow Rd.	D	35.1	0.782	B	15.6	0.846	-19.566 D/V
# 15 Coleman Ave. & Willow Rd.	B	15.3	0.784	C	20.5	0.905	+ 5.218 D/V
# 16 Gilbert Ave. & Willow Rd.	B	15.7	0.726	B	19.6	0.874	+ 3.914 D/V
# 17 Middlefield Rd. & Willow Rd.	F	114.7	1.038	F	136.8	1.269	+22.155 D/V
# 18 Bayfront Exp. & University Ave	C	32.7	0.882	D	36.1	0.915	+ 3.450 D/V
# 19 O'Brien Dr. & University Ave.	A	6.8	0.600	A	6.7	0.612	-0.093 D/V
# 20 University & Kavanaugh	B	14.4	0.617	B	14.1	0.624	-0.261 D/V
# 21 University & Bay	C	29.3	0.724	C	28.8	0.731	-0.410 D/V
# 22 University & Runnymede	C	21.7	0.687	C	21.5	0.694	-0.216 D/V
# 23 University & Bell	A	7.7	0.270	A	7.2	0.303	-0.471 D/V
# 24 University & Donohoe	D	51.0	1.014	D	54.3	1.036	+ 3.317 D/V
# 25 NB 101 & Donohoe St	B	9.1	0.418	B	9.4	0.443	+ 0.247 D/V

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Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	18.1	0.704	B	18.5	0.718	+ 0.445 D/V
# 27 University Ave. & Woodland	D	50.1	0.977	D	52.3	0.992	+ 2.205 D/V
# 28 Middlefield Rd. & University A	D	38.2	0.805	D	48.5	0.907	+10.300 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.6	0.640	B	17.5	0.741	+ 9.830 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.8	0.650	C	20.1	0.678	+ 2.312 D/V
# 31 Middlefield Rd. & Ravenswood A	C	23.4	0.664	C	26.3	0.745	+ 2.840 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.2	0.515	C	25.6	0.541	-3.586 D/V
# 33 Middlefield Rd and Lytton Ave	D	38.1	0.783	D	46.7	0.886	+ 8.595 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.549	A	1.5	0.596	+ 0.126 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #1 Bayfront Exp. & Marsh Rd.

****

Cycle (sec): 130 Critical Vol./Cap.(X): 0.882
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 114 Level Of Service: C

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	-	R	L	- T	-	R	L	- T	-	R	L	- T	-	R
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	2619	215	26		8	66	169		207	23	1137		8	22	6	
Added Vol:	186	0	0		0	0	0		0	0	443		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2805	215	26		8	66	169		207	23	1580		8	22	6	
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:	2805	215	26		8	66	169		207	23	1580		8	22	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2805	215	26		8	66	169		207	23	1580		8	22	6	
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:	2805	215	26		8	66	169		207	23	1580		8	22	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.54	0.13	0.13		0.02	0.02	0.11		0.13	0.13	0.57		0.02	0.02	0.02	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.61	0.61	0.61		0.12	0.12	0.12		0.14	0.14	0.75		0.04	0.04	0.04	
Volume/Cap:	0.90	0.22	0.22		0.18	0.18	0.90		0.90	0.90	0.76		0.51	0.51	0.51	
Uniform Del:	22.1	11.6	11.6		51.6	51.6	56.5		54.7	54.7	9.3		61.3	61.3	61.3	
IncremntDel:	3.9	0.1	0.1		0.2	0.2	38.5		30.9	30.9	1.6		6.2	6.2	6.2	
InitQueuDel:	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	11.7	11.7		51.8	51.8	95.0		85.6	85.6	11.0		67.5	67.5	67.5	
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:	26.0	11.7	11.7		51.8	51.8	95.0		85.6	85.6	11.0		67.5	67.5	67.5	
LOS by Move:	C	B	B		D	D	F		F	F	B		E	E	E	
HCM2kAvgQ:	36	4	4		1	1	10		12	12	22		2	2	2	

****

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 1.115
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 55.2
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0 0	0	1	0	0 0	0	0	0	1 1	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	933	0	329		0	0	0		0	1297	577		0	936	1937	
Added Vol:	2	0	394		0	0	0		2	593	0		0	151	36	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	935	0	723		0	0	0		2	1890	577		0	1087	1973	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	935	0	723		0	0	0		2	1890	0		0	1087	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	935	0	723		0	0	0		2	1890	0		0	1087	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	935	0	723		0	0	0		2	1890	0		0	1087	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3375	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.27	0.00	0.46		0.00	0.00	0.00		0.56	0.56	0.00		0.00	0.31	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.41	0.00	0.41		0.00	0.00	0.00		0.50	0.50	0.00		0.00	0.50	0.00	
Volume/Cap:	0.66	0.00	1.11		0.00	0.00	0.00		1.11	1.11	0.00		0.00	0.61	0.00	
Uniform Del:	19.1	0.0	23.6		0.0	0.0	0.0		19.9	19.9	0.0		0.0	14.3	0.0	
IncremntDel:	1.2	0.0	71.2		0.0	0.0	0.0		60.4	60.4	0.0		0.0	0.6	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	20.3	0.0	94.8		0.0	0.0	0.0		80.3	80.3	0.0		0.0	14.9	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:	20.3	0.0	94.8		0.0	0.0	0.0		80.3	80.3	0.0		0.0	14.9	0.0	
LOS by Move:	C	A	F		A	A	A		F	F	A		A	B	A	
HCM2kAvgQ:	11	0	31		0	0	0		41	41	0		0	11	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.987
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 159 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0 0	0	0	2	0 0	0	1	0	0 2	0	1	0	0 2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	86	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1002	0	636		0	951	665		0	1626	98	
Added Vol:	0	0	0		315	0	33		0	292	0		0	64	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1317	0	669		0	1243	665		0	1690	98	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1317	0	669		0	1243	0		0	1690	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1317	0	669		0	1243	0		0	1690	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1317	0	669		0	1243	0		0	1690	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.38	0.00	0.42		0.00	0.35	0.00		0.00	0.48	0.00	
Crit Moves:							****							****		
Green/Cycle:	0.00	0.00	0.00		0.43	0.00	0.43		0.00	0.48	0.00		0.00	0.48	0.00	
Volume/Cap:	0.00	0.00	0.00		0.90	0.00	0.99		0.00	0.73	0.00		0.00	0.99	0.00	
Uniform Del:	0.0	0.0	0.0		21.2	0.0	22.6		0.0	16.4	0.0		0.0	20.4	0.0	
IncremntDel:	0.0	0.0	0.0		7.5	0.0	31.1		0.0	1.6	0.0		0.0	18.6	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		28.8	0.0	53.7		0.0	18.0	0.0		0.0	39.0	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	0.0	0.0		28.8	0.0	53.7		0.0	18.0	0.0		0.0	39.0	0.0	
LOS by Move:	A	A	A		C	A	D		A	B	A		A	D	A	
HCM2kAvgQ:	0	0	0		20	0	23		0	14	0		0	29	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.934
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 35.8
Optimal Cycle: 112 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0	1	0	0	2	0	1	0	0	1	1	0	2	1	0	
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	31	3	56		253	21	3		17	1289	33		306	1614	319	
Added Vol:	0	0	0		0	0	0		0	293	0		0	97	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	31	3	56		253	21	3		17	1582	33		306	1711	319	
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	3	56		253	21	3		17	1582	33		306	1711	319	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	31	3	56		253	21	3		17	1582	33		306	1711	319	
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:	31	3	56		253	21	3		17	1582	33		306	1711	319	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.93	0.07	1.00		1.00	2.94	0.06		2.00	1.69	0.31	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4964	104		3432	2910	543	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.15	0.15	0.00		0.01	0.32	0.32		0.09	0.59	0.59	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.05	0.05	0.05		0.15	0.15	0.15		0.05	0.49	0.49		0.14	0.57	0.57	
Volume/Cap:	0.38	0.38	0.40		1.02	1.02	0.01		0.19	0.65	0.65		0.65	1.02	1.02	
Uniform Del:	36.8	36.8	36.8		34.0	34.0	28.9		36.5	15.4	15.4		32.7	17.0	17.0	
IncremntDel:	2.7	2.7	1.9		61.1	61.1	0.0		1.1	0.6	0.6		3.3	26.3	26.3	
InitQueuDel:	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:	39.5	39.5	38.7		95.1	95.1	29.0		37.5	16.0	16.0		36.0	43.3	43.3	
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:	39.5	39.5	38.7		95.1	95.1	29.0		37.5	16.0	16.0		36.0	43.3	43.3	
LOS by Move:	D	D	D		F	F	C		D	B	B		D	D	D	
HCM2kAvgQ:	1	1	1		12	12	0		1	12	12		5	37	37	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.649
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 30 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1	0	0	1	0	1	1	0	0	1	1	0	1	0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																	
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	17	10	9		445	34	104		133	907	66		52	1301	368	
Added Vol:	0	0	0		0	0	0		0	293	0		0	97	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	17	10	9		445	34	104		133	1200	66		52	1398	368	
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:	17	10	9		445	34	104		133	1200	66		52	1398	368	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	17	10	9		445	34	104		133	1200	66		52	1398	368	
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:	17	10	9		445	34	104		133	1200	66		52	1398	368	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.90	0.10		1.00	2.00	1.00	
Final Sat.:	1769	916	814		3306	254	1583		1769	3326	183		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.13	0.13	0.07		0.08	0.36	0.36		0.03	0.40	0.23	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.20	0.20	0.20		0.11	0.61	0.61		0.09	0.59	0.59	
Volume/Cap:	0.19	0.22	0.22		0.67	0.67	0.33		0.67	0.59	0.59		0.35	0.67	0.40	
Uniform Del:	36.5	36.5	36.5		29.6	29.6	27.4		34.1	9.3	9.3		34.5	11.2	8.9	
IncremntDel:	1.1	1.3	1.3		2.5	2.5	0.6		8.7	0.4	0.4		1.4	0.9	0.3	
InitQueuDel:	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:	37.5	37.8	37.8		32.1	32.1	28.0		42.8	9.7	9.7		35.9	12.1	9.1	
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:	37.5	37.8	37.8		32.1	32.1	28.0		42.8	9.7	9.7		35.9	12.1	9.1	
LOS by Move:	D	D	D		C	C	C		D	A	A		D	B	A	
HCM2kAvgQ:	1	1	1		7	7	2		5	10	10		2	13	5	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.735
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 17.9
Optimal Cycle: 38 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1! 0	0	0	0	1! 0	0	0	1	0	1	0	1	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177	112	28	5	2	665	66	264	982	22				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	80	3	202	128	32	6	2	758	75	301	1119	25				
Added Vol:	1	0	0	0	0	0	0	293	2	0	97	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	81	3	202	128	32	6	2	1051	77	301	1216	25				
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:	81	3	202	128	32	6	2	1051	77	301	1216	25				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	81	3	202	128	32	6	2	1051	77	301	1216	25				
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:	81	3	202	128	32	6	2	1051	77	301	1216	25				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.79	0.79	0.79	0.53	0.53	0.53	0.88	0.88	0.88	0.93	0.93	0.93				
Lanes:	0.28	0.01	0.71	0.78	0.19	0.03	0.01	1.86	0.13	1.00	1.96	0.04				
Final Sat.:	425	18	1060	771	193	34	7	3110	229	1769	3456	71				
Capacity Analysis Module:																
Vol/Sat:	0.19	0.19	0.19	0.17	0.17	0.17	0.34	0.34	0.34	0.17	0.35	0.35				
Crit Moves:		****						****		****						
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.45	0.45	0.45	0.23	0.68	0.68				
Volume/Cap:	0.71	0.71	0.71	0.61	0.61	0.61	0.75	0.75	0.75	0.75	0.52	0.52				
Uniform Del:	26.4	26.4	26.4	25.6	25.6	25.6	18.1	18.1	18.1	28.7	6.3	6.3				
IncremntDel:	5.6	5.6	5.6	4.2	4.2	4.2	2.1	2.1	2.1	7.5	0.2	0.2				
InitQueuDel:	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:	32.0	32.0	32.0	29.8	29.8	29.8	20.2	20.2	20.2	36.2	6.5	6.5				
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:	32.0	32.0	32.0	29.8	29.8	29.8	20.2	20.2	20.2	36.2	6.5	6.5				
LOS by Move:	C	C	C	C	C	C	C	C	C	D	A	A				
HCM2kAvgQ:	8	8	8	5	5	5	14	14	14	9	8	8				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.812
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 29.2
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397	342	367	0	0	0	0	0	463	0	169			
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	0	189	453	390	418	0	0	0	0	528	0	193				
Added Vol:	0	8	120	174	64	0	0	0	0	53	0	46				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	197	573	564	482	0	0	0	0	581	0	239				
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	197	573	564	482	0	0	0	0	581	0	239				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	197	573	564	482	0	0	0	0	581	0	239				
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:	0	197	573	564	482	0	0	0	0	581	0	239				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.85				
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00				
Final Sat.:	0	1900	1615	1805	1900	0	0	0	0	1805	0	1615				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.10	0.35	0.31	0.25	0.00	0.00	0.00	0.00	0.32	0.00	0.15				
Crit Moves:		****		****						****						
Green/Cycle:	0.00	0.13	0.52	0.38	0.51	0.00	0.00	0.00	0.00	0.40	0.00	0.78				
Volume/Cap:	0.00	0.81	0.68	0.81	0.50	0.00	0.00	0.00	0.00	0.81	0.00	0.19				
Uniform Del:	0.0	46.7	19.3	30.3	17.5	0.0	0.0	0.0	0.0	29.5	0.0	3.1				
IncremntDel:	0.0	18.4	2.2	7.2	0.4	0.0	0.0	0.0	0.0	7.0	0.0	0.1				
InitQueuDel:	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	0.00	0.00	0.00	1.00	0.00	1.00				
Delay/Veh:	0.0	65.0	21.5	37.5	17.9	0.0	0.0	0.0	0.0	36.6	0.0	3.2				
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:	0.0	65.0	21.5	37.5	17.9	0.0	0.0	0.0	0.0	36.6	0.0	3.2				
LOS by Move:	A	E	C	D	B	A	A	A	A	D	A	A				
HCM2kAvgQ:	0	9	15	19	11	0	0	0	0	19	0	2				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 48.8
Optimal Cycle: 145 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:		Ovl			Include			Include			Include	
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	2 0	3 0	1	2 0	3 0	1	1 1	1 0	2	1 0	2 0	1
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM												
Base Vol:	1034	2108	6	13	677	92	84	34	379	3	6	5
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	1179	2403	7	15	772	105	96	39	432	3	7	6
Added Vol:	69	202	24	441	42	0	0	838	14	24	30	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1248	2605	31	456	814	105	96	877	446	27	37	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:	1248	2605	31	456	814	105	96	877	446	27	37	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1248	2605	31	456	814	105	96	877	446	27	37	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
FinalVolume:	1248	2605	31	456	814	105	96	877	446	27	37	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.93	0.93	0.88	0.93	0.93	0.83
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00
Final Sat.:	3432	5846	1583	3432	5846	1583	1760	3520	3343	1769	3538	1583
Capacity Analysis Module:												
Vol/Sat:	0.36	0.45	0.02	0.13	0.14	0.07	0.05	0.25	0.13	0.02	0.01	0.01
Crit Moves:		****		****				****		****		
Green/Cycle:	0.44	0.47	0.51	0.14	0.17	0.17	0.26	0.26	0.26	0.04	0.04	0.04
Volume/Cap:	0.83	0.95	0.04	0.95	0.83	0.39	0.21	0.95	0.51	0.40	0.27	0.32
Uniform Del:	32.1	33.2	16.1	55.5	52.2	48.2	37.5	47.2	40.9	61.0	60.7	60.9
IncremntDel:	3.9	8.6	0.0	29.3	5.9	1.0	0.0	17.7	0.5	3.9	1.1	3.1
InitQueuDel:	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:	36.0	41.8	16.2	84.8	58.2	49.1	37.5	64.9	41.4	64.9	61.8	63.9
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:	36.0	41.8	16.2	84.8	58.2	49.1	37.5	64.9	41.4	64.9	61.8	63.9
LOS by Move:	D	D	B	F	E	D	D	E	D	E	E	E
HCM2kAvgQ:	24	41	1	13	14	4	3	23	9	2	1	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.656
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 54 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:		Include			Include			Include			Include	
Min. Green:	5	5	5	5	5	5	5	5	5	5	5	5
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am												
Base Vol:	18	13	26	71	19	72	115	415	52	56	1037	74
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	21	15	30	81	22	82	131	473	59	64	1182	84
Added Vol:	0	0	0	1	0	13	4	851	0	0	98	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	15	30	82	22	95	135	1324	59	64	1280	84
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	15	30	82	22	95	135	1324	59	64	1280	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	15	30	82	22	95	135	1324	59	64	1280	84
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:	21	15	30	82	22	95	135	1324	59	64	1280	84
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	0.82	0.82	0.78	0.78	0.78	0.93	0.93	0.93	0.93	0.92	0.92
Lanes:	0.31	0.23	0.46	0.41	0.11	0.48	1.00	1.91	0.09	1.00	1.88	0.12
Final Sat.:	490	354	708	609	161	707	1769	3366	151	1769	3289	217
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.13	0.13	0.13	0.08	0.39	0.39	0.04	0.39	0.39
Crit Moves:					****		****				****	
Green/Cycle:	0.21	0.21	0.21	0.21	0.21	0.21	0.12	0.65	0.65	0.06	0.59	0.59
Volume/Cap:	0.20	0.20	0.20	0.66	0.66	0.66	0.66	0.61	0.61	0.57	0.66	0.66
Uniform Del:	42.8	42.8	42.8	47.4	47.4	47.4	54.9	13.4	13.4	59.2	17.6	17.6
IncremntDel:	0.3	0.3	0.3	5.1	5.1	5.1	7.4	0.5	0.5	6.9	0.8	0.8
InitQueuDel:	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:	43.2	43.2	43.2	52.6	52.6	52.6	62.4	13.8	13.8	66.1	18.3	18.3
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:	43.2	43.2	43.2	52.6	52.6	52.6	62.4	13.8	13.8	66.1	18.3	18.3
LOS by Move:	D	D	D	D	D	D	E	B	B	E	B	B
HCM2kAvgQ:	2	2	2	8	8	8	6	17	17	3	19	19

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 23.9
Optimal Cycle: 57 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1	0	212		93	743	0		0	1164	16	
Added Vol:	0	0	0		115	0	6		7	740	0		0	102	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		116	0	218		100	1483	0		0	1266	25	
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	0	0		116	0	218		100	1483	0		0	1266	25	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		116	0	218		100	1483	0		0	1266	25	
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:	0	0	0		116	0	218		100	1483	0		0	1266	25	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.88	1.00	0.88		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.35	0.00	0.65		1.00	2.00	0.00		0.00	1.96	0.04	
Final Sat.:	0	0	0		580	0	1089		1769	3538	0		0	3459	68	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.20	0.00	0.20		0.06	0.42	0.00		0.00	0.37	0.37	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.29	0.00	0.29		0.08	0.62	0.00		0.00	0.54	0.54	
Volume/Cap:	0.00	0.00	0.00		0.68	0.00	0.68		0.68	0.67	0.00		0.00	0.68	0.68	
Uniform Del:	0.0	0.0	0.0		40.5	0.0	40.5		57.9	16.1	0.0		0.0	21.9	21.9	
IncremntDel:	0.0	0.0	0.0		3.9	0.0	3.9		12.2	0.8	0.0		0.0	1.0	1.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		44.4	0.0	44.4		70.1	16.9	0.0		0.0	22.9	22.9	
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:	0.0	0.0	0.0		44.4	0.0	44.4		70.1	16.9	0.0		0.0	22.9	22.9	
LOS by Move:	A	A	A		D	A	D		E	B	A		A	C	C	
HCM2kAvgQ:	0	0	0		13	0	13		5	20	0		0	20	20	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 52 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	148	0	76		0	0	0		0	795	285		116	1335	0	
Added Vol:	10	0	0		0	0	0		0	747	2		0	108	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	158	0	76		0	0	0		0	1542	287		116	1443	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:	158	0	76		0	0	0		0	1542	287		116	1443	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	158	0	76		0	0	0		0	1542	287		116	1443	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:	158	0	76		0	0	0		0	1542	287		116	1443	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.51	0.00	0.49		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2583	0	841		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.00	0.09		0.00	0.00	0.00		0.00	0.44	0.18		0.07	0.41	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.14	0.00	0.14		0.00	0.00	0.00		0.00	0.67	0.67		0.10	0.78	0.00	
Volume/Cap:	0.44	0.00	0.65		0.00	0.00	0.00		0.00	0.65	0.27		0.65	0.53	0.00	
Uniform Del:	51.2	0.0	52.8		0.0	0.0	0.0		0.0	12.3	8.5		56.2	5.6	0.0	
IncremntDel:	0.6	0.0	4.0		0.0	0.0	0.0		0.0	0.6	0.1		8.0	0.2	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	51.7	0.0	56.9		0.0	0.0	0.0		0.0	12.9	8.6		64.1	5.7	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:	51.7	0.0	56.9		0.0	0.0	0.0		0.0	12.9	8.6		64.1	5.7	0.0	
LOS by Move:	D	A	E		A	A	A		A	B	A		E	A	A	
HCM2kAvgQ:	4	0	7		0	0	0		0	19	5		6	12	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.036
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 62.7
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	399	127	41		32	203	438		169	942	177		32	1392	5	
Added Vol:	0	0	0		0	0	4		10	749	0		0	117	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	399	127	41		32	203	442		179	1691	177		32	1509	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:	399	127	41		32	203	442		179	1691	177		32	1509	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	399	127	41		32	203	442		179	1691	177		32	1509	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	
FinalVolume:	399	127	41		32	203	442		179	1691	177		32	1509	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.88	0.88		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.72	0.28		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4538	474		1769	3527	11	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.07	0.03		0.02	0.11	0.28		0.10	0.37	0.37		0.02	0.43	0.43	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.11	0.11	0.11		0.27	0.27	0.27		0.10	0.46	0.46		0.05	0.41	0.41	
Volume/Cap:	1.04	0.61	0.23		0.07	0.40	1.04		1.04	0.81	0.81		0.38	1.04	1.04	
Uniform Del:	57.7	55.0	52.6		35.3	38.9	47.5		58.7	29.9	29.9		60.0	38.2	38.2	
IncremntDel:	55.4	5.0	0.7		0.1	0.5	53.1		78.2	2.2	2.2		2.8	33.3	33.3	
InitQueuDel:	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:	113.1	60.0	53.3		35.4	39.5	100.6		136.9	32.0	32.0		62.8	71.5	71.5	
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:	113.1	60.0	53.3		35.4	39.5	100.6		136.9	32.0	32.0		62.8	71.5	71.5	
LOS by Move:	F	E	D		D	D	F		F	C	C		E	E	E	
HCM2kAvgQ:	13	6	2		1	7	24		12	25	25		2	41	41	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 84 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		412	0	85		73	1571	0		0	1270	364	
Added Vol:	0	0	0		2	0	0		0	242	0		0	110	3	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		414	0	85		73	1813	0		0	1380	367	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		414	0	85		73	1813	0		0	1380	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		414	0	85		73	1813	0		0	1380	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		414	0	86		73	1813	0		0	1380	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.23	0.00	0.05		0.04	0.51	0.00		0.00	0.39	0.00	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.28	0.00	0.28		0.07	0.61	0.00		0.00	0.54	0.00	
Volume/Cap:	0.00	0.00	0.00		0.84	0.00	0.19		0.59	0.84	0.00		0.00	0.72	0.00	
Uniform Del:	0.0	0.0	0.0		33.9	0.0	27.5		45.2	15.5	0.0		0.0	17.2	0.0	
IncremntDel:	0.0	0.0	0.0		12.0	0.0	0.2		7.6	3.1	0.0		0.0	1.4	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		46.0	0.0	27.7		52.8	18.6	0.0		0.0	18.6	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:	0.0	0.0	0.0		46.0	0.0	27.7		52.8	18.6	0.0		0.0	18.6	0.0	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		15	0	2		3	25	0		0	18	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.846
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 74 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1	0 0	1	0	0	1 0	0	1	1	0 1	1	0	1	0 0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	71	18	143		43	2	2		14	1141	10		47	969	162	
Added Vol:	0	0	0		0	0	0		0	242	0		0	110	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	71	18	143		43	2	2		14	1383	10		47	1079	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:	71	18	143		43	2	2		14	1383	10		47	1079	162	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	71	18	143		43	2	2		14	1383	10		47	1079	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	
FinalVolume:	71	18	143		43	2	2		14	1383	10		47	1079	162	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.40	0.40	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.99	0.01		1.00	0.87	0.13	
Final Sat.:	1359	183	1431		729	38	1583		1769	3508	26		1769	1588	238	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.10	0.10		0.06	0.06	0.00		0.01	0.39	0.39		0.03	0.68	0.68	
Crit Moves:		****							****					****		
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.04	0.74	0.74		0.08	0.78	0.78	
Volume/Cap:	0.46	0.88	0.88		0.52	0.52	0.01		0.19	0.53	0.53		0.35	0.88	0.88	
Uniform Del:	41.4	43.6	43.6		41.8	41.8	39.3		46.4	5.5	5.5		43.9	7.8	7.8	
IncremntDel:	2.1	34.2	34.2		5.6	5.6	0.0		1.3	0.2	0.2		1.6	6.4	6.4	
InitQueuDel:	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:	43.6	77.8	77.8		47.4	47.4	39.4		47.8	5.7	5.7		45.5	14.2	14.2	
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:	43.6	77.8	77.8		47.4	47.4	39.4		47.8	5.7	5.7		45.5	14.2	14.2	
LOS by Move:	D	E	E		D	D	D		D	A	A		D	B	B	
HCM2kAvgQ:	3	8	8		2	2	0		1	10	10		2	30	30	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.905
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 100 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0	0 1!	0	0	0	0 1!	0	0	1	0 0	1	0	1	0 0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	62	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	3	3	9		162	7	55		19	1017	6		7	974	71	
Added Vol:	0	0	0		0	0	0		0	242	0		0	110	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	3	9		162	7	55		19	1259	6		7	1084	71	
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:	3	3	9		162	7	55		19	1259	6		7	1084	71	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	9		162	7	55		19	1259	6		7	1084	71	
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:	3	3	9		162	7	55		19	1259	6		7	1084	71	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.87	0.87	0.87		0.72	0.72	0.72		0.12	0.98	0.98		0.06	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.94	0.06	
Final Sat.:	353	353	942		998	42	337		220	1852	8		114	1732	113	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.16	0.16	0.16		0.09	0.68	0.68		0.06	0.63	0.63	
Crit Moves:						****				****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.05	0.05	0.05		0.91	0.91	0.91		0.12	0.91	0.91		0.08	0.83	0.83	
Uniform Del:	34.0	34.0	34.0		40.2	40.2	40.2		3.4	9.7	9.7		3.3	8.3	8.3	
IncremntDel:	0.1	0.1	0.1		33.3	33.3	33.3		0.3	8.7	8.7		0.4	4.5	4.5	
InitQueuDel:	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:	34.1	34.1	34.1		73.5	73.5	73.5		3.7	18.4	18.4		3.7	12.8	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:	34.1	34.1	34.1		73.5	73.5	73.5		3.7	18.4	18.4		3.7	12.8	12.8	
LOS by Move:	C	C	C		E	E	E		A	B	B		A	B	B	
HCM2kAvgQ:	0	0	0		10	10	10		0	34	34		0	26	26	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.874
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	72		41	869	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	115	97	139		35	47	8		5	905	82		47	991	6	
Added Vol:	11	0	26		0	0	0		0	216	8		4	106	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	126	97	165		35	47	8		5	1121	90		51	1097	6	
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:	126	97	165		35	47	8		5	1121	90		51	1097	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	126	97	165		35	47	8		5	1121	90		51	1097	6	
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:	126	97	165		35	47	8		5	1121	90		51	1097	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.89	0.89		0.24	0.96	0.96		0.14	0.97	0.97		0.09	0.98	0.98	
Lanes:	1.00	0.37	0.63		1.00	0.85	0.15		1.00	0.93	0.07		1.00	0.99	0.01	
Final Sat.:	1346	624	1063		449	1555	266		268	1705	137		169	1851	10	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.16	0.16		0.08	0.03	0.03		0.02	0.66	0.66		0.30	0.59	0.59	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.53	0.87	0.87		0.44	0.17	0.17		0.02	0.87	0.87		0.40	0.79	0.79	
Uniform Del:	37.3	40.0	40.0		36.7	34.9	34.9		3.1	9.0	9.0		4.4	7.5	7.5	
IncremntDel:	2.2	23.6	23.6		3.9	0.2	0.2		0.0	6.5	6.5		2.0	3.1	3.1	
InitQueuDel:	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:	39.5	63.6	63.6		40.6	35.1	35.1		3.2	15.4	15.4		6.4	10.6	10.6	
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:	39.5	63.6	63.6		40.6	35.1	35.1		3.2	15.4	15.4		6.4	10.6	10.6	
LOS by Move:	D	E	E		D	D	D		A	B	B		A	B	B	
HCM2kAvgQ:	4	11	11		2	1	1		0	30	30		1	22	22	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.269
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 136.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	76	390	279		465	367	11		18	189	133		479	73	563	
Added Vol:	15	9	114		101	7	0		0	9	10		19	18	80	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	91	399	393		566	374	11		18	198	143		498	91	643	
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:	91	399	393		566	374	11		18	198	143		498	91	643	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	91	399	390		566	374	11		18	198	143		498	91	643	
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:	91	399	390		566	374	11		18	198	143		498	91	643	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.78	1.18	0.04		1.00	1.00	1.00		1.69	0.31	1.00	
Final Sat.:	1769	3538	791		3059	2022	62		1769	1862	1583		3020	552	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.11	0.49		0.19	0.19	0.19		0.01	0.11	0.09		0.16	0.16	0.41	
Crit Moves:			****				****			****					****	
Green/Cycle:	0.39	0.39	0.39		0.15	0.15	0.15		0.08	0.08	0.08		0.32	0.32	0.32	
Volume/Cap:	0.13	0.29	1.27		1.27	1.27	1.27		0.12	1.27	1.08		0.51	0.51	1.27	
Uniform Del:	25.6	27.4	39.7		55.5	55.5	55.5		55.1	59.5	59.5		36.0	36.0	44.2	
IncremntDel:	0.1	0.1	144.3		131.6	132	131.6		0.4	162	101.1		0.4	0.4	136.0	
InitQueuDel:	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:	25.7	27.5	184.0		187.1	187	187.1		55.5	221	160.7		36.4	36.4	180.2	
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:	25.7	27.5	184.0		187.1	187	187.1		55.5	221	160.7		36.4	36.4	180.2	
LOS by Move:	C	C	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	2	6	28		24	24	24		1	15	10		10	10	44	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.915
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 36.1
Optimal Cycle: 141 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	2	0	3	0	0	0	0	3	0	1	2	0	0	0	3	0	0	0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0		0	884	188		179	0	429		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	1757	3285	0		0	1008	214		204	0	489		0	0	0	
Added Vol:	23	471	0		0	73	8		109	0	7		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1780	3756	0		0	1081	222		313	0	496		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:	1780	3756	0		0	1081	222		313	0	496		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1780	3756	0		0	1081	222		313	0	496		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	
FinalVolume:	1780	3756	0		0	1081	222		313	0	496		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.89	1.00		1.00	0.89	0.83		0.90	1.00	0.73		1.00	1.00	1.00	
Lanes:	2.00	3.00	0.00		0.00	3.00	1.00		2.00	0.00	3.00		0.00	0.00	0.00	
Final Sat.:	3432	5083	0		0	5083	1583		3432	0	4178		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.52	0.74	0.00		0.00	0.21	0.14		0.09	0.00	0.12		0.00	0.00	0.00	
Crit Moves:		****			****						****					
Green/Cycle:	0.57	0.81	0.00		0.00	0.23	0.23		0.13	0.00	0.13		0.00	0.00	0.00	
Volume/Cap:	0.91	0.91	0.00		0.00	0.91	0.60		0.70	0.00	0.91		0.00	0.00	0.00	
Uniform Del:	30.3	11.3	0.0		0.0	59.5	54.5		66.7	0.0	68.7		0.0	0.0	0.0	
IncremntDel:	6.4	3.7	0.0		0.0	9.9	2.7		5.0	0.0	20.2		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	36.8	15.0	0.0		0.0	69.4	57.2		71.7	0.0	88.9		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:	36.8	15.0	0.0		0.0	69.4	57.2		71.7	0.0	88.9		0.0	0.0	0.0	
LOS by Move:	D	B	A		A	E	E		E	A	F		A	A	A	
HCM2kAvgQ:	42	52	0		0	22	10		9	0	12		0	0	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.612
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.7
Optimal Cycle: 46 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0		22	0	22		68	526	0		0	1341	46	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		25	0	25		78	600	0		0	1529	52	
Added Vol:	0	0	0		2	0	0		0	115	0		0	21	10	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		27	0	25		78	715	0		0	1550	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:	0	0	0		27	0	25		78	715	0		0	1550	62	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		27	0	25		78	715	0		0	1550	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	
FinalVolume:	0	0	0		27	0	25		78	715	0		0	1550	62	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.89	1.00	0.89		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.52	0.00	0.48		1.00	2.00	0.00		0.00	1.92	0.08	
Final Sat.:	0	0	0		881	0	816		1769	3538	0		0	3380	136	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.03	0.00	0.03		0.04	0.20	0.00		0.00	0.46	0.46	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.06	0.00	0.06		0.07	0.81	0.00		0.00	0.74	0.74	
Volume/Cap:	0.00	0.00	0.00		0.52	0.00	0.52		0.62	0.25	0.00		0.00	0.62	0.62	
Uniform Del:	0.0	0.0	0.0		38.8	0.0	38.8		38.4	1.9	0.0		0.0	5.3	5.3	
IncremntDel:	0.0	0.0	0.0		4.9	0.0	4.9		9.1	0.0	0.0		0.0	0.5	0.5	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		43.8	0.0	43.8		47.5	1.9	0.0		0.0	5.7	5.7	
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:	0.0	0.0	0.0		43.8	0.0	43.8		47.5	1.9	0.0		0.0	5.7	5.7	
LOS by Move:	A	A	A		D	A	D		D	A	A		A	A	A	
HCM2kAvgQ:	0	0	0		2	0	2		3	2	0		0	11	11	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.624
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	36	42	23		9	24	50		46	663	49		28	1484	28	
Added Vol:	0	0	0		0	0	0		0	115	0		0	21	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	36	42	23		9	24	50		46	778	49		28	1505	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:	36	42	23		9	24	50		46	778	49		28	1505	28	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	36	42	23		9	24	50		46	778	49		28	1505	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	
FinalVolume:	36	42	23		9	24	50		46	778	49		29	1505	29	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.91	0.91	0.91		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.36	0.42	0.22		0.11	0.29	0.60		1.00	1.88	0.12		1.00	1.96	0.04	
Final Sat.:	651	752	407		190	500	1047		1805	3366	212		1805	3532	67	
Capacity Analysis Module:																		
Vol/Sat:	0.06	0.06	0.06		0.05	0.05	0.05		0.03	0.23	0.23		0.02	0.43	0.43	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.09	0.09		0.08	0.08	0.08		0.05	0.60	0.60		0.13	0.68	0.68	
Volume/Cap:	0.63	0.64	0.64		0.62	0.63	0.63		0.51	0.39	0.39		0.12	0.63	0.63	
Uniform Del:	44.0	44.1	44.1		44.7	44.8	44.8		46.3	10.6	10.6		38.5	9.2	9.2	
IncremntDel:	7.9	8.8	8.8		8.3	9.5	9.5		4.6	0.1	0.1		0.2	0.5	0.5	
InitQueuDel:	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:	51.8	53.0	53.0		53.0	54.3	54.3		50.9	10.7	10.7		38.8	9.7	9.7	
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:	51.8	53.0	53.0		53.0	54.3	54.3		50.9	10.7	10.7		38.8	9.7	9.7	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	A	A	
HCM2kAvgQ:	4	4	4		4	4	4		2	7	7		1	14	14	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.731
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 28.8
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	123	257	129		57	223	98		161	567	89		111	1271	56	
Added Vol:	0	0	0		0	0	0		0	115	0		0	21	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	257	129		57	223	98		161	682	89		111	1292	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:	123	257	129		57	223	98		161	682	89		111	1292	56	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	257	129		57	223	98		161	682	89		111	1292	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	
FinalVolume:	123	257	129		57	223	98		161	682	89		111	1292	56	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.77	0.23		1.00	1.92	0.08	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3139	410		1805	3440	149	
Capacity Analysis Module:																		
Vol/Sat:	0.07	0.14	0.08		0.03	0.12	0.06		0.09	0.22	0.22		0.06	0.38	0.38	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.19	0.19		0.07	0.16	0.16		0.12	0.50	0.50		0.14	0.51	0.51	
Volume/Cap:	0.73	0.73	0.43		0.46	0.73	0.38		0.73	0.44	0.44		0.44	0.73	0.73	
Uniform Del:	44.1	38.3	36.0		44.8	39.9	37.5		42.3	16.2	16.2		39.4	18.9	18.9	
IncremntDel:	15.1	7.4	1.0		2.7	8.7	0.9		11.8	0.2	0.2		1.2	1.5	1.5	
InitQueuDel:	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:	59.2	45.8	37.0		47.5	48.6	38.4		54.1	16.4	16.4		40.6	20.4	20.4	
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:	59.2	45.8	37.0		47.5	48.6	38.4		54.1	16.4	16.4		40.6	20.4	20.4	
LOS by Move:	E	D	D		D	D	D		D	B	B		D	C	C	
HCM2kAvgQ:	5	9	4		2	8	3		6	8	8		4	18	18	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.694
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	47	105	12		16	59	56		18	626	48		88	1246	61	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	54	120	14		18	67	64		21	714	55		100	1420	70	
Added Vol:	0	0	0		0	0	0		0	115	0		0	21	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	54	120	14		18	67	64		21	829	55		100	1441	70	
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	120	14		18	67	64		21	829	55		100	1441	70	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	54	120	14		18	67	64		21	829	55		100	1441	70	
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:	54	120	14		18	67	64		21	829	55		100	1441	70	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.98		0.94	0.94	0.94		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	0.29	0.64	0.07		0.12	0.45	0.43		1.00	1.88	0.12		1.00	1.91	0.09	
Final Sat.:	532	1187	136		217	801	761		1805	3356	222		1805	3420	165	
Capacity Analysis Module:																		
Vol/Sat:	0.10	0.10	0.10		0.08	0.08	0.08		0.01	0.25	0.25		0.06	0.42	0.42	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.14	0.14	0.14		0.12	0.12	0.12		0.05	0.52	0.52		0.12	0.58	0.58	
Volume/Cap:	0.72	0.72	0.72		0.72	0.72	0.72		0.23	0.48	0.48		0.48	0.72	0.72	
Uniform Del:	41.2	41.2	41.2		42.6	42.6	42.6		45.6	15.5	15.5		41.3	15.0	15.0	
IncremntDel:	9.6	9.6	9.6		11.8	11.8	11.8		1.3	0.2	0.2		1.7	1.3	1.3	
InitQueuDel:	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:	50.7	50.7	50.7		54.4	54.4	54.4		46.9	15.7	15.7		43.0	16.2	16.2	
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:	50.7	50.7	50.7		54.4	54.4	54.4		46.9	15.7	15.7		43.0	16.2	16.2	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	B	B	
HCM2kAvgQ:	7	7	7		6	6	6		1	9	9		3	18	18	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap.(X): 0.303
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	14	14	14		14	14	14		73	73	73		73	73	73	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	18	59	9		7	43	11		15	614	24		15	123	24	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	21	67	10		8	49	13		17	700	27		17	140	27	
Added Vol:	0	0	0		0	0	0		0	115	0		0	21	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	21	67	10		8	49	13		17	815	27		17	161	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:	21	67	10		8	49	13		17	815	27		17	161	27	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	21	67	10		8	49	13		17	815	27		17	161	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	
FinalVolume:	21	67	10		8	49	13		17	815	27		17	161	27	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.93		0.95	0.95	0.95		0.63	0.95	0.95		0.31	0.93	0.93	
Lanes:	0.21	0.69	0.10		0.11	0.71	0.18		1.00	1.94	0.06		1.00	1.71	0.29	
Final Sat.:	369	1209	184		207	1271	325		1189	3475	117		587	3018	512	
Capacity Analysis Module:																		
Vol/Sat:	0.06	0.06	0.06		0.04	0.04	0.04		0.01	0.23	0.23		0.03	0.05	0.05	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.77	0.77	0.77		0.77	0.77	0.77	
Volume/Cap:	0.30	0.30	0.30		0.21	0.21	0.21		0.02	0.30	0.30		0.04	0.07	0.07	
Uniform Del:	33.5	33.5	33.5		32.9	32.9	32.9		2.5	3.2	3.2		2.5	2.6	2.6	
IncremntDel:	0.5	0.5	0.5		0.3	0.3	0.3		0.0	0.1	0.1		0.0	0.0	0.0	
InitQueuDel:	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:	34.1	34.1	34.1		33.2	33.2	33.2		2.5	3.2	3.2		2.5	2.6	2.6	
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:	34.1	34.1	34.1		33.2	33.2	33.2		2.5	3.2	3.2		2.5	2.6	2.6	
LOS by Move:	C	C	C		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	3	3	3		2	2	2		0	4	4		0	1	1	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 1.036
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 54.3
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1 1	1	0	1	0 1	2	0	2	0 1	1	0	1	1 0
Volume Module:																
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	413	498	374		13	141	437		133	401	323		56	1374	78	
Added Vol:	22	0	60		0	0	0		0	54	0		0	21	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	435	498	434		13	141	437		133	455	323		56	1395	78	
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:	435	498	434		13	141	437		133	455	323		56	1395	78	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	435	498	434		13	141	437		133	455	323		56	1395	78	
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:	435	498	434		13	141	437		133	455	323		56	1395	78	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.27	1.46	1.27		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.89	0.11	
Final Sat.:	2151	2465	2147		1805	1900	1615		3502	3610	1615		1805	3393	189	
Capacity Analysis Module:																
Vol/Sat:	0.20	0.20	0.20		0.01	0.07	0.27		0.04	0.13	0.20		0.03	0.41	0.41	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.19	0.36	0.36		0.09	0.26	0.26		0.05	0.35	0.35		0.09	0.39	0.39	
Volume/Cap:	1.05	0.56	0.56		0.08	0.29	1.05		0.76	0.36	0.57		0.35	1.05	1.05	
Uniform Del:	40.4	25.7	25.7		41.8	29.8	37.1		46.9	24.0	26.2		42.9	30.5	30.5	
IncremntDel:	39.8	0.3	0.3		0.2	0.3	58.4		17.7	0.2	1.3		1.3	39.0	39.0	
InitQueuDel:	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:	80.2	26.0	26.0		42.0	30.1	95.6		64.6	24.2	27.5		44.2	69.4	69.4	
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:	80.2	26.0	26.0		42.0	30.1	95.6		64.6	24.2	27.5		44.2	69.4	69.4	
LOS by Move:	F	C	C		D	C	F		E	C	C		D	E	E	
HCM2kAvgQ:	18	9	9		0	4	21		4	5	9		2	34	34	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.443
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.4
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0	2	1 0	0	0	2	0 0	2	0	0	0 1	0	0	0	0 1
Volume Module:																
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	113	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	954	9		0	514	0		416	0	160		0	0	129	
Added Vol:	0	0	0		0	0	0		82	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	954	9		0	514	0		498	0	160		0	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:	0	954	9		0	514	0		498	0	160		0	0	129	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	954	9		0	514	0		498	0	160		0	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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	1050	10		0	540	0		513	0	160		0	0	129	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5646	54		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.19	0.19		0.00	0.14	0.00		0.14	0.00	0.10		0.00	0.00	0.09	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.00	0.42	0.42		0.00	0.42	0.00		0.32	0.00	0.52		0.00	0.00	0.20	
Volume/Cap:	0.00	0.44	0.44		0.00	0.34	0.00		0.44	0.00	0.19		0.00	0.00	0.44	
Uniform Del:	0.0	10.2	10.2		0.0	9.7	0.0		13.3	0.0	6.3		0.0	0.0	17.4	
IncremntDel:	0.0	0.1	0.1		0.0	0.1	0.0		0.2	0.0	0.0		0.0	0.0	0.7	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	8.8	8.8		0.0	8.3	0.0		11.5	0.0	5.4		0.0	0.0	15.5	
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:	0.0	8.8	8.8		0.0	8.3	0.0		11.5	0.0	5.4		0.0	0.0	15.5	
DesignQueue:	0	8	8		0	6	0		7	0	3		0	0	4	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.718
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.5
Optimal Cycle: 180 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	16		16	16	0		0	0	0		29	45	28		61	0
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	317		1	220	0		0	0	0	828		379	798	1527		0
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	361		1	251	0		0	0	944			432	910	1741		0
Added Vol:	0		0	0	0		0	0	54			14	4	48		0
PasserByVol:	0		0	0	0		0	0	0			0	0	0		0
Initial Fut:	361		1	251	0		0	0	998			446	914	1789		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:	361		1	251	0		0	0	998			446	914	1789		0
Reduct Vol:	0		0	0	0		0	0	0			0	0	0		0
Reduced Vol:	361		1	251	0		0	0	998			446	914	1789		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:	361		1	251	0		0	0	998			446	914	1789		0
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.86	0.86		0.86	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00		1.00
Lanes:	1.58	0.01		1.41	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00		0.00
Final Sat.:	2584		6	2291	0		0	0	3610			2842	3502	3610		0
Capacity Analysis Module:																
Vol/Sat:	0.14	0.19		0.11	0.00	0.00		0.00	0.28			0.16	0.26	0.50		0.00
Crit Moves:		****												****		
Green/Cycle:	0.19	0.19		0.19	0.00	0.00		0.00	0.34			0.34	0.42	0.76		0.00
Volume/Cap:	0.74	1.00		0.58	0.00	0.00		0.00	0.81			0.46	0.62	0.65		0.00
Uniform Del:	32.6	34.5		31.5	0.0	0.0		0.0	25.5			21.9	19.1	4.7		0.0
IncremntDel:	3.7	37.2		0.8	0.0	0.0		0.0	4.1			0.3	0.8	0.5		0.0
InitQueuDel:	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	0.00		0.00	1.00			1.00	1.00	1.00		0.00
Delay/Veh:	36.2	71.7		32.3	0.0	0.0		0.0	29.6			22.2	19.9	5.2		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
AdjDel/Veh:	36.2	71.7		32.3	0.0	0.0		0.0	29.6			22.2	19.9	5.2		0.0
LOS by Move:	D	E		C	A	A		A	C			C	B	A		A
HCM2kAvgQ:	7	14		5	0	0		0	15			6	10	12		0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.992
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.3
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5		5	5	5		5	5	5		5	5	5		5	5
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	14		78	250	410		115	41	51		538	13	238	1506		420
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	16		89	285	467		131	47	58		613	15	271	1717		479
Added Vol:	0		0	0	0		0	0	0		69	0	0	48		0
PasserByVol:	0		0	0	0		0	0	0		0	0	0	0		0
Initial Fut:	16		89	285	467		131	47	58		682	15	271	1765		479
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		89	285	467		131	47	58		682	15	271	1765		479
Reduct Vol:	0		0	0	0		0	0	0		0	0	0	0		0
Reduced Vol:	16		89	285	467		131	47	58		682	15	271	1765		479
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:	16		89	285	467		131	47	58		682	15	271	1765		479
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.90	0.90		0.90	0.92	0.96		0.96	0.95	0.95		0.95	0.95	0.95		0.85
Lanes:	0.04	0.23		0.73	2.00	0.74		0.26	1.00	1.96		0.04	1.00	2.00		1.00
Final Sat.:	70	390		1249	3502	1346		480	1805	3523		77	1805	3610		1615
Capacity Analysis Module:																
Vol/Sat:	0.23	0.23		0.23	0.13	0.10		0.10	0.03	0.19		0.19	0.15	0.49		0.30
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.23		0.23	0.13	0.11		0.11	0.05	0.30		0.30	0.23	0.48		0.48
Volume/Cap:	0.91	1.01		1.01	1.01	0.91		0.91	0.64	0.65		0.65	0.65	1.01		0.61
Uniform Del:	36.4	38.7		38.7	43.4	44.2		44.2	46.6	30.4		30.4	34.6	25.9		19.0
IncremntDel:	23.4	49.1		49.1	45.1	40.5		40.5	14.9	1.4		1.4	3.5	24.7		1.5
InitQueuDel:	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:	59.8	87.8		87.8	88.5	84.7		84.7	61.5	31.8		31.8	38.1	50.6		20.5
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:	59.8	87.8		87.8	88.5	84.7		84.7	61.5	31.8		31.8	38.1	50.6		20.5
LOS by Move:	E	F		F	F	F		F	E	C		C	D	D		C
HCM2kAvgQ:	16	18		18	12	9		9	3	11		11	8	37		11

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.907
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 48.5
Optimal Cycle: 111 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0
Volume Module:																	
Base Vol:	37	264	51		92	391	62		15	228	24		73	584	95	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	42	301	58		105	446	71		17	260	27		83	666	108	
Added Vol:	1	104	41		6	28	2		25	21	0		3	36	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	43	405	99		111	474	73		42	281	27		86	702	117	
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	405	99		111	474	73		42	281	27		86	702	117	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	43	405	99		111	474	73		42	281	27		86	702	117	
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:	43	405	99		111	474	73		42	281	27		86	702	117	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.93	0.93	0.93		0.95	0.99	0.99		0.95	0.98	0.98	
Lanes:	0.16	1.48	0.36		0.34	1.44	0.22		1.00	0.91	0.09		1.00	0.86	0.14	
Final Sat.:	276	2589	634		594	2537	389		1805	1709	166		1805	1594	266	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.16	0.16		0.19	0.19	0.19		0.02	0.16	0.16		0.05	0.44	0.44	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.17	0.17	0.17		0.20	0.20	0.20		0.05	0.40	0.40		0.12	0.47	0.47	
Volume/Cap:	0.93	0.93	0.93		0.93	0.93	0.93		0.47	0.41	0.41		0.39	0.93	0.93	
Uniform Del:	41.1	41.1	41.1		39.3	39.3	39.3		46.2	21.5	21.5		40.5	24.9	24.9	
IncremntDel:	22.0	22.0	22.0		19.3	19.3	19.3		3.8	0.4	0.4		1.2	16.4	16.4	
InitQueuDel:	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:	63.0	63.0	63.0		58.6	58.6	58.6		50.0	21.9	21.9		41.7	41.3	41.3	
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:	63.0	63.0	63.0		58.6	58.6	58.6		50.0	21.9	21.9		41.7	41.3	41.3	
LOS by Move:	E	E	E		E	E	E		D	C	C		D	D	D	
HCM2kAvgQ:	13	13	13		15	15	15		2	7	7		3	29	29	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM																	
Base Vol:	45	2362	0		0	1034	31		103	0	6		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	51	2693	0		0	1179	35		117	0	7		0	0	0	
Added Vol:	94	32	0		0	443	0		154	0	21		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	145	2725	0		0	1622	35		271	0	28		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:	145	2725	0		0	1622	35		271	0	28		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	145	2725	0		0	1622	35		271	0	28		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	
FinalVolume:	145	2725	0		0	1622	35		271	0	28		0	0	0	
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																	
Vol/Sat:	0.08	0.54	0.00		0.00	0.32	0.02		0.15	0.00	0.02		0.00	0.00	0.00	
Crit Moves:		****			****				****							
Green/Cycle:	0.15	0.72	0.00		0.00	0.58	0.58		0.21	0.00	0.21		0.00	0.00	0.00	
Volume/Cap:	0.55	0.74	0.00		0.00	0.55	0.04		0.74	0.00	0.08		0.00	0.00	0.00	
Uniform Del:	51.4	10.7	0.0		0.0	17.2	12.0		48.3	0.0	41.6		0.0	0.0	0.0	
IncremntDel:	2.6	0.8	0.0		0.0	0.2	0.0		7.9	0.0	0.1		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	54.0	11.5	0.0		0.0	17.4	12.0		56.1	0.0	41.7		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:	54.0	11.5	0.0		0.0	17.4	12.0		56.1	0.0	41.7		0.0	0.0	0.0	
LOS by Move:	D	B	A		A	B	B		E	A	D		A	A	A	
HCM2kAvgQ:	6	24	0		0	15	1		12	0	1		0	0	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.678
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.1
Optimal Cycle: 50 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	0	5	5	0	5	0	0	5	0	0	0	0
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0	0	851	196	218	0	31	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	166	2360	0	0	970	223	249	0	35	0	0	0				
Added Vol:	94	122	0	0	462	2	4	0	21	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	260	2482	0	0	1432	225	253	0	56	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:	260	2482	0	0	1432	225	253	0	56	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	260	2482	0	0	1432	225	253	0	56	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				
FinalVolume:	260	2482	0	0	1432	225	253	0	56	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.15	0.49	0.00	0.00	0.28	0.14	0.14	0.00	0.04	0.00	0.00	0.00				
Crit Moves:		****		****			****									
Green/Cycle:	0.25	0.72	0.00	0.00	0.47	0.47	0.21	0.00	0.21	0.00	0.00	0.00				
Volume/Cap:	0.60	0.68	0.00	0.00	0.60	0.30	0.68	0.00	0.17	0.00	0.00	0.00				
Uniform Del:	43.2	9.9	0.0	0.0	25.1	21.1	47.3	0.0	42.0	0.0	0.0	0.0				
IncremntDel:	2.2	0.5	0.0	0.0	0.4	0.2	5.0	0.0	0.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	45.4	10.5	0.0	0.0	25.5	21.3	52.2	0.0	42.2	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:	45.4	10.5	0.0	0.0	25.5	21.3	52.2	0.0	42.2	0.0	0.0	0.0				
LOS by Move:	D	B	A	A	C	C	D	A	D	A	A	A				
HCM2kAvgQ:	10	20	0	0	15	5	10	0	2	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.745
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 41 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	T	R	L	T	T	R	L	T	T	R	L	T	T	R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0	0	0	10	10	4	0	4	0	0	0	0	0	0
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0	0	398	66	83	0	561	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	529	417	0	0	454	75	95	0	640	0	0	0				
Added Vol:	62	24	0	0	71	2	7	0	35	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	591	441	0	0	525	77	102	0	675	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	591	441	0	0	525	77	102	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	591	441	0	0	525	77	102	0	0	0	0	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	591	441	0	0	525	77	102	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1595	235	1769	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.33	0.24	0.00	0.00	0.33	0.33	0.06	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.45	0.89	0.00	0.00	0.44	0.44	0.08	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.75	0.27	0.00	0.00	0.75	0.75	0.75	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	27.4	1.0	0.0	0.0	27.9	27.9	54.2	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	3.9	0.1	0.0	0.0	3.8	3.8	19.9	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	31.3	1.0	0.0	0.0	31.7	31.7	74.1	0.0	0.0	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:	31.3	1.0	0.0	0.0	31.7	31.7	74.1	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	C	E	A	A	A	A	A				
HCM2kAvgQ:	19	2	0	0	19	19	5	0	0	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.541
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 24 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1	0 2	0 1		1	0 2	0 1		1	0 0	1 0		0	1 0	0 1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	709	68		3	3	3		123	53	241	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	65	710	56		219	808	78		3	3	3		140	60	275	
Added Vol:	0	84	0		1	105	0		0	0	0		0	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	65	794	56		220	913	78		3	3	3		140	60	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:	65	794	56		220	913	78		3	3	3		140	60	276	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	65	794	56		220	913	78		3	3	3		140	60	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	
FinalVolume:	65	794	56		220	913	78		3	3	3		140	60	276	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.47	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		896	861	861		1020	440	1583	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.22	0.04		0.12	0.26	0.05		0.00	0.00	0.00		0.14	0.14	0.17	
Crit Moves:		****			****										****	
Green/Cycle:	0.08	0.41	0.41		0.23	0.56	0.56		0.32	0.32	0.32		0.32	0.32	0.32	
Volume/Cap:	0.46	0.54	0.09		0.54	0.46	0.09		0.01	0.01	0.01		0.43	0.43	0.54	
Uniform Del:	52.7	26.5	21.3		40.7	15.3	12.0		27.7	27.7	27.7		32.0	32.0	33.4	
IncremntDel:	2.3	0.4	0.1		1.5	0.2	0.0		0.0	0.0	0.0		0.6	0.6	1.2	
InitQueuDel:	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	26.9	21.3		42.1	15.5	12.0		27.7	27.7	27.7		32.6	32.6	34.6	
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:	55.0	26.9	21.3		42.1	15.5	12.0		27.7	27.7	27.7		32.6	32.6	34.6	
LOS by Move:	E	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	3	12	1		8	10	1		0	0	0		6	6	9	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.886
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 46.7
Optimal Cycle: 101 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1 0	0 1		0	1 0	0 1		1	0 0	1 0		0	0 1!	0 0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	131	358	9		8	559	405		130	39	51		7	111	6	
Added Vol:	0	138	0		0	37	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	131	496	9		8	596	405		130	39	51		7	111	6	
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:	131	496	9		8	596	405		130	39	51		7	111	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	131	496	9		8	596	405		130	39	51		7	111	6	
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:	131	496	9		8	596	405		130	39	51		7	111	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.21	0.79	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	393	1488	1615		25	1873	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.33	0.33	0.01		0.32	0.32	0.25		0.07	0.05	0.05		0.07	0.07	0.07	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.38	0.38	0.38		0.36	0.36	0.36		0.08	0.08	0.08		0.07	0.07	0.07	
Volume/Cap:	0.89	0.89	0.02		0.89	0.89	0.70		0.89	0.64	0.64		0.89	0.89	0.89	
Uniform Del:	29.2	29.2	19.6		30.1	30.1	27.4		45.5	44.5	44.5		45.9	45.9	45.9	
IncremntDel:	12.9	12.9	0.0		13.4	13.4	3.8		42.7	9.3	9.3		44.3	44.3	44.3	
InitQueuDel:	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:	42.1	42.1	19.6		43.5	43.5	31.2		88.1	53.8	53.8		90.2	90.2	90.2	
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:	42.1	42.1	19.6		43.5	43.5	31.2		88.1	53.8	53.8		90.2	90.2	90.2	
LOS by Move:	D	D	B		D	D	C		F	D	D		F	F	F	
HCM2kAvgQ:	21	21	0		21	21	12		7	4	4		6	6	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.5
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1 0	3 0	0		0 0	3 0	1		2 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	0	2197	0		0	782	0		0	0	0		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	2505	0		0	891	0		0	0	0		0	0	0	
Added Vol:	0	216	0		0	483	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	2721	0		0	1374	0		0	0	0		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	2721	0		0	1374	0		0	0	0		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	2721	0		0	1374	0		0	0	0		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	
FinalVolume:	0	2721	0		0	1374	0		0	0	0		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	0.91	1.00		1.00	0.91	1.00		0.97	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		2.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1900	5187	0		0	5187	1900		3686	0	1900		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.52	0.00		0.00	0.26	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Crit Moves:		****			****											
Green/Cycle:	0.00	0.88	0.00		0.00	0.88	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Volume/Cap:	0.00	0.60	0.00		0.00	0.30	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Uniform Del:	0.0	1.5	0.0		0.0	1.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
IncremntDel:	0.0	0.2	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
InitQueuDel:	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	0.00		0.00	0.00	0.00		0.00	0.00	0.00	
Delay/Veh:	0.0	1.7	0.0		0.0	1.0	0.0		0.0	0.0	0.0		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	1.7	0.0		0.0	1.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
LOS by Move:	A	A	A		A	A	A		A	A	A		A	A	A	
HCM2kAvgQ:	0	8	0		0	3	0		0	0	0		0	0	0	

Note: Queue reported is the number of cars per lane.

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Scenario Report

Scenario:	Cumulative 2025 East Campus Only PM
Command:	Long Term Project I PM
Volume:	Long Term Project I PM
Geometry:	Long Term Project I PM
Impact Fee:	Default Impact Fee
Trip Generation:	Long Term Project I PM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Long Term Project I PM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	E	77.7	1.075	F	83.0	1.096	+ 5.266 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	19.2	0.929	D	46.5	1.105	+27.224 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	23.8	0.931	C	34.6	0.983	+10.805 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.3	0.781	C	24.2	0.896	-0.153 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	29.2	0.664	C	22.6	0.779	-6.564 D/V
# 6 Bay Rd. & Marsh Rd.	B	15.9	0.659	B	15.3	0.691	-0.631 D/V
# 7 Middlefield at Marsh (Town of	D	39.4	0.922	D	50.6	1.040	+11.151 D/V
# 8 Bayfront Exp. & Willow Rd.	E	67.9	1.045	F	140.2	1.282	+72.292 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7	0.693	C	25.7	0.772	+ 2.036 D/V
# 10 Ivy Dr. & Willow Rd.	B	12.8	0.619	B	14.9	0.741	+ 2.098 D/V
# 11 O'Brien Dr. & Willow Rd.	B	10.4	0.622	A	9.8	0.667	-0.569 D/V
# 12 Newbridge St. & Willow Rd.	D	36.8	0.838	E	57.1	1.071	+20.276 D/V
# 13 Bay Rd. & Willow Rd.	C	22.2	0.833	C	23.9	0.877	+ 1.715 D/V
# 14 Durham St. & Willow Rd.	E	56.1	0.728	C	20.2	0.865	-35.939 D/V
# 15 Coleman Ave. & Willow Rd.	B	14.3	0.833	B	17.1	0.906	+ 2.709 D/V
# 16 Gilbert Ave. & Willow Rd.	B	14.1	0.745	B	14.3	0.844	+ 0.214 D/V
# 17 Middlefield Rd. & Willow Rd.	F	153.6	1.404	F	215.0	1.539	+61.397 D/V
# 18 Bayfront Exp. & University Ave	F	211.8	1.460	F	244.3	1.560	+32.474 D/V
# 19 O'Brien Dr. & University Ave.	B	14.3	0.760	B	14.7	0.776	+ 0.374 D/V
# 20 University & Kavanaugh	B	17.7	0.732	B	17.5	0.741	-0.186 D/V
# 21 University & Bay	D	39.5	0.918	D	39.7	0.927	+ 0.171 D/V
# 22 University & Runnymede	C	24.8	0.770	C	24.7	0.778	-0.060 D/V
# 23 University & Bell	A	8.2	0.605	A	8.2	0.613	-0.087 D/V
# 24 University & Donohoe	D	43.4	0.962	D	45.6	0.973	+ 2.118 D/V
# 25 NB 101 & Donohoe St	C	22.0	0.531	C	22.2	0.535	+ 0.126 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	33.4	0.580	C	34.3	0.600	+ 0.849 D/V
# 27 University Ave. & Woodland	E	57.6	0.980	E	60.1	0.999	+ 2.490 D/V
# 28 Middlefield Rd. & University A	C	33.8	0.613	D	35.9	0.683	+ 2.047 D/V
# 29 Bayfront Exp. & Chrysler Dr.	C	20.8	0.777	F	101.9	1.187	+81.059 D/V
# 30 Bayfront Exp. & Chilco St.	B	15.0	0.666	B	19.3	0.776	+ 4.283 D/V
# 31 Middlefield Rd. & Ravenswood A	C	30.5	0.818	C	32.7	0.877	+ 2.193 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.6	0.689	C	30.0	0.720	+ 0.481 D/V
# 33 Middlefield Rd and Lytton Ave	F	87.3	1.067	F	121.6	1.179	+34.316 D/V
# 34 Bayfront Expy. and Facebook We	A	1.5	0.576	A	1.6	0.625	+ 0.140 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #1 Bayfront Exp. & Marsh Rd.

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Cycle (sec): 140 Critical Vol./Cap.(X): 1.096
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 83.0
Optimal Cycle: 180 Level Of Service: F

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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:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	1350	56	8		0	394	212		158	46	2225		35	83	13	
Added Vol:	982	0	0		0	0	0		0	0	55		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2332	56	8		0	394	212		158	46	2280		35	83	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:	2332	56	8		0	394	212		158	46	2280		35	83	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2332	56	8		0	394	212		158	46	2280		35	83	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	
FinalVolume:	2332	56	8		0	394	212		158	46	2280		35	83	13	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.87	0.13		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.45	0.03	0.03		0.00	0.11	0.13		0.11	0.11	0.82		0.07	0.07	0.07	
Crit Moves:	****					****					****				****	
Green/Cycle:	0.41	0.41	0.41		0.00	0.10	0.44		0.33	0.33	0.75		0.07	0.07	0.07	
Volume/Cap:	1.10	0.08	0.08		0.00	1.10	0.31		0.34	0.34	1.10		1.10	1.10	1.10	
Uniform Del:	41.1	25.0	25.0		0.0	62.9	25.8		35.1	35.1	17.7		65.4	65.4	65.4	
IncremntDel:	51.5	0.0	0.0		0.0	75.9	0.3		0.3	0.3	51.6		110.5	111	110.5	
InitQueuDel:	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:	92.5	25.0	25.0		0.0	139	26.0		35.4	35.4	69.4		175.9	176	175.9	
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:	92.5	25.0	25.0		0.0	139	26.0		35.4	35.4	69.4		175.9	176	175.9	
LOS by Move:	F	C	C		A	F	C		D	D	E		F	F	F	
HCM2kAvgQ:	46	2	2		0	14	6		6	6	72		10	10	10	

****

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.105
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 46.5
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0	1	0	0	0	0	0	0	1	1	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	562	0	243		0	0	0		0	2352	578		0	777	902	
Added Vol:	0	0	160		0	0	0		3	118	0		0	730	251	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	562	0	403		0	0	0		3	2470	578		0	1507	1153	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	562	0	403		0	0	0		3	2470	0		0	1507	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	562	0	403		0	0	0		3	2470	0		0	1507	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	562	0	403		0	0	0		3	2470	0		0	1507	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3375	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.00	0.25		0.00	0.00	0.00		0.73	0.73	0.00		0.00	0.43	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.23	0.00	0.23		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.66	0.00	
Volume/Cap:	0.71	0.00	1.11		0.00	0.00	0.00		1.11	1.11	0.00		0.00	0.64	0.00	
Uniform Del:	23.0	0.0	25.0		0.0	0.0	0.0		11.0	11.0	0.0		0.0	6.5	0.0	
IncremntDel:	3.0	0.0	78.7		0.0	0.0	0.0		54.8	54.8	0.0		0.0	0.6	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	26.1	0.0	103.7		0.0	0.0	0.0		65.8	65.8	0.0		0.0	7.1	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:	26.1	0.0	103.7		0.0	0.0	0.0		65.8	65.8	0.0		0.0	7.1	0.0	
LOS by Move:	C	A	F		A	A	A		E	E	A		A	A	A	
HCM2kAvgQ:	7	0	17		0	0	0		46	46	0		0	10	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.983
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 34.6
Optimal Cycle: 128 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0	0	2	0	0	0	1	0	0	2	0	1	
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1545	0	516		0	1346	742		0	1072	321	
Added Vol:	0	0	0		65	0	17		0	92	0		0	371	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1610	0	533		0	1438	742		0	1443	321	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1610	0	533		0	1438	0		0	1443	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1610	0	533		0	1438	0		0	1443	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1610	0	533		0	1438	0		0	1443	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.47	0.00	0.34		0.00	0.41	0.00		0.00	0.41	0.00	
Crit Moves:					****									****		
Green/Cycle:	0.00	0.00	0.00		0.48	0.00	0.48		0.00	0.41	0.00		0.00	0.41	0.00	
Volume/Cap:	0.00	0.00	0.00		0.98	0.00	0.71		0.00	0.98	0.00		0.00	0.98	0.00	
Uniform Del:	0.0	0.0	0.0		16.7	0.0	13.4		0.0	18.7	0.0		0.0	18.8	0.0	
IncremntDel:	0.0	0.0	0.0		18.2	0.0	3.1		0.0	18.8	0.0		0.0	19.4	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		34.9	0.0	16.5		0.0	37.5	0.0		0.0	38.2	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:	0.0	0.0	0.0		34.9	0.0	16.5		0.0	37.5	0.0		0.0	38.2	0.0	
LOS by Move:	A	A	A		C	A	B		A	D	A		A	D	A	
HCM2kAvgQ:	0	0	0		24	0	10		0	22	0		0	22	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.896
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: 78 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0	1	0	0 2	0	1	0	0 1	1	0	2	1 0	2	0	1	1 0
Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM																
Base Vol:	28	15	267		254	9	2		42	1314	17		78	1109	214	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	32	17	304		290	10	2		48	1498	19		89	1264	244	
Added Vol:	0	0	0		0	0	0		0	94	0		0	388	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	32	17	304		290	10	2		48	1592	19		89	1652	244	
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:	32	17	304		290	10	2		48	1592	19		89	1652	244	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	32	17	304		290	10	2		48	1592	19		89	1652	244	
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:	32	17	304		290	10	2		48	1592	19		89	1652	244	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.73		0.93	0.93	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.65	0.35	2.00		0.97	0.03	1.00		1.00	2.96	0.04		2.00	1.74	0.26	
Final Sat.:	1174	629	2786		1716	61	1583		1769	5012	61		3432	3024	447	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.03	0.11		0.17	0.17	0.00		0.03	0.32	0.32		0.03	0.55	0.55	
Crit Moves:			****			****			****					****		
Green/Cycle:	0.12	0.12	0.12		0.18	0.18	0.18		0.05	0.56	0.56		0.09	0.60	0.60	
Volume/Cap:	0.23	0.23	0.92		0.92	0.92	0.01		0.54	0.57	0.57		0.29	0.92	0.92	
Uniform Del:	31.9	31.9	34.8		32.0	32.0	26.7		37.1	11.4	11.4		34.2	14.4	14.4	
IncremntDel:	0.5	0.5	29.0		29.3	29.3	0.0		6.7	0.3	0.3		0.5	6.9	6.9	
InitQueuDel:	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:	32.4	32.4	63.8		61.3	61.3	26.7		43.8	11.7	11.7		34.7	21.3	21.3	
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:	32.4	32.4	63.8		61.3	61.3	26.7		43.8	11.7	11.7		34.7	21.3	21.3	
LOS by Move:	C	C	E		E	E	C		D	B	B		C	C	C	
HCM2kAvgQ:	1	1	8		11	11	0		2	10	10		1	27	27	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.779
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 45 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1	0	0	1 0	1	1	0	0 1	1	0	1	1 0	1	0	2	0 1
Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm																
Base Vol:	95	32	58		428	30	128		239	885	55		26	833	316	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	108	36	66		488	34	146		272	1009	63		30	950	360	
Added Vol:	0	0	0		0	0	0		0	94	0		0	388	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	108	36	66		488	34	146		272	1103	63		30	1338	360	
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:	108	36	66		488	34	146		272	1103	63		30	1338	360	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	108	36	66		488	34	146		272	1103	63		30	1338	360	
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:	108	36	66		488	34	146		272	1103	63		30	1338	360	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.88	0.88		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.36	0.64		1.87	0.13	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	598	1084		3323	233	1583		1769	3321	189		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.15	0.15	0.09		0.15	0.33	0.33		0.02	0.38	0.23	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.08	0.08	0.08		0.19	0.19	0.19		0.20	0.59	0.59		0.09	0.49	0.49	
Volume/Cap:	0.78	0.78	0.78		0.78	0.78	0.49		0.78	0.56	0.56		0.19	0.78	0.47	
Uniform Del:	36.2	36.2	36.2		30.9	30.9	29.0		30.4	9.9	9.9		33.7	17.0	13.7	
IncremntDel:	24.0	24.6	24.6		5.8	5.8	1.3		10.7	0.3	0.3		0.6	2.4	0.5	
InitQueuDel:	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	60.8	60.8		36.7	36.7	30.3		41.1	10.2	10.2		34.3	19.4	14.2	
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:	60.1	60.8	60.8		36.7	36.7	30.3		41.1	10.2	10.2		34.3	19.4	14.2	
LOS by Move:	E	E	E		D	D	C		D	B	B		C	B	B	
HCM2kAvgQ:	5	4	4		8	8	4		8	10	10		1	16	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.3
Optimal Cycle: 34 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T		R	L	T		R	L	T		R	L	T		R
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6		6	6	6		6	6	6		6	4	6		6
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1	0	1	0	1	0
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	57	8	180		55	31		3	5	819		90	200	891		47
Growth Adj:	1.14	1.14	1.14		1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	65	9	205		63	35		3	6	934		103	228	1016		54
Added Vol:	2	0	0		0	0		0	0	94		2	0	388		0
PasserByVol:	0	0	0		0	0		0	0	0		0	0	0		0
Initial Fut:	67	9	205		63	35		3	6	1028		105	228	1404		54
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	9	205		63	35		3	6	1028		105	228	1404		54
Reduct Vol:	0	0	0		0	0		0	0	0		0	0	0		0
Reduced Vol:	67	9	205		63	35		3	6	1028		105	228	1404		54
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:	67	9	205		63	35		3	6	1028		105	228	1404		54
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.81	0.81	0.81		0.65	0.65		0.65	0.87	0.87		0.87	0.93	0.93		0.93
Lanes:	0.24	0.03	0.73		0.62	0.35		0.03	0.01	1.81		0.18	1.00	1.93		0.07
Final Sat.:	365	50	1119		766	432		42	17	2986		304	1769	3387		129
Capacity Analysis Module:																
Vol/Sat:	0.18	0.18	0.18		0.08	0.08		0.08	0.34	0.34		0.34	0.13	0.41		0.41
Crit Moves:		****								****			****			
Green/Cycle:	0.26	0.26	0.26		0.26	0.26		0.26	0.50	0.50		0.50	0.19	0.69		0.69
Volume/Cap:	0.69	0.69	0.69		0.31	0.31		0.31	0.69	0.69		0.69	0.69	0.60		0.60
Uniform Del:	26.5	26.5	26.5		23.6	23.6		23.6	15.3	15.3		15.3	30.4	6.7		6.7
IncremntDel:	5.2	5.2	5.2		0.5	0.5		0.5	1.3	1.3		1.3	6.0	0.4		0.4
InitQueuDel:	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:	31.7	31.7	31.7		24.1	24.1		24.1	16.6	16.6		16.6	36.4	7.2		7.2
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:	31.7	31.7	31.7		24.1	24.1		24.1	16.6	16.6		16.6	36.4	7.2		7.2
LOS by Move:	C	C	C		C	C		C	B	B		B	D	A		A
HCM2kAvgQ:	8	8	8		2	2		2	12	12		12	7	11		11

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 1.040
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 50.6
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T		R	L	T		R	L	T		R	L	T		R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6		0	0	0		0	6	0		6
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	1	0	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.																
Base Vol:	0	426	548		408	269		0	0	0		0	515	0		447
Growth Adj:	1.14	1.14	1.14		1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	0	486	625		465	307		0	0	0		0	587	0		510
Added Vol:	0	58	71		25	11		0	0	0		0	113	0		277
PasserByVol:	0	0	0		0	0		0	0	0		0	0	0		0
Initial Fut:	0	544	696		490	318		0	0	0		0	700	0		787
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	544	696		490	318		0	0	0		0	700	0		787
Reduct Vol:	0	0	0		0	0		0	0	0		0	0	0		0
Reduced Vol:	0	544	696		490	318		0	0	0		0	700	0		787
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:	0	544	696		490	318		0	0	0		0	700	0		787
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	1.00	1.00	0.85		0.95	1.00		1.00	1.00	1.00		1.00	0.95	1.00		0.85
Lanes:	0.00	1.00	1.00		1.00	1.00		0.00	0.00	0.00		0.00	1.00	0.00		1.00
Final Sat.:	0	1900	1615		1805	1900		0	0	0		0	1805	0		1615
Capacity Analysis Module:																
Vol/Sat:	0.00	0.29	0.43		0.27	0.17		0.00	0.00	0.00		0.00	0.39	0.00		0.49
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.28	0.65		0.26	0.54		0.00	0.00	0.00		0.00	0.37	0.00		0.63
Volume/Cap:	0.00	1.04	0.66		1.04	0.31		0.00	0.00	0.00		0.00	1.04	0.00		0.77
Uniform Del:	0.0	39.9	12.0		40.6	14.2		0.0	0.0	0.0		0.0	34.5	0.0		14.4
IncremntDel:	0.0	50.2	1.6		52.3	0.2		0.0	0.0	0.0		0.0	45.5	0.0		3.6
InitQueuDel:	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	0.00	0.00		0.00	1.00	0.00		1.00
Delay/Veh:	0.0	90.0	13.6		92.9	14.4		0.0	0.0	0.0		0.0	80.0	0.0		17.9
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:	0.0	90.0	13.6		92.9	14.4		0.0	0.0	0.0		0.0	80.0	0.0		17.9
LOS by Move:	A	F	B		F	B		A	A	A		A	F	A		B
HCM2kAvgQ:	0	26	15		24	6		0	0	0		0	33	0		20

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.282
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 140.2
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM																				
Base Vol:	362	664	1	0	2199	108	36	13	1424	44	105	8								
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14								
Initial Bse:	413	757	1	0	2507	123	41	15	1623	50	120	9								
Added Vol:	404	257	3	49	171	0	0	94	40	317	391	181								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	817	1014	4	49	2678	123	41	109	1663	367	511	190								
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	1014	4	49	2678	123	41	109	1663	367	511	190								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	817	1014	4	49	2678	123	41	109	1663	367	511	190								
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:	817	1014	4	49	2678	123	41	109	1663	367	511	190								
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Adjustment:	0.90	1.03	0.83	0.90	1.03	0.83	0.92	0.92	0.88	0.93	0.93	0.83								
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	2.00	2.00	1.00	2.00	1.00								
Final Sat.:	3432	5846	1583	3432	5846	1583	1744	3488	3343	1769	3538	1583								
Capacity Analysis Module:																				
Vol/Sat:	0.24	0.17	0.00	0.01	0.46	0.08	0.02	0.03	0.50	0.21	0.14	0.12								
Crit Moves:	****				****				****	****										
Green/Cycle:	0.19	0.44	0.61	0.10	0.36	0.36	0.20	0.20	0.39	0.16	0.16	0.26								
Volume/Cap:	1.28	0.39	0.00	0.14	1.28	0.22	0.12	0.15	1.28	1.28	0.89	0.46								
Uniform Del:	52.9	24.3	10.1	53.6	41.8	29.1	42.3	42.7	39.8	54.5	53.4	40.4								
IncremntDel:	138.5	0.1	0.0	0.2	131	0.2	0.0	0.1	132.7	150.7	16.0	0.8								
InitQueuDel:	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:	191.4	24.4	10.1	53.8	172	29.3	42.4	42.7	172.5	205.2	69.4	41.2								
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:	191.4	24.4	10.1	53.8	172	29.3	42.4	42.7	172.5	205.2	69.4	41.2								
LOS by Move:	F	C	B	D	F	C	D	D	F	F	E	D								
HCM2kAvgQ:	30	10	0	1	66	3	1	2	64	27	14	7								

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.772
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 72 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM																				
Base Vol:	129	6	49		73	5	73		130	1351	5		20	553	67	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	147	7	56		83	6	83		148	1540	6		23	630	76	
Added Vol:	0	0	0		0	0	7		11	134	0		0	795	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	147	7	56		83	6	90		159	1674	6		23	1425	77	
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:	147	7	56		83	6	90		159	1674	6		23	1425	77	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	147	7	56		83	6	90		159	1674	6		23	1425	77	
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:	147	7	56		83	6	90		159	1674	6		23	1425	77	
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.60	0.60	0.60		0.73	0.73	0.73		0.93	0.93	0.93		0.93	0.92	0.92	
Lanes:	0.70	0.03	0.27		0.46	0.03	0.51		1.00	1.99	0.01		1.00	1.90	0.10	
Final Sat.:	804	37	305		644	44	698		1769	3526	12		1769	3329	181	
Capacity Analysis Module:																				
Vol/Sat:	0.18	0.18	0.18		0.13	0.13	0.13		0.09	0.47	0.47		0.01	0.43	0.43	
Crit Moves:		****							****					****		
Green/Cycle:	0.24	0.24	0.24		0.24	0.24	0.24		0.12	0.62	0.62		0.05	0.55	0.55	
Volume/Cap:	0.77	0.77	0.77		0.55	0.55	0.55		0.77	0.77	0.77		0.24	0.77	0.77	
Uniform Del:	42.8	42.8	42.8		40.1	40.1	40.1		51.5	16.7	16.7		54.4	20.8	20.8	
IncremntDel:	12.8	12.8	12.8		1.9	1.9	1.9		16.3	1.7	1.7		1.3	2.0	2.0	
InitQueuDel:	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	55.5	55.5		42.0	42.0	42.0		67.8	18.5	18.5		55.7	22.8	22.8	
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:	55.5	55.5	55.5		42.0	42.0	42.0		67.8	18.5	18.5		55.7	22.8	22.8	
LOS by Move:	E	E	E		D	D	D		E	B	B		E	C	C	
HCM2kAvgQ:	9	9	9		6	6	6		8	25	25		1	24	24	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: 65 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0	0	0	0 0	1!	0	0	1 0	2	0	0	0 0	1	1	0
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	22	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		11	0	139		112	1661	0		0	912	25	
Added Vol:	0	0	0		14	0	10		10	131	0		0	699	104	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		25	0	149		122	1792	0		0	1611	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:	0	0	0		25	0	149		122	1792	0		0	1611	129	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		25	0	149		122	1792	0		0	1611	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	
FinalVolume:	0	0	0		25	0	149		122	1792	0		0	1611	129	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.86	1.00	0.86		0.93	0.93	1.00		1.00	0.92	0.92	
Lanes:	0.00	0.00	0.00		0.15	0.00	0.85		1.00	2.00	0.00		0.00	1.85	0.15	
Final Sat.:	0	0	0		238	0	1398		1769	3538	0		0	3239	260	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.11	0.00	0.11		0.07	0.51	0.00		0.00	0.50	0.50	
Crit Moves:							****		****					****		
Green/Cycle:	0.00	0.00	0.00		0.14	0.00	0.14		0.09	0.76	0.00		0.00	0.67	0.67	
Volume/Cap:	0.00	0.00	0.00		0.74	0.00	0.74		0.74	0.66	0.00		0.00	0.74	0.74	
Uniform Del:	0.0	0.0	0.0		49.2	0.0	49.2		53.0	6.8	0.0		0.0	12.9	12.9	
IncremntDel:	0.0	0.0	0.0		11.8	0.0	11.8		16.4	0.6	0.0		0.0	1.3	1.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		61.0	0.0	61.0		69.4	7.4	0.0		0.0	14.2	14.2	
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:	0.0	0.0	0.0		61.0	0.0	61.0		69.4	7.4	0.0		0.0	14.2	14.2	
LOS by Move:	A	A	A		E	A	E		E	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		8	0	8		6	17	0		0	23	23	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.667
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.8
Optimal Cycle: 54 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1!	0	0	0 0	0	0	0	0 0	2	0	1	1 0	2	0	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	137	0	40		0	0	0		0	1611	233		83	1012	0	
Added Vol:	4	0	0		0	0	0		0	141	11		0	709	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	141	0	40		0	0	0		0	1752	244		83	1721	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:	141	0	40		0	0	0		0	1752	244		83	1721	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	141	0	40		0	0	0		0	1752	244		83	1721	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:	141	0	40		0	0	0		0	1752	244		83	1721	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.64	0.00	0.36		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2841	0	627		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.06		0.00	0.00	0.00		0.00	0.50	0.15		0.05	0.49	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.10	0.00	0.10		0.00	0.00	0.00		0.00	0.74	0.74		0.07	0.81	0.00	
Volume/Cap:	0.52	0.00	0.67		0.00	0.00	0.00		0.00	0.67	0.21		0.67	0.60	0.00	
Uniform Del:	51.7	0.0	52.4		0.0	0.0	0.0		0.0	7.9	4.7		54.4	4.1	0.0	
IncremntDel:	1.4	0.0	6.2		0.0	0.0	0.0		0.0	0.7	0.1		13.0	0.4	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	53.1	0.0	58.7		0.0	0.0	0.0		0.0	8.6	4.8		67.3	4.4	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:	53.1	0.0	58.7		0.0	0.0	0.0		0.0	8.6	4.8		67.3	4.4	0.0	
LOS by Move:	D	A	E		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	4	0	5		0	0	0		0	18	3		4	12	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 1.071
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 57.1
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	34	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	283	194	63		43	189	250		368	1637	386		116	1112	39	
Added Vol:	0	0	0		0	0	9		7	152	0		0	713	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	283	194	63		43	189	259		375	1789	386		116	1825	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:	283	194	63		43	189	259		375	1789	386		116	1825	39	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	283	194	63		43	189	259		375	1789	386		116	1825	39	
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:	283	194	63		43	189	259		375	1789	386		116	1825	39	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.47	0.53		1.00	1.96	0.04	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4067	879		1769	3454	73	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.10	0.04		0.02	0.10	0.16		0.21	0.44	0.44		0.07	0.53	0.53	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.10	0.10	0.19		0.09	0.09	0.29		0.20	0.60	0.60		0.09	0.49	0.49	
Volume/Cap:	0.85	1.07	0.21		0.26	1.07	0.56		1.07	0.73	0.73		0.73	1.07	1.07	
Uniform Del:	53.3	54.2	41.3		50.4	54.3	35.9		48.1	17.0	17.0		53.2	30.4	30.4	
IncremntDel:	18.0	87.0	0.4		0.8	87.9	1.5		68.3	1.0	1.0		15.9	43.4	43.4	
InitQueuDel:	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:	71.3	141	41.6		51.2	142	37.4		116.4	18.0	18.0		69.1	73.9	73.9	
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:	71.3	141	41.6		51.2	142	37.4		116.4	18.0	18.0		69.1	73.9	73.9	
LOS by Move:	E	F	D		D	F	D		F	B	B		E	E	E	
HCM2kAvgQ:	8	12	2		2	12	8		21	21	21		6	49	49	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.877
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 23.9
Optimal Cycle: 93 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		474	0	62		46	1637	0		0	1210	291	
Added Vol:	0	0	0		4	0	0		0	130	0		0	219	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		478	0	62		46	1767	0		0	1429	298	
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	0	0		478	0	62		46	1767	0		0	1429	298	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		478	0	62		46	1767	0		0	1429	298	
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:	0	0	0		478	0	62		46	1767	0		0	1429	298	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.27	0.00	0.04		0.03	0.50	0.00		0.00	0.40	0.19	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.31	0.00	0.31		0.07	0.57	0.00		0.00	0.50	0.50	
Volume/Cap:	0.00	0.00	0.00		0.88	0.00	0.13		0.37	0.88	0.00		0.00	0.81	0.38	
Uniform Del:	0.0	0.0	0.0		29.5	0.0	22.4		40.0	16.7	0.0		0.0	18.8	13.8	
IncremntDel:	0.0	0.0	0.0		14.9	0.0	0.1		1.9	4.7	0.0		0.0	2.8	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		44.4	0.0	22.5		42.0	21.4	0.0		0.0	21.7	14.1	
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:	0.0	0.0	0.0		44.4	0.0	22.5		42.0	21.4	0.0		0.0	21.7	14.1	
LOS by Move:	A	A	A		D	A	C		D	C	A		A	C	B	
HCM2kAvgQ:	0	0	0		16	0	1		2	25	0		0	19	5	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.865
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 82 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1 0	0	1	0	0 1	0	0	1	1 0	1	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33	7	85		122	5	31		11	1125	10		90	818	51	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	38	8	97		139	6	35		13	1283	11		103	933	58	
Added Vol:	0	0	0		0	0	0		0	130	0		0	219	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	38	8	97		139	6	35		13	1413	11		103	1152	58	
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	8	97		139	6	35		13	1413	11		103	1152	58	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	38	8	97		139	6	35		13	1413	11		103	1152	58	
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:	38	8	97		139	6	35		13	1413	11		103	1152	58	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.44	0.84	0.84		0.52	0.52	0.83		0.93	0.93	0.93		0.93	0.97	0.97	
Lanes:	1.00	0.08	0.92		0.96	0.04	1.00		1.00	1.98	0.02		1.00	0.95	0.05	
Final Sat.:	843	122	1481		953	39	1583		1769	3506	28		1769	1760	89	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.07	0.07		0.15	0.15	0.02		0.01	0.40	0.40		0.06	0.65	0.65	
Crit Moves:						****			****					****		
Green/Cycle:	0.16	0.16	0.16		0.16	0.16	0.16		0.04	0.67	0.67		0.10	0.73	0.73	
Volume/Cap:	0.27	0.40	0.40		0.89	0.89	0.14		0.19	0.60	0.60		0.60	0.89	0.89	
Uniform Del:	38.5	39.3	39.3		43.0	43.0	37.6		48.9	9.4	9.4		45.5	10.9	10.9	
IncremntDel:	1.1	1.0	1.0		41.5	41.5	0.2		1.3	0.4	0.4		5.7	8.0	8.0	
InitQueuDel:	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:	39.6	40.3	40.3		84.6	84.6	37.8		50.3	9.8	9.8		51.2	18.9	18.9	
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:	39.6	40.3	40.3		84.6	84.6	37.8		50.3	9.8	9.8		51.2	18.9	18.9	
LOS by Move:	D	D	D		F	F	D		D	A	A		D	B	B	
HCM2kAvgQ:	1	3	3		7	7	1		1	13	13		4	34	34	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.906
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 17.1
Optimal Cycle: 103 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0 0	1!	0	0	0 0	1!	0	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12	11	7		92	6	35		24	1083	6		5	795	109	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	14	13	8		105	7	40		27	1235	7		6	906	124	
Added Vol:	0	0	0		0	0	0		0	130	0		0	219	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	14	13	8		105	7	40		27	1365	7		6	1125	124	
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:	14	13	8		105	7	40		27	1365	7		6	1125	124	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	14	13	8		105	7	40		27	1365	7		6	1125	124	
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:	14	13	8		105	7	40		27	1365	7		6	1125	124	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		0.73	0.73	0.73		0.12	0.98	0.98		0.06	0.97	0.97	
Lanes:	0.40	0.37	0.23		0.69	0.05	0.26		1.00	0.99	0.01		1.00	0.90	0.10	
Final Sat.:	650	596	379		965	63	367		229	1851	9		121	1652	182	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.11	0.11	0.11		0.12	0.74	0.74		0.05	0.68	0.68	
Crit Moves:						****				****						
Green/Cycle:	0.12	0.12	0.12		0.12	0.12	0.12		0.81	0.81	0.81		0.81	0.81	0.81	
Volume/Cap:	0.18	0.18	0.18		0.91	0.91	0.91		0.15	0.91	0.91		0.06	0.84	0.84	
Uniform Del:	41.5	41.5	41.5		45.6	45.6	45.6		2.1	7.0	7.0		1.9	5.7	5.7	
IncremntDel:	0.4	0.4	0.4		43.6	43.6	43.6		0.4	8.2	8.2		0.2	4.3	4.3	
InitQueuDel:	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:	42.0	42.0	42.0		89.2	89.2	89.2		2.4	15.2	15.2		2.2	10.1	10.1	
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:	42.0	42.0	42.0		89.2	89.2	89.2		2.4	15.2	15.2		2.2	10.1	10.1	
LOS by Move:	D	D	D		F	F	F		A	B	B		A	B	B	
HCM2kAvgQ:	1	1	1		8	8	8		0	35	35		0	26	26	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.844
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 74 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	105	35	85		33	34	5		5	1105	41		42	948	19	
Added Vol:	18	0	7		0	0	0		0	123	22		24	195	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	35	92		33	34	5		5	1228	63		66	1143	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:	123	35	92		33	34	5		5	1228	63		66	1143	19	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	35	92		33	34	5		5	1228	63		66	1143	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	
FinalVolume:	123	35	93		33	34	5		5	1228	63		66	1143	19	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.87	0.87		0.44	0.96	0.96		0.17	0.97	0.97		0.11	0.98	0.98	
Lanes:	1.00	0.28	0.72		1.00	0.88	0.12		1.00	0.95	0.05		1.00	0.98	0.02	
Final Sat.:	1370	459	1200		836	1613	215		317	1759	90		218	1825	31	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.08	0.08		0.04	0.02	0.02		0.01	0.70	0.70		0.30	0.63	0.63	
Crit Moves:	****									****						
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.83	0.83	0.83		0.83	0.83	0.83	
Volume/Cap:	0.84	0.73	0.73		0.37	0.20	0.20		0.02	0.84	0.84		0.37	0.76	0.76	
Uniform Del:	46.1	45.4	45.4		43.7	42.8	42.8		1.6	5.2	5.2		2.3	4.2	4.2	
IncremntDel:	33.9	13.9	13.9		2.6	0.5	0.5		0.0	4.5	4.5		1.3	2.2	2.2	
InitQueuDel:	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:	79.9	59.4	59.4		46.3	43.4	43.4		1.6	9.7	9.7		3.5	6.4	6.4	
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:	79.9	59.4	59.4		46.3	43.4	43.4		1.6	9.7	9.7		3.5	6.4	6.4	
LOS by Move:	E	E	E		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	6	6	6		1	1	1		0	26	26		1	19	19	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.539
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 215.0
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	111	499	560		544	471	22		41	194	180		435	108	467	
Added Vol:	15	8	31		82	8	0		0	32	24		105	21	86	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	126	507	591		626	479	22		41	226	204		540	129	553	
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:	126	507	591		626	479	22		41	226	204		540	129	553	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	126	507	591		626	479	22		41	226	204		540	129	553	
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:	126	507	591		626	479	22		41	226	204		540	129	553	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.67	1.27	0.06		1.00	1.00	1.00		1.61	0.39	1.00	
Final Sat.:	1769	3538	791		2860	2189	99		1769	1862	1583		2888	691	1583	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.14	0.75		0.22	0.22	0.22		0.02	0.12	0.13		0.19	0.19	0.35	
Crit Moves:			****			****					****				****	
Green/Cycle:	0.49	0.49	0.49		0.14	0.14	0.14		0.08	0.08	0.08		0.23	0.23	0.23	
Volume/Cap:	0.15	0.30	1.54		1.54	1.54	1.54		0.28	1.45	1.54		0.82	0.82	1.54	
Uniform Del:	18.5	20.1	33.5		55.8	55.8	55.8		55.9	59.6	59.6		47.8	47.8	50.2	
IncremntDel:	0.1	0.1	255.1		249.2	249	249.2		1.0	233	276.4		6.8	6.8	255.9	
InitQueuDel:	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:	18.6	20.2	288.5		305.0	305	305.0		56.9	293	335.9		54.6	54.6	306.1	
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:	18.6	20.2	288.5		305.0	305	305.0		56.9	293	335.9		54.6	54.6	306.1	
LOS by Move:	B	C	F		F	F	F		E	F	F		D	D	F	
HCM2kAvgQ:	3	6	50		34	34	34		2	19	19		15	15	47	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.560
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 244.3
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0 3	0	0	0	0 3	0	1	2	0 0	0	3	0	0 0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	430	1104	0	0	3976	145	68	0	1900	0	0	0				
Added Vol:	9	116	0	0	431	98	12	0	26	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	439	1220	0	0	4407	243	80	0	1926	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:	439	1220	0	0	4407	243	80	0	1926	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	439	1220	0	0	4407	243	80	0	1926	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				
FinalVolume:	439	1220	0	0	4407	243	80	0	1926	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.13	0.24	0.00	0.00	0.87	0.15	0.02	0.00	0.46	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.08	0.64	0.00	0.00	0.56	0.56	0.30	0.00	0.30	0.00	0.00	0.00				
Volume/Cap:	1.56	0.38	0.00	0.00	1.56	0.28	0.08	0.00	1.56	0.00	0.00	0.00				
Uniform Del:	68.9	12.9	0.0	0.0	33.3	17.5	38.1	0.0	52.8	0.0	0.0	0.0				
IncremntDel:	268.7	0.1	0.0	0.0	254	0.2	0.0	0.0	256.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	337.5	13.0	0.0	0.0	287	17.7	38.1	0.0	308.8	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:	337.5	13.0	0.0	0.0	287	17.7	38.1	0.0	308.8	0.0	0.0	0.0				
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A				
HCM2kAvgQ:	22	9	0	0	142	6	1	0	66	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 66 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	5	0	5	0	5	5	0	0	5	5		
Lanes:	0	0 0	0	0	0	0 1!	0	0	1	0 2	0	0	0	0 1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	0	120	0	99	0	20	1599	0	0	454	16		
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	0	0	0	0	137	0	113	0	23	1823	0	0	518	18		
Added Vol:	0	0	0	0	11	0	0	0	0	27	0	0	103	4		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	0	0	0	0	148	0	113	0	23	1850	0	0	621	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:	0	0	0	0	148	0	113	0	23	1850	0	0	621	22		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	0	0	0	0	148	0	113	0	23	1850	0	0	621	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				
FinalVolume:	0	0	0	0	148	0	113	0	23	1850	0	0	621	22		
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.57	0.00	0.43	1.00	2.00	0.00	0.00	1.93	0.07				
Final Sat.:	0	0	0	967	0	738	1769	3538	0	0	3398	122				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.15	0.01	0.52	0.00	0.00	0.18	0.18				
Crit Moves:						****		****		****						
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.16	0.67	0.00	0.00	0.51	0.51				
Volume/Cap:	0.00	0.00	0.00	0.78	0.00	0.78	0.08	0.78	0.00	0.00	0.36	0.36				
Uniform Del:	0.0	0.0	0.0	32.4	0.0	32.4	30.1	9.5	0.0	0.0	12.5	12.5				
IncremntDel:	0.0	0.0	0.0	10.9	0.0	10.9	0.1	1.7	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	43.2	0.0	43.2	30.2	11.2	0.0	0.0	12.6	12.6				
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:	0.0	0.0	0.0	43.2	0.0	43.2	30.2	11.2	0.0	0.0	12.6	12.6				
LOS by Move:	A	A	A	D	A	D	C	B	A	A	B	B				
HCM2kAvgQ:	0	0	0	9	0	9	1	19	0	0	5	5				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	13	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	40	35	14		22	33	93		30	1800	22		21	601	15	
Added Vol:	0	0	0		0	0	0		0	27	0		0	103	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	40	35	14		22	33	93		30	1827	22		21	704	15	
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:	40	35	14		22	33	93		30	1827	22		21	704	15	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	40	35	14		22	33	93		30	1827	22		21	704	15	
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:	40	35	14		22	33	93		30	1827	22		21	704	15	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.96	0.04	
Final Sat.:	816	723	280		252	385	1089		1805	3561	42		1805	3525	74	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.05	0.05		0.09	0.09	0.09		0.02	0.51	0.51		0.01	0.20	0.20	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.06	0.06	0.06		0.11	0.11	0.11		0.14	0.67	0.67		0.05	0.57	0.57	
Volume/Cap:	0.76	0.77	0.77		0.77	0.78	0.78		0.11	0.77	0.77		0.23	0.35	0.35	
Uniform Del:	46.0	46.1	46.1		43.2	43.3	43.3		37.3	11.5	11.5		45.6	11.4	11.4	
IncremntDel:	24.8	26.7	26.7		17.3	18.1	18.1		0.2	1.6	1.6		1.3	0.1	0.1	
InitQueuDel:	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	72.9	72.9		60.5	61.4	61.4		37.5	13.1	13.1		46.9	11.5	11.5	
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:	70.8	72.9	72.9		60.5	61.4	61.4		37.5	13.1	13.1		46.9	11.5	11.5	
LOS by Move:	E	E	E		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	4	5	5		6	6	6		1	22	22		1	6	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.927
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.7
Optimal Cycle: 122 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	171	250	393		107	299	125		106	1472	99		136	616	56	
Added Vol:	0	0	0		0	0	0		0	27	0		0	103	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	171	250	393		107	299	125		106	1499	99		136	719	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:	171	250	393		107	299	125		106	1499	99		136	719	56	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	171	250	393		107	299	125		106	1499	99		136	719	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	
FinalVolume:	171	250	393		107	299	125		106	1499	99		136	719	56	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.88	0.12		1.00	1.86	0.14	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3355	222		1805	3313	258	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.13	0.24		0.06	0.16	0.08		0.06	0.45	0.45		0.08	0.22	0.22	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.12	0.26	0.26		0.06	0.21	0.21		0.12	0.48	0.48		0.08	0.44	0.44	
Volume/Cap:	0.76	0.51	0.93		0.93	0.76	0.38		0.49	0.93	0.93		0.93	0.49	0.49	
Uniform Del:	42.6	31.4	35.9		46.6	37.4	34.1		41.1	24.2	24.2		45.6	19.8	19.8	
IncremntDel:	6.2	0.5	26.3		61.0	8.5	0.7		1.7	9.1	9.1		52.8	0.2	0.2	
InitQueuDel:	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	31.9	62.2		107.5	45.9	34.9		42.9	33.4	33.4		98.4	20.0	20.0	
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:	48.8	31.9	62.2		107.5	45.9	34.9		42.9	33.4	33.4		98.4	20.0	20.0	
LOS by Move:	D	C	E		F	D	C		D	C	C		F	C	C	
HCM2kAvgQ:	7	7	16		6	10	4		4	29	29		7	9	9	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.778
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T		R	L	T		R	L	T		R	L	T		R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5		5	5	5		5	5	5		5	5	5		5
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	78	109		59	17	76		27	29	1264		78	44	793		17
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	89	124		67	19	87		31	33	1441		89	50	904		19
Added Vol:	0	0		0	0	0		0	0	27		0	0	103		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	89	124		67	19	87		31	33	1468		89	50	1007		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:	89	124		67	19	87		31	33	1468		89	50	1007		19
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	89	124		67	19	87		31	33	1468		89	50	1007		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
FinalVolume:	89	124		67	19	87		31	33	1468		89	50	1007		19
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.95	0.95		0.95	0.96	0.96		0.96	0.95	0.94		0.94	0.95	0.95		0.95
Lanes:	0.32	0.44		0.24	0.14	0.63		0.23	1.00	1.89		0.11	1.00	1.96		0.04
Final Sat.:	574	802		434	259	1159		412	1805	3373		204	1805	3531		68
Capacity Analysis Module:																
Vol/Sat:	0.15	0.15		0.15	0.07	0.07		0.07	0.02	0.44		0.44	0.03	0.29		0.29
Crit Moves:	****				****					****			****			
Green/Cycle:	0.20	0.20		0.20	0.09	0.09		0.09	0.09	0.55		0.55	0.05	0.51		0.51
Volume/Cap:	0.79	0.79		0.79	0.79	0.79		0.79	0.20	0.79		0.79	0.56	0.56		0.56
Uniform Del:	38.3	38.3		38.3	44.3	44.3		44.3	42.2	17.9		17.9	46.4	16.8		16.8
IncremntDel:	11.5	11.5		11.5	21.5	21.5		21.5	0.6	2.3		2.3	7.4	0.4		0.4
InitQueuDel:	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	49.8		49.8	65.8	65.8		65.8	42.9	20.2		20.2	53.9	17.2		17.2
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:	49.8	49.8		49.8	65.8	65.8		65.8	42.9	20.2		20.2	53.9	17.2		17.2
LOS by Move:	D	D		D	E	E		E	D	C		C	D	B		B
HCM2kAvgQ:	10	10		10	6	6		6	1	22		22	2	12		12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.613
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T		R	L	T		R	L	T		R	L	T		R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18		18	18	18		18	64	64		64	64	64		64
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	60	83		38	11	68		22	42	1322		87	37	787		22
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	68	95		43	13	78		25	48	1507		99	42	897		25
Added Vol:	0	0		0	0	0		0	0	27		0	0	103		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	68	95		43	13	78		25	48	1534		99	42	1000		25
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	95		43	13	78		25	48	1534		99	42	1000		25
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	68	95		43	13	78		25	48	1534		99	42	1000		25
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:	68	95		43	13	78		25	48	1534		99	42	1000		25
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.84	0.84		0.84	0.94	0.94		0.94	0.25	0.94		0.94	0.11	0.95		0.95
Lanes:	0.33	0.46		0.21	0.11	0.67		0.22	1.00	1.88		0.12	1.00	1.95		0.05
Final Sat.:	528	730		334	195	1205		390	469	3360		217	205	3508		88
Capacity Analysis Module:																
Vol/Sat:	0.13	0.13		0.13	0.06	0.06		0.06	0.10	0.46		0.46	0.21	0.29		0.29
Crit Moves:		****								****						
Green/Cycle:	0.21	0.21		0.21	0.21	0.21		0.21	0.74	0.74		0.74	0.74	0.74		0.74
Volume/Cap:	0.61	0.61		0.61	0.30	0.30		0.30	0.14	0.61		0.61	0.28	0.38		0.38
Uniform Del:	32.2	32.2		32.2	29.9	29.9		29.9	3.3	5.4		5.4	3.7	4.1		4.1
IncremntDel:	3.3	3.3		3.3	0.5	0.5		0.5	0.2	0.4		0.4	1.0	0.1		0.1
InitQueuDel:	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:	35.5	35.5		35.5	30.4	30.4		30.4	3.5	5.8		5.8	4.7	4.2		4.2
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:	35.5	35.5		35.5	30.4	30.4		30.4	3.5	5.8		5.8	4.7	4.2		4.2
LOS by Move:	D	D		D	C	C		C	A	A		A	A	A		A
HCM2kAvgQ:	6	6		6	3	3		3	0	12		12	1	5		5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.973
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 45.6
Optimal Cycle: 160 Level Of Service: D

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	5		5		5		5		5		5		5		5		5		5		5		5	
Lanes:	1	1	0	1	1		1	0	1	0	1		1	0	1	1	0		2	0	1	1	0	
Volume Module:																								
Base Vol:	315	485		599			32	175		224			217	784		540			115	663		173		
Growth Adj:	1.14	1.14		1.14			1.14	1.14		1.14			1.14	1.14		1.14			1.14	1.14		1.14		
Initial Bse:	359	553		683			36	199		255			247	894		616			131	756		197		
Added Vol:	8	0		7			0	0		0			0	21		0			0	103		0		
PasserByVol:	0	0		0			0	0		0			0	0		0			0	0		0		
Initial Fut:	367	553		690			36	199		255			247	915		616			131	859		197		
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:	367	553		690			36	199		255			247	915		616			131	859		197		
Reduct Vol:	0	0		0			0	0		0			0	0		0			0	0		0		
Reduced Vol:	367	553		690			36	199		255			247	915		616			131	859		197		
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:	367	553		690			36	200		255			247	915		616			131	859		197		
Saturation Flow Module:																								
Sat/Lane:	1900	1900		1900			1900	1900		1900			1900	1900		1900			1900	1900		1900		
Adjustment:	0.88	0.88		0.88			0.95	1.00		0.85			0.95	0.89		0.89			0.92	0.92		0.92		
Lanes:	1.00	1.33		1.67			1.00	1.00		1.00			1.00	1.20		0.80			2.00	1.63		0.37		
Final Sat.:	1671	2230		2783			1805	1900		1615			1805	2028		1365			3502	2854		655		
Capacity Analysis Module:																								
Vol/Sat:	0.22	0.25		0.25			0.02	0.11		0.16			0.14	0.45		0.45			0.04	0.30		0.30		
Crit Moves:	****									****				****					****					
Green/Cycle:	0.22	0.32		0.32			0.06	0.16		0.16			0.16	0.46		0.46			0.05	0.35		0.35		
Volume/Cap:	0.99	0.78		0.78			0.31	0.66		0.99			0.86	0.99		0.99			0.75	0.86		0.86		
Uniform Del:	38.7	30.9		30.9			44.7	39.4		41.9			41.0	26.8		26.8			46.9	30.4		30.4		
IncremntDel:	19.1	1.9		1.9			1.6	5.1		52.1			22.7	19.7		19.7			16.3	6.6		6.6		
InitQueuDel:	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:	57.8	32.8		32.8			46.2	44.5		93.9			63.8	46.5		46.5			63.2	37.0		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:	57.8	32.8		32.8			46.2	44.5		93.9			63.8	46.5		46.5			63.2	37.0		37.0		
LOS by Move:	E	C		C			D	D		F			E	D		D			E	D		D		
HCM2kAvgQ:	17	14		14			1	7		13			10	32		32			4	19		19		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.535
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 82 Level Of Service: C

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	0		32		32		0		32		0		28		0		28		0		0		18	
Lanes:	0	0	2	1	0		0	0	2	0	0		2	0	0	0	1		0	0	0	0	1	
Volume Module:																								
Base Vol:	0	802		19			0	783		0			765		0	277			0		0		16	
Growth Adj:	1.14	1.14		1.14			1.14	1.14		1.14			1.14	1.14		1.14			1.14	1.14		1.14		
Initial Bse:	0	914		22			0	893		0			872		0	316			0		0		18	
Added Vol:	0	0		0			0	0		0			14		0	0			0		0		0	
PasserByVol:	0	0		0			0	0		0			0		0	0			0		0		0	
Initial Fut:	0	914		22			0	893		0			886		0	316			0		0		18	
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	914		22			0	893		0			886		0	316			0		0		18	
Reduct Vol:	0	0		0			0	0		0			0		0	0			0		0		0	
Reduced Vol:	0	914		22			0	893		0			886		0	316			0		0		18	
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:	0	914		22			0	893		0			886		0	316			0		0		18	
Saturation Flow Module:																								
Sat/Lane:	1900	1900		1900			1900	1900		1900			1900	1900		1900			1900	1900		1900		
Adjustment:	1.00	0.91		0.91			1.00	0.95		1.00			0.92	1.00		0.85			1.00	1.00		0.87		
Lanes:	0.00	2.93		0.07			0.00	2.00		0.00			2.00	0.00		1.00			0.00	0.00		1.00		
Final Sat.:	0	5052		120			0	3610		0			3502		0	1615			0		0		1644	
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.18		0.18			0.00	0.25		0.00			0.25	0.00		0.20			0.00	0.00		0.01		
Crit Moves:	****							****					****									****		
Green/Cycle:	0.00	0.37		0.37			0.00	0.37		0.00			0.38	0.00		0.58			0.00	0.00		0.20		
Volume/Cap:	0.00	0.48		0.48			0.00	0.66		0.00			0.66	0.00		0.34			0.00	0.00		0.06		
Uniform Del:	0.0	21.6		21.6			0.0	23.5		0.0			23.0	0.0		9.8			0.0	0.0		29.1		
IncremntDel:	0.0	0.2		0.2			0.0	1.2		0.0			1.3	0.0		0.2			0.0	0.0		0.1		
InitQueuDel:	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			0.00	1.00		0.00			1.00	0.00		1.00			0.00	0.00		1.00		
Delay/Veh:	0.0	21.8		21.8			0.0	24.7		0.0			24.3	0.0		10.0			0.0	0.0		29.2		
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:	0.0	21.8		21.8			0.0	24.7		0.0			24.3	0.0		10.0			0.0	0.0		29.2		
LOS by Move:	A	C		C			A	C		A			C	A		A			A	A		C		
HCM2kAvgQ:	0	7		7			0	12		0			11	0		5			0		0		0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.600
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 34.3
Optimal Cycle: 180 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	18	18	18		0	0	0		0	39	57		21	64	0	
Lanes:	1	0 1!	0 1		0	0 0	0 0		0	0 2	0 2		2	0 2	0 0	
Volume Module:																
Base Vol:	305	1	439		0	0	0		0	1391	388		487	927	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	348	1	500		0	0	0		0	1586	442		555	1057	0	
Added Vol:	0	0	0		0	0	0		0	21	40		54	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	348	1	500		0	0	0		0	1607	482		609	1126	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:	348	1	500		0	0	0		0	1607	482		609	1126	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	348	1	500		0	0	0		0	1607	482		609	1126	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:	348	1	500		0	0	0		0	1607	482		609	1126	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		1.00	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00	
Lanes:	1.41	0.01	1.58		0.00	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00	
Final Sat.:	2292	4	2585		0	0	0		0	3610	2842		3502	3610	0	
Capacity Analysis Module:																
Vol/Sat:	0.15	0.26	0.19		0.00	0.00	0.00		0.00	0.45	0.17		0.17	0.31	0.00	
Crit Moves:		****												****		
Green/Cycle:	0.20	0.20	0.20		0.00	0.00	0.00		0.00	0.43	0.43		0.32	0.76	0.00	
Volume/Cap:	0.76	1.31	0.97		0.00	0.00	0.00		0.00	1.03	0.39		0.54	0.41	0.00	
Uniform Del:	33.9	36.0	35.7		0.0	0.0	0.0		0.0	25.5	17.4		25.0	3.9	0.0	
IncremntDel:	3.1	149	22.8		0.0	0.0	0.0		0.0	30.0	0.2		0.5	0.1	0.0	
InitQueuDel:	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	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	37.0	185	58.5		0.0	0.0	0.0		0.0	55.5	17.6		25.6	4.0	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:	37.0	185	58.5		0.0	0.0	0.0		0.0	55.5	17.6		25.6	4.0	0.0	
LOS by Move:	D	F	E		A	A	A		A	E	B		C	A	A	
HCM2kAvgQ:	8	26	13		0	0	0		0	33	5		8	6	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 0.999
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 60.1
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0 1!	0 0		2	0 0	1 0		1	0 1	1 0		1	0 2	0 1	
Volume Module:																
Base Vol:	16	87	274		612	119	34		28	809	9		274	800	327	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	18	99	312		698	136	39		32	922	10		312	912	373	
Added Vol:	0	0	0		0	0	0		0	61	0		0	69	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	18	99	312		698	136	39		32	983	10		312	981	373	
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:	18	99	312		698	136	39		32	983	10		312	981	373	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	18	99	312		698	136	39		32	983	10		312	981	373	
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:	18	99	312		698	136	39		32	983	10		312	981	373	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.90	0.90		0.92	0.97	0.97		0.95	0.95	0.95		0.95	0.95	0.85	
Lanes:	0.04	0.23	0.73		2.00	0.78	0.22		1.00	1.98	0.02		1.00	2.00	1.00	
Final Sat.:	73	395	1243		3502	1429	408		1805	3569	37		1805	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.25	0.25	0.25		0.20	0.09	0.09		0.02	0.28	0.28		0.17	0.27	0.23	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.33	0.25	0.25		0.20	0.12	0.12		0.06	0.28	0.28		0.17	0.38	0.38	
Volume/Cap:	0.77	1.00	1.00		1.00	0.77	0.77		0.27	1.00	1.00		1.00	0.71	0.60	
Uniform Del:	33.2	41.2	41.2		44.0	46.7	46.7		49.0	39.8	39.8		45.5	28.6	27.1	
IncremntDel:	6.4	43.1	43.1		33.8	14.6	14.6		1.3	28.3	28.3		50.6	1.7	1.6	
InitQueuDel:	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:	39.6	84.2	84.2		77.8	61.3	61.3		50.3	68.1	68.1		96.1	30.3	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:	39.6	84.2	84.2		77.8	61.3	61.3		50.3	68.1	68.1		96.1	30.3	28.7	
LOS by Move:	D	F	F		E	E	E		D	E	E		F	C	C	
HCM2kAvgQ:	15	20	20		18	8	8		1	24	24		16	16	11	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 35.9
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																	
Base Vol:	30	377	86		82	384	76		59	328	23		71	442	88	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	34	430	98		93	438	87		67	374	26		81	504	100	
Added Vol:	0	39	5		16	97	23		3	40	1		37	20	12	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	469	103		109	535	110		70	414	27		118	524	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:	34	469	103		109	535	110		70	414	27		118	524	112	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	469	103		109	535	110		70	414	27		118	524	112	
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:	34	469	103		109	535	110		70	414	27		118	524	112	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.92	0.92	0.92		0.95	0.94	0.94		0.95	0.92	0.92	
Lanes:	0.11	1.55	0.34		0.29	1.42	0.29		1.00	1.88	0.12		1.00	1.65	0.35	
Final Sat.:	198	2714	597		509	2487	510		1805	3357	221		1805	2892	620	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.22	0.22	0.22		0.04	0.12	0.12		0.07	0.18	0.18	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.25	0.25		0.31	0.31	0.31		0.06	0.21	0.21		0.11	0.27	0.27	
Volume/Cap:	0.68	0.68	0.68		0.68	0.68	0.68		0.68	0.59	0.59		0.59	0.68	0.68	
Uniform Del:	33.7	33.7	33.7		29.9	29.9	29.9		46.3	35.5	35.5		42.2	33.0	33.0	
IncremntDel:	2.2	2.2	2.2		1.8	1.8	1.8		17.2	1.2	1.2		4.4	2.1	2.1	
InitQueuDel:	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:	35.9	35.9	35.9		31.7	31.7	31.7		63.5	36.7	36.7		46.6	35.1	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:	35.9	35.9	35.9		31.7	31.7	31.7		63.5	36.7	36.7		46.6	35.1	35.1	
LOS by Move:	D	D	D		C	C	C		E	D	D		D	D	D	
HCM2kAvgQ:	10	10	10		12	12	12		3	7	7		4	10	10	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.187
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 101.9
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module:5:00 - 6:00 AM																	
Base Vol:	10	932	0		0	2235	16		334	0	76		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	11	1062	0		0	2548	18		381	0	87		0	0	0	
Added Vol:	38	364	0		0	55	0		618	0	86		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	49	1426	0		0	2603	18		999	0	173		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:	49	1426	0		0	2603	18		999	0	173		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	49	1426	0		0	2603	18		999	0	173		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	
FinalVolume:	49	1426	0		0	2603	18		999	0	173		0	0	0	
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																	
Vol/Sat:	0.03	0.28	0.00		0.00	0.51	0.01		0.56	0.00	0.11		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.04	0.46	0.00		0.00	0.42	0.42		0.47	0.00	0.47		0.00	0.00	0.00	
Volume/Cap:	0.73	0.61	0.00		0.00	1.21	0.03		1.21	0.00	0.23		0.00	0.00	0.00	
Uniform Del:	61.8	26.1	0.0		0.0	37.4	21.8		34.6	0.0	20.7		0.0	0.0	0.0	
IncremntDel:	32.1	0.5	0.0		0.0	97.6	0.0		104.3	0.0	0.2		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	93.9	26.5	0.0		0.0	135	21.8		138.9	0.0	20.8		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:	93.9	26.5	0.0		0.0	135	21.8		138.9	0.0	20.8		0.0	0.0	0.0	
LOS by Move:	F	C	A		A	F	C		F	A	C		A	A	A	
HCM2kAvgQ:	3	16	0		0	60	0		62	0	4		0	0	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.3
Optimal Cycle: 67 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	16	893	0	0	2424	182	217	0	212	0	0	0				
Added Vol:	38	400	0	0	135	5	2	0	86	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	54	1293	0	0	2559	187	219	0	298	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:	54	1293	0	0	2559	187	219	0	298	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	54	1293	0	0	2559	187	219	0	298	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				
FinalVolume:	54	1293	0	0	2559	187	219	0	298	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.25	0.00	0.00	0.50	0.12	0.12	0.00	0.19	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.04	0.69	0.00	0.00	0.65	0.65	0.24	0.00	0.24	0.00	0.00	0.00				
Volume/Cap:	0.78	0.37	0.00	0.00	0.78	0.18	0.51	0.00	0.78	0.00	0.00	0.00				
Uniform Del:	61.9	8.5	0.0	0.0	16.1	9.1	42.5	0.0	45.9	0.0	0.0	0.0				
IncremntDel:	41.1	0.1	0.0	0.0	1.2	0.1	1.0	0.0	9.6	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	103.0	8.5	0.0	0.0	17.4	9.2	43.5	0.0	55.5	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:	103.0	8.5	0.0	0.0	17.4	9.2	43.5	0.0	55.5	0.0	0.0	0.0				
LOS by Move:	F	A	A	A	B	A	D	A	E	A	A	A				
HCM2kAvgQ:	4	8	0	0	27	3	8	0	13	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.877
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	555	645	0	0	407	105	293	0	804	0	0	0				
Added Vol:	35	58	0	0	21	6	3	0	67	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	590	703	0	0	428	111	296	0	871	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:	590	703	0	0	428	111	296	0	871	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	590	703	0	0	428	111	296	0	871	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				
FinalVolume:	590	703	0	0	428	111	296	0	871	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1437	372	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.33	0.38	0.00	0.00	0.30	0.30	0.17	0.00	0.55	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.38	0.72	0.00	0.00	0.34	0.34	0.25	0.00	0.63	0.00	0.00	0.00				
Volume/Cap:	0.88	0.52	0.00	0.00	0.88	0.88	0.68	0.00	0.88	0.00	0.00	0.00				
Uniform Del:	34.6	7.6	0.0	0.0	37.3	37.3	40.9	0.0	18.5	0.0	0.0	0.0				
IncremntDel:	12.5	0.4	0.0	0.0	13.5	13.5	4.3	0.0	8.9	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	47.1	8.0	0.0	0.0	50.8	50.8	45.1	0.0	27.5	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:	47.1	8.0	0.0	0.0	50.8	50.8	45.1	0.0	27.5	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	C	A	A	A				
HCM2kAvgQ:	23	12	0	0	22	22	11	0	29	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 38 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1	0 2	0 1		1	0 2	0 1		1	0 0	1 0		0	1 0	0 1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	56	868	145		406	716	41		85	87	71		83	9	303	
Added Vol:	0	89	0		2	86	0		0	0	0		0	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	56	957	145		408	802	41		85	87	71		83	9	308	
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	957	145		408	802	41		85	87	71		83	9	308	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	56	957	145		408	802	41		85	87	71		83	9	308	
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	957	145		408	802	41		86	87	71		83	9	308	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.61	0.91	0.91		0.60	0.60	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1160	957	781		1022	112	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.27	0.09		0.23	0.23	0.03		0.07	0.09	0.09		0.08	0.08	0.19	
Crit Moves:		****			****										****	
Green/Cycle:	0.09	0.38	0.38		0.32	0.61	0.61		0.27	0.27	0.27		0.27	0.27	0.27	
Volume/Cap:	0.35	0.72	0.24		0.72	0.37	0.04		0.27	0.33	0.33		0.30	0.30	0.72	
Uniform Del:	51.4	32.1	25.7		36.0	12.0	9.5		34.5	35.1	35.1		34.8	34.8	39.6	
IncremntDel:	1.4	1.9	0.2		4.5	0.1	0.0		0.5	0.4	0.4		0.6	0.6	5.9	
InitQueuDel:	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:	52.8	34.0	26.0		40.5	12.1	9.5		34.9	35.5	35.5		35.3	35.3	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:	52.8	34.0	26.0		40.5	12.1	9.5		34.9	35.5	35.5		35.3	35.3	45.5	
LOS by Move:	D	C	C		D	B	A		C	D	D		D	D	D	
HCM2kAvgQ:	2	17	4		14	8	1		3	5	5		3	3	12	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 1.179
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 121.6
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1 0	0 1		0	1 0	0 1		1	0 0	1 0		0	0 1!	0 0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	101	521	27		27	579	186		478	154	89		8	63	14	
Added Vol:	0	54	0		0	137	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	101	575	27		27	716	186		478	154	89		8	63	14	
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:	101	575	27		27	716	186		478	154	89		8	63	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	101	575	27		27	716	186		478	154	89		8	63	14	
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:	101	575	27		27	716	186		478	154	89		8	63	14	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.15	0.85	1.00		0.04	0.96	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	283	1604	1615		70	1826	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.36	0.36	0.02		0.39	0.39	0.12		0.26	0.14	0.14		0.05	0.05	0.05	
Crit Moves:		****				****			****						****	
Green/Cycle:	0.30	0.30	0.30		0.33	0.33	0.33		0.22	0.22	0.22		0.05	0.05	0.05	
Volume/Cap:	1.19	1.19	0.06		1.19	1.19	0.35		1.19	0.61	0.61		1.00	1.00	1.00	
Uniform Del:	38.4	38.4	27.3		36.8	36.8	27.9		42.7	38.4	38.4		52.5	52.5	52.5	
IncremntDel:	101.3	101	0.0		100.0	100	0.4		107.0	2.7	2.7		99.2	99.2	99.2	
InitQueuDel:	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:	139.7	140	27.3		136.9	137	28.3		149.7	41.1	41.1		151.7	152	151.7	
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:	139.7	140	27.3		136.9	137	28.3		149.7	41.1	41.1		151.7	152	151.7	
LOS by Move:	F	F	C		F	F	C		F	D	D		F	F	F	
HCM2kAvgQ:	39	39	1		42	42	5		28	8	8		6	6	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.625
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.6
Optimal Cycle:	90	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10		10	10	10		10	10	10		10	10	10	
Lanes:	1	0 3	0	0	0	0 3	0	1	2	0 0	0	1	0	0 0	0	0
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	807	0	0	2630	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	438	0	0	221	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1245	0	0	2851	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	0	1245	0	0	2851	0	0	0	0	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1245	0	0	2851	0	0	0	0	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	0	1245	0	0	2851	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1900	5187	0	0	5187	1900	3686	0	1900	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.00	0.24	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****											
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.27	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	0.0	0.9	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	2	0	0	9	0	0	0	0	0	0	0	0	0	0	0

Note: Queue reported is the number of cars per lane.

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Scenario Report

Scenario:	Cumulative 2025 East and West Campuses AM
Command:	Long Term Project II AM
Volume:	Long Term Project II AM
Geometry:	Long Term Project II AM
Impact Fee:	Default Impact Fee
Trip Generation:	Long Term Project II AM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Long Term Project II AM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Bayfront Exp. & Marsh Rd.	C	25.2	0.842	C	29.1	0.899	+ 3.878 D/V
# 2 US 101 NB Ramps & Marsh Rd.	B	16.9	0.700	F	83.6	1.225	+66.686 D/V
# 3 US 101 SB Ramps & Marsh Rd.	C	26.5	0.944	D	39.1	0.999	+12.529 D/V
# 4 Scott Dr/Rolison at Marsh Rd.	D	41.1	0.901	D	36.1	0.938	-4.986 D/V
# 5 Bohannon/ Florence & Marsh Rd.	C	20.8	0.620	B	15.6	0.653	-5.224 D/V
# 6 Bay Rd. & Marsh Rd.	B	17.4	0.644	B	19.2	0.792	+ 1.804 D/V
# 7 Middlefield at Marsh (Town of	C	29.8	0.669	D	36.1	0.904	+ 6.333 D/V
# 8 Bayfront Exp. & Willow Rd.	C	28.6	0.668	E	62.5	1.009	+33.901 D/V
# 9 Hamilton Ave. & Willow Rd.	C	23.7	0.613	C	21.6	0.771	-2.076 D/V
# 10 Ivy Dr. & Willow Rd.	B	18.7	0.567	C	27.6	0.852	+ 8.918 D/V
# 11 O'Brien Dr. & Willow Rd.	B	15.4	0.508	B	14.4	0.776	-0.978 D/V
# 12 Newbridge St. & Willow Rd.	E	59.2	0.990	E	66.8	1.046	+ 7.584 D/V
# 13 Bay Rd. & Willow Rd.	C	21.6	0.760	C	22.9	0.859	+ 1.258 D/V
# 14 Durham St. & Willow Rd.	D	35.1	0.782	B	15.5	0.849	-19.594 D/V
# 15 Coleman Ave. & Willow Rd.	B	15.3	0.784	C	23.2	0.942	+ 7.938 D/V
# 16 Gilbert Ave. & Willow Rd.	B	15.7	0.726	C	22.2	0.913	+ 6.534 D/V
# 17 Middlefield Rd. & Willow Rd.	F	114.7	1.038	F	151.9	1.324	+37.202 D/V
# 18 Bayfront Exp. & University Ave	C	32.7	0.882	D	38.8	0.948	+ 6.131 D/V
# 19 O'Brien Dr. & University Ave.	A	6.8	0.600	A	6.6	0.614	-0.198 D/V
# 20 University & Kavanaugh	B	14.4	0.617	B	14.0	0.626	-0.398 D/V
# 21 University & Bay	C	29.3	0.724	C	28.6	0.733	-0.659 D/V
# 22 University & Runnymede	C	21.7	0.687	C	21.4	0.696	-0.318 D/V
# 23 University & Bell	A	7.7	0.270	A	6.9	0.323	-0.786 D/V
# 24 University & Donohoe	D	51.0	1.014	E	55.6	1.045	+ 4.621 D/V
# 25 NB 101 & Donohoe St	B	9.1	0.418	B	9.6	0.456	+ 0.418 D/V

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	B	18.1	0.704	B	18.9	0.719	+ 0.807 D/V
# 27 University Ave. & Woodland	D	50.1	0.977	D	52.3	0.992	+ 2.221 D/V
# 28 Middlefield Rd. & University A	D	38.2	0.805	D	52.0	0.929	+13.758 D/V
# 29 Bayfront Exp. & Chrysler Dr.	A	7.6	0.640	B	17.7	0.746	+10.077 D/V
# 30 Bayfront Exp. & Chilco St.	B	17.8	0.650	C	20.4	0.686	+ 2.639 D/V
# 31 Middlefield Rd. & Ravenswood A	C	23.4	0.664	C	26.3	0.745	+ 2.840 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.2	0.515	C	25.6	0.541	-3.586 D/V
# 33 Middlefield Rd and Lytton Ave	D	38.1	0.783	D	49.3	0.907	+11.156 D/V
# 34 Bayfront Expy. and Facebook We	A	1.4	0.549	B	19.1	0.792	+17.736 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #1 Bayfront Exp. & Marsh Rd.
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Cycle (sec): 130 Critical Vol./Cap.(X): 0.899
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 29.1
Optimal Cycle: 124 Level Of Service: C

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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:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	2297	189	23		7	58	148		182	20	997		7	19	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	2619	215	26		8	66	169		207	23	1137		8	22	6	
Added Vol:	211	0	0		0	0	0		0	0	784		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2830	215	26		8	66	169		207	23	1921		8	22	6	
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:	2830	215	26		8	66	169		207	23	1921		8	22	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2830	215	26		8	66	169		207	23	1921		8	22	6	
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:	2830	215	26		8	66	169		207	23	1921		8	22	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.93	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.89	0.11		0.22	1.78	1.00		0.90	0.10	2.00		0.23	0.61	0.16	
Final Sat.:	5147	1633	199		379	3141	1583		1606	176	2786		407	1104	290	
Capacity Analysis Module:																
Vol/Sat:	0.55	0.13	0.13		0.02	0.02	0.11		0.13	0.13	0.69		0.02	0.02	0.02	
Crit Moves:	****						****				****			****		
Green/Cycle:	0.60	0.60	0.60		0.12	0.12	0.12		0.15	0.15	0.75		0.04	0.04	0.04	
Volume/Cap:	0.92	0.22	0.22		0.18	0.18	0.92		0.85	0.85	0.92		0.51	0.51	0.51	
Uniform Del:	23.1	12.0	12.0		51.8	51.8	56.8		53.6	53.6	12.8		61.3	61.3	61.3	
IncremntDel:	4.9	0.1	0.1		0.2	0.2	43.1		21.1	21.1	6.8		6.2	6.2	6.2	
InitQueuDel:	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:	27.9	12.1	12.1		52.1	52.1	99.9		74.7	74.7	19.6		67.5	67.5	67.5	
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:	27.9	12.1	12.1		52.1	52.1	99.9		74.7	74.7	19.6		67.5	67.5	67.5	
LOS by Move:	C	B	B		D	D	F		E	E	B		E	E	E	
HCM2kAvgQ:	38	4	4		1	1	10		11	11	38		2	2	2	

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 1.225
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 83.6
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2	0	0	0 1	0	0	0	0 0	0	1	1	0 1	0	0	2	0 1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	818	0	289		0	0	0		0	1138	506		0	821	1699	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	933	0	329		0	0	0		0	1297	577		0	936	1937	
Added Vol:	2	0	394		0	0	0		2	934	0		0	164	47	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	935	0	723		0	0	0		2	2231	577		0	1100	1984	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	935	0	723		0	0	0		2	2231	0		0	1100	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	935	0	723		0	0	0		2	2231	0		0	1100	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	935	0	723		0	0	0		2	2231	0		0	1100	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		3	3376	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.27	0.00	0.46		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.31	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.37	0.00	0.37		0.00	0.00	0.00		0.54	0.54	0.00		0.00	0.54	0.00	
Volume/Cap:	0.73	0.00	1.23		0.00	0.00	0.00		1.23	1.23	0.00		0.00	0.58	0.00	
Uniform Del:	21.6	0.0	25.1		0.0	0.0	0.0		18.4	18.4	0.0		0.0	12.3	0.0	
IncremntDel:	2.2	0.0	115.9		0.0	0.0	0.0		106.5	107	0.0		0.0	0.4	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	23.8	0.0	141.0		0.0	0.0	0.0		124.9	125	0.0		0.0	12.7	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:	23.8	0.0	141.0		0.0	0.0	0.0		124.9	125	0.0		0.0	12.7	0.0	
LOS by Move:	C	A	F		A	A	A		F	F	A		A	B	A	
HCM2kAvgQ:	12	0	37		0	0	0		58	58	0		0	10	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.999
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 39.1
Optimal Cycle: 179 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0	0	0	0 0	2	0	0	0 1	0	0	2	0 1	0	0	2	0 1
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		879	0	558		0	834	583		0	1426	86	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1002	0	636		0	951	665		0	1626	98	
Added Vol:	0	0	0		475	0	33		0	474	0		0	78	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1477	0	669		0	1425	665		0	1704	98	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1477	0	669		0	1425	0		0	1704	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1477	0	669		0	1425	0		0	1704	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1477	0	669		0	1425	0		0	1704	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.43	0.00	0.42		0.00	0.40	0.00		0.00	0.48	0.00	
Crit Moves:					****									****		
Green/Cycle:	0.00	0.00	0.00		0.43	0.00	0.43		0.00	0.48	0.00		0.00	0.48	0.00	
Volume/Cap:	0.00	0.00	0.00		1.00	0.00	0.98		0.00	0.84	0.00		0.00	1.00	0.00	
Uniform Del:	0.0	0.0	0.0		22.8	0.0	22.5		0.0	18.0	0.0		0.0	20.7	0.0	
IncremntDel:	0.0	0.0	0.0		23.3	0.0	29.8		0.0	3.8	0.0		0.0	21.7	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		46.0	0.0	52.2		0.0	21.8	0.0		0.0	42.4	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:	0.0	0.0	0.0		46.0	0.0	52.2		0.0	21.8	0.0		0.0	42.4	0.0	
LOS by Move:	A	A	A		D	A	D		A	C	A		A	D	A	
HCM2kAvgQ:	0	0	0		27	0	23		0	19	0		0	30	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.938
Loss Time (sec): 14 (Y+R=4.0 sec) Average Delay (sec/veh): 36.1
Optimal Cycle: 113 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	27	3	49		222	18	3		15	1131	29		268	1416	280	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	31	3	56		253	21	3		17	1289	33		306	1614	319	
Added Vol:	0	0	0		0	0	0		0	474	0		0	111	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	31	3	56		253	21	3		17	1763	33		306	1725	319	
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	3	56		253	21	3		17	1763	33		306	1725	319	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	31	3	56		253	21	3		17	1763	33		306	1725	319	
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:	31	3	56		253	21	3		17	1763	33		306	1725	319	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.94	0.94	0.73		0.94	0.94	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.90	0.10	2.00		0.93	0.07	1.00		1.00	2.94	0.06		2.00	1.69	0.31	
Final Sat.:	1604	178	2786		1647	134	1583		1769	4975	93		3432	2917	540	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02	0.02		0.15	0.15	0.00		0.01	0.35	0.35		0.09	0.59	0.59	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.05	0.05	0.05		0.15	0.15	0.15		0.05	0.50	0.50		0.13	0.58	0.58	
Volume/Cap:	0.38	0.38	0.40		1.03	1.03	0.01		0.19	0.71	0.71		0.71	1.03	1.03	
Uniform Del:	36.8	36.8	36.8		34.0	34.0	29.0		36.5	15.5	15.5		33.6	17.0	17.0	
IncremntDel:	2.7	2.7	1.9		62.5	62.5	0.0		1.1	1.0	1.0		5.4	27.7	27.7	
InitQueuDel:	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:	39.5	39.5	38.7		96.6	96.6	29.0		37.5	16.4	16.4		39.0	44.6	44.6	
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:	39.5	39.5	38.7		96.6	96.6	29.0		37.5	16.4	16.4		39.0	44.6	44.6	
LOS by Move:	D	D	D		F	F	C		D	B	B		D	D	D	
HCM2kAvgQ:	1	1	1		12	12	0		1	14	14		5	37	37	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: 31 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	15	9	8		390	30	91		117	796	58		46	1141	323	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	17	10	9		445	34	104		133	907	66		52	1301	368	
Added Vol:	0	0	0		0	0	0		0	474	0		0	111	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	17	10	9		445	34	104		133	1381	66		52	1412	368	
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:	17	10	9		445	34	104		133	1381	66		52	1412	368	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	17	10	9		445	34	104		133	1381	66		52	1412	368	
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:	17	10	9		445	34	104		133	1381	66		52	1412	368	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.91	0.91		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.53	0.47		1.86	0.14	1.00		1.00	1.91	0.09		1.00	2.00	1.00	
Final Sat.:	1769	916	814		3306	254	1583		1769	3353	160		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.13	0.13	0.07		0.08	0.41	0.41		0.03	0.40	0.23	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.05	0.05	0.05		0.20	0.20	0.20		0.11	0.63	0.63		0.08	0.59	0.59	
Volume/Cap:	0.19	0.22	0.22		0.68	0.68	0.33		0.68	0.66	0.66		0.39	0.68	0.39	
Uniform Del:	36.5	36.5	36.5		29.7	29.7	27.5		34.2	9.5	9.5		35.2	11.2	8.8	
IncremntDel:	1.1	1.3	1.3		2.6	2.6	0.6		9.0	0.7	0.7		1.9	0.9	0.3	
InitQueuDel:	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:	37.5	37.8	37.8		32.3	32.3	28.1		43.2	10.3	10.3		37.1	12.1	9.0	
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:	37.5	37.8	37.8		32.3	32.3	28.1		43.2	10.3	10.3		37.1	12.1	9.0	
LOS by Move:	D	D	D		C	C	C		D	B	B		D	B	A	
HCM2kAvgQ:	1	1	1		7	7	2		5	13	13		2	13	5	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.792
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 47 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		0	6	6		4	6	6	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	1	0	1 0	1	0	1	1 0
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	70	3	177		112	28	5		2	665	66		264	982	22	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	80	3	202		128	32	6		2	758	75		301	1119	25	
Added Vol:	1	0	0		0	0	0		0	474	2		0	111	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	81	3	202		128	32	6		2	1232	77		301	1230	25	
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:	81	3	202		128	32	6		2	1232	77		301	1230	25	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	81	3	202		128	32	6		2	1232	77		301	1230	25	
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:	81	3	202		128	32	6		2	1232	77		301	1230	25	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.79	0.79	0.79		0.52	0.52	0.52		0.88	0.88	0.88		0.93	0.93	0.93	
Lanes:	0.28	0.01	0.71		0.78	0.19	0.03		0.01	1.88	0.11		1.00	1.96	0.04	
Final Sat.:	425	18	1062		763	191	34		6	3145	197		1769	3457	70	
Capacity Analysis Module:																
Vol/Sat:	0.19	0.19	0.19		0.17	0.17	0.17		0.39	0.39	0.39		0.17	0.36	0.36	
Crit Moves:		****								****			****			
Green/Cycle:	0.26	0.26	0.26		0.26	0.26	0.26		0.48	0.48	0.48		0.21	0.69	0.69	
Volume/Cap:	0.72	0.72	0.72		0.64	0.64	0.64		0.82	0.82	0.82		0.82	0.52	0.52	
Uniform Del:	26.8	26.8	26.8		26.1	26.1	26.1		17.9	17.9	17.9		30.2	6.1	6.1	
IncremntDel:	6.4	6.4	6.4		5.1	5.1	5.1		3.4	3.4	3.4		13.4	0.2	0.2	
InitQueuDel:	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:	33.2	33.2	33.2		31.2	31.2	31.2		21.3	21.3	21.3		43.7	6.3	6.3	
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:	33.2	33.2	33.2		31.2	31.2	31.2		21.3	21.3	21.3		43.7	6.3	6.3	
LOS by Move:	C	C	C		C	C	C		C	C	C		D	A	A	
HCM2kAvgQ:	8	8	8		5	5	5		17	17	17		10	8	8	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 0.904
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 36.1
Optimal Cycle: 112 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0 1	1	0	1	0 0	0	0	0	0 0	1	0	0	0 1
Volume Module: >> Count Date: 18 Nov 2009 << 7:15-8:15 a.m.																
Base Vol:	0	166	397		342	367	0		0	0	0		463	0	169	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	189	453		390	418	0		0	0	0		528	0	193	
Added Vol:	0	8	152		323	64	0		0	0	0		55	0	57	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	197	605		713	482	0		0	0	0		583	0	250	
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	197	605		713	482	0		0	0	0		583	0	250	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	197	605		713	482	0		0	0	0		583	0	250	
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:	0	197	605		713	482	0		0	0	0		583	0	250	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.10	0.37		0.39	0.25	0.00		0.00	0.00	0.00		0.32	0.00	0.15	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.11	0.47		0.44	0.55	0.00		0.00	0.00	0.00		0.36	0.00	0.79	
Volume/Cap:	0.00	0.90	0.79		0.90	0.46	0.00		0.00	0.00	0.00		0.90	0.00	0.19	
Uniform Del:	0.0	48.1	24.5		28.8	14.8	0.0		0.0	0.0	0.0		33.6	0.0	2.8	
IncremntDel:	0.0	35.9	5.7		13.8	0.3	0.0		0.0	0.0	0.0		16.2	0.0	0.1	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	83.9	30.2		42.6	15.1	0.0		0.0	0.0	0.0		49.7	0.0	2.8	
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:	0.0	83.9	30.2		42.6	15.1	0.0		0.0	0.0	0.0		49.7	0.0	2.8	
LOS by Move:	A	F	C		D	B	A		A	A	A		D	A	A	
HCM2kAvgQ:	0	10	19		26	10	0		0	0	0		22	0	2	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.009
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 62.5
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0 3	0 1		2	0 3	0 1		1	1 1	0 2		1	0 2	0 1	
Volume Module: >> Count Date: 1 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	1034	2108	6		13	677	92		84	34	379		3	6	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	1179	2403	7		15	772	105		96	39	432		3	7	6	
Added Vol:	69	433	24		441	59	43		494	838	14		24	30	14	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1248	2836	31		456	831	148		590	877	446		27	37	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:	1248	2836	31		456	831	148		590	877	446		27	37	20	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1248	2836	31		456	831	148		590	877	446		27	37	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	
FinalVolume:	1248	2836	31		456	831	148		590	877	446		27	37	20	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.03	0.83		0.90	1.03	0.83		0.91	0.91	0.88		0.93	0.93	0.83	
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		1.21	1.79	2.00		1.00	2.00	1.00	
Final Sat.:	3432	5846	1583		3432	5846	1583		2091	3109	3343		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.36	0.49	0.02		0.13	0.14	0.09		0.28	0.28	0.13		0.02	0.01	0.01	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.43	0.47	0.51		0.13	0.17	0.17		0.27	0.27	0.27		0.04	0.04	0.04	
Volume/Cap:	0.85	1.04	0.04		1.04	0.85	0.56		1.04	1.04	0.49		0.40	0.27	0.32	
Uniform Del:	33.3	34.5	16.1		56.7	52.5	49.7		47.3	47.3	39.7		61.0	60.7	60.9	
IncremntDel:	4.8	27.2	0.0		52.3	7.0	2.6		33.6	33.6	0.4		3.9	1.1	3.1	
InitQueuDel:	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:	38.1	61.7	16.1		109.0	59.5	52.3		80.9	80.9	40.1		64.9	61.8	63.9	
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:	38.1	61.7	16.1		109.0	59.5	52.3		80.9	80.9	40.1		64.9	61.8	63.9	
LOS by Move:	D	E	B		F	E	D		F	F	D		E	E	E	
HCM2kAvgQ:	25	51	1		14	14	6		28	28	9		2	1	1	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.771
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: 73 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0 1! 0	0		0	0 1! 0	0		1	0 1	1 0		1	0 1	1 0	
Volume Module: >> Count Date: 7 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	18	13	26		71	19	72		115	415	52		56	1037	74	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	21	15	30		81	22	82		131	473	59		64	1182	84	
Added Vol:	0	0	0		1	0	13		4	1345	0		0	136	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	21	15	30		82	22	95		135	1818	59		64	1318	84	
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	15	30		82	22	95		135	1818	59		64	1318	84	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	21	15	30		82	22	95		135	1818	59		64	1318	84	
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:	21	15	30		82	22	95		135	1818	59		64	1318	84	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.80	0.80	0.80		0.77	0.77	0.77		0.93	0.93	0.93		0.93	0.92	0.92	
Lanes:	0.31	0.23	0.46		0.41	0.11	0.48		1.00	1.94	0.06		1.00	1.88	0.12	
Final Sat.:	478	345	690		600	158	696		1769	3409	111		1769	3295	211	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.04	0.04		0.14	0.14	0.14		0.08	0.53	0.53		0.04	0.40	0.40	
Crit Moves:					****					****			****			
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.12	0.69	0.69		0.05	0.62	0.62	
Volume/Cap:	0.24	0.24	0.24		0.77	0.77	0.77		0.65	0.77	0.77		0.77	0.65	0.65	
Uniform Del:	46.0	46.0	46.0		51.0	51.0	51.0		54.7	13.3	13.3		61.3	15.7	15.7	
IncremntDel:	0.5	0.5	0.5		13.4	13.4	13.4		6.8	1.6	1.6		35.0	0.7	0.7	
InitQueuDel:	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:	46.5	46.5	46.5		64.3	64.3	64.3		61.5	14.8	14.8		96.3	16.3	16.3	
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:	46.5	46.5	46.5		64.3	64.3	64.3		61.5	14.8	14.8		96.3	16.3	16.3	
LOS by Move:	D	D	D		E	E	E		E	B	B		F	B	B	
HCM2kAvgQ:	2	2	2		9	9	9		6	27	27		4	19	19	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.852
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 27.6
Optimal Cycle: 97 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		1	0	186		82	652	0		0	1021	14	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1	0	212		93	743	0		0	1164	16	
Added Vol:	0	0	0		190	0	6		7	1159	0		0	134	14	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		191	0	218		100	1902	0		0	1298	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:	0	0	0		191	0	218		100	1902	0		0	1298	30	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		191	0	218		100	1902	0		0	1298	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	
FinalVolume:	0	0	0		191	0	218		100	1902	0		0	1298	30	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.89	1.00	0.89		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.47	0.00	0.53		1.00	2.00	0.00		0.00	1.95	0.05	
Final Sat.:	0	0	0		789	0	900		1769	3538	0		0	3448	80	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.24	0.00	0.24		0.06	0.54	0.00		0.00	0.38	0.38	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.28	0.00	0.28		0.08	0.63	0.00		0.00	0.55	0.55	
Volume/Cap:	0.00	0.00	0.00		0.85	0.00	0.85		0.69	0.85	0.00		0.00	0.69	0.69	
Uniform Del:	0.0	0.0	0.0		43.9	0.0	43.9		58.0	19.1	0.0		0.0	21.3	21.3	
IncremntDel:	0.0	0.0	0.0		13.7	0.0	13.7		12.8	3.4	0.0		0.0	1.1	1.1	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		57.6	0.0	57.6		70.8	22.5	0.0		0.0	22.3	22.3	
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:	0.0	0.0	0.0		57.6	0.0	57.6		70.8	22.5	0.0		0.0	22.3	22.3	
LOS by Move:	A	A	A		E	A	E		E	C	A		A	C	C	
HCM2kAvgQ:	0	0	0		18	0	18		5	34	0		0	20	20	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.4
Optimal Cycle: 74 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 8:00 am - 9:00 am																
Base Vol:	130	0	67		0	0	0		0	697	250		102	1171	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	148	0	76		0	0	0		0	795	285		116	1335	0	
Added Vol:	10	0	0		0	0	0		0	1166	2		0	140	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	158	0	76		0	0	0		0	1961	287		116	1475	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:	158	0	76		0	0	0		0	1961	287		116	1475	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	158	0	76		0	0	0		0	1961	287		116	1475	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:	158	0	76		0	0	0		0	1961	287		116	1475	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.90		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.51	0.00	0.49		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2583	0	841		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.00	0.09		0.00	0.00	0.00		0.00	0.55	0.18		0.07	0.42	0.00	
Crit Moves:			****							****			****			
Green/Cycle:	0.12	0.00	0.12		0.00	0.00	0.00		0.00	0.71	0.71		0.08	0.80	0.00	
Volume/Cap:	0.52	0.00	0.78		0.00	0.00	0.00		0.00	0.78	0.25		0.78	0.52	0.00	
Uniform Del:	54.0	0.0	55.7		0.0	0.0	0.0		0.0	11.9	6.5		58.3	4.5	0.0	
IncremntDel:	1.1	0.0	12.0		0.0	0.0	0.0		0.0	1.6	0.1		22.1	0.2	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	55.1	0.0	67.7		0.0	0.0	0.0		0.0	13.5	6.6		80.4	4.7	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:	55.1	0.0	67.7		0.0	0.0	0.0		0.0	13.5	6.6		80.4	4.7	0.0	
LOS by Move:	E	A	E		A	A	A		A	B	A		F	A	A	
HCM2kAvgQ:	5	0	8		0	0	0		0	27	4		6	11	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.046
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 66.8
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	
Volume Module: >> Count Date: 7 Oct 2009 << 7:30 AM to 8:30 AM																
Base Vol:	350	111	36		28	178	384		148	826	155		28	1221	4	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	399	127	41		32	203	438		169	942	177		32	1392	5	
Added Vol:	0	0	0		0	0	4		10	1168	0		0	150	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	399	127	41		32	203	442		179	2110	177		32	1542	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:	399	127	41		32	203	442		179	2110	177		32	1542	5	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	399	127	41		32	203	442		179	2110	177		32	1542	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	
FinalVolume:	399	127	41		32	203	442		179	2110	177		32	1542	5	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.88	0.88		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.77	0.23		1.00	1.99	0.01	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4634	388		1769	3527	10	
Capacity Analysis Module:																
Vol/Sat:	0.12	0.07	0.03		0.02	0.11	0.28		0.10	0.46	0.46		0.02	0.44	0.44	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.11	0.11	0.11		0.27	0.27	0.27		0.10	0.47	0.47		0.04	0.42	0.42	
Volume/Cap:	1.05	0.61	0.23		0.07	0.41	1.05		1.05	0.96	0.96		0.45	1.05	1.05	
Uniform Del:	57.8	55.1	52.7		35.6	39.2	47.7		58.7	33.0	33.0		61.0	37.8	37.8	
IncremntDel:	58.7	5.3	0.7		0.1	0.5	56.4		81.6	10.6	10.6		4.5	36.5	36.5	
InitQueuDel:	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:	116.5	60.4	53.4		35.6	39.8	104.1		140.3	43.6	43.6		65.5	74.3	74.3	
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:	116.5	60.4	53.4		35.6	39.8	104.1		140.3	43.6	43.6		65.5	74.3	74.3	
LOS by Move:	F	E	D		D	D	F		F	D	D		E	E	E	
HCM2kAvgQ:	13	6	2		1	7	25		12	37	37		2	42	42	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.859
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 91 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Ignore			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	
Volume Module: >> Count Date: 6 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	0	0	0		361	0	75		64	1378	0		0	1114	319	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		412	0	85		73	1571	0		0	1270	364	
Added Vol:	0	0	0		2	0	0		0	306	0		0	115	3	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		414	0	85		73	1877	0		0	1385	367	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		414	0	85		73	1877	0		0	1385	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		414	0	85		73	1877	0		0	1385	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	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		414	0	86		73	1877	0		0	1385	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.23	0.00	0.05		0.04	0.53	0.00		0.00	0.39	0.00	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.27	0.00	0.27		0.07	0.62	0.00		0.00	0.55	0.00	
Volume/Cap:	0.00	0.00	0.00		0.86	0.00	0.20		0.59	0.86	0.00		0.00	0.71	0.00	
Uniform Del:	0.0	0.0	0.0		34.6	0.0	28.0		45.1	15.6	0.0		0.0	16.8	0.0	
IncremntDel:	0.0	0.0	0.0		14.4	0.0	0.2		7.3	3.7	0.0		0.0	1.3	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		48.9	0.0	28.2		52.4	19.2	0.0		0.0	18.1	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:	0.0	0.0	0.0		48.9	0.0	28.2		52.4	19.2	0.0		0.0	18.1	0.0	
LOS by Move:	A	A	A		D	A	C		D	B	A		A	B	A	
HCM2kAvgQ:	0	0	0		15	0	2		3	27	0		0	17	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.849
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 15.5
Optimal Cycle: 75 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1	0	0	1 0	0	1	0	0 1	1	0	1	1 0	1	0	0	1 0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	62	16	125		38	2	2		12	1001	9		41	850	142	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	71	18	143		43	2	2		14	1141	10		47	969	162	
Added Vol:	0	0	0		0	0	0		0	306	0		0	115	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	71	18	143		43	2	2		14	1447	10		47	1084	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:	71	18	143		43	2	2		14	1447	10		47	1084	162	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	71	18	143		43	2	2		14	1447	10		47	1084	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	
FinalVolume:	71	18	143		43	2	2		14	1447	10		47	1084	162	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.85	0.85		0.40	0.40	0.83		0.93	0.93	0.93		0.93	0.96	0.96	
Lanes:	1.00	0.11	0.89		0.95	0.05	1.00		1.00	1.99	0.01		1.00	0.87	0.13	
Final Sat.:	1359	183	1431		723	38	1583		1769	3509	25		1769	1589	237	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.10	0.10		0.06	0.06	0.00		0.01	0.41	0.41		0.03	0.68	0.68	
Crit Moves:		****							****					****		
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.04	0.74	0.74		0.07	0.78	0.78	
Volume/Cap:	0.46	0.88	0.88		0.53	0.53	0.01		0.19	0.55	0.55		0.37	0.88	0.88	
Uniform Del:	41.5	43.7	43.7		41.8	41.8	39.4		46.4	5.6	5.6		44.2	7.8	7.8	
IncremntDel:	2.2	34.9	34.9		6.0	6.0	0.0		1.3	0.3	0.3		1.8	6.6	6.6	
InitQueuDel:	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:	43.6	78.5	78.5		47.8	47.8	39.4		47.8	5.8	5.8		46.0	14.4	14.4	
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:	43.6	78.5	78.5		47.8	47.8	39.4		47.8	5.8	5.8		46.0	14.4	14.4	
LOS by Move:	D	E	E		D	D	D		D	A	A		D	B	B	
HCM2kAvgQ:	3	8	8		2	2	0		1	10	10		2	30	30	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.942
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 23.2
Optimal Cycle: 128 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	0	1 0
Volume Module: >> Count Date: 30 Sep 2009 << 7:30 - 8:30 AM																
Base Vol:	3	3	8		142	6	48		17	892	5		6	854	62	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	3	3	9		162	7	55		19	1017	6		7	974	71	
Added Vol:	0	0	0		0	0	0		0	306	0		0	115	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	3	3	9		162	7	55		19	1323	6		7	1089	71	
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:	3	3	9		162	7	55		19	1323	6		7	1089	71	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	3	3	9		162	7	55		19	1323	6		7	1089	71	
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:	3	3	9		162	7	55		19	1323	6		7	1089	71	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.87	0.87	0.87		0.72	0.72	0.72		0.12	0.98	0.98		0.05	0.97	0.97	
Lanes:	0.21	0.21	0.58		0.73	0.03	0.24		1.00	0.99	0.01		1.00	0.94	0.06	
Final Sat.:	355	355	947		998	42	337		225	1852	8		99	1733	113	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.01	0.01		0.16	0.16	0.16		0.09	0.71	0.71		0.07	0.63	0.63	
Crit Moves:					****					****						
Green/Cycle:	0.17	0.17	0.17		0.17	0.17	0.17		0.76	0.76	0.76		0.76	0.76	0.76	
Volume/Cap:	0.06	0.06	0.06		0.94	0.94	0.94		0.11	0.94	0.94		0.09	0.83	0.83	
Uniform Del:	34.6	34.6	34.6		40.9	40.9	40.9		3.2	10.3	10.3		3.1	7.9	7.9	
IncremntDel:	0.1	0.1	0.1		42.6	42.6	42.6		0.3	12.7	12.7		0.5	4.3	4.3	
InitQueuDel:	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:	34.7	34.7	34.7		83.5	83.5	83.5		3.5	23.0	23.0		3.7	12.2	12.2	
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:	34.7	34.7	34.7		83.5	83.5	83.5		3.5	23.0	23.0		3.7	12.2	12.2	
LOS by Move:	C	C	C		F	F	F		A	C	C		A	B	B	
HCM2kAvgQ:	0	0	0		11	11	11		0	40	40		0	25	25	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.913
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 105 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0	1 0	0	1	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	101	85	122		31	41	7		4	794	72		41	869	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	115	97	139		35	47	8		5	905	82		47	991	6	
Added Vol:	11	0	37		0	0	0		0	269	8		5	110	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	126	97	176		35	47	8		5	1174	90		52	1101	6	
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:	126	97	176		35	47	8		5	1174	90		52	1101	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	126	97	176		35	47	8		5	1174	90		52	1101	6	
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:	126	97	176		35	47	8		5	1174	90		52	1101	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.71	0.88	0.88		0.22	0.96	0.96		0.14	0.97	0.97		0.06	0.98	0.98	
Lanes:	1.00	0.35	0.65		1.00	0.85	0.15		1.00	0.93	0.07		1.00	0.99	0.01	
Final Sat.:	1346	597	1085		419	1555	266		264	1710	131		117	1851	10	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.16	0.16		0.08	0.03	0.03		0.02	0.69	0.69		0.44	0.59	0.59	
Crit Moves:		****								****						
Green/Cycle:	0.18	0.18	0.18		0.18	0.18	0.18		0.75	0.75	0.75		0.75	0.75	0.75	
Volume/Cap:	0.53	0.91	0.91		0.47	0.17	0.17		0.02	0.91	0.91		0.59	0.79	0.79	
Uniform Del:	37.3	40.3	40.3		36.9	34.8	34.8		3.1	9.8	9.8		5.5	7.6	7.6	
IncremntDel:	2.2	30.5	30.5		4.7	0.2	0.2		0.0	9.4	9.4		9.8	3.1	3.1	
InitQueuDel:	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:	39.5	70.8	70.8		41.6	35.1	35.1		3.2	19.2	19.2		15.3	10.7	10.7	
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:	39.5	70.8	70.8		41.6	35.1	35.1		3.2	19.2	19.2		15.3	10.7	10.7	
LOS by Move:	D	E	E		D	D	D		A	B	B		B	B	B	
HCM2kAvgQ:	4	12	12		2	1	1		0	35	35		2	22	22	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.324
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 151.9
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1 0	2	0	1	1 1	0	1	0	1 0	1	0	1	1 1	0	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 8:00 - 9:00 AM																
Base Vol:	67	342	245		408	322	10		16	166	117		420	64	494	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	76	390	279		465	367	11		18	189	133		479	73	563	
Added Vol:	15	9	146		101	7	0		0	30	10		22	19	80	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	91	399	425		566	374	11		18	219	143		501	92	643	
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:	91	399	425		566	374	11		18	219	143		501	92	643	
Reduct Vol:	0	0	3		0	0	0		0	0	0		0	0	0	
Reduced Vol:	91	399	422		566	374	11		18	219	143		501	92	643	
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:	91	399	422		566	374	11		18	219	143		501	92	643	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.78	1.18	0.04		1.00	1.00	1.00		1.69	0.31	1.00	
Final Sat.:	1769	3538	791		3059	2022	62		1769	1862	1583		3017	554	1583	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.11	0.53		0.19	0.19	0.19		0.01	0.12	0.09		0.17	0.17	0.41	
Crit Moves:			****				****			****					****	
Green/Cycle:	0.40	0.40	0.40		0.14	0.14	0.14		0.09	0.09	0.09		0.31	0.31	0.31	
Volume/Cap:	0.13	0.28	1.32		1.32	1.32	1.32		0.12	1.32	1.02		0.54	0.54	1.32	
Uniform Del:	24.4	26.1	38.8		55.9	55.9	55.9		54.5	59.2	59.2		37.4	37.4	45.1	
IncremntDel:	0.1	0.1	166.2		155.5	156	155.5		0.3	182	81.0		0.6	0.6	159.8	
InitQueuDel:	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:	24.5	26.2	205.0		211.5	211	211.5		54.8	241	140.2		38.0	38.0	204.8	
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:	24.5	26.2	205.0		211.5	211	211.5		54.8	241	140.2		38.0	38.0	204.8	
LOS by Move:	C	C	F		F	F	F		D	F	F		D	D	F	
HCM2kAvgQ:	2	5	31		25	25	25		1	17	10		10	10	46	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 160 Critical Vol./Cap.(X): 0.948
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 38.8
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	2	0 3	0	0	0	0 3	0	1	2	0 0	0	3	0	0 0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 7:15 - 8:15 AM																
Base Vol:	1541	2882	0		0	884	188		179	0	429		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	1757	3285	0		0	1008	214		204	0	489		0	0	0	
Added Vol:	23	631	0		0	85	13		181	0	7		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	1780	3916	0		0	1093	227		385	0	496		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:	1780	3916	0		0	1093	227		385	0	496		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	1780	3916	0		0	1093	227		385	0	496		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	
FinalVolume:	1780	3916	0		0	1093	227		385	0	496		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.89	1.00		1.00	0.89	0.83		0.90	1.00	0.73		1.00	1.00	1.00	
Lanes:	2.00	3.00	0.00		0.00	3.00	1.00		2.00	0.00	3.00		0.00	0.00	0.00	
Final Sat.:	3432	5083	0		0	5083	1583		3432	0	4178		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.52	0.77	0.00		0.00	0.21	0.14		0.11	0.00	0.12		0.00	0.00	0.00	
Crit Moves:		****			****						****					
Green/Cycle:	0.57	0.81	0.00		0.00	0.24	0.24		0.13	0.00	0.13		0.00	0.00	0.00	
Volume/Cap:	0.90	0.95	0.00		0.00	0.90	0.60		0.90	0.00	0.95		0.00	0.00	0.00	
Uniform Del:	30.1	12.3	0.0		0.0	59.2	54.2		69.0	0.0	69.5		0.0	0.0	0.0	
IncremntDel:	6.3	5.9	0.0		0.0	9.6	2.8		20.9	0.0	26.9		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	36.4	18.1	0.0		0.0	68.8	57.0		89.9	0.0	96.4		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:	36.4	18.1	0.0		0.0	68.8	57.0		89.9	0.0	96.4		0.0	0.0	0.0	
LOS by Move:	D	B	A		A	E	E		F	A	F		A	A	A	
HCM2kAvgQ:	42	62	0		0	22	10		12	0	13		0	0	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.614
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 6.6
Optimal Cycle: 46 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0 0	0	0	0	0	1!	0	0	1 0	2	0	0	0 0	1	1 0
Volume Module: >> Count Date: 8 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	0	0	0		22	0	22		68	526	0		0	1341	46	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		25	0	25		78	600	0		0	1529	52	
Added Vol:	0	0	0		2	0	0		0	186	0		0	27	10	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		27	0	25		78	786	0		0	1556	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:	0	0	0		27	0	25		78	786	0		0	1556	62	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		27	0	25		78	786	0		0	1556	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	
FinalVolume:	0	0	0		27	0	25		78	786	0		0	1556	62	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.89	1.00	0.89		0.93	0.93	1.00		1.00	0.93	0.93	
Lanes:	0.00	0.00	0.00		0.52	0.00	0.48		1.00	2.00	0.00		0.00	1.92	0.08	
Final Sat.:	0	0	0		881	0	816		1769	3538	0		0	3381	136	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.03	0.00	0.03		0.04	0.22	0.00		0.00	0.46	0.46	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.06	0.00	0.06		0.07	0.81	0.00		0.00	0.74	0.74	
Volume/Cap:	0.00	0.00	0.00		0.52	0.00	0.52		0.62	0.27	0.00		0.00	0.62	0.62	
Uniform Del:	0.0	0.0	0.0		38.8	0.0	38.8		38.4	1.9	0.0		0.0	5.3	5.3	
IncremntDel:	0.0	0.0	0.0		4.9	0.0	4.9		9.3	0.1	0.0		0.0	0.5	0.5	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		43.8	0.0	43.8		47.6	2.0	0.0		0.0	5.7	5.7	
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:	0.0	0.0	0.0		43.8	0.0	43.8		47.6	2.0	0.0		0.0	5.7	5.7	
LOS by Move:	A	A	A		D	A	D		D	A	A		A	A	A	
HCM2kAvgQ:	0	0	0		2	0	2		3	3	0		0	11	11	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.626
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	32	37	20		8	21	44		40	582	43		25	1302	25	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	36	42	23		9	24	50		46	663	49		28	1484	28	
Added Vol:	0	0	0		0	0	0		0	186	0		0	27	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	36	42	23		9	24	50		46	849	49		28	1511	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:	36	42	23		9	24	50		46	849	49		28	1511	28	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	36	42	23		9	24	50		46	849	49		28	1511	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	
FinalVolume:	36	42	23		9	24	50		46	849	49		29	1511	29	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.91	0.91	0.91		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.36	0.42	0.22		0.11	0.29	0.60		1.00	1.89	0.11		1.00	1.96	0.04	
Final Sat.:	651	752	407		190	500	1047		1805	3386	195		1805	3533	67	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.05	0.05	0.05		0.03	0.25	0.25		0.02	0.43	0.43	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.09	0.09	0.09		0.08	0.08	0.08		0.05	0.61	0.61		0.12	0.68	0.68	
Volume/Cap:	0.63	0.65	0.65		0.62	0.63	0.63		0.51	0.41	0.41		0.13	0.63	0.63	
Uniform Del:	44.0	44.2	44.2		44.7	44.9	44.9		46.3	10.4	10.4		39.3	9.2	9.2	
IncremntDel:	8.0	9.0	9.0		8.5	9.7	9.7		4.6	0.1	0.1		0.3	0.6	0.6	
InitQueuDel:	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	53.1	53.1		53.2	54.5	54.5		50.9	10.5	10.5		39.6	9.7	9.7	
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:	52.0	53.1	53.1		53.2	54.5	54.5		50.9	10.5	10.5		39.6	9.7	9.7	
LOS by Move:	D	D	D		D	D	D		D	B	B		D	A	A	
HCM2kAvgQ:	4	4	4		4	4	4		2	8	8		1	14	14	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.733
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 28.6
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	108	225	113		50	196	86		141	497	78		97	1115	49	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	123	257	129		57	223	98		161	567	89		111	1271	56	
Added Vol:	0	0	0		0	0	0		0	186	0		0	27	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	257	129		57	223	98		161	753	89		111	1298	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:	123	257	129		57	223	98		161	753	89		111	1298	56	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	257	129		57	223	98		161	753	89		111	1298	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	
FinalVolume:	123	257	129		57	223	98		161	753	89		111	1298	56	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	0.93	0.93		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.79	0.21		1.00	1.92	0.08	
Final Sat.:	1805	1900	1615		1805	1900	1615		1805	3177	375		1805	3440	148	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.14	0.08		0.03	0.12	0.06		0.09	0.24	0.24		0.06	0.38	0.38	
Crit Moves:	****					****			****					****		
Green/Cycle:	0.09	0.19	0.19		0.07	0.16	0.16		0.12	0.51	0.51		0.13	0.51	0.51	
Volume/Cap:	0.73	0.73	0.43		0.46	0.73	0.38		0.73	0.47	0.47		0.47	0.73	0.73	
Uniform Del:	44.1	38.4	36.1		44.8	39.9	37.5		42.4	16.0	16.0		40.2	18.9	18.9	
IncremntDel:	15.3	7.6	1.0		2.7	8.8	0.9		12.0	0.2	0.2		1.5	1.5	1.5	
InitQueuDel:	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:	59.4	46.0	37.1		47.5	48.8	38.4		54.3	16.2	16.2		41.7	20.4	20.4	
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:	59.4	46.0	37.1		47.5	48.8	38.4		54.3	16.2	16.2		41.7	20.4	20.4	
LOS by Move:	E	D	D		D	D	D		D	B	B		D	C	C	
HCM2kAvgQ:	5	9	4		2	8	3		6	9	9		4	18	18	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.696
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T		R	L	T		R	L	T		R	L	T		R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5		5	5	5		5	5	5		5	5	5		5
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	47	105		12	16	59		56	18	626		48	88	1246		61
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	54	120		14	18	67		64	21	714		55	100	1420		70
Added Vol:	0	0		0	0	0		0	0	186		0	0	27		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	54	120		14	18	67		64	21	900		55	100	1447		70
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	120		14	18	67		64	21	900		55	100	1447		70
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	54	120		14	18	67		64	21	900		55	100	1447		70
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:	54	120		14	18	67		64	21	900		55	100	1447		70
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.98	0.98		0.98	0.94	0.94		0.94	0.95	0.94		0.94	0.95	0.94		0.94
Lanes:	0.29	0.64		0.07	0.12	0.45		0.43	1.00	1.89		0.11	1.00	1.91		0.09
Final Sat.:	532	1187		136	217	801		761	1805	3372		205	1805	3420		164
Capacity Analysis Module:																
Vol/Sat:	0.10	0.10		0.10	0.08	0.08		0.08	0.01	0.27		0.27	0.06	0.42		0.42
Crit Moves:	****				****				****					****		
Green/Cycle:	0.14	0.14		0.14	0.12	0.12		0.12	0.05	0.53		0.53	0.11	0.58		0.58
Volume/Cap:	0.72	0.72		0.72	0.72	0.72		0.72	0.23	0.51		0.51	0.51	0.72		0.72
Uniform Del:	41.2	41.2		41.2	42.7	42.7		42.7	45.6	15.4		15.4	42.0	14.9		14.9
IncremntDel:	9.7	9.7		9.7	11.9	11.9		11.9	1.3	0.2		0.2	2.2	1.3		1.3
InitQueuDel:	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	50.9		50.9	54.6	54.6		54.6	46.9	15.6		15.6	44.2	16.2		16.2
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:	50.9	50.9		50.9	54.6	54.6		54.6	46.9	15.6		15.6	44.2	16.2		16.2
LOS by Move:	D	D		D	D	D		D	D	B		B	D	B		B
HCM2kAvgQ:	7	7		7	6	6		6	1	10		10	4	18		18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 95 Critical Vol./Cap.(X): 0.323
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 6.9
Optimal Cycle: 91 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T		R	L	T		R	L	T		R	L	T		R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	14	14		14	14	14		14	73	73		73	73	73		73
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0
Volume Module:																
Base Vol:	18	59		9	7	43		11	15	614		24	15	123		24
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	21	67		10	8	49		13	17	700		27	17	140		27
Added Vol:	0	0		0	0	0		0	0	186		0	0	27		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	21	67		10	8	49		13	17	886		27	17	167		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:	21	67		10	8	49		13	17	886		27	17	167		27
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	21	67		10	8	49		13	17	886		27	17	167		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
FinalVolume:	21	67		10	8	49		13	17	886		27	17	167		27
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.93	0.93		0.93	0.95	0.95		0.95	0.62	0.95		0.95	0.29	0.93		0.93
Lanes:	0.21	0.69		0.10	0.11	0.71		0.18	1.00	1.94		0.06	1.00	1.72		0.28
Final Sat.:	369	1208		184	207	1269		325	1182	3488		108	551	3037		497
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06		0.06	0.04	0.04		0.04	0.01	0.25		0.25	0.03	0.06		0.06
Crit Moves:		****								****						
Green/Cycle:	0.17	0.17		0.17	0.17	0.17		0.17	0.79	0.79		0.79	0.79	0.79		0.79
Volume/Cap:	0.32	0.32		0.32	0.22	0.22		0.22	0.02	0.32		0.32	0.04	0.07		0.07
Uniform Del:	34.5	34.5		34.5	33.9	33.9		33.9	2.2	2.9		2.9	2.3	2.3		2.3
IncremntDel:	0.6	0.6		0.6	0.4	0.4		0.4	0.0	0.1		0.1	0.0	0.0		0.0
InitQueuDel:	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:	35.1	35.1		35.1	34.2	34.2		34.2	2.2	3.0		3.0	2.3	2.3		2.3
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:	35.1	35.1		35.1	34.2	34.2		34.2	2.2	3.0		3.0	2.3	2.3		2.3
LOS by Move:	D	D		D	C	C		C	A	A		A	A	A		A
HCM2kAvgQ:	3	3		3	2	2		2	0	4		4	0	1		1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 1.045
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 55.6
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1 1	1	0	1	0 1	2	0	2	0 1	1	0	1	1 0
Volume Module:																
Base Vol:	362	437	328		11	124	383		117	352	283		49	1205	68	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	413	498	374		13	141	437		133	401	323		56	1374	78	
Added Vol:	22	0	100		0	0	0		0	86	0		0	27	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	435	498	474		13	141	437		133	487	323		56	1401	78	
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:	435	498	474		13	141	437		133	487	323		56	1401	78	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	435	498	474		13	141	437		133	487	323		56	1401	78	
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:	435	498	474		13	141	437		133	487	323		56	1401	78	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.89	0.89	0.89		0.95	1.00	0.85		0.92	0.95	0.85		0.95	0.94	0.94	
Lanes:	1.23	1.42	1.35		1.00	1.00	1.00		2.00	2.00	1.00		1.00	1.90	0.10	
Final Sat.:	2085	2390	2274		1805	1900	1615		3502	3610	1615		1805	3393	188	
Capacity Analysis Module:																
Vol/Sat:	0.21	0.21	0.21		0.01	0.07	0.27		0.04	0.13	0.20		0.03	0.41	0.41	
Crit Moves:	****						****		****					****		
Green/Cycle:	0.20	0.36	0.36		0.09	0.25	0.25		0.05	0.35	0.35		0.09	0.39	0.39	
Volume/Cap:	1.06	0.57	0.57		0.08	0.29	1.06		0.76	0.38	0.57		0.35	1.06	1.06	
Uniform Del:	40.2	25.6	25.6		41.9	30.0	37.3		46.9	24.3	26.3		42.9	30.6	30.6	
IncremntDel:	42.8	0.3	0.3		0.2	0.3	61.6		17.7	0.2	1.4		1.4	42.2	42.2	
InitQueuDel:	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:	83.0	25.9	25.9		42.2	30.3	98.8		64.6	24.5	27.7		44.3	72.8	72.8	
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:	83.0	25.9	25.9		42.2	30.3	98.8		64.6	24.5	27.7		44.3	72.8	72.8	
LOS by Move:	F	C	C		D	C	F		E	C	C		D	E	E	
HCM2kAvgQ:	19	10	10		0	4	21		4	6	9		2	35	35	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 65 Critical Vol./Cap.(X): 0.456
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: 57 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	23	23		0	23	0		20	0	20		0	0	10	
Lanes:	0	0	2	1 0	0	0	2	0 0	2	0	0	0 1	0	0	0	0 1
Volume Module:																
Base Vol:	0	837	8		0	451	0		365	0	140		0	0	113	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	954	9		0	514	0		416	0	160		0	0	129	
Added Vol:	0	0	0		0	0	0		122	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	954	9		0	514	0		538	0	160		0	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:	0	954	9		0	514	0		538	0	160		0	0	129	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	954	9		0	514	0		538	0	160		0	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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	1050	10		0	540	0		554	0	160		0	0	129	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.97	0.03		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5646	54		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.19	0.19		0.00	0.14	0.00		0.15	0.00	0.10		0.00	0.00	0.09	
Crit Moves:		****			****				****						****	
Green/Cycle:	0.00	0.41	0.41		0.00	0.41	0.00		0.34	0.00	0.53		0.00	0.00	0.19	
Volume/Cap:	0.00	0.46	0.46		0.00	0.35	0.00		0.46	0.00	0.19		0.00	0.00	0.46	
Uniform Del:	0.0	10.6	10.6		0.0	10.1	0.0		12.8	0.0	6.0		0.0	0.0	17.6	
IncremntDel:	0.0	0.1	0.1		0.0	0.1	0.0		0.2	0.0	0.0		0.0	0.0	0.8	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	9.1	9.1		0.0	8.6	0.0		11.1	0.0	5.2		0.0	0.0	15.8	
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:	0.0	9.1	9.1		0.0	8.6	0.0		11.1	0.0	5.2		0.0	0.0	15.8	
DesignQueue:	0	8	8		0	6	0		7	0	3		0	0	4	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 85 Critical Vol./Cap.(X): 0.719
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 18.9
Optimal Cycle: 180 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	16	16	16		0	0	0		0	29	45		28	61	0	
Lanes:	1	0	1!	0	1	0	0	0	0	0	0	2	0	2	0	0
Volume Module:																
Base Vol:	317	1	220		0	0	0		0	828	379		798	1527	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	361	1	251		0	0	0		0	944	432		910	1741	0	
Added Vol:	0	0	0		0	0	0		0	86	14		7	50	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	361	1	251		0	0	0		0	1030	446		917	1791	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:	361	1	251		0	0	0		0	1030	446		917	1791	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	361	1	251		0	0	0		0	1030	446		917	1791	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:	361	1	251		0	0	0		0	1030	446		917	1791	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.86	0.86	0.86		1.00	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00	
Lanes:	1.58	0.01	1.41		0.00	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00	
Final Sat.:	2584	6	2291		0	0	0		0	3610	2842		3502	3610	0	
Capacity Analysis Module:																
Vol/Sat:	0.14	0.19	0.11		0.00	0.00	0.00		0.00	0.29	0.16		0.26	0.50	0.00	
Crit Moves:		****												****		
Green/Cycle:	0.19	0.19	0.19		0.00	0.00	0.00		0.00	0.34	0.34		0.42	0.76	0.00	
Volume/Cap:	0.74	1.00	0.58		0.00	0.00	0.00		0.00	0.84	0.46		0.62	0.65	0.00	
Uniform Del:	32.6	34.5	31.5		0.0	0.0	0.0		0.0	25.8	21.9		19.1	4.7	0.0	
IncremntDel:	3.7	37.2	0.8		0.0	0.0	0.0		0.0	5.1	0.3		0.8	0.5	0.0	
InitQueuDel:	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	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	36.2	71.7	32.3		0.0	0.0	0.0		0.0	31.0	22.2		19.9	5.2	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:	36.2	71.7	32.3		0.0	0.0	0.0		0.0	31.0	22.2		19.9	5.2	0.0	
LOS by Move:	D	E	C		A	A	A		A	C	C		B	A	A	
HCM2kAvgQ:	7	14	5		0	0	0		0	16	6		10	12	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 100 Critical Vol./Cap.(X): 0.992
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.3
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	2	0	0	1	0	1	0	1	1	0	
Volume Module:																
Base Vol:	14	78	250		410	115	41		51	538	13		238	1506	420	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	16	89	285		467	131	47		58	613	15		271	1717	479	
Added Vol:	0	0	0		0	0	0		0	101	0		0	50	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	16	89	285		467	131	47		58	714	15		271	1767	479	
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	89	285		467	131	47		58	714	15		271	1767	479	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	16	89	285		467	131	47		58	714	15		271	1767	479	
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:	16	89	285		467	131	47		58	714	15		271	1767	479	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.90	0.90		0.92	0.96	0.96		0.95	0.95	0.95		0.95	0.95	0.85	
Lanes:	0.04	0.23	0.73		2.00	0.74	0.26		1.00	1.96	0.04		1.00	2.00	1.00	
Final Sat.:	70	390	1249		3502	1346	480		1805	3526	73		1805	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.23	0.23	0.23		0.13	0.10	0.10		0.03	0.20	0.20		0.15	0.49	0.30	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.23	0.23		0.13	0.11	0.11		0.05	0.31	0.31		0.23	0.48	0.48	
Volume/Cap:	0.91	1.01	1.01		1.01	0.91	0.91		0.64	0.66	0.66		0.66	1.01	0.61	
Uniform Del:	36.4	38.7	38.7		43.4	44.2	44.2		46.6	30.2	30.2		35.2	25.8	19.0	
IncremntDel:	23.6	49.3	49.3		45.3	40.6	40.6		14.9	1.5	1.5		4.0	24.9	1.5	
InitQueuDel:	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	88.0	88.0		88.7	84.8	84.8		61.5	31.7	31.7		39.2	50.7	20.5	
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	88.0	88.0		88.7	84.8	84.8		61.5	31.7	31.7		39.2	50.7	20.5	
LOS by Move:	E	F	F		F	F	F		E	C	C		D	D	C	
HCM2kAvgQ:	16	18	18		12	9	9		3	11	11		9	37	11	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 52.0
Optimal Cycle: 124 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0
Volume Module:																	
Base Vol:	37	264	51		92	391	62		15	228	24		73	584	95	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	42	301	58		105	446	71		17	260	27		83	666	108	
Added Vol:	1	131	67		6	30	2		31	27	0		5	37	9	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	43	432	125		111	476	73		48	287	27		88	703	117	
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	432	125		111	476	73		48	287	27		88	703	117	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	43	432	125		111	476	73		48	287	27		88	703	117	
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:	43	432	125		111	476	73		48	287	27		88	703	117	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.93	0.93	0.93		0.95	0.99	0.99		0.95	0.98	0.98	
Lanes:	0.14	1.44	0.42		0.34	1.44	0.22		1.00	0.91	0.09		1.00	0.86	0.14	
Final Sat.:	251	2507	726		593	2543	388		1805	1712	163		1805	1594	266	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.19	0.19	0.19		0.03	0.17	0.17		0.05	0.44	0.44	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.18	0.18	0.18		0.20	0.20	0.20		0.05	0.39	0.39		0.12	0.46	0.46	
Volume/Cap:	0.95	0.95	0.95		0.95	0.95	0.95		0.53	0.42	0.42		0.41	0.95	0.95	
Uniform Del:	40.5	40.5	40.5		39.7	39.7	39.7		46.4	22.0	22.0		40.9	25.8	25.8	
IncremntDel:	24.6	24.6	24.6		23.2	23.2	23.2		6.0	0.4	0.4		1.3	20.0	20.0	
InitQueuDel:	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:	65.2	65.2	65.2		62.9	62.9	62.9		52.4	22.4	22.4		42.2	45.9	45.9	
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:	65.2	65.2	65.2		62.9	62.9	62.9		52.4	22.4	22.4		42.2	45.9	45.9	
LOS by Move:	E	E	E		E	E	E		D	C	C		D	D	D	
HCM2kAvgQ:	14	14	14		15	15	15		2	7	7		3	30	30	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.746
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 61 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 21 Oct 2009 << 7:15 - 8:15 AM																	
Base Vol:	45	2362	0		0	1034	31		103	0	6		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	51	2693	0		0	1179	35		117	0	7		0	0	0	
Added Vol:	94	56	0		0	784	0		154	0	21		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	145	2749	0		0	1963	35		271	0	28		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:	145	2749	0		0	1963	35		271	0	28		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	145	2749	0		0	1963	35		271	0	28		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	
FinalVolume:	145	2749	0		0	1963	35		271	0	28		0	0	0	
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																	
Vol/Sat:	0.08	0.54	0.00		0.00	0.39	0.02		0.15	0.00	0.02		0.00	0.00	0.00	
Crit Moves:		****			****				****							
Green/Cycle:	0.13	0.73	0.00		0.00	0.60	0.60		0.21	0.00	0.21		0.00	0.00	0.00	
Volume/Cap:	0.65	0.75	0.00		0.00	0.65	0.04		0.75	0.00	0.09		0.00	0.00	0.00	
Uniform Del:	53.9	10.7	0.0		0.0	17.1	10.8		48.4	0.0	41.7		0.0	0.0	0.0	
IncremntDel:	6.4	0.9	0.0		0.0	0.5	0.0		8.2	0.0	0.1		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	60.3	11.6	0.0		0.0	17.6	10.8		56.6	0.0	41.9		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:	60.3	11.6	0.0		0.0	17.6	10.8		56.6	0.0	41.9		0.0	0.0	0.0	
LOS by Move:	E	B	A		A	B	B		E	A	D		A	A	A	
HCM2kAvgQ:	7	25	0		0	19	1		12	0	1		0	0	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.686
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.4
Optimal Cycle: 51 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	146	2070	0	0	851	196	218	0	31	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	166	2360	0	0	970	223	249	0	35	0	0	0				
Added Vol:	94	146	0	0	803	2	4	0	21	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	260	2506	0	0	1773	225	253	0	56	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:	260	2506	0	0	1773	225	253	0	56	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	260	2506	0	0	1773	225	253	0	56	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				
FinalVolume:	260	2506	0	0	1773	225	253	0	56	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.15	0.49	0.00	0.00	0.35	0.14	0.14	0.00	0.04	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.21	0.72	0.00	0.00	0.51	0.51	0.21	0.00	0.21	0.00	0.00	0.00				
Volume/Cap:	0.69	0.68	0.00	0.00	0.69	0.28	0.69	0.00	0.17	0.00	0.00	0.00				
Uniform Del:	47.0	9.9	0.0	0.0	24.1	18.3	47.6	0.0	42.3	0.0	0.0	0.0				
IncremntDel:	5.2	0.5	0.0	0.0	0.8	0.2	5.3	0.0	0.2	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	52.2	10.4	0.0	0.0	24.9	18.5	52.9	0.0	42.5	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:	52.2	10.4	0.0	0.0	24.9	18.5	52.9	0.0	42.5	0.0	0.0	0.0				
LOS by Move:	D	B	A	A	C	B	D	A	D	A	A	A				
HCM2kAvgQ:	11	20	0	0	20	5	10	0	2	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.745
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 41 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ignore				Include			
Min. Green:	4	10	0	0	10	10	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 7:45 - 8:45 AM																
Base Vol:	464	366	0	0	398	66	83	0	561	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	529	417	0	0	454	75	95	0	640	0	0	0				
Added Vol:	62	24	0	0	71	2	7	0	35	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	591	441	0	0	525	77	102	0	675	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
PHF Volume:	591	441	0	0	525	77	102	0	0	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	591	441	0	0	525	77	102	0	0	0	0	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00				
FinalVolume:	591	441	0	0	525	77	102	0	0	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.96	0.96	0.93	1.00	1.00	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1595	235	1769	0	1900	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.33	0.24	0.00	0.00	0.33	0.33	0.06	0.00	0.00	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green/Cycle:	0.45	0.89	0.00	0.00	0.44	0.44	0.08	0.00	0.00	0.00	0.00	0.00				
Volume/Cap:	0.75	0.27	0.00	0.00	0.75	0.75	0.75	0.00	0.00	0.00	0.00	0.00				
Uniform Del:	27.4	1.0	0.0	0.0	27.9	27.9	54.2	0.0	0.0	0.0	0.0	0.0				
IncremntDel:	3.9	0.1	0.0	0.0	3.8	3.8	19.9	0.0	0.0	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	0.00	0.00	0.00	0.00				
Delay/Veh:	31.3	1.0	0.0	0.0	31.7	31.7	74.1	0.0	0.0	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:	31.3	1.0	0.0	0.0	31.7	31.7	74.1	0.0	0.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	C	E	A	A	A	A	A				
HCM2kAvgQ:	19	2	0	0	19	19	5	0	0	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.541
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 24 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1	0 2	0 1		1	0 2	0 1		1	0 0	1 0		0	1 0	0 1	
Volume Module: >> Count Date: 21 Oct 2009 << 7:30 - 8:30 AM																
Base Vol:	57	623	49		192	68	3		3	3	3		123	53	241	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	65	710	56		219	808	78		3	3	3		140	60	275	
Added Vol:	0	84	0		1	105	0		0	0	0		0	0	1	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	65	794	56		220	913	78		3	3	3		140	60	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:	65	794	56		220	913	78		3	3	3		140	60	276	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	65	794	56		220	913	78		3	3	3		140	60	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	
FinalVolume:	65	794	56		220	913	78		3	3	3		140	60	276	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.47	0.91	0.91		0.77	0.77	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.50	0.50		0.70	0.30	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		896	861	861		1020	440	1583	
Capacity Analysis Module:																
Vol/Sat:	0.04	0.22	0.04		0.12	0.26	0.05		0.00	0.00	0.00		0.14	0.14	0.17	
Crit Moves:		****			****										****	
Green/Cycle:	0.08	0.41	0.41		0.23	0.56	0.56		0.32	0.32	0.32		0.32	0.32	0.32	
Volume/Cap:	0.46	0.54	0.09		0.54	0.46	0.09		0.01	0.01	0.01		0.43	0.43	0.54	
Uniform Del:	52.7	26.5	21.3		40.7	15.3	12.0		27.7	27.7	27.7		32.0	32.0	33.4	
IncremntDel:	2.3	0.4	0.1		1.5	0.2	0.0		0.0	0.0	0.0		0.6	0.6	1.2	
InitQueuDel:	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	26.9	21.3		42.1	15.5	12.0		27.7	27.7	27.7		32.6	32.6	34.6	
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:	55.0	26.9	21.3		42.1	15.5	12.0		27.7	27.7	27.7		32.6	32.6	34.6	
LOS by Move:	E	C	C		D	B	B		C	C	C		C	C	C	
HCM2kAvgQ:	3	12	1		8	10	1		0	0	0		6	6	9	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.907
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 49.3
Optimal Cycle: 111 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1 0	0 1		0	1 0	0 1		1	0 0	1 0		0	0 1!	0 0	
Volume Module:																
Base Vol:	115	314	8		7	490	355		114	34	45		6	97	5	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	131	358	9		8	559	405		130	39	51		7	111	6	
Added Vol:	0	170	0		0	39	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	131	528	9		8	598	405		130	39	51		7	111	6	
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:	131	528	9		8	598	405		130	39	51		7	111	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	131	528	9		8	598	405		130	39	51		7	111	6	
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:	131	528	9		8	598	405		130	39	51		7	111	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.92	0.92		0.99	0.99	0.99	
Lanes:	0.20	0.80	1.00		0.01	0.99	1.00		1.00	0.43	0.57		0.05	0.90	0.05	
Final Sat.:	374	1507	1615		25	1873	1615		1805	748	990		105	1691	87	
Capacity Analysis Module:																
Vol/Sat:	0.35	0.35	0.01		0.32	0.32	0.25		0.07	0.05	0.05		0.07	0.07	0.07	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.39	0.39	0.39		0.35	0.35	0.35		0.08	0.08	0.08		0.07	0.07	0.07	
Volume/Cap:	0.91	0.91	0.01		0.91	0.91	0.71		0.91	0.65	0.65		0.91	0.91	0.91	
Uniform Del:	29.0	29.0	18.9		30.8	30.8	28.0		45.7	44.7	44.7		46.1	46.1	46.1	
IncremntDel:	15.0	15.0	0.0		16.1	16.1	4.2		48.2	10.6	10.6		50.0	50.0	50.0	
InitQueuDel:	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:	44.0	44.0	18.9		46.9	46.9	32.2		93.9	55.3	55.3		96.0	96.0	96.0	
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:	44.0	44.0	18.9		46.9	46.9	32.2		93.9	55.3	55.3		96.0	96.0	96.0	
LOS by Move:	D	D	B		D	D	C		F	E	E		F	F	F	
HCM2kAvgQ:	23	23	0		22	22	12		7	4	4		7	7	7	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.792
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.1
Optimal Cycle:	90	Level Of Service:	B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0 0	0	0	3	0 1	2	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	0	2197	0	0	782	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	2505	0	0	891	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	725	216	0	0	500	81	25	0	43	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	725	2721	0	0	1391	81	25	0	43	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	725	2721	0	0	1391	81	25	0	43	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	725	2721	0	0	1391	81	25	0	43	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	725	2721	0	0	1391	81	25	0	43	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.85	0.92	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1805	5187	0	0	5187	1615	3502	0	1615	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.40	0.52	0.00	0.00	0.27	0.05	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****				****							
Green/Cycle:	0.47	0.78	0.00	0.00	0.31	0.31	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.86	0.67	0.00	0.00	0.86	0.16	0.07	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	23.7	5.1	0.0	0.0	32.3	24.9	40.8	0.0	41.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	8.8	0.5	0.0	0.0	4.9	0.2	0.1	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	32.5	5.5	0.0	0.0	37.2	25.0	40.9	0.0	42.5	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.5	5.5	0.0	0.0	37.2	25.0	40.9	0.0	42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	C	A	A	A	D	C	D	A	D	A	A	A	A	A	A	A
HCM2kAvgQ:	23	15	0	0	18	2	0	0	1	0	0	0	0	0	0	0

Note: Queue reported is the number of cars per lane.

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Scenario Report

Scenario:	Cumulative 2025 East and West Campuses PM
Command:	Long Term Project II PM
Volume:	Long Term Project II PM
Geometry:	Long Term Project II PM
Impact Fee:	Default Impact Fee
Trip Generation:	Long Term Project II PM
Trip Distribution:	Near-Term
Paths:	Default Path
Routes:	Default Route
Configuration:	Long Term Project II PM

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in D/V
# 1 Bayfront Exp. & Marsh Rd.	E	77.7	1.075	F	86.5	1.109	+ 8.785
# 2 US 101 NB Ramps & Marsh Rd.	B	19.2	0.929	D	48.1	1.116	+28.869
# 3 US 101 SB Ramps & Marsh Rd.	C	23.8	0.931	D	40.6	1.029	+16.739
# 4 Scott Dr/Rolison at Marsh Rd.	C	24.3	0.781	C	27.4	0.936	+ 3.086
# 5 Bohannon/ Florence & Marsh Rd.	C	29.2	0.664	C	23.4	0.819	-5.749
# 6 Bay Rd. & Marsh Rd.	B	15.9	0.659	B	15.3	0.697	-0.622
# 7 Middlefield at Marsh (Town of	D	39.4	0.922	E	55.0	1.062	+15.246
# 8 Bayfront Exp. & Willow Rd.	E	67.9	1.045	F	146.8	1.314	+78.891
# 9 Hamilton Ave. & Willow Rd.	C	23.7	0.693	C	28.1	0.890	+ 4.411
# 10 Ivy Dr. & Willow Rd.	B	12.8	0.619	B	17.4	0.863	+ 4.644
# 11 O'Brien Dr. & Willow Rd.	B	10.4	0.622	A	9.9	0.704	-0.472
# 12 Newbridge St. & Willow Rd.	D	36.8	0.838	E	77.2	1.172	+40.369
# 13 Bay Rd. & Willow Rd.	C	22.2	0.833	C	24.2	0.879	+ 2.043
# 14 Durham St. & Willow Rd.	E	56.1	0.728	C	21.8	0.893	-34.347
# 15 Coleman Ave. & Willow Rd.	B	14.3	0.833	B	18.0	0.910	+ 3.616
# 16 Gilbert Ave. & Willow Rd.	B	14.1	0.745	B	14.6	0.847	+ 0.507
# 17 Middlefield Rd. & Willow Rd.	F	153.6	1.404	F	215.7	1.543	+62.139
# 18 Bayfront Exp. & University Ave	F	211.8	1.460	F	251.8	1.585	+39.940
# 19 O'Brien Dr. & University Ave.	B	14.3	0.760	B	14.6	0.778	+ 0.313
# 20 University & Kavanaugh	B	17.7	0.732	B	17.4	0.743	-0.303
# 21 University & Bay	D	39.5	0.918	D	39.6	0.929	+ 0.121
# 22 University & Runnymede	C	24.8	0.770	C	24.7	0.780	-0.091
# 23 University & Bell	A	8.2	0.605	A	8.1	0.615	-0.126
# 24 University & Donohoe	D	43.4	0.962	D	46.3	0.974	+ 2.819
# 25 NB 101 & Donohoe St	B	14.3	0.532	B	14.4	0.537	+ 0.108

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 26 University & SB US 101	C	33.4	0.580	C	34.3	0.607	+ 0.849 D/V
# 27 University Ave. & Woodland	E	57.6	0.980	E	60.1	1.000	+ 2.534 D/V
# 28 Middlefield Rd. & University A	C	33.8	0.613	D	36.4	0.693	+ 2.632 D/V
# 29 Bayfront Exp. & Chrysler Dr.	C	20.8	0.777	F	101.3	1.193	+80.462 D/V
# 30 Bayfront Exp. & Chilco St.	B	15.0	0.666	B	19.0	0.782	+ 3.987 D/V
# 31 Middlefield Rd. & Ravenswood A	C	30.5	0.818	C	32.7	0.877	+ 2.193 D/V
# 32 Middlefield Rd. & Ringwood Ave	C	29.6	0.689	C	30.0	0.720	+ 0.481 D/V
# 33 Middlefield Rd and Lytton Ave	F	87.3	1.067	F	126.8	1.194	+39.494 D/V
# 34 Bayfront Expy. and Facebook We	A	1.5	0.576	D	43.8	0.965	+42.344 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #1 Bayfront Exp. & Marsh Rd.

****

Cycle (sec): 140 Critical Vol./Cap.(X): 1.109
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 86.5
Optimal Cycle: 180 Level Of Service: F

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Ovl				Ovl				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	3 0	0 1	0		0 1	1 0	1		0 1	0 0	2		0 0	1! 0	0	
Volume Module: >> Count Date: 22 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	1184	49	7		0	346	186		139	40	1952		31	73	11	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	1350	56	8		0	394	212		158	46	2225		35	83	13	
Added Vol:	1224	0	0		0	0	0		0	0	86		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	2574	56	8		0	394	212		158	46	2311		35	83	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:	2574	56	8		0	394	212		158	46	2311		35	83	13	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	2574	56	8		0	394	212		158	46	2311		35	83	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	
FinalVolume:	2574	56	8		0	394	212		158	46	2311		35	83	13	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.96	0.96		0.95	0.93	0.83		0.94	0.94	0.73		0.95	0.95	0.95	
Lanes:	3.00	0.87	0.13		0.00	2.00	1.00		0.78	0.22	2.00		0.27	0.63	0.10	
Final Sat.:	5147	1598	228		0	3538	1583		1392	401	2786		489	1151	174	
Capacity Analysis Module:																
Vol/Sat:	0.50	0.03	0.03		0.00	0.11	0.13		0.11	0.11	0.83		0.07	0.07	0.07	
Crit Moves:	****					****					****				****	
Green/Cycle:	0.45	0.45	0.45		0.00	0.10	0.40		0.30	0.30	0.75		0.07	0.07	0.07	
Volume/Cap:	1.11	0.08	0.08		0.00	1.11	0.34		0.38	0.38	1.11		1.11	1.11	1.11	
Uniform Del:	38.4	21.9	21.9		0.0	63.0	29.3		39.0	39.0	17.6		65.4	65.4	65.4	
IncremntDel:	55.8	0.0	0.0		0.0	80.3	0.3		0.5	0.5	56.5		114.9	115	114.9	
InitQueuDel:	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:	94.2	21.9	21.9		0.0	143	29.6		39.4	39.4	74.1		180.3	180	180.3	
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:	94.2	21.9	21.9		0.0	143	29.6		39.4	39.4	74.1		180.3	180	180.3	
LOS by Move:	F	C	C		A	F	C		D	D	E		F	F	F	
HCM2kAvgQ:	52	1	1		0	15	6		7	7	74		10	10	10	

****

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 US 101 NB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.116
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 48.1
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	5	0	5		0	0	0		0	5	0		0	5	0	
Lanes:	2 0	0	0	1	0 0	0	0	0	0 1	1	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	493	0	213		0	0	0		0	2063	507		0	682	791	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	562	0	243		0	0	0		0	2352	578		0	777	902	
Added Vol:	0	0	160		0	0	0		3	149	0		0	864	360	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	562	0	403		0	0	0		3	2501	578		0	1641	1262	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	562	0	403		0	0	0		3	2501	0		0	1641	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	562	0	403		0	0	0		3	2501	0		0	1641	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	562	0	403		0	0	0		3	2501	0		0	1641	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	1.00	0.83		1.00	1.00	1.00		0.89	0.89	1.00		1.00	0.93	1.00	
Lanes:	2.00	0.00	1.00		0.00	0.00	0.00		0.01	1.99	1.00		0.00	2.00	1.00	
Final Sat.:	3432	0	1583		0	0	0		4	3375	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.16	0.00	0.25		0.00	0.00	0.00		0.74	0.74	0.00		0.00	0.46	0.00	
Crit Moves:			****							****						
Green/Cycle:	0.23	0.00	0.23		0.00	0.00	0.00		0.66	0.66	0.00		0.00	0.66	0.00	
Volume/Cap:	0.72	0.00	1.12		0.00	0.00	0.00		1.12	1.12	0.00		0.00	0.70	0.00	
Uniform Del:	23.2	0.0	25.1		0.0	0.0	0.0		10.9	10.9	0.0		0.0	6.8	0.0	
IncremntDel:	3.2	0.0	82.5		0.0	0.0	0.0		58.9	58.9	0.0		0.0	0.9	0.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	26.4	0.0	107.5		0.0	0.0	0.0		69.8	69.8	0.0		0.0	7.8	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:	26.4	0.0	107.5		0.0	0.0	0.0		69.8	69.8	0.0		0.0	7.8	0.0	
LOS by Move:	C	A	F		A	A	A		E	E	A		A	A	A	
HCM2kAvgQ:	7	0	17		0	0	0		48	48	0		0	12	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 US 101 SB Ramps & Marsh Rd.

Cycle (sec): 65 Critical Vol./Cap.(X): 1.029
Loss Time (sec): 7 (Y+R=4.0 sec) Average Delay (sec/veh): 40.6
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Permitted				Permitted			
Rights:	Include				Include				Ignore				Ignore			
Min. Green:	0	0	0		5	0	5		0	5	0		0	5	0	
Lanes:	0 0	0	0	0	2 0	0	0	1	0 0	2	0	1	0 0	2	0	1
Volume Module: >> Count Date: 30 Sep 2009 << 4:30 - 5:30 PM																
Base Vol:	0	0	0		1355	0	453		0	1181	651		0	940	282	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		1545	0	516		0	1346	742		0	1072	321	
Added Vol:	0	0	0		79	0	17		0	109	0		0	504	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		1624	0	533		0	1455	742		0	1576	321	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	0		1624	0	533		0	1455	0		0	1576	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		1624	0	533		0	1455	0		0	1576	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	0		1624	0	533		0	1455	0		0	1576	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.90	1.00	0.83		1.00	0.93	1.00		1.00	0.93	1.00	
Lanes:	0.00	0.00	0.00		2.00	0.00	1.00		0.00	2.00	1.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		3432	0	1583		0	3538	1900		0	3538	1900	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.47	0.00	0.34		0.00	0.41	0.00		0.00	0.45	0.00	
Crit Moves:					****									****		
Green/Cycle:	0.00	0.00	0.00		0.46	0.00	0.46		0.00	0.43	0.00		0.00	0.43	0.00	
Volume/Cap:	0.00	0.00	0.00		1.03	0.00	0.73		0.00	0.95	0.00		0.00	1.03	0.00	
Uniform Del:	0.0	0.0	0.0		17.6	0.0	14.3		0.0	17.8	0.0		0.0	18.4	0.0	
IncremntDel:	0.0	0.0	0.0		30.5	0.0	3.9		0.0	13.1	0.0		0.0	30.9	0.0	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		0.00	1.00	0.00		0.00	1.00	0.00	
Delay/Veh:	0.0	0.0	0.0		48.1	0.0	18.2		0.0	30.9	0.0		0.0	49.3	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:	0.0	0.0	0.0		48.1	0.0	18.2		0.0	30.9	0.0		0.0	49.3	0.0	
LOS by Move:	A	A	A		D	A	B		A	C	A		A	D	A	
HCM2kAvgQ:	0	0	0		27	0	10		0	21	0		0	27	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Scott Dr/Rolison at Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.936
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 105 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	0 1	0	0	2	0 1	0	0	1	1 0	2	1	0	2 0	1	1	0
Volume Module: >> Count Date: 4 Nov 2009 << 4:45 - 5:45 PM																
Base Vol:	28	15	267		254	9	2		42	1314	17		78	1109	214	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	32	17	304		290	10	2		48	1498	19		89	1264	244	
Added Vol:	0	0	0		0	0	0		0	111	0		0	521	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	32	17	304		290	10	2		48	1609	19		89	1785	244	
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:	32	17	304		290	10	2		48	1609	19		89	1785	244	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	32	17	304		290	10	2		48	1609	19		89	1785	244	
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:	32	17	304		290	10	2		48	1609	19		89	1785	244	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.73		0.93	0.93	0.83		0.93	0.89	0.89		0.90	0.91	0.91	
Lanes:	0.65	0.35	2.00		0.97	0.03	1.00		1.00	2.96	0.04		2.00	1.76	0.24	
Final Sat.:	1174	629	2786		1716	61	1583		1769	5013	60		3432	3056	418	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.03	0.11		0.17	0.17	0.00		0.03	0.32	0.32		0.03	0.58	0.58	
Crit Moves:			****			****			****					****		
Green/Cycle:	0.11	0.11	0.11		0.18	0.18	0.18		0.05	0.57	0.57		0.09	0.61	0.61	
Volume/Cap:	0.24	0.24	0.96		0.96	0.96	0.01		0.54	0.56	0.56		0.29	0.96	0.96	
Uniform Del:	32.3	32.3	35.2		32.7	32.7	27.2		37.1	10.9	10.9		34.1	14.6	14.6	
IncremntDel:	0.6	0.6	39.2		39.5	39.5	0.0		6.7	0.3	0.3		0.5	11.3	11.3	
InitQueuDel:	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:	32.9	32.9	74.4		72.2	72.2	27.2		43.8	11.1	11.1		34.6	26.0	26.0	
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:	32.9	32.9	74.4		72.2	72.2	27.2		43.8	11.1	11.1		34.6	26.0	26.0	
LOS by Move:	C	C	E		E	E	C		D	B	B		C	C	C	
HCM2kAvgQ:	1	1	8		12	12	0		2	10	10		1	31	31	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Bohannon/ Florence & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.819
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	6	6		4	6	6	
Lanes:	1 0	0	1	0	1 1	0	0	1	1 0	1	1	0	1 0	2	0	1
Volume Module: >> Count Date: 7 Oct 2009 << 4:30 - 5:30 pm																
Base Vol:	95	32	58		428	30	128		239	885	55		26	833	316	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	108	36	66		488	34	146		272	1009	63		30	950	360	
Added Vol:	0	0	0		0	0	0		0	111	0		0	521	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	108	36	66		488	34	146		272	1120	63		30	1471	360	
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:	108	36	66		488	34	146		272	1120	63		30	1471	360	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	108	36	66		488	34	146		272	1120	63		30	1471	360	
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:	108	36	66		488	34	146		272	1120	63		30	1471	360	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.88	0.88		0.94	0.94	0.83		0.93	0.92	0.92		0.93	0.93	0.83	
Lanes:	1.00	0.36	0.64		1.87	0.13	1.00		1.00	1.89	0.11		1.00	2.00	1.00	
Final Sat.:	1769	598	1084		3323	233	1583		1769	3323	186		1769	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.06	0.06	0.06		0.15	0.15	0.09		0.15	0.34	0.34		0.02	0.42	0.23	
Crit Moves:	****				****				****					****		
Green/Cycle:	0.07	0.07	0.07		0.18	0.18	0.18		0.19	0.61	0.61		0.09	0.51	0.51	
Volume/Cap:	0.82	0.82	0.82		0.82	0.82	0.51		0.82	0.56	0.56		0.19	0.82	0.45	
Uniform Del:	36.5	36.5	36.5		31.6	31.6	29.7		31.2	9.4	9.4		33.7	16.6	12.5	
IncremntDel:	31.5	32.2	32.2		8.2	8.2	1.6		14.7	0.3	0.3		0.6	3.1	0.4	
InitQueuDel:	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:	67.9	68.7	68.7		39.8	39.8	31.3		45.9	9.7	9.7		34.3	19.7	12.9	
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:	67.9	68.7	68.7		39.8	39.8	31.3		45.9	9.7	9.7		34.3	19.7	12.9	
LOS by Move:	E	E	E		D	D	C		D	A	A		C	B	B	
HCM2kAvgQ:	5	5	5		9	9	4		9	9	9		1	18	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Bay Rd. & Marsh Rd.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.697
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 15.3
Optimal Cycle: 34 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	6	6	6		6	6	6		6	6	6		4	6	6	
Lanes:	0	0	1! 0	0	0	0	1! 0	0	0	1	0	1	0	1	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	57	8	180		55	31	3		5	819	90		200	891	47	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	65	9	205		63	35	3		6	934	103		228	1016	54	
Added Vol:	2	0	0		0	0	0		0	111	2		0	521	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	67	9	205		63	35	3		6	1045	105		228	1537	54	
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	9	205		63	35	3		6	1045	105		228	1537	54	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	67	9	205		63	35	3		6	1045	105		228	1537	54	
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:	67	9	205		63	35	3		6	1045	105		228	1537	54	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.81	0.81	0.81		0.65	0.65	0.65		0.87	0.87	0.87		0.93	0.93	0.93	
Lanes:	0.24	0.03	0.73		0.62	0.35	0.03		0.01	1.81	0.18		1.00	1.93	0.07	
Final Sat.:	365	50	1119		761	429	42		16	2988	299		1769	3402	119	
Capacity Analysis Module:																
Vol/Sat:	0.18	0.18	0.18		0.08	0.08	0.08		0.35	0.35	0.35		0.13	0.45	0.45	
Crit Moves:		****								****			****			
Green/Cycle:	0.26	0.26	0.26		0.26	0.26	0.26		0.50	0.50	0.50		0.19	0.69	0.69	
Volume/Cap:	0.70	0.70	0.70		0.31	0.31	0.31		0.70	0.70	0.70		0.69	0.66	0.66	
Uniform Del:	26.7	26.7	26.7		23.8	23.8	23.8		15.2	15.2	15.2		30.5	7.1	7.1	
IncremntDel:	5.5	5.5	5.5		0.6	0.6	0.6		1.3	1.3	1.3		6.3	0.7	0.7	
InitQueuDel:	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:	32.2	32.2	32.2		24.3	24.3	24.3		16.5	16.5	16.5		36.8	7.8	7.8	
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:	32.2	32.2	32.2		24.3	24.3	24.3		16.5	16.5	16.5		36.8	7.8	7.8	
LOS by Move:	C	C	C		C	C	C		B	B	B		D	A	A	
HCM2kAvgQ:	8	8	8		2	2	2		12	12	12		7	12	12	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Middlefield at Marsh (Town of Atherton)

Cycle (sec): 110 Critical Vol./Cap.(X): 1.062
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): 55.0
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Ovl				Include				Include				Ovl			
Min. Green:	0	6	6		5	6	0		0	0	0		6	0	6	
Lanes:	0	0	1	0	1	1	0	1	0	0	0	0	0	1	0	1
Volume Module: >> Count Date: 18 Nov 2009 << 5:00 - 6:00 p.m.																
Base Vol:	0	426	548		408	269	0		0	0	0		515	0	447	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	486	625		465	307	0		0	0	0		587	0	510	
Added Vol:	0	58	74		38	11	0		0	0	0		136	0	387	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	544	699		503	318	0		0	0	0		723	0	897	
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	544	699		503	318	0		0	0	0		723	0	897	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	544	699		503	318	0		0	0	0		723	0	897	
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:	0	544	699		503	318	0		0	0	0		723	0	897	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	0.85		0.95	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85	
Lanes:	0.00	1.00	1.00		1.00	1.00	0.00		0.00	0.00	0.00		1.00	0.00	1.00	
Final Sat.:	0	1900	1615		1805	1900	0		0	0	0		1805	0	1615	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.29	0.43		0.28	0.17	0.00		0.00	0.00	0.00		0.40	0.00	0.56	
Crit Moves:		****			****								****			
Green/Cycle:	0.00	0.27	0.65		0.26	0.53	0.00		0.00	0.00	0.00		0.38	0.00	0.64	
Volume/Cap:	0.00	1.06	0.67		1.06	0.31	0.00		0.00	0.00	0.00		1.06	0.00	0.87	
Uniform Del:	0.0	40.2	12.1		40.6	14.5	0.0		0.0	0.0	0.0		34.3	0.0	16.1	
IncremntDel:	0.0	57.3	1.7		58.8	0.2	0.0		0.0	0.0	0.0		52.1	0.0	8.0	
InitQueuDel:	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		0.00	0.00	0.00		1.00	0.00	1.00	
Delay/Veh:	0.0	97.4	13.8		99.4	14.7	0.0		0.0	0.0	0.0		86.4	0.0	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:	0.0	97.4	13.8		99.4	14.7	0.0		0.0	0.0	0.0		86.4	0.0	24.0	
LOS by Move:	A	F	B		F	B	A		A	A	A		F	A	C	
HCM2kAvgQ:	0	27	15		25	6	0		0	0	0		35	0	27	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Bayfront Exp. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.314
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 146.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Ovl				Include				Ovl				Ovl			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	3	0	1	2	0	3	0	1	1	1	1	0	2	1	0	2	0	1
Volume Module: >> Count Date: 1 Oct 2009 << 4:45 - 5:45 PM																				
Base Vol:	362	664	1		0	2199	108		36	13	1424		44	105	8					
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14					
Initial Bse:	413	757	1		0	2507	123		41	15	1623		50	120	9					
Added Vol:	404	278	3		49	341	255		45	94	40		317	391	181					
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0					
Initial Fut:	817	1035	4		49	2848	378		86	109	1663		367	511	190					
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	1035	4		49	2848	378		86	109	1663		367	511	190					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	817	1035	4		49	2848	378		86	109	1663		367	511	190					
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:	817	1035	4		49	2848	378		86	109	1663		367	511	190					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.90	1.03	0.83		0.90	1.03	0.83		0.91	0.91	0.88		0.93	0.93	0.83					
Lanes:	2.00	3.00	1.00		2.00	3.00	1.00		1.32	1.68	2.00		1.00	2.00	1.00					
Final Sat.:	3432	5846	1583		3432	5846	1583		2292	2898	3343		1769	3538	1583					
Capacity Analysis Module:																				
Vol/Sat:	0.24	0.18	0.00		0.01	0.49	0.24		0.04	0.04	0.50		0.21	0.14	0.12					
Crit Moves:	****					****					****		****							
Green/Cycle:	0.18	0.45	0.61		0.10	0.37	0.37		0.20	0.20	0.38		0.16	0.16	0.26					
Volume/Cap:	1.31	0.39	0.00		0.14	1.31	0.64		0.19	0.19	1.31		1.31	0.91	0.47					
Uniform Del:	53.2	23.6	9.8		53.6	40.9	33.8		43.5	43.5	40.4		54.7	53.9	40.8					
IncremntDel:	152.4	0.1	0.0		0.2	145	2.5		0.1	0.1	146.8		164.3	19.5	0.9					
InitQueuDel:	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:	205.6	23.7	9.8		53.8	185	36.3		43.6	43.6	187.2		219.0	73.4	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:	205.6	23.7	9.8		53.8	185	36.3		43.6	43.6	187.2		219.0	73.4	41.7					
LOS by Move:	F	C	A		D	F	D		D	D	F		F	E	D					
HCM2kAvgQ:	31	10	0		1	73	13		2	2	66		27	14	7					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Hamilton Ave. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.890
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 28.1
Optimal Cycle: 112 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 5:00 - 6:00 PM																				
Base Vol:	129	6	49		73	5	73		130	1351	5		20	553	67					
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14					
Initial Bse:	147	7	56		83	6	83		148	1540	6		23	630	76					
Added Vol:	0	0	0		0	0	7		11	179	0		0	1166	1					
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0					
Initial Fut:	147	7	56		83	6	90		159	1719	6		23	1796	77					
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:	147	7	56		83	6	90		159	1719	6		23	1796	77					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	147	7	56		83	6	90		159	1719	6		23	1796	77					
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:	147	7	56		83	6	90		159	1719	6		23	1796	77					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.59	0.59	0.59		0.73	0.73	0.73		0.93	0.93	0.93		0.93	0.93	0.93					
Lanes:	0.70	0.03	0.27		0.46	0.03	0.51		1.00	1.99	0.01		1.00	1.92	0.08					
Final Sat.:	792	37	301		648	44	703		1769	3526	12		1769	3371	145					
Capacity Analysis Module:																				
Vol/Sat:	0.19	0.19	0.19		0.13	0.13	0.13		0.09	0.49	0.49		0.01	0.53	0.53					
Crit Moves:		****							****					****						
Green/Cycle:	0.21	0.21	0.21		0.21	0.21	0.21		0.10	0.64	0.64		0.06	0.60	0.60					
Volume/Cap:	0.89	0.89	0.89		0.62	0.62	0.62		0.89	0.76	0.76		0.23	0.89	0.89					
Uniform Del:	46.1	46.1	46.1		43.1	43.1	43.1		53.3	14.8	14.8		54.3	20.7	20.7					
IncremntDel:	31.3	31.3	31.3		3.9	3.9	3.9		38.0	1.5	1.5		1.2	5.2	5.2					
InitQueuDel:	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:	77.4	77.4	77.4		47.0	47.0	47.0		91.3	16.3	16.3		55.5	25.9	25.9					
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:	77.4	77.4	77.4		47.0	47.0	47.0		91.3	16.3	16.3		55.5	25.9	25.9					
LOS by Move:	E	E	E		D	D	D		F	B	B		E	C	C					
HCM2kAvgQ:	11	11	11		7	7	7		9	24	24		1	34	34					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Ivy Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.863
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 99 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0 0	0 0	0		0 0	1! 0	0		1 0	2 0	0		0 0	1 1	0	
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		10	0	122		98	1457	0		0	800	22	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		11	0	139		112	1661	0		0	912	25	
Added Vol:	0	0	0		21	0	10		10	169	0		0	1015	159	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		32	0	149		122	1830	0		0	1927	184	
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	0	0		32	0	149		122	1830	0		0	1927	184	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		32	0	149		122	1830	0		0	1927	184	
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:	0	0	0		32	0	149		122	1830	0		0	1927	184	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.86	1.00	0.86		0.93	0.93	1.00		1.00	0.92	0.92	
Lanes:	0.00	0.00	0.00		0.18	0.00	0.82		1.00	2.00	0.00		0.00	1.83	0.17	
Final Sat.:	0	0	0		293	0	1348		1769	3538	0		0	3187	304	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.11	0.00	0.11		0.07	0.52	0.00		0.00	0.60	0.60	
Crit Moves:					****				****					****		
Green/Cycle:	0.00	0.00	0.00		0.13	0.00	0.13		0.08	0.78	0.00		0.00	0.70	0.70	
Volume/Cap:	0.00	0.00	0.00		0.86	0.00	0.86		0.86	0.66	0.00		0.00	0.86	0.86	
Uniform Del:	0.0	0.0	0.0		51.3	0.0	51.3		54.6	6.0	0.0		0.0	13.6	13.6	
IncremntDel:	0.0	0.0	0.0		28.7	0.0	28.7		38.6	0.6	0.0		0.0	3.4	3.4	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		80.0	0.0	80.0		93.2	6.6	0.0		0.0	17.1	17.1	
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:	0.0	0.0	0.0		80.0	0.0	80.0		93.2	6.6	0.0		0.0	17.1	17.1	
LOS by Move:	A	A	A		F	A	F		F	A	A		A	B	B	
HCM2kAvgQ:	0	0	0		9	0	9		7	17	0		0	33	33	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 O'Brien Dr. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.704
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 9.9
Optimal Cycle: 59 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	0	5		0	0	0		0	5	5		5	5	0	
Lanes:	1 0	1! 0	0		0 0	0 0	0		0 0	2 0	1		1 0	2 0	0	
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	120	0	35		0	0	0		0	1413	204		73	888	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	137	0	40		0	0	0		0	1611	233		83	1012	0	
Added Vol:	4	0	0		0	0	0		0	179	11		0	1025	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	141	0	40		0	0	0		0	1790	244		83	2037	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:	141	0	40		0	0	0		0	1790	244		83	2037	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	141	0	40		0	0	0		0	1790	244		83	2037	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:	141	0	40		0	0	0		0	1790	244		83	2037	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.91	1.00	0.91		1.00	1.00	1.00		1.00	0.93	0.83		0.93	0.93	1.00	
Lanes:	1.64	0.00	0.36		0.00	0.00	0.00		0.00	2.00	1.00		1.00	2.00	0.00	
Final Sat.:	2841	0	627		0	0	0		0	3538	1583		1769	3538	0	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.00	0.06		0.00	0.00	0.00		0.00	0.51	0.15		0.05	0.58	0.00	
Crit Moves:			****						****					****		
Green/Cycle:	0.09	0.00	0.09		0.00	0.00	0.00		0.00	0.75	0.75		0.07	0.82	0.00	
Volume/Cap:	0.55	0.00	0.70		0.00	0.00	0.00		0.00	0.68	0.21		0.68	0.70	0.00	
Uniform Del:	52.2	0.0	53.0		0.0	0.0	0.0		0.0	7.7	4.5		54.5	4.7	0.0	
IncremntDel:	2.0	0.0	8.6		0.0	0.0	0.0		0.0	0.7	0.1		14.0	0.8	0.0	
InitQueuDel:	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		0.00	0.00	0.00		0.00	1.00	1.00		1.00	1.00	0.00	
Delay/Veh:	54.2	0.0	61.6		0.0	0.0	0.0		0.0	8.4	4.6		68.5	5.5	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:	54.2	0.0	61.6		0.0	0.0	0.0		0.0	8.4	4.6		68.5	5.5	0.0	
LOS by Move:	D	A	E		A	A	A		A	A	A		E	A	A	
HCM2kAvgQ:	4	0	5		0	0	0		0	18	3		4	18	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newbridge St. & Willow Rd.

Cycle (sec): 120 Critical Vol./Cap.(X): 1.172
Loss Time (sec): 14 (Y+R=3.0 sec) Average Delay (sec/veh): 77.2
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Ovl				Ovl				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	2	0	1	0	1	1	0	1	0	1	1	0	2	1	0	1	0	1	1	0
Volume Module: >> Count Date: 7 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	248	170	55		38	166	219		323	1436	339		102	975	34	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	283	194	63		43	189	250		368	1637	386		116	1112	39	
Added Vol:	0	0	0		0	0	9		7	190	0		0	1029	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	283	194	63		43	189	259		375	1827	386		116	2141	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:	283	194	63		43	189	259		375	1827	386		116	2141	39	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	283	194	63		43	189	259		375	1827	386		116	2141	39	
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:	283	194	63		43	189	259		375	1827	386		116	2141	39	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.90	0.98	0.83		0.93	0.98	0.83		0.93	0.87	0.87		0.93	0.93	0.93	
Lanes:	2.00	1.00	1.00		1.00	1.00	1.00		1.00	2.48	0.52		1.00	1.96	0.04	
Final Sat.:	3432	1862	1583		1769	1862	1583		1769	4087	864		1769	3464	63	
Capacity Analysis Module:																
Vol/Sat:	0.08	0.10	0.04		0.02	0.10	0.16		0.21	0.45	0.45		0.07	0.62	0.62	
Crit Moves:		****				****			****					****		
Green/Cycle:	0.09	0.09	0.18		0.09	0.09	0.27		0.18	0.62	0.62		0.09	0.53	0.53	
Volume/Cap:	0.93	1.17	0.22		0.28	1.17	0.61		1.17	0.72	0.72		0.72	1.17	1.17	
Uniform Del:	54.3	54.7	42.1		51.3	54.8	38.5		49.1	15.9	15.9		53.1	28.4	28.4	
IncremntDel:	33.3	124	0.4		1.0	125	2.6		105.7	0.9	0.9		15.1	83.7	83.7	
InitQueuDel:	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:	87.6	179	42.5		52.3	180	41.1		154.8	16.8	16.8		68.2	112	112.1	
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:	87.6	179	42.5		52.3	180	41.1		154.8	16.8	16.8		68.2	112	112.1	
LOS by Move:	F	F	D		D	F	D		F	B	B		E	F	F	
HCM2kAvgQ:	8	13	2		2	13	9		24	21	21		6	65	65	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 Bay Rd. & Willow Rd.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.879
Loss Time (sec): 11 (Y+R=4.0 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: 94 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		5	0	5		5	5	0		0	5	5	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module: >> Count Date: 6 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0		416	0	54		40	1436	0		0	1061	255	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	0	0		474	0	62		46	1637	0		0	1210	291	
Added Vol:	0	0	0		4	0	0		0	136	0		0	266	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		478	0	62		46	1773	0		0	1476	298	
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	0	0		478	0	62		46	1773	0		0	1476	298	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		478	0	62		46	1773	0		0	1476	298	
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:	0	0	0		478	0	62		46	1773	0		0	1476	298	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		0.93	1.00	0.83		0.93	0.93	1.00		1.00	0.93	0.83	
Lanes:	0.00	0.00	0.00		1.00	0.00	1.00		1.00	2.00	0.00		0.00	2.00	1.00	
Final Sat.:	0	0	0		1769	0	1583		1769	3538	0		0	3538	1583	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.27	0.00	0.04		0.03	0.50	0.00		0.00	0.42	0.19	
Crit Moves:					****					****			****			
Green/Cycle:	0.00	0.00	0.00		0.31	0.00	0.31		0.07	0.57	0.00		0.00	0.50	0.50	
Volume/Cap:	0.00	0.00	0.00		0.88	0.00	0.13		0.38	0.88	0.00		0.00	0.83	0.37	
Uniform Del:	0.0	0.0	0.0		29.6	0.0	22.4		40.2	16.7	0.0		0.0	19.1	13.7	
IncremntDel:	0.0	0.0	0.0		15.2	0.0	0.1		2.1	4.8	0.0		0.0	3.4	0.3	
InitQueuDel:	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	0.00	0.00		1.00	0.00	1.00		1.00	1.00	0.00		0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0		44.7	0.0	22.6		42.3	21.5	0.0		0.0	22.5	14.0	
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	0.0	0.0		44.7	0.0	22.6		42.3	21.5	0.0		0.0	22.5	14.0	
LOS by Move:	A	A	A		D	A	C		D	C	A		A	C	B	
HCM2kAvgQ:	0	0	0		16	0	1		2	26	0		0	21	5	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #14 Durham St. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.893
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 95 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		4	10	10		4	10	10	
Lanes:	1	0	0	1 0	0	1	0	0 1	1	0	1	1 0	1	0	0	1 0
Volume Module: >> Count Date: 1 Oct 2009 << 4:00 - 5:00 PM																
Base Vol:	33		7	85	122		5	31	11	1125		10	90	818		51
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	38		8	97	139		6	35	13	1283		11	103	933		58
Added Vol:	0		0	0	0		0	0	0	136		0	0	266		0
PasserByVol:	0		0	0	0		0	0	0	0		0	0	0		0
Initial Fut:	38		8	97	139		6	35	13	1419		11	103	1199		58
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		8	97	139		6	35	13	1419		11	103	1199		58
Reduct Vol:	0		0	0	0		0	0	0	0		0	0	0		0
Reduced Vol:	38		8	97	139		6	35	13	1419		11	103	1199		58
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:	38		8	97	139		6	35	13	1419		11	103	1199		58
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.44	0.84		0.84	0.52	0.52		0.83	0.93	0.93		0.93	0.93	0.97		0.97
Lanes:	1.00	0.08		0.92	0.96	0.04		1.00	1.00	1.98		0.02	1.00	0.95		0.05
Final Sat.:	830	122		1481	946	39		1583	1769	3506		28	1769	1763		86
Capacity Analysis Module:																
Vol/Sat:	0.05	0.07		0.07	0.15	0.15		0.02	0.01	0.40		0.40	0.06	0.68		0.68
Crit Moves:						****			****					****		
Green/Cycle:	0.16	0.16		0.16	0.16	0.16		0.16	0.04	0.68		0.68	0.10	0.74		0.74
Volume/Cap:	0.28	0.41		0.41	0.92	0.92		0.14	0.19	0.60		0.60	0.60	0.92		0.92
Uniform Del:	38.9	39.7		39.7	43.5	43.5		38.0	48.9	9.2		9.2	45.4	11.4		11.4
IncremntDel:	1.2	1.1		1.1	49.7	49.7		0.3	1.3	0.4		0.4	5.7	10.7		10.7
InitQueuDel:	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:	40.1	40.8		40.8	93.2	93.2		38.2	50.3	9.6		9.6	51.1	22.1		22.1
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:	40.1	40.8		40.8	93.2	93.2		38.2	50.3	9.6		9.6	51.1	22.1		22.1
LOS by Move:	D	D		D	F	F		D	D	A		A	D	C		C
HCM2kAvgQ:	1	3		3	8	8		1	1	13		13	4	38		38

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #15 Coleman Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.910
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 18.0
Optimal Cycle: 105 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	4	4		4	4	4		10	10	10		10	10	10	
Lanes:	0	0	1!	0 0	0	0	1!	0 0	1	0	0	1 0	1	0	0	1 0
Volume Module: >> Count Date: 30 Sep 2009 << 5:00 - 6:00 PM																
Base Vol:	12		11	7	92		6	35	24	1083		6	5	795		109
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	14		13	8	105		7	40	27	1235		7	6	906		124
Added Vol:	0		0	0	0		0	0	0	136		0	0	266		0
PasserByVol:	0		0	0	0		0	0	0	0		0	0	0		0
Initial Fut:	14		13	8	105		7	40	27	1371		7	6	1172		124
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:	14		13	8	105		7	40	27	1371		7	6	1172		124
Reduct Vol:	0		0	0	0		0	0	0	0		0	0	0		0
Reduced Vol:	14		13	8	105		7	40	27	1371		7	6	1172		124
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:	14		13	8	105		7	40	27	1371		7	6	1172		124
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.86	0.86		0.86	0.73	0.73		0.73	0.10	0.98		0.98	0.06	0.97		0.97
Lanes:	0.40	0.37		0.23	0.69	0.05		0.26	1.00	0.99		0.01	1.00	0.90		0.10
Final Sat.:	650	596		379	965	63		367	192	1851		9	115	1660		176
Capacity Analysis Module:																
Vol/Sat:	0.02	0.02		0.02	0.11	0.11		0.11	0.14	0.74		0.74	0.05	0.71		0.71
Crit Moves:						****				****						
Green/Cycle:	0.12	0.12		0.12	0.12	0.12		0.12	0.81	0.81		0.81	0.81	0.81		0.81
Volume/Cap:	0.18	0.18		0.18	0.91	0.91		0.91	0.18	0.91		0.91	0.06	0.87		0.87
Uniform Del:	41.6	41.6		41.6	45.7	45.7		45.7	2.1	7.0		7.0	1.9	6.2		6.2
IncremntDel:	0.4	0.4		0.4	44.5	44.5		44.5	0.5	8.5		8.5	0.3	5.7		5.7
InitQueuDel:	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:	42.0	42.0		42.0	90.2	90.2		90.2	2.7	15.5		15.5	2.2	11.9		11.9
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:	42.0	42.0		42.0	90.2	90.2		90.2	2.7	15.5		15.5	2.2	11.9		11.9
LOS by Move:	D	D		D	F	F		F	A	B		B	A	B		B
HCM2kAvgQ:	1	1		1	8	8		8	0	36		36	0	29		29

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Gilbert Ave. & Willow Rd.

Cycle (sec): 105 Critical Vol./Cap.(X): 0.847
Loss Time (sec): 7 (Y+R=3.0 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 75 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		12	12	12		12	12	12	
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	92	31	75		29	30	4		4	969	36		37	832	17	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	105	35	85		33	34	5		5	1105	41		42	948	19	
Added Vol:	18	0	8		0	0	0		0	128	22		32	234	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	123	35	93		33	34	5		5	1233	63		74	1182	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:	123	35	93		33	34	5		5	1233	63		74	1182	19	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	123	35	93		33	34	5		5	1233	63		74	1182	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	
FinalVolume:	123	35	94		33	34	5		5	1233	63		74	1182	19	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.72	0.87	0.87		0.44	0.96	0.96		0.15	0.97	0.97		0.11	0.98	0.98	
Lanes:	1.00	0.27	0.73		1.00	0.88	0.12		1.00	0.95	0.05		1.00	0.98	0.02	
Final Sat.:	1370	455	1204		827	1613	215		289	1759	90		214	1828	30	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.08	0.08		0.04	0.02	0.02		0.02	0.70	0.70		0.35	0.65	0.65	
Crit Moves:	****									****						
Green/Cycle:	0.11	0.11	0.11		0.11	0.11	0.11		0.83	0.83	0.83		0.83	0.83	0.83	
Volume/Cap:	0.85	0.73	0.73		0.38	0.20	0.20		0.02	0.85	0.85		0.42	0.78	0.78	
Uniform Del:	46.1	45.5	45.5		43.7	42.9	42.9		1.6	5.2	5.2		2.4	4.4	4.4	
IncremntDel:	34.5	14.7	14.7		2.7	0.5	0.5		0.0	4.6	4.6		1.6	2.7	2.7	
InitQueuDel:	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:	80.6	60.2	60.2		46.4	43.4	43.4		1.6	9.8	9.8		4.0	7.1	7.1	
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:	80.6	60.2	60.2		46.4	43.4	43.4		1.6	9.8	9.8		4.0	7.1	7.1	
LOS by Move:	F	E	E		D	D	D		A	A	A		A	A	A	
HCM2kAvgQ:	6	6	6		1	1	1		0	27	27		1	20	20	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Middlefield Rd. & Willow Rd.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.543
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 215.7
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	8	8	8		8	8	8		8	8	8		8	8	8	
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0	1	1	0	0
Volume Module: >> Count Date: 30 Sep 2009 << 4:45 - 5:45 PM																
Base Vol:	97	438	491		477	413	19		36	170	158		382	95	410	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	111	499	560		544	471	22		41	194	180		435	108	467	
Added Vol:	15	8	34		82	8	0		0	34	24		128	37	86	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	126	507	594		626	479	22		41	228	204		563	145	553	
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:	126	507	594		626	479	22		41	228	204		563	145	553	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	126	507	594		626	479	22		41	228	204		563	145	553	
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:	126	507	594		626	479	22		41	228	204		563	145	553	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.42		0.90	0.90	0.90		0.93	0.98	0.83		0.94	0.94	0.83	
Lanes:	1.00	2.00	1.00		1.67	1.27	0.06		1.00	1.00	1.00		1.59	0.41	1.00	
Final Sat.:	1769	3538	791		2860	2189	99		1769	1862	1583		2848	734	1583	
Capacity Analysis Module:																
Vol/Sat:	0.07	0.14	0.75		0.22	0.22	0.22		0.02	0.12	0.13		0.20	0.20	0.35	
Crit Moves:			****			****					****				****	
Green/Cycle:	0.49	0.49	0.49		0.14	0.14	0.14		0.08	0.08	0.08		0.23	0.23	0.23	
Volume/Cap:	0.15	0.29	1.54		1.54	1.54	1.54		0.28	1.46	1.54		0.87	0.87	1.54	
Uniform Del:	18.5	20.0	33.4		55.8	55.8	55.8		55.9	59.6	59.6		48.5	48.5	50.3	
IncremntDel:	0.1	0.1	256.8		251.0	251	251.0		1.0	240	278.1		10.3	10.3	257.7	
InitQueuDel:	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:	18.5	20.1	290.2		306.8	307	306.8		56.9	300	337.7		58.7	58.7	308.0	
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:	18.5	20.1	290.2		306.8	307	306.8		56.9	300	337.7		58.7	58.7	308.0	
LOS by Move:	B	C	F		F	F	F		E	F	F		E	E	F	
HCM2kAvgQ:	3	6	50		34	34	34		2	20	19		17	17	47	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 Bayfront Exp. & University Ave.

Cycle (sec): 150 Critical Vol./Cap.(X): 1.585
Loss Time (sec): 10 (Y+R=3.0 sec) Average Delay (sec/veh): 251.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	2	0 3	0	0	0	0 3	0	1	2	0 0	0	3	0	0 0	0	0
Volume Module: >> Count Date: 1 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	377	968	0	0	3488	127	60	0	1667	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	430	1104	0	0	3976	145	68	0	1900	0	0	0				
Added Vol:	9	131	0	0	549	150	19	0	26	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	439	1235	0	0	4525	295	87	0	1926	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:	439	1235	0	0	4525	295	87	0	1926	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	439	1235	0	0	4525	295	87	0	1926	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				
FinalVolume:	439	1235	0	0	4525	295	87	0	1926	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.90	0.89	1.00	1.00	0.89	0.83	0.90	1.00	0.73	1.00	1.00	1.00				
Lanes:	2.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00				
Final Sat.:	3432	5083	0	0	5083	1583	3432	0	4178	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.13	0.24	0.00	0.00	0.89	0.19	0.03	0.00	0.46	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.08	0.64	0.00	0.00	0.56	0.56	0.29	0.00	0.29	0.00	0.00	0.00				
Volume/Cap:	1.58	0.38	0.00	0.00	1.58	0.33	0.09	0.00	1.58	0.00	0.00	0.00				
Uniform Del:	68.9	12.7	0.0	0.0	32.9	17.7	38.7	0.0	53.2	0.0	0.0	0.0				
IncremntDel:	279.7	0.1	0.0	0.0	265	0.2	0.0	0.0	267.1	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	348.7	12.7	0.0	0.0	298	17.9	38.7	0.0	320.3	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:	348.7	12.7	0.0	0.0	298	17.9	38.7	0.0	320.3	0.0	0.0	0.0				
LOS by Move:	F	B	A	A	F	B	D	A	F	A	A	A				
HCM2kAvgQ:	22	10	0	0	148	7	1	0	67	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #19 O'Brien Dr. & University Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.778
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 66 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Split Phase				Split Phase				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0	0	5	0	5	0	5	5	0	0	5	5		
Lanes:	0	0 0	0	0	0	0 1!	0	0	1	0 2	0	0	0	0 1	1	0
Volume Module: >> Count Date: 8 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	0	0	0	0	120	0	99	0	20	1599	0	0	454	16		
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	0	0	0	0	137	0	113	0	23	1823	0	0	518	18		
Added Vol:	0	0	0	0	11	0	0	0	0	34	0	0	155	4		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	0	0	0	0	148	0	113	0	23	1857	0	0	673	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:	0	0	0	0	148	0	113	0	23	1857	0	0	673	22		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	0	0	0	0	148	0	113	0	23	1857	0	0	673	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				
FinalVolume:	0	0	0	0	148	0	113	0	23	1857	0	0	673	22		
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.90	1.00	0.90	0.93	0.93	1.00	1.00	0.93	0.93				
Lanes:	0.00	0.00	0.00	0.57	0.00	0.43	1.00	2.00	0.00	0.00	1.94	0.06				
Final Sat.:	0	0	0	967	0	738	1769	3538	0	0	3407	113				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.15	0.01	0.52	0.00	0.00	0.20	0.20				
Crit Moves:						****		****		****						
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.15	0.67	0.00	0.00	0.52	0.52				
Volume/Cap:	0.00	0.00	0.00	0.78	0.00	0.78	0.08	0.78	0.00	0.00	0.38	0.38				
Uniform Del:	0.0	0.0	0.0	32.4	0.0	32.4	30.8	9.5	0.0	0.0	12.2	12.2				
IncremntDel:	0.0	0.0	0.0	11.1	0.0	11.1	0.1	1.7	0.0	0.0	0.1	0.1				
InitQueuDel:	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	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Delay/Veh:	0.0	0.0	0.0	43.5	0.0	43.5	30.9	11.2	0.0	0.0	12.4	12.4				
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:	0.0	0.0	0.0	43.5	0.0	43.5	30.9	11.2	0.0	0.0	12.4	12.4				
LOS by Move:	A	A	A	D	A	D	C	B	A	A	B	B				
HCM2kAvgQ:	0	0	0	9	0	9	1	19	0	0	6	6				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #20 University & Kavanaugh

Cycle (sec): 100 Critical Vol./Cap.(X): 0.743
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 85 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	35	31	12		19	29	82		26	1579	19		18	527	13	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	40	35	14		22	33	93		30	1800	22		21	601	15	
Added Vol:	0	0	0		0	0	0		0	34	0		0	155	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	40	35	14		22	33	93		30	1834	22		21	756	15	
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:	40	35	14		22	33	93		30	1834	22		21	756	15	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	40	35	14		22	33	93		30	1834	22		21	756	15	
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:	40	35	14		22	33	93		30	1834	22		21	756	15	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.96	0.96	0.96		0.91	0.91	0.91		0.95	0.95	0.95		0.95	0.95	0.95	
Lanes:	0.45	0.40	0.15		0.15	0.22	0.63		1.00	1.98	0.02		1.00	1.96	0.04	
Final Sat.:	816	723	280		252	385	1089		1805	3561	42		1805	3530	69	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.05	0.05		0.09	0.09	0.09		0.02	0.52	0.52		0.01	0.21	0.21	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.06	0.06	0.06		0.11	0.11	0.11		0.14	0.67	0.67		0.05	0.58	0.58	
Volume/Cap:	0.76	0.77	0.77		0.77	0.78	0.78		0.12	0.77	0.77		0.23	0.37	0.37	
Uniform Del:	46.0	46.1	46.1		43.2	43.3	43.3		38.0	11.5	11.5		45.6	11.2	11.2	
IncremntDel:	25.2	27.2	27.2		17.6	18.5	18.5		0.2	1.6	1.6		1.3	0.1	0.1	
InitQueuDel:	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:	71.2	73.3	73.3		60.8	61.8	61.8		38.2	13.1	13.1		46.9	11.3	11.3	
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:	71.2	73.3	73.3		60.8	61.8	61.8		38.2	13.1	13.1		46.9	11.3	11.3	
LOS by Move:	E	E	E		E	E	E		D	B	B		D	B	B	
HCM2kAvgQ:	4	5	5		6	6	6		1	22	22		1	7	7	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 University & Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 39.6
Optimal Cycle: 123 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	150	219	345		94	262	110		93	1291	87		119	540	49	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	171	250	393		107	299	125		106	1472	99		136	616	56	
Added Vol:	0	0	0		0	0	0		0	34	0		0	155	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	171	250	393		107	299	125		106	1506	99		136	771	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:	171	250	393		107	299	125		106	1506	99		136	771	56	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	171	250	393		107	299	125		106	1506	99		136	771	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	
FinalVolume:	171	250	393		107	299	125		106	1506	99		136	771	56	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.98	0.98	0.85		0.95	1.00	0.85		0.95	0.94	0.94		0.95	0.94	0.94	
Lanes:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.88	0.12		1.00	1.86	0.14	
Final Sat.:	1862	1862	1615		1805	1900	1615		1805	3356	221		1805	3332	242	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.13	0.24		0.06	0.16	0.08		0.06	0.45	0.45		0.08	0.23	0.23	
Crit Moves:			****		****					****			****			
Green/Cycle:	0.12	0.26	0.26		0.06	0.21	0.21		0.11	0.48	0.48		0.08	0.45	0.45	
Volume/Cap:	0.76	0.51	0.93		0.93	0.76	0.38		0.51	0.93	0.93		0.93	0.51	0.51	
Uniform Del:	42.6	31.4	36.0		46.6	37.4	34.2		41.7	24.2	24.2		45.7	19.7	19.7	
IncremntDel:	6.3	0.5	26.8		61.7	8.7	0.7		2.2	9.3	9.3		53.4	0.3	0.3	
InitQueuDel:	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:	48.9	32.0	62.8		108.3	46.1	34.9		43.9	33.6	33.6		99.1	20.0	20.0	
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:	48.9	32.0	62.8		108.3	46.1	34.9		43.9	33.6	33.6		99.1	20.0	20.0	
LOS by Move:	D	C	E		F	D	C		D	C	C		F	B	B	
HCM2kAvgQ:	7	7	16		6	10	4		4	29	29		7	10	10	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #22 University & Runnymede

Cycle (sec): 100 Critical Vol./Cap.(X): 0.780
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	78	109	59		17	76	27		29	1264	78		44	793	17	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	89	124	67		19	87	31		33	1441	89		50	904	19	
Added Vol:	0	0	0		0	0	0		0	34	0		0	155	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	89	124	67		19	87	31		33	1475	89		50	1059	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:	89	124	67		19	87	31		33	1475	89		50	1059	19	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	89	124	67		19	87	31		33	1475	89		50	1059	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	
FinalVolume:	89	124	67		19	87	31		33	1475	89		50	1059	19	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.95		0.96	0.96	0.96		0.95	0.94	0.94		0.95	0.95	0.95	
Lanes:	0.32	0.44	0.24		0.14	0.63	0.23		1.00	1.89	0.11		1.00	1.96	0.04	
Final Sat.:	574	802	434		259	1159	412		1805	3374	203		1805	3534	65	
Capacity Analysis Module:																		
Vol/Sat:	0.15	0.15	0.15		0.07	0.07	0.07		0.02	0.44	0.44		0.03	0.30	0.30	
Crit Moves:	****					****				****			****			
Green/Cycle:	0.20	0.20	0.20		0.09	0.09	0.09		0.09	0.55	0.55		0.05	0.51	0.51	
Volume/Cap:	0.79	0.79	0.79		0.79	0.79	0.79		0.21	0.79	0.79		0.56	0.58	0.58	
Uniform Del:	38.3	38.3	38.3		44.3	44.3	44.3		42.6	17.9	17.9		46.4	16.8	16.8	
IncremntDel:	11.7	11.7	11.7		21.9	21.9	21.9		0.7	2.3	2.3		7.4	0.5	0.5	
InitQueuDel:	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:	50.0	50.0	50.0		66.2	66.2	66.2		43.2	20.2	20.2		53.9	17.3	17.3	
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:	50.0	50.0	50.0		66.2	66.2	66.2		43.2	20.2	20.2		53.9	17.3	17.3	
LOS by Move:	D	D	D		E	E	E		D	C	C		D	B	B	
HCM2kAvgQ:	10	10	10		6	6	6		1	22	22		2	12	12	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University & Bell

Cycle (sec): 90 Critical Vol./Cap.(X): 0.615
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.1
Optimal Cycle: 86 Level Of Service: A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Permitted				Permitted				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	18	18	18		18	18	18		64	64	64		64	64	64	
Lanes:	0	0	1!	0	0	0	1!	0	0	1	0	1	1	0	1	0	1	0
Volume Module:																		
Base Vol:	60	83	38		11	68	22		42	1322	87		37	787	22	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	68	95	43		13	78	25		48	1507	99		42	897	25	
Added Vol:	0	0	0		0	0	0		0	34	0		0	155	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	68	95	43		13	78	25		48	1541	99		42	1052	25	
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	95	43		13	78	25		48	1541	99		42	1052	25	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	68	95	43		13	78	25		48	1541	99		42	1052	25	
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:	68	95	43		13	78	25		48	1541	99		42	1052	25	
Saturation Flow Module:																		
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.84	0.84	0.84		0.94	0.94	0.94		0.23	0.94	0.94		0.11	0.95	0.95	
Lanes:	0.33	0.46	0.21		0.11	0.67	0.22		1.00	1.88	0.12		1.00	1.95	0.05	
Final Sat.:	528	730	334		195	1205	390		439	3361	216		203	3515	84	
Capacity Analysis Module:																		
Vol/Sat:	0.13	0.13	0.13		0.06	0.06	0.06		0.11	0.46	0.46		0.21	0.30	0.30	
Crit Moves:		****								****						
Green/Cycle:	0.21	0.21	0.21		0.21	0.21	0.21		0.74	0.74	0.74		0.74	0.74	0.74	
Volume/Cap:	0.62	0.62	0.62		0.31	0.31	0.31		0.15	0.62	0.62		0.28	0.40	0.40	
Uniform Del:	32.2	32.2	32.2		30.0	30.0	30.0		3.3	5.4	5.4		3.7	4.2	4.2	
IncremntDel:	3.4	3.4	3.4		0.5	0.5	0.5		0.2	0.4	0.4		1.0	0.1	0.1	
InitQueuDel:	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:	35.6	35.6	35.6		30.4	30.4	30.4		3.5	5.8	5.8		4.7	4.3	4.3	
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:	35.6	35.6	35.6		30.4	30.4	30.4		3.5	5.8	5.8		4.7	4.3	4.3	
LOS by Move:	D	D	D		C	C	C		A	A	A		A	A	A	
HCM2kAvgQ:	6	6	6		3	3	3		1	12	12		1	6	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #24 University & Donohoe

Cycle (sec): 100 Critical Vol./Cap.(X): 0.974
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 46.3
Optimal Cycle: 161 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	1	1	0	1 1	1	0	1	0 1	1	0	1	1 0	2	0	1	1 0
Volume Module:																
Base Vol:	315	485	599		32	175	224		217	784	540		115	663	173	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	359	553	683		36	199	255		247	894	616		131	756	197	
Added Vol:	8	0	10		0	0	0		0	23	0		0	155	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	367	553	693		36	199	255		247	917	616		131	911	197	
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:	367	553	693		36	199	255		247	917	616		131	911	197	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	367	553	693		36	199	255		247	917	616		131	911	197	
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:	367	553	693		36	200	255		247	917	616		131	911	197	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.88	0.88	0.88		0.95	1.00	0.85		0.95	0.89	0.89		0.92	0.92	0.92	
Lanes:	1.00	1.33	1.67		1.00	1.00	1.00		1.00	1.20	0.80		2.00	1.64	0.36	
Final Sat.:	1671	2225	2788		1805	1900	1615		1805	2030	1363		3502	2887	625	
Capacity Analysis Module:																
Vol/Sat:	0.22	0.25	0.25		0.02	0.11	0.16		0.14	0.45	0.45		0.04	0.32	0.32	
Crit Moves:	****						****			****			****			
Green/Cycle:	0.22	0.32	0.32		0.06	0.16	0.16		0.15	0.46	0.46		0.05	0.35	0.35	
Volume/Cap:	0.99	0.78	0.78		0.32	0.66	0.99		0.89	0.99	0.99		0.75	0.89	0.89	
Uniform Del:	38.7	30.9	30.9		44.7	39.4	41.9		41.5	26.8	26.8		46.9	30.5	30.5	
IncremntDel:	19.2	2.0	2.0		1.6	5.1	52.3		28.1	19.8	19.8		16.3	8.4	8.4	
InitQueuDel:	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:	58.0	32.9	32.9		46.3	44.5	94.2		69.6	46.7	46.7		63.2	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:	58.0	32.9	32.9		46.3	44.5	94.2		69.6	46.7	46.7		63.2	38.9	38.9	
LOS by Move:	E	C	C		D	D	F		E	D	D		E	D	D	
HCM2kAvgQ:	17	14	14		1	7	13		11	32	32		4	20	20	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #25 NB 101 & Donohoe St

Cycle (sec): 90 Critical Vol./Cap.(X): 0.537
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 14.4
Optimal Cycle: 82 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	0	32	32		0	32	0		28	0	28		0	0	18	
Lanes:	0	0	2	1 0	0	0	2	0 0	2	0	0	0 1	0	0	0	0 1
Volume Module:																
Base Vol:	0	802	19		0	783	0		765	0	277		0	0	16	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	0	914	22		0	893	0		872	0	316		0	0	18	
Added Vol:	0	0	0		0	0	0		18	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	914	22		0	893	0		890	0	316		0	0	18	
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	914	22		0	893	0		890	0	316		0	0	18	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	914	22		0	893	0		890	0	316		0	0	18	
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	1.10	1.10		1.00	1.05	1.00		1.03	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	0	1006	24		0	937	0		917	0	316		0	0	18	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		0.95	1.00	0.85		1.00	1.00	0.77	
Lanes:	0.00	2.93	0.07		0.00	2.00	0.00		2.00	0.00	1.00		0.00	0.00	1.00	
Final Sat.:	0	5568	132		0	3800	0		3610	0	1615		0	0	1463	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.18	0.18		0.00	0.25	0.00		0.25	0.00	0.20		0.00	0.00	0.01	
Crit Moves:	****					****			****						****	
Green/Cycle:	0.00	0.37	0.37		0.00	0.37	0.00		0.38	0.00	0.58		0.00	0.00	0.20	
Volume/Cap:	0.00	0.49	0.49		0.00	0.66	0.00		0.66	0.00	0.34		0.00	0.00	0.06	
Uniform Del:	0.0	16.4	16.4		0.0	17.9	0.0		17.4	0.0	7.4		0.0	0.0	22.2	
IncremntDel:	0.0	0.1	0.1		0.0	0.8	0.0		0.8	0.0	0.1		0.0	0.0	0.0	
Delay Adj:	0.00	0.85	0.85		0.00	0.85	0.00		0.85	0.00	0.85		0.00	0.00	0.85	
Delay/Veh:	0.0	14.1	14.1		0.0	16.0	0.0		15.7	0.0	6.4		0.0	0.0	18.8	
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:	0.0	14.1	14.1		0.0	16.0	0.0		15.7	0.0	6.4		0.0	0.0	18.8	
DesignQueue:	0	11	11		0	16	0		15	0	7		0	0	1	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #26 University & SB US 101

Cycle (sec): 90 Critical Vol./Cap.(X): 0.607
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 34.3
Optimal Cycle: 180 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Permitted				Protected				Permitted				Protected			
Rights:	Include				Include				Ovl				Include			
Min. Green:	18		18	18	0		0	0	0		39	57	21		64	0
Lanes:	1	0	1!	0 1	0	0	0	0 0	0	0	2	0 2	2	0	2	0 0
Volume Module:																
Base Vol:	305		1	439	0		0	0	0	1391		388	487	927		0
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	348		1	500	0		0	0	1586		442	555	1057			0
Added Vol:	0		0	0	0		0	0	23		40	83	92			0
PasserByVol:	0		0	0	0		0	0	0		0	0	0			0
Initial Fut:	348		1	500	0		0	0	1609		482	638	1149			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:	348		1	500	0		0	0	1609		482	638	1149			0
Reduct Vol:	0		0	0	0		0	0	0		0	0	0			0
Reduced Vol:	348		1	500	0		0	0	1609		482	638	1149			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:	348		1	500	0		0	0	1609		482	638	1149			0
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.86	0.86		0.86	1.00	1.00		1.00	0.95	0.75		0.92	0.95	1.00		
Lanes:	1.41	0.01		1.58	0.00	0.00		0.00	2.00	2.00		2.00	2.00	0.00		
Final Sat.:	2292		4	2585	0		0	0	3610		2842	3502	3610			0
Capacity Analysis Module:																
Vol/Sat:	0.15	0.26		0.19	0.00	0.00		0.00	0.45		0.17	0.18	0.32			0.00
Crit Moves:		****											****			
Green/Cycle:	0.20	0.20		0.20	0.00	0.00		0.00	0.43		0.43	0.32	0.76			0.00
Volume/Cap:	0.76	1.31		0.97	0.00	0.00		0.00	1.03		0.39	0.57	0.42			0.00
Uniform Del:	33.9	36.0		35.7	0.0	0.0		0.0	25.5		17.4	25.3	3.9			0.0
IncremntDel:	3.1	149		22.8	0.0	0.0		0.0	30.4		0.2	0.7	0.1			0.0
InitQueuDel:	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	0.00		0.00	1.00		1.00	1.00	1.00			0.00
Delay/Veh:	37.0	185		58.5	0.0	0.0		0.0	55.9		17.6	26.0	4.0			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
AdjDel/Veh:	37.0	185		58.5	0.0	0.0		0.0	55.9		17.6	26.0	4.0			0.0
LOS by Move:	D	F		E	A	A		A	E		B	C	A			A
HCM2kAvgQ:	8	26		13	0	0		0	33		5	8	6			0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #27 University Ave. & Woodland

Cycle (sec): 110 Critical Vol./Cap.(X): 1.000
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 60.1
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5		5	5	5		5	5	5		5	5	5		5	5
Lanes:	0	0	1!	0 0	2	0	0	1 0	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	16		87	274	612		119	34	28		809	9	274		800	327
Growth Adj:	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14
Initial Bse:	18		99	312	698		136	39	32		922	10	312		912	373
Added Vol:	0		0	0	0		0	0	0		64	0	0		92	0
PasserByVol:	0		0	0	0		0	0	0		0	0	0		0	0
Initial Fut:	18		99	312	698		136	39	32		986	10	312		1004	373
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:	18		99	312	698		136	39	32		986	10	312		1004	373
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	18		99	312	698		136	39	32		986	10	312		1004	373
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:	18		99	312	698		136	39	32		986	10	312		1004	373
Saturation Flow Module:																
Sat/Lane:	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900
Adjustment:	0.90	0.90		0.90	0.92	0.97		0.97	0.95	0.95		0.95	0.95	0.95		0.85
Lanes:	0.04	0.23		0.73	2.00	0.78		0.22	1.00	1.98		0.02	1.00	2.00		1.00
Final Sat.:	73	395		1243	3502	1429		408	1805	3569		37	1805	3610		1615
Capacity Analysis Module:																
Vol/Sat:	0.25	0.25		0.25	0.20	0.09		0.09	0.02	0.28		0.28	0.17	0.28		0.23
Crit Moves:		****			****					****			****			
Green/Cycle:	0.33	0.25		0.25	0.20	0.12		0.12	0.06	0.28		0.28	0.17	0.39		0.39
Volume/Cap:	0.77	1.00		1.00	1.00	0.77		0.77	0.28	1.00		1.00	1.00	0.72		0.60
Uniform Del:	33.3	41.2		41.2	44.0	46.7		46.7	49.1	39.8		39.8	45.5	28.7		26.9
IncremntDel:	6.4	43.4		43.4	34.0	14.7		14.7	1.3	28.5		28.5	50.9	1.9		1.6
InitQueuDel:	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:	39.7	84.6		84.6	78.1	61.3		61.3	50.5	68.3		68.3	96.4	30.6		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:	39.7	84.6		84.6	78.1	61.3		61.3	50.5	68.3		68.3	96.4	30.6		28.5
LOS by Move:	D	F		F	E	E		E	D	E		E	F	C		C
HCM2kAvgQ:	15	20		20	18	8		8	1	24		24	16	16		11

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #28 Middlefield Rd. & University Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 36.4
Optimal Cycle: 85 Level Of Service: D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0	1	0	1	0	0	1	0	1	0	1	1	0	1	0	1	0
Volume Module:																	
Base Vol:	30	377	86		82	384	76		59	328	23		71	442	88	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	34	430	98		93	438	87		67	374	26		81	504	100	
Added Vol:	0	41	7		16	117	27		3	40	1		56	24	12	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	471	105		109	555	114		70	414	27		137	528	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:	34	471	105		109	555	114		70	414	27		137	528	112	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	471	105		109	555	114		70	414	27		137	528	112	
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:	34	471	105		109	555	114		70	414	27		137	528	112	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.92	0.92		0.92	0.92	0.92		0.95	0.94	0.94		0.95	0.93	0.93	
Lanes:	0.11	1.55	0.34		0.28	1.43	0.29		1.00	1.88	0.12		1.00	1.65	0.35	
Final Sat.:	197	2705	604		493	2500	512		1805	3357	221		1805	2899	617	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.17	0.17		0.22	0.22	0.22		0.04	0.12	0.12		0.08	0.18	0.18	
Crit Moves:		****			****				****					****		
Green/Cycle:	0.25	0.25	0.25		0.32	0.32	0.32		0.06	0.20	0.20		0.12	0.26	0.26	
Volume/Cap:	0.69	0.69	0.69		0.69	0.69	0.69		0.69	0.62	0.62		0.62	0.69	0.69	
Uniform Del:	34.0	34.0	34.0		29.7	29.7	29.7		46.3	36.7	36.7		41.8	33.2	33.2	
IncremntDel:	2.4	2.4	2.4		1.9	1.9	1.9		18.7	1.8	1.8		5.6	2.3	2.3	
InitQueuDel:	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:	36.4	36.4	36.4		31.6	31.6	31.6		65.0	38.5	38.5		47.3	35.5	35.5	
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:	36.4	36.4	36.4		31.6	31.6	31.6		65.0	38.5	38.5		47.3	35.5	35.5	
LOS by Move:	D	D	D		D	C	C		E	D	D		D	D	D	
HCM2kAvgQ:	10	10	10		12	12	12		4	7	7		5	10	10	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #29 Bayfront Exp. & Chrysler Dr.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.193
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 101.3
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0		0	5	5		5	0	5		0	0	0	
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module:5:00 - 6:00 AM																	
Base Vol:	10	932	0		0	2235	16		334	0	76		0	0	0	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	11	1062	0		0	2548	18		381	0	87		0	0	0	
Added Vol:	38	606	0		0	86	0		618	0	86		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	49	1668	0		0	2634	18		999	0	173		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:	49	1668	0		0	2634	18		999	0	173		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	49	1668	0		0	2634	18		999	0	173		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	
FinalVolume:	49	1668	0		0	2634	18		999	0	173		0	0	0	
Saturation Flow Module:																	
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.89	1.00		1.00	0.89	0.83		0.93	1.00	0.83		1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00		0.00	3.00	1.00		1.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	1769	5083	0		0	5083	1583		1769	0	1583		0	0	0	
Capacity Analysis Module:																	
Vol/Sat:	0.03	0.33	0.00		0.00	0.52	0.01		0.56	0.00	0.11		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green/Cycle:	0.04	0.47	0.00		0.00	0.43	0.43		0.47	0.00	0.47		0.00	0.00	0.00	
Volume/Cap:	0.73	0.71	0.00		0.00	1.21	0.03		1.21	0.00	0.23		0.00	0.00	0.00	
Uniform Del:	61.8	27.6	0.0		0.0	37.2	21.6		34.8	0.0	20.9		0.0	0.0	0.0	
IncremntDel:	32.1	1.0	0.0		0.0	101	0.0		107.2	0.0	0.2		0.0	0.0	0.0	
InitQueuDel:	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		1.00	0.00	1.00		0.00	0.00	0.00	
Delay/Veh:	93.9	28.6	0.0		0.0	138	21.6		141.9	0.0	21.0		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:	93.9	28.6	0.0		0.0	138	21.6		141.9	0.0	21.0		0.0	0.0	0.0	
LOS by Move:	F	C	A		A	F	C		F	A	C		A	A	A	
HCM2kAvgQ:	3	20	0		0	61	0		63	0	4		0	0	0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #30 Bayfront Exp. & Chilco St.

Cycle (sec): 130 Critical Vol./Cap.(X): 0.782
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 19.0
Optimal Cycle: 68 Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	0	0	5	5	5	0	5	0	0	0				
Lanes:	1	0	3	0	0	0	0	3	0	1	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 4:45 - 5:45 PM																
Base Vol:	14	783	0	0	2126	160	190	0	186	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	16	893	0	0	2424	182	217	0	212	0	0	0				
Added Vol:	38	642	0	0	166	5	2	0	86	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	54	1535	0	0	2590	187	219	0	298	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:	54	1535	0	0	2590	187	219	0	298	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	54	1535	0	0	2590	187	219	0	298	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				
FinalVolume:	54	1535	0	0	2590	187	219	0	298	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.89	1.00	1.00	0.89	0.83	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	5083	0	0	5083	1583	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.03	0.30	0.00	0.00	0.51	0.12	0.12	0.00	0.19	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.04	0.69	0.00	0.00	0.65	0.65	0.24	0.00	0.24	0.00	0.00	0.00				
Volume/Cap:	0.78	0.44	0.00	0.00	0.78	0.18	0.51	0.00	0.78	0.00	0.00	0.00				
Uniform Del:	61.9	8.9	0.0	0.0	16.1	9.0	42.8	0.0	46.2	0.0	0.0	0.0				
IncremntDel:	42.8	0.1	0.0	0.0	1.3	0.1	1.1	0.0	10.1	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	104.7	9.0	0.0	0.0	17.4	9.1	43.8	0.0	56.3	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:	104.7	9.0	0.0	0.0	17.4	9.1	43.8	0.0	56.3	0.0	0.0	0.0				
LOS by Move:	F	A	A	A	B	A	D	A	E	A	A	A				
HCM2kAvgQ:	4	10	0	0	28	3	8	0	13	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #31 Middlefield Rd. & Ravenswood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.877
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	4	10	0	0	10	4	4	0	4	0	0	0				
Lanes:	1	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
Volume Module: >> Count Date: 20 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	487	566	0	0	357	92	257	0	705	0	0	0				
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14				
Initial Bse:	555	645	0	0	407	105	293	0	804	0	0	0				
Added Vol:	35	58	0	0	21	6	3	0	67	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	590	703	0	0	428	111	296	0	871	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:	590	703	0	0	428	111	296	0	871	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	590	703	0	0	428	111	296	0	871	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				
FinalVolume:	590	703	0	0	428	111	296	0	871	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.93	0.98	1.00	1.00	0.95	0.95	0.93	1.00	0.83	1.00	1.00	1.00				
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	1769	1862	0	0	1437	372	1769	0	1583	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.33	0.38	0.00	0.00	0.30	0.30	0.17	0.00	0.55	0.00	0.00	0.00				
Crit Moves:	****				****				****							
Green/Cycle:	0.38	0.72	0.00	0.00	0.34	0.34	0.25	0.00	0.63	0.00	0.00	0.00				
Volume/Cap:	0.88	0.52	0.00	0.00	0.88	0.88	0.68	0.00	0.88	0.00	0.00	0.00				
Uniform Del:	34.6	7.6	0.0	0.0	37.3	37.3	40.9	0.0	18.5	0.0	0.0	0.0				
IncremntDel:	12.5	0.4	0.0	0.0	13.5	13.5	4.3	0.0	8.9	0.0	0.0	0.0				
InitQueuDel:	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	1.00	0.00	1.00	0.00	0.00	0.00				
Delay/Veh:	47.1	8.0	0.0	0.0	50.8	50.8	45.1	0.0	27.5	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:	47.1	8.0	0.0	0.0	50.8	50.8	45.1	0.0	27.5	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	D	D	D	A	C	A	A	A				
HCM2kAvgQ:	23	12	0	0	22	22	11	0	29	0	0	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #32 Middlefield Rd. & Ringwood Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 38 Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	4	10	10		4	10	10		4	4	4		4	4	4	
Lanes:	1 0	2 0	1		1 0	2 0	1		1 0	0 1	0		0 1	0 0	1	
Volume Module: >> Count Date: 21 Oct 2009 << 5:00 - 6:00 PM																
Base Vol:	49	761	127		356	628	36		75	76	62		73	8	266	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	56	868	145		406	716	41		85	87	71		83	9	303	
Added Vol:	0	89	0		2	86	0		0	0	0		0	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	56	957	145		408	802	41		85	87	71		83	9	308	
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	957	145		408	802	41		85	87	71		83	9	308	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	56	957	145		408	802	41		85	87	71		83	9	308	
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	957	145		408	802	41		86	87	71		83	9	308	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.93	0.93	0.83		0.93	0.93	0.83		0.61	0.91	0.91		0.60	0.60	0.83	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	0.55	0.45		0.90	0.10	1.00	
Final Sat.:	1769	3538	1583		1769	3538	1583		1160	957	781		1022	112	1583	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.27	0.09		0.23	0.23	0.03		0.07	0.09	0.09		0.08	0.08	0.19	
Crit Moves:		****			****										****	
Green/Cycle:	0.09	0.38	0.38		0.32	0.61	0.61		0.27	0.27	0.27		0.27	0.27	0.27	
Volume/Cap:	0.35	0.72	0.24		0.72	0.37	0.04		0.27	0.33	0.33		0.30	0.30	0.72	
Uniform Del:	51.4	32.1	25.7		36.0	12.0	9.5		34.5	35.1	35.1		34.8	34.8	39.6	
IncremntDel:	1.4	1.9	0.2		4.5	0.1	0.0		0.5	0.4	0.4		0.6	0.6	5.9	
InitQueuDel:	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:	52.8	34.0	26.0		40.5	12.1	9.5		34.9	35.5	35.5		35.3	35.3	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:	52.8	34.0	26.0		40.5	12.1	9.5		34.9	35.5	35.5		35.3	35.3	45.5	
LOS by Move:	D	C	C		D	B	A		C	D	D		D	D	D	
HCM2kAvgQ:	2	17	4		14	8	1		3	5	5		3	3	12	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #33 Middlefield Rd and Lytton Ave

Cycle (sec): 110 Critical Vol./Cap.(X): 1.194
Loss Time (sec): 11 (Y+R=3.0 sec) Average Delay (sec/veh): 126.8
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	5	5	5		5	5	5		5	5	5		5	5	5	
Lanes:	0 1	0 0	1		0 1	0 0	1		1 0	0 1	0		0 0	1! 0	0	
Volume Module:																
Base Vol:	89	457	24		24	508	163		419	135	78		7	55	12	
Growth Adj:	1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14		1.14	1.14	1.14	
Initial Bse:	101	521	27		27	579	186		478	154	89		8	63	14	
Added Vol:	0	57	0		0	160	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	101	578	27		27	739	186		478	154	89		8	63	14	
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:	101	578	27		27	739	186		478	154	89		8	63	14	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	101	578	27		27	739	186		478	154	89		8	63	14	
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:	101	578	27		27	739	186		478	154	89		8	63	14	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.99	0.99	0.85		1.00	1.00	0.85		0.95	0.95	0.95		0.97	0.97	0.97	
Lanes:	0.15	0.85	1.00		0.04	0.96	1.00		1.00	0.63	0.37		0.09	0.75	0.16	
Final Sat.:	282	1605	1615		68	1829	1615		1805	1138	658		175	1374	300	
Capacity Analysis Module:																
Vol/Sat:	0.36	0.36	0.02		0.40	0.40	0.12		0.26	0.14	0.14		0.05	0.05	0.05	
Crit Moves:		****				****			****						****	
Green/Cycle:	0.30	0.30	0.30		0.34	0.34	0.34		0.22	0.22	0.22		0.05	0.05	0.05	
Volume/Cap:	1.20	1.20	0.06		1.20	1.20	0.34		1.20	0.62	0.62		1.00	1.00	1.00	
Uniform Del:	38.6	38.6	27.5		36.5	36.5	27.4		42.9	38.7	38.7		52.5	52.5	52.5	
IncremntDel:	107.9	108	0.0		106.3	106	0.4		113.5	2.9	2.9		99.2	99.2	99.2	
InitQueuDel:	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:	146.4	146	27.5		142.8	143	27.8		156.4	41.6	41.6		151.7	152	151.7	
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:	146.4	146	27.5		142.8	143	27.8		156.4	41.6	41.6		151.7	152	151.7	
LOS by Move:	F	F	C		F	F	C		F	D	D		F	F	F	
HCM2kAvgQ:	40	40	1		44	44	5		29	8	8		6	6	6	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #34 Bayfront Expy. and Facebook West Campus

Cycle (sec):	100	Critical Vol./Cap.(X):	0.965
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	43.8
Optimal Cycle:	151	Level Of Service:	D

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Protected				Protected			
Rights:	Include				Include				Include				Include			
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Lanes:	1	0	3	0 0	0	0	3	0 1	2	0	0	0 1	0	0	0	0 0
Volume Module:																
Base Vol:	0	708	0	0	2307	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	0	807	0	0	2630	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	66	438	0	0	222	7	242	0	424	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	1245	0	0	2852	7	242	0	424	0	0	0	0	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	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	1.00	1.00	1.00	1.00
PHF Volume:	66	1245	0	0	2852	7	242	0	424	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	1245	0	0	2852	7	242	0	424	0	0	0	0	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	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	1.00	1.00	1.00	1.00
FinalVolume:	66	1245	0	0	2852	7	242	0	424	0	0	0	0	0	0	0
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	1.00	1.00	0.91	0.85	0.92	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	3.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1805	5187	0	0	5187	1615	3502	0	1615	0	0	0	0	0	0	0
Capacity Analysis Module:																
Vol/Sat:	0.04	0.24	0.00	0.00	0.55	0.00	0.07	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****				****							
Green/Cycle:	0.10	0.63	0.00	0.00	0.53	0.53	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.37	0.38	0.00	0.00	1.04	0.01	0.27	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Del:	42.0	9.1	0.0	0.0	23.6	11.2	30.0	0.0	37.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IncremntDel:	1.3	0.1	0.0	0.0	29.2	0.0	0.2	0.0	55.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	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	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	43.3	9.2	0.0	0.0	52.8	11.2	30.2	0.0	93.2	0.0	0.0	0.0	0.0	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	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	9.2	0.0	0.0	52.8	11.2	30.2	0.0	93.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	D	A	A	A	D	B	C	A	F	A	A	A	A	A	A	A
HCM2kAvgQ:	2	7	0	0	43	0	3	0	20	0	0	0	0	0	0	0

Note: Queue reported is the number of cars per lane.

APPENDIX D

Trip Generation Analysis

	Existing Nov 2010 Credit				Corporate Headquarters Building (714)				With Required 25% TDM Reduction				Total Baseline			
					3600 Employees											
	AM		PM		AM		PM		AM		PM		AM		PM	
Trips					1434		1076		1076		807					
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Percentage					93%	7%	11%	89%	93%	7%	11%	89%				
Vehicles	60	15	17	158	1334	100	118	958	1001	75	89	718	941	60	72	560

East Site Trip Generation				
	6600 Employees			
	AM		PM	
Trips	2600		2600	
	70%		70%	
	1820		**1820**	
	In	Out	In	Out
Percentage	93%	7%	11%	89%
Vehicles	1693	127	200	1620

8-9 AM	7-8 AM	
70%	30%	From Fehr & Peers AM/PM Peak Period Trip Cap
2600		

West Site Trip Generation (714)^			
2800 Employees			
AM		PM	
1146		880	
In	Out	In	Out
93%	7%	11%	89%
1066	80	97	783

^Calculated in a traditional manner from ITE Land Use 714

3600 to 6600 Empl Increment			
AM		PM	
744		1013	
In	Out	In	Out
93%	7%	11%	89%
692	52	111	902

APPENDIX E

Trip Cap Memo

FEHR PEERS

DRAFT MEMORANDUM

Date: March 28, 2011

To: City of Menlo Park

From: Robert Eckols, Nikki Hervol, and Monica Altmaier

Subject: ***Facebook Menlo Park Campus***
Documentation of Transportation Assumptions

SJ09-1132

The following memorandum summarizes the transportation assumptions used in developing the vehicle trip cap proposed as part of Facebook's relocation to Menlo Park. The memorandum includes a summary of:

- Background and study purpose
- Person and vehicle trip generation rates and description of calculation methods

BACKGROUND AND PURPOSE

Facebook is considering relocation and expansion at the Sun Microsystem (or East) Campus, located at 14 Network Circle, and the General Motors (GM, or West) Campus, near the intersection of Bayfront Expressway and Willow Road in Menlo Park. The purpose of this evaluation is to inform Facebook and the Project Team of the transportation assumptions used in determining the proposed vehicle trip cap for the Menlo Park Campuses.

We have evaluated traffic conditions with occupancy of the two sites at 150 square feet per proposed employee, per direction from Facebook. Table 1 below summarizes the projected number of employees at each site based on this density assumption.

TABLE 1: FACEBOOK EMPLOYEE PROJECTIONS FOR TRAFFIC ANALYSIS

Site	Square Feet	Employee Density	Number of Employees
East Campus	1,000,220	150 s.f./emp	6,668
West Campus	420,000	150 s.f./emp	2,800
Total	1,420,220	150 s.f./emp	9,468

Source: Fehr & Peers, Facebook, July 2010.

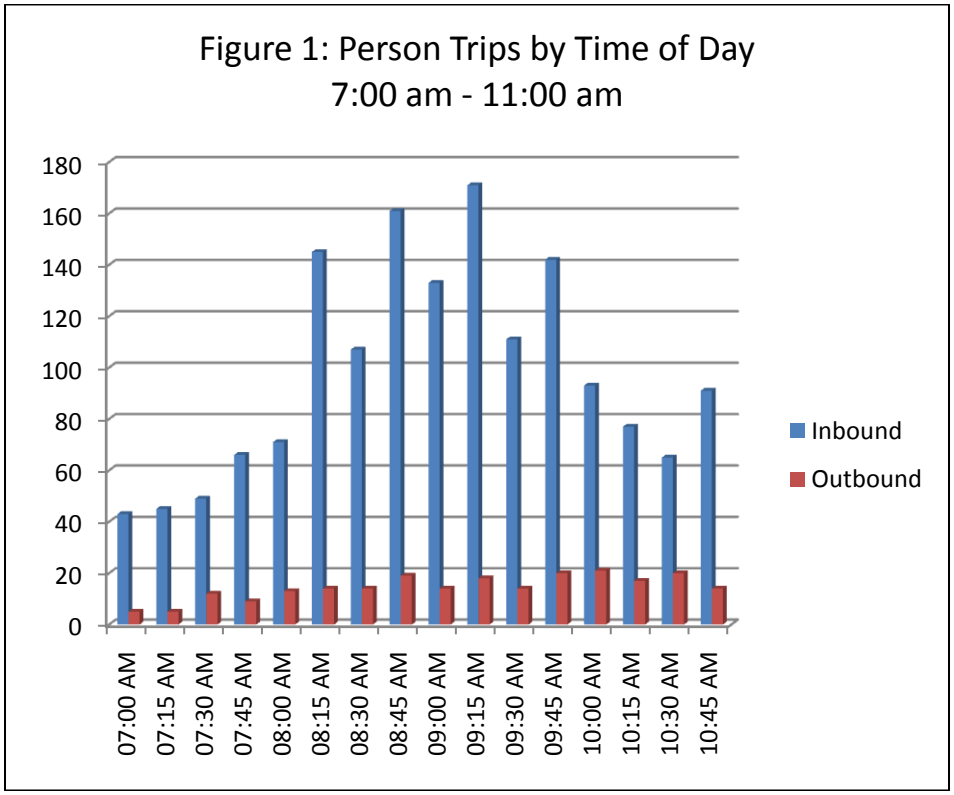
PERSON TRIP GENERATION

Person and vehicular trip generation estimates were developed based on travel demand surveys conducted at Facebook's Palo Alto campus (1601 South California Avenue and 1050 Page Mill Road sites) over two (2) mid-week days in July 2010. The surveys collected the following data between 7:00 am and 11:00 am:

- Manual counts were collected at the driveways serving the Facebook parking areas at 1601 South California Avenue and 1050 Page Mill Road sites.
    - Vehicle Occupancy Counts – The driveway counts surveyed the number of persons in each vehicle (vehicle occupancy) to verify the number of solo drivers versus carpools and transit users.
    - Pedestrian Counts – Pedestrian counts were conducted to document the number of person walking into the campus during the peak period. Pedestrians were asked if they parked off-site and walked to the campus or if walking was their primary commute mode to the campus.
    - Bicycle Surveys – Bicycle counts were conducted at the driveways serving the sites.

- Shuttle Ridership – Facebook provided shuttle ridership data collected on the survey dates for the four shuttles provided for employees.

Using this data, we were able to determine the time distribution of persons entering and exiting the site during the morning peak hour, and the associated peak hour trip generation rate. Figure 1 presents the number of person trips arriving and departing the site by 15-minute intervals between 7:00 am and 11:00 am.



Based on this information, we were able to calculate the morning peak period (7:00 am to 9:00 am, the traditional morning commute peak period) and peak one-hour trip generation rate using the following process:

1. Calculated the total number of trips entering/exiting between 7:00 am and 9:00 am to be 687 inbound and 91 outbound, or 778 total trips
2. Determined one-hour maximum (peak hour) entering/exiting period to be 8:00 am to 9:00 am, with 484 trips inbound and 60 trips outbound, for 544 total trips
3. Calculated trip generation rate for peak hour to be 0.42 person trips per employee (544 trips / 1,300 employees = **0.42** trips per employee)
4. Correlated the peak-hour of traffic generated by Facebook to the industry standard peak hour rate
5. Using industry standard ratios between morning peak hour and daily trip generation rates, calculated daily trip generation rates to be **3.41** person trips per employee

The trip generation rates described above represent the total number of person trips made per employee. The following section details our calculations of mode split, to reflect the number of vehicle trips per employee.

MODE SPLIT

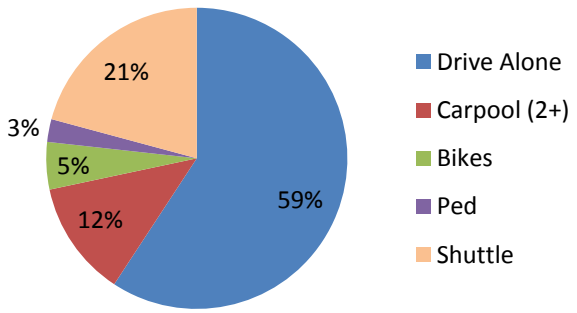
The travel surveys described under the Trip Generation section also provided the data necessary to calculate the share for each mode of travel to/from the campus for the total on-site employment population. Table 2 and Figure 2 below summarize the total number and percent of person trips entering and exiting the site by mode.

TABLE 2: PERSON MODE SPLIT

Mode	Trips by Mode	Percent Mode Split
Drive alone	968	59%
Carpool	203	12%
Bike	83	5%
Walk	40	3%
Shuttles/Transit	340	21%
Total	1,634	100%

Source: Fehr & Peers, Facebook, July 2010.

Figure 2: Person Mode Splits



VEHICLE TRIP GENERATION

Based on the mode split data presented in Table 2 and Figure 1, the vehicle trip generation rates were calculated to be 65 percent of the person trip generation rate. This was derived from 59 percent (drive alone) plus 12 percent carpooling at average vehicle occupancy of 2.1 persons per car[1]. Table 3 summarizes the daily, peak hour and peak period person and vehicle trip generation rates based on Facebook-specific data, as well as a comparison to traditional industry standard documentation from the Institute of Transportation Engineers' *Trip Generation*, 8th Edition (2009).

[1] From July 2010 travel demand survey data.

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TABLE 3: FACEBOOK TRIP GENERATION RATES, PER EMPLOYEE

Unit	Source	Description	Daily	Peak Hour	Peak Period
Per employee	Travel Surveys	Person Rate	3.41	0.42	0.60
Per employee	Travel Surveys	Vehicle Rate	2.22	0.27	0.39
Per employee	ITE Best Fit Equation	General Office (710)	2.27	0.37	n/a
Per k.s.f.	Travel Surveys	Vehicle Rate	13.60	1.73	2.48
Per k.s.f.	ITE Best Fit Equation	General Office (710)	7.86	1.18	n/a

Source: Fehr & Peers, Facebook, July 2010.
Institute of Transportation Engineers, *Trip Generation*, 8th Edition (2009).
Trip rates based on average rates defined for General Office (land use code 710).

As shown in Table 3, data collected from the existing Facebook campus shows employees generate 3.41 trips per day, 0.42 trips per peak hour, and 0.60 trips per peak period. The number of vehicle trips generated per employee, calculated based on the mode split summarized above, is 2.22 vehicle trips per day, 0.27 peak hour vehicle trips per day, and 0.39 vehicle trips per day. The comparison to ITE Trip Generation data shows that the best fit equation rates for a general office building is close to the total number of vehicle trips Facebook employees generate on a daily basis, within two (2) percent. The peak hour comparison shows that Facebook's trip generation rate is 27 percent lower than traditional office developments, since many of Facebook's employees travel outside of the traditional commute peak hours and 35 percent travel via alternative transportation modes.

On a per square foot basis, the number of vehicle trips generated by Facebook is substantially higher than the ITE rates, as the employee density is higher than a typical office use. On a daily basis, Facebook generates approximately 42 percent more trips per square foot; on a peak hour basis, Facebook's trip generation rate is 32 percent higher per square foot.

Table 4 below presents the number of vehicle trips estimated to be generated by the East Campus based on the rates defined in Table 3 above. As shown, the proposed vehicle trip cap was derived based on the survey rates, specific to Facebook employee travel patterns.

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TABLE 4: FACEBOOK TRIP GENERATION ESTIMATES

Unit	Source	Description	Daily	Peak Hour	Peak Period
Per employee	Travel Surveys	Vehicle Rate	14,800	1,820	2,600
Per employee	ITE Best Fit Equation	General Office (710)	15,200	2,480	n/a
Per k.s.f.	Travel Surveys	Vehicle Rate	13,600	1,730	2,480
Per k.s.f.	ITE Best Fit Equation	General Office (710)	7,860	1,190	n/a
Proposed Trip Cap			15,000[1]	n/a	2,600

Source: Fehr & Peers, Facebook, July 2010.
Institute of Transportation Engineers, *Trip Generation*, 8th Edition (2009).
[1] Trip cap rounded based on Facebook specific trip rates per employee.

APPENDIX F

Trip Cap Monitoring and Enforcement Document

TRIP CAP MONITORING AND ENFORCEMENT POLICY[1]

The Facebook project includes both an East Campus and a West Campus. Entitlements are currently being sought only for the East Campus. Therefore, this Trip Cap Monitoring and Enforcement Policy is specific to the East Campus.[2]

DEFINITIONS

Trip – A single vehicle (car, truck, van, shuttle, etc.) arriving at a location in Menlo Park, whose occupant(s) final destination is the East Campus, or a single vehicle departing from a location in Menlo Park, whose occupant(s) origin is the East Campus. Therefore, for example, a roundtrip by a single vehicle arriving at a location in Menlo Park and departing from a location in Menlo Park whose occupant(s) destination and origin is the East Campus equals two (2) trips. Trips do not include bicycles or other self-powered modes of travel.

Peak Period – Roadway morning and evening commuter peak travel times:

- AM Peak Period - 7:00 AM to 9:00 AM
- PM Peak Period - 4:00 PM to 6:00 PM

Peak Period Trip Cap – The maximum number of trips in the AM Peak Period or the PM Peak Period.

Daily Trip Cap – The maximum number of trips per day.

Trip Cap – Generally refers to the AM Peak Period Trip Cap, the PM Peak Period Trip Cap and the Daily Trip Cap.

TRIP CAP

The Trip Cap is part of the Facebook project definition and will be included in the Conditional Development Permit ("CDP") for the project. Therefore, one way to think about the Trip Cap is in terms of building square footage. A CDP typically defines the maximum building square footage. Increases in building square footage are not allowed without an application for and approval of a change to the CDP. Any increase in building square footage without the appropriate approval violates the CDP. The same is true for the Trip Cap. Facebook must comply with the Trip Cap and may not exceed the Trip Cap without

[1] This Trip Cap Monitoring and Enforcement Policy has been prepared by the City of Menlo Park in consultation with the project applicant.

[2] If and when Facebook seeks entitlements for the West Campus, a trip cap may be included as a mitigation measure for the West Campus.

an application for and approval of a change to the CDP. If the Trip Cap is exceeded without the appropriate approval, Facebook is in violation of the CDP.

The Trip Cap proposed as part of Facebook's project definition is as follows:

- AM Peak Period Trip Cap: 2,600 trips
- PM Peak Period Trip Cap: 2,600 trips
- Daily Trip Cap: 15,000 trips

MONITORING

To monitor compliance with the Trip Cap, traffic counts shall be taken at the East Campus. The monitoring shall be done through automated means (e.g., imbedded loop detectors in the pavement in each travel lane or video detection) approved by the City.[3] All vehicular entrances to the East Campus shall be included in the monitoring. Facebook shall be solely responsible for paying all costs related to monitoring, including, but not limited to, development, installation, maintenance and repair of all monitoring equipment.

In addition to monitoring the East Campus, the City reserves the option to require Facebook to monitor the West Campus prior to its occupancy if it is observed or suspected that vehicles whose occupant(s) final destination is the East Campus are parking at the West Campus. The City also reserves the option to require Facebook to monitor neighborhood parking intrusion in the Belle Haven neighborhood, parking on other public streets in the City, or parking at any off-site parking lot(s) in Menlo Park if it is observed or suspected that vehicles whose occupant(s) final destination is the East Campus are parking at any of these locations. If the City requires monitoring of these off-site locations and, after investigation, it is confirmed that vehicle occupant(s) are parking vehicles at these off-site locations to access the East Campus, the trips to these locations will be counted toward the Trip Cap.

While the structure of the monitoring program can be set forth during the CDP entitlement process, there will need to be some negotiation and/or agreement regarding program details, including the following:

- **Monitoring Days/Times** – The AM Peak Period, the PM Peak Period and total daily trips will be monitored on all non-holiday weekdays. Holidays are those days identified as State holidays in California Government Code Section 6700. This is the condition evaluated in the Environmental Impact Report.
- **Exclusions** – To account for special events and their effect on trips, the City and Facebook will agree on a defined number of Trip Cap exclusions. These events do not represent typical

[3] City approvals related to monitoring equipment will be through the Director of Public Works or his/her designee.

operating conditions at the East Campus. The definition and proposed number of exclusions will be determined during the entitlement process.

- **Count Equipment** – Automated count equipment will be designed and constructed at Facebook's sole expense to collect data on the number of trips at the two East Campus driveways. The type of count equipment (initial and any future changes) shall be approved by the City, in consultation with Facebook and considering the latest technologies for detection, counting and reporting. The City shall not unreasonably withhold approval of initial count equipment or any future equipment which achieves the result envisioned in this document. The City shall also approve the count equipment that will be used to monitor off-site locations, if the City exercises the option to require such monitoring. The City shall not unreasonably withhold approval of such additional count equipment.
- **Initial Calibration Process** – Once the count equipment has been established, a calibration process will be undertaken to determine the reliability and accuracy of the count equipment. Depending on the type of equipment, the count accuracy can be affected by a number of environmental factors which will need to be confirmed. This calibration process would be conducted prior to the East Campus reaching full occupancy.
- **Determination of Reliability (Sensitivity) Factor** – Based on the calibration analysis, the City and Facebook will agree to a reliability factor for the count stations which will be used to evaluate the count results. The reliability factor would represent the margin of error inherent in the vehicle counting equipment.
- **Periodic Count Equipment Testing/Recalibration** – The vehicle detection system will be periodically tested to insure the accuracy of the monitoring counts. During the first two (2) years of operation, testing will be conducted at six (6) month intervals. If these tests show that the system is operating reliably, then testing can be reduced to once a year. If the equipment is thought to be out of calibration, Facebook will work with the City to test and calibrate the equipment if necessary. The City will have final approval, which approval shall be granted or withheld in a reasonable manner, on all testing and calibration.
- **Installation and Repairs** – The count equipment shall be installed and in good working order within 180 days of project approval. The City shall have final approval, which approval shall be granted or withheld in a reasonable manner, of the contractor completing the installation and the maintenance contractor completing any repairs. Non-emergency repairs and maintenance of the monitoring equipment shall occur only on evenings and weekends, unless otherwise approved by the City. The Transportation Division shall be notified at least 48 hours in advance of any non-emergency repairs or maintenance work. The City Transportation Division shall be notified within 24 hours of any emergency repairs. City inspection and approval of any repairs or maintenance is required. Failure to keep monitoring equipment operational and in good working order will be considered a violation of the Trip Cap after a set number of consecutive days, unless the repairs/maintenance require additional time as approved by the City and Facebook is diligently pursuing such repairs/maintenance.

- **Access to Count Equipment/Reporting** – The City shall have the ability to access the count equipment at any time after reasonable prior notice to Facebook. Facebook will not have access to the count equipment, unless approved by the City or in case of the need for emergency repairs. The City shall not unreasonably withhold approval of access for repair/maintenance contractors. Facebook shall have "read-only" access to the reporting data, but shall have the ability to record such data and run history reports in order to track trends. Reporting data shall be provided to Facebook and the City in real time. Real time data will provide Facebook the opportunity to take immediate action, if necessary, to avoid violating the Trip Cap.

ENFORCEMENT

Facebook shall be responsible not only for monitoring, but also for achieving compliance with the Trip Cap, which includes, by definition, all three (3) trip cap measurements on a daily basis (the AM Peak Period Trip Cap, the PM Peak Period Trip Cap and the Daily Trip Cap). The City shall enforce compliance with the Trip Cap.

If, on a given day, the results of the monitoring indicate that the number of trips is at or below the Trip Cap, considering the reliability factor, then Facebook is considered in compliance. If, however, the monitoring, considering the reliability factor, reveals that the AM Peak Period Trip Cap or the PM Peak Period Trip Cap or the Daily Trip Cap has been exceeded, Facebook is in violation of its CDP and the City may take steps to enforce the Trip Cap.

While the specifics of enforcement can be set forth during the CDP entitlement process, there will need to be some negotiation and/or agreement regarding program details, including the following:

- **Threshold –** If, in a particular period, there are AM Peak Period Trip Cap, PM Peak Period Trip Cap or Daily Trip Cap violations in excess of a set threshold, then penalties will be imposed. The threshold for violating the Trip Cap will be determined during the entitlement process.

- **Penalties –** Monetary penalties will be imposed for violations of the Trip Cap in excess of the threshold. Penalties are calculated on a per trip basis and progressively increasing penalties will be imposed for subsequent violation(s) of the Trip Cap. The base penalties shall be adjusted annually starting at base year 2012 per the Consumer Price Index for All Urban Consumers All Items in the San Francisco-Oakland-San Jose Metropolitan Area [1982-84=100]. Penalties are due and payable to the City within thirty (30) days of the issuance of an invoice, which the City shall issue on a monthly basis. The City shall use the money for programs or projects designed to reduce trips or traffic congestion within Menlo Park. In addition to monetary penalties, failure to comply with the Trip Cap is considered a violation of the CDP and could result in revocation of the CDP.

- **Interim Measure –** If Facebook determines that it needs to secure parking in another location as an interim measure to maintain compliance with the Trip Cap, Facebook may through the City's

entitlement process obtain approval for the use of another private property in Menlo Park (not the East or West Campus) that includes both a building and associated parking. Trips to such an off-site location will not count toward the Trip Cap only if there will be no more trips to that off-site location than is allowed under the then current use of that property.

- **Compliance** – If after non-compliance, Facebook comes back into compliance with the Trip Cap and maintains compliance for a specific period of time to be established during the entitlement process, the scale of penalties will revert to the base level and the relevant threshold would once again apply before there is non-conformance and the onset of penalties.

APPENDIX G

TDM Plan

TRANSPORTATION DEMAND MANAGEMENT PROGRAM

PROGRAM INTRODUCTION

Facebook's relocation to Menlo Park provides the opportunity for Facebook to continue to operate a highly successful Transportation Demand Management (TDM) Program. Currently, approximately 40 percent of employees commute to the Palo Alto Campuses by alternative modes (transit, carpool, bicycle and walk). Facebook has been successful in encouraging alternative transportation for several reasons. First, Facebook employees have flexible work schedules that allow commute travel to be more evenly spread throughout the day than would occur at a typical office development of similar scale. Second, the Facebook culture attracts many employees who thrive in an innovative environment and prefer alternative travel modes over driving alone. Third, Facebook employees are often knowledgeable of environmental issues and have a high-level of environmental consciousness, which contributes to their desire to choose more environmentally-friendly commute patterns.

Additionally, as the sole occupant of the proposed Menlo Park campus, Facebook will have the ability to exclusively control the TDM program for the sites. Rather than having to coordinate different TDM programs at multiple firms (tenants), Facebook can influence the trips for all employees accessing the campus. The program will continually evolve, being responsive to the changing needs of employees. Ultimately, these conditions will allow Facebook to maximize the efficacy of the TDM program outlined below.

RELATIONSHIP TO THE PROPOSED VEHICLE TRIP CAP

For a traditional development project, a TDM program is often designed to reduce impacts of vehicular traffic and is adopted as either a mitigation measure or a condition of use. In other cases, the implementation of a TDM program is included in a project as a matter of local policy to reduce the number of drive alone commuters. Facebook's proposal to establish a vehicular trip cap for both the AM and PM peak-periods and peak-hours establishes the maximum number of trips generated by the site, while allowing the number of employees to vary depending on the effectiveness of the TDM program.

The TDM Program is proposed as a key element to the project. The proposed peak period vehicle trip cap for the East Campus limits the number of vehicle trips that can enter and exit the Campus during the peak period and peak hour when traffic congestion on adjacent roadways is at its peak. If the TDM Program is not effective in reducing vehicular travel demand at Menlo Park, Facebook will not be able to achieve its desired employee headcount. Therefore, Facebook has a vested interest in creating and sustaining a robust and effective TDM Program.

In addition to the peak period/hour trip caps, Facebook also proposes a daily trip cap for the East Campus. This daily trip cap was developed to address potential air quality impacts, while the peak period trip cap addresses local congestion.

It is expected that the TDM Program will evolve over time to respond to changing employee demographics and needs. Based on the information currently available, the following TDM Program has been developed.

EXISTING PROGRAM FOR PALO ALTO CAMPUSES

The following strategies are currently in practice for the Palo Alto Campus. The existing TDM program is robust, and has been effective at reducing the drive alone mode share and the parking demand at each site.

- **Caltrain Go-Passes and Caltrain Station Shuttles** – All employees receive Caltrain Go-Passes funded by Facebook. Shuttle service is provided from the Palo Alto stations to the Facebook sites.
- **Employee Commuter Shuttle Bus Service** – Currently Facebook provides free-for-employees direct service between Palo Alto and San Francisco, Campbell/Cupertino, and Mountain View for employees

and vendors. Each employee has their own wi-fi card which they can use to access internet aboard the shuttles.

- **Inter-campus Shuttles** – Throughout the day, Facebook provides two 14-person shuttles that provide service between 1601 South California Avenue and 1050 Page Mill Road continuously from 5:00am to 10:00pm. The shuttle consists of about 1 to 4 trips per hour and ridership surveys from December 2010 indicate that passengers on these shuttles range from 1 to 14 (maximum capacity), with the 1:00pm shuttle at the highest occupancy.

- **Intern Shuttle** – Facebook provides a shuttle to serve the intern housing located in Mountain View and the two campuses. A total of five (5) drop-off/pick-up locations are served

- **Campus Bike Share Program** – To better serve inter-campus travel and reduce the number of shuttles on California Avenue during the day, Facebook has initiated a bike share program. This pilot program provides Facebook Bikeshare Bicycles for employees to use for trips between 1601 South California and 1050 Page Mill Road. There are currently 20 bicycles available.

  A bike room for indoor bicycle parking is also provided, as well as showers, lockers, and changing room facilities.

- **Vanpool Program** – Facebook provides a Vanpool Program, which includes seven (7) vanpools from Campbell (two groups), Santa Cruz/Scott's Valley, Fremont, Oakland, South San Jose/Los Gatos, and San Jose Evergreen. Preferred vanpool parking is provided.

- **Educational and Promotional Campaign** – Facebook has held several educational and promotional events to encourage employees to use alternative modes to travel to and from the campus. Additionally, a commuter brochure for new hires was developed to provide employees with information on commute options and alternatives. A presentation to new hires is given, where employees are informed about alternative modes to work. Various incentives and programs to encourage bicycling, walking, and taking transit are also held, including competitions with raffle prizes for those who take the Commuter Shuttles, Caltrain, or vanpools.

- Facebook also participated in the **Great Race for Clean Air** sponsored by 511 in August and September 2010 (see more information: http://www.greatraceforcleanair.com/Default.aspx) and tied with the City of Palo Alto for highest number of participants.

- **Emergency Ride Home** – Facebook provides rides home for employees in an emergency for non-automobile commuters who may not have a vehicle readily accessible.

- **Carshare** – Facebook provides access to Zipcar vehicles located at 1601 California.

- **Preferred Parking** – Preferred parking is provided for motorcycles, expectant mothers, and vanpools.

- **Monitoring** – Twice annually, Facebook conducts a monitoring survey to track the number and mode of trips to and from the campus. This information allows the existing program to be assessed and modified to respond to developing employee needs.

EXISTING PROGRAM EFFICACY

As part of Facebook's ongoing monitoring efforts, trip generation and mode choice surveys were conducted in July 2010 and December 2010. Driveways (inbound and outbound) that serve the Facebook parking areas at the 1601 South California Avenue and 1050 Page Mill Road sites were manually surveyed to determine person trip generation and mode split for employees and visitors frequenting the Palo Alto Campus. Figures 1 through 3 present mode split for the July 2010, December 2010, and the average of the two surveys, respectively. A difference between the July and December travel surveys shows that in July, when the weather was good and

there is more daylight, the bike and walk modes were higher than in December. The three-percent drop in bike and walk modes was off-setting increases in the carpool (+2%) and drive-alone (+1%) rates. For the purposes of the trip cap calculations, it was assumed that Facebook would maintain a 40 percent alternative mode split; however, the goal of the TDM program is to achieve a higher level of alternative mode usage (50 percent).

Figure 1: Person Mode Splits- July Surveys

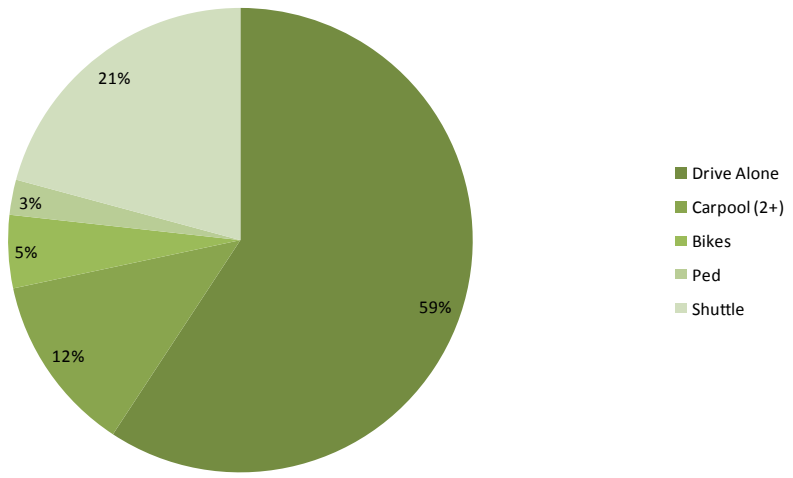
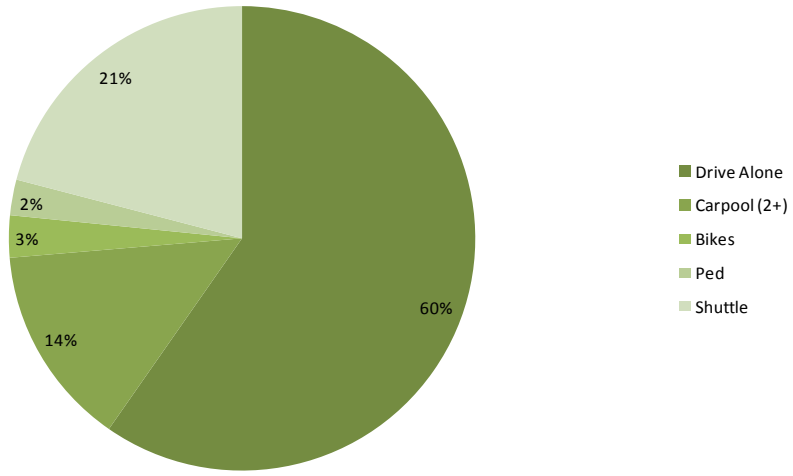
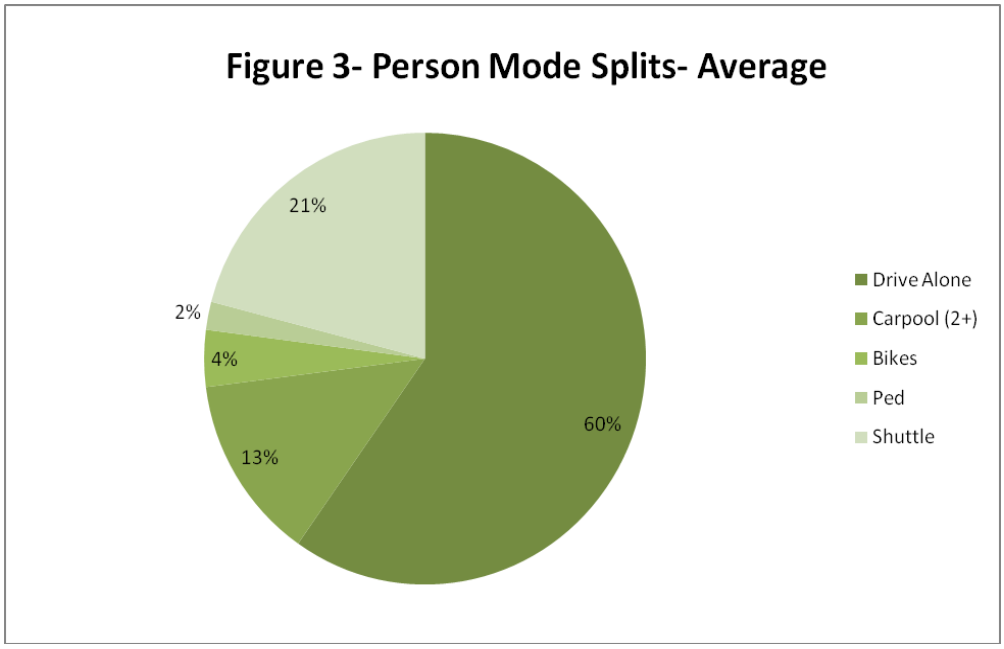


Figure 2- Person Mode Splits- December Surveys





UPCOMING PROGRAM ELEMENTS

In addition to the existing TDM elements, the following strategies are proposed for near-term inclusion in Facebook's TDM Program. These elements are expected to be in place before Facebook begins to occupy the East Campus in Menlo Park in July 2011.

- **Facebus** – Facebook is developing a real-time shuttle/bus information system via a smartphone application to provide employees with up-to-the-minute information about the next available shuttle pick-up.
- **ZimRide** – ZimRide will provide ridesharing, vanpooling, and shuttle coordinating capabilities to any employees that have a Facebook email address. It will also provide monitoring and evaluation mechanisms to track the program's efficacy.

MENLO PARK CAMPUS

The existing TDM Program will continue to grow and evolve as Facebook transitions to its new Menlo Park Campus starting in July 2011. The Commuter Shuttle and Vanpool programs will expand, with trips serving strategic employee residential locations. Caltrain Shuttles will continue to run to the nearby stations, including Menlo Park, Redwood City, and Palo Alto. Connections to public transit systems in the East Bay will become more viable with the relocation to Menlo Park. Shuttle connections to the Fremont BART and ACE Stations will be incorporated into the Program. The following sections outline the improvements planned for the Commuter Shuttle and Vanpool programs, parking management, and walking and bicycling programs at full-build out of the Campus.

As mentioned previously, the defined TDM Program is based on the best information available at this time. As the employee base expands, the TDM Program is expected to grow and adapt in order to meet the proposed vehicular trip cap. The TDM program will be used by Facebook to maintain the AM and PM peak period trip caps of a total of 2,600 vehicles per two-hour peak period (inbound and outbound trips).

Commuter Shuttles and Vanpools

Based on employee zip code data obtained from Facebook and the proposed number of future employees on the East and West Campuses, it is estimated that approximately 80 Commuter Shuttle round trips will be needed to serve the future Menlo Park campus. These shuttle trips will run to areas where employees are clustered, including San Francisco, San Mateo, Menlo Park, Palo Alto, Mountain View, the South Bay (including Sunnyvale, Cupertino, Santa Clara, San Jose, Campbell, and Los Gatos), and Fremont. The average trip length of the Commuter Shuttles is estimated to be 17.3 miles.

In order to determine the number of Commuter Shuttle round trips, employee data by place of residence was used to determine the potential locations and number of transit trips. The percent distribution by city of residence was used to calculate the number of future daily person trips by employee traveling to and from the Facebook campus. The average mode share distribution from the Facebook Monitoring Program analysis was applied and adjusted for each city to create mode share percentages; the basis for these mode share estimations depended on the available transportation options and population clustering unique to each city. The number of transit *person* trips was calculated by applying the transit mode share percentages to the total trips for each city. In order to quantify the number of shuttle *vehicle* trips, the total transit person trips were divided by 84. The value 84 represents the two-way or round trip based on an average shuttle size of 42 spaces.

Figure 1 (attached) presents the potential shuttle access routes for the East and West Campuses. The routes indicated represent those that are considered for the full build-out of the Campuses. It is anticipated that the routes would be phased in as the employee population grows on each site. Where employee residential density is not great enough to support a full shuttle, vanpools will be targeted to support travel modes outside of a personal vehicle. It is anticipated that approximately 40 vanpool round trips are needed to serve the future Menlo Park campuses. Vanpools are expected to run to areas on the Peninsula including Palo Alto, Belmont, Millbrae, and Burlingame. East Bay cities include Berkeley and Oakland. Vanpools also provide overflow service for the Commuter Shuttle routes. The average trip length for the vanpool vehicles is estimated to be 16.4 miles. Preferred vanpool parking or drop-off areas are provided.

Preferred Parking

The existing TDM Program includes preferred vanpool and motorcycle parking. At the Menlo Park Campus, carpool and electric-vehicle preferred parking are also proposed. These preferred parking spaces provide an incentive for employees to carpool or use a vehicle with zero emissions, to conserve resources and limit greenhouse gas emissions.

Walking and Bicycling Program

In addition to the expansion of the Commuter Shuttle and vanpool programs, several other strategies are planned for the Menlo Park Campus. The existing buildings in Palo Alto are located along a lower volume street with bicycle lanes, sidewalks, and a direct connection to the California Avenue Caltrain station. This environment encourages employees to walk and bike to and from the campus. To target maintaining or expanding walking and biking mode shares to the Menlo Park campus, several strategies are planned. These programs are aimed to enhance the surrounding bicycle and pedestrian environment to encourage active transportation modes to the Menlo Park Campus:

- Expanding the bicycle share program. Providing additional bicycles on-campus to provide employees the option of bicycling between or near the Campus;
- Holding bicycle rides for employees:
    - Lunch-time recreational rides;
    - “Get back on your bike” educational rides to learn or refresh bike commuting skills;
- Providing bike racks or trailers on shuttles as an alternative travel option;

- Providing a Commuter Bike Program to offer commuter bikes on loan for employees who would like to bicycle to campus.

In addition to the programmatic elements defined above, improvements to the walking and bicycling networks are needed to provide safe connections from the East and West Campuses to the surrounding network. A major component to better pedestrian and bike access is the improvements to the tunnel located at Willow Road/Bayfront Expressway, which will provide a shared-use path. This tunnel will provide Facebook employees access under Bayfront Expressway between campuses so that employees will not have to cross at the existing traffic signal. Additionally, it completes a key grade-separation connection for the Bay Trail crossing of Bayfront Expressway. It also provides the opportunity to provide an intra-campus circulator system to connect the two campuses. Appropriate technologies for this system are currently being investigated.

On-street and off-street bike network constraints and recommendations are under development. Infrastructure improvements to the bicycling and walking networks are also being evaluated by joint efforts through the Facebook planning team and the City of Menlo Park.

APPENDIX H

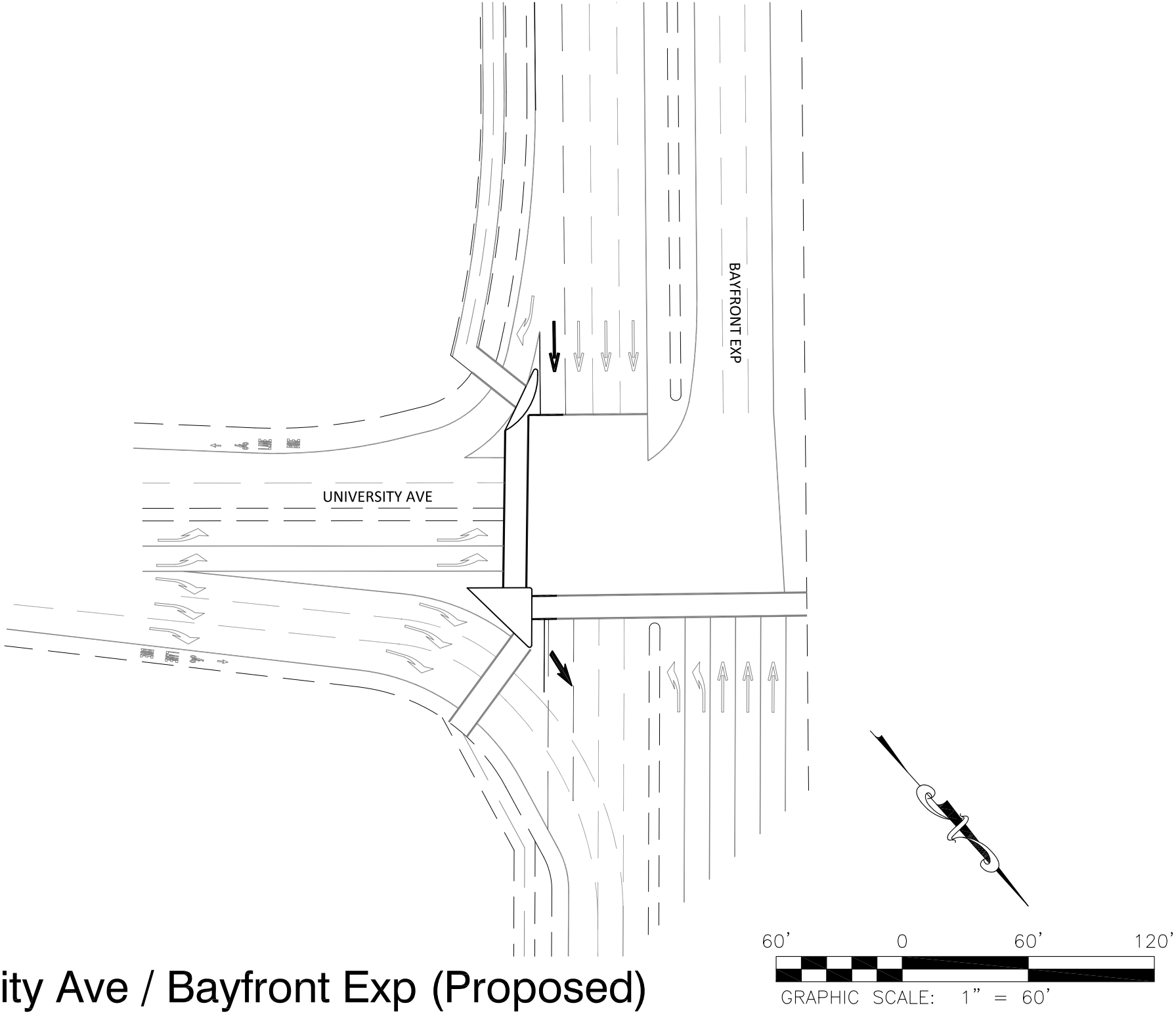
Background Circulation Systems Assessment Documents

Table 6:
Menlo Park CSA Traffix Model Gateway Percentages

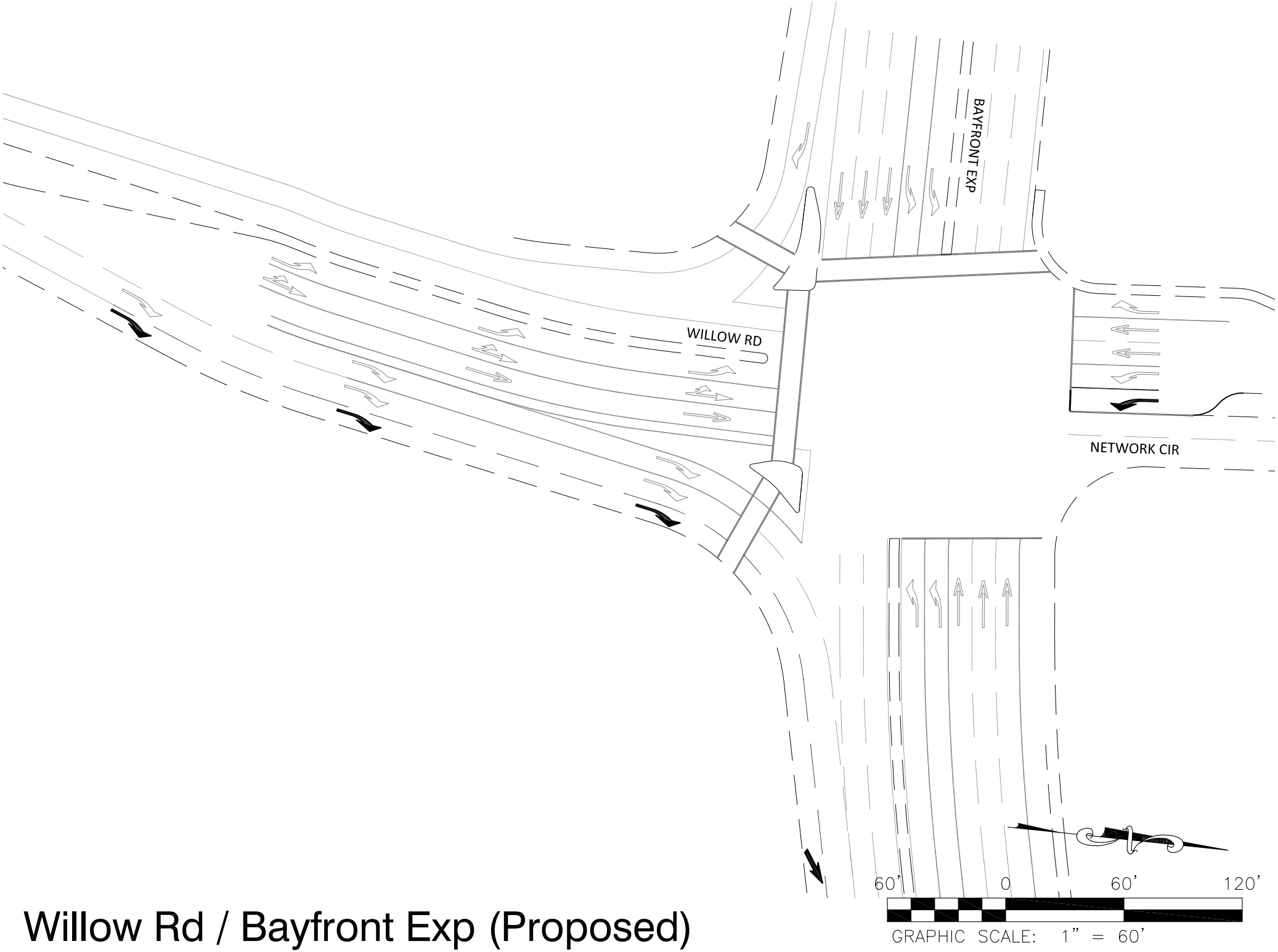
Gateway	Residential				Employment				Commercial			
	Sharon Heights	**West Menlo**	**West of US 101**	**East of US 101**	**Sharon Heights**	**West Menlo**	**West of US 101**	**East of US 101**	**Sharon Heights**	**West Menlo**	**West of US 101**	**East of US 101**
1. I-280 North	10%	5%	2%	-	20%	12%	4%	-	13%	7%	2%	-
2. I-280 South	18	9	-	-	33	16	-	-	6	3	-	-
3. Sand Hill West	1	1	1	1	1	1	1	1	1	1	1	1
4. SR 84 East	2	2	2	2	20	20	20	20	1	1	1	1
5. US 101 South	-	9	18	26	-	17	33	37	-	3	6	13
6. US 101 North	-	2	5	7	-	4	12	10	-	2	7	7
7. Alameda North	13	6	2	-	7	4	-	-	6	4	-	-
8. El Camino North	-	10	5	4	-	7	5	3	-	6	5	2
9. Alpine South	-	-	-	-	-	-	-	-	-	-	-	-
10. Junipero South	8	5	-	-	4	3	-	-	7	4	-	-
11. Sand Hill East	14	3	-	-	7	1	-	-	15	3	-	-
12. Middlefield South	-	-	19	12	-	-	10	5	-	-	19	10
14. El Camino South	1	14	3	1	-	7	1	1	-	15	3	1
15. Middlefield North	-	-	9	13	-	-	6	14	-	-	5	10
16. Local Sharon Hts	10	5	2	-	2	1	-	-	15	8	3	-
17. Local Downtown	20	26	25	5	5	6	6	1	31	38	38	8
18. Local Willows	3	3	7	3	1	1	2	1	5	5	10	5
19. Local Belle Haven	-	-	-	26	-	-	-	7	-	-	-	42
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

APPENDIX I

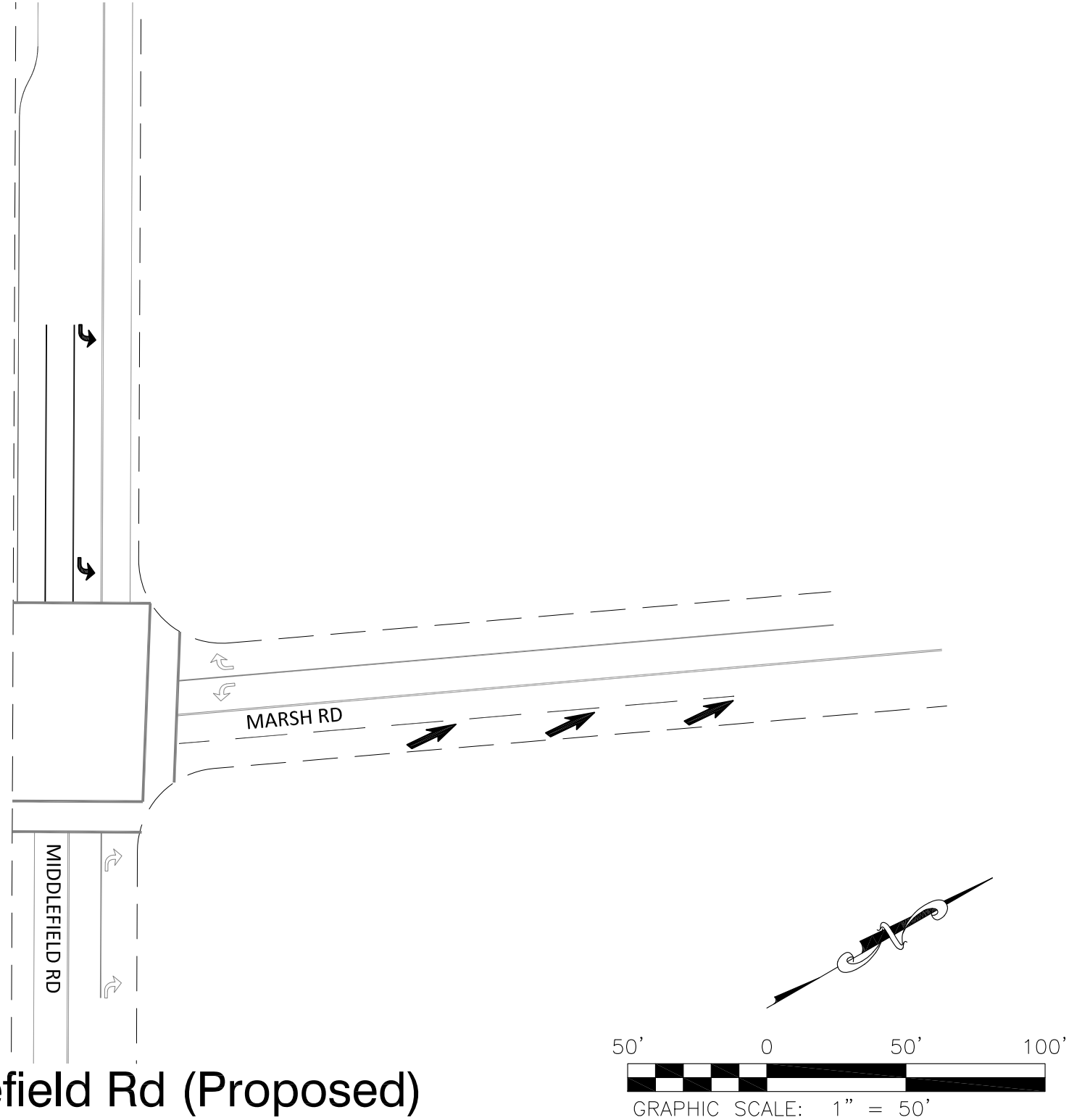
Conceptual Layout Plans for
Mitigation Measures at Intersections



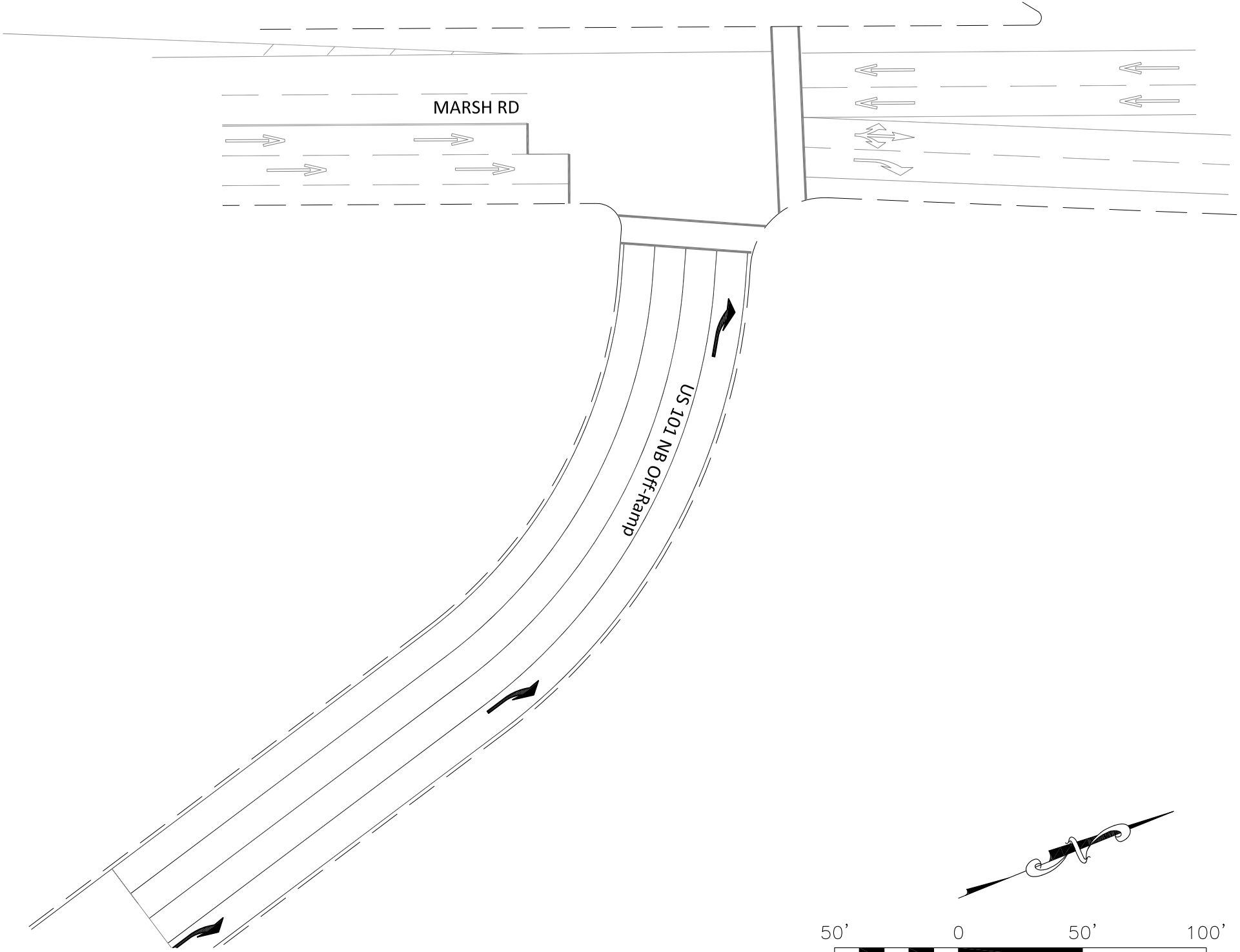
University Ave / Bayfront Exp (Proposed)

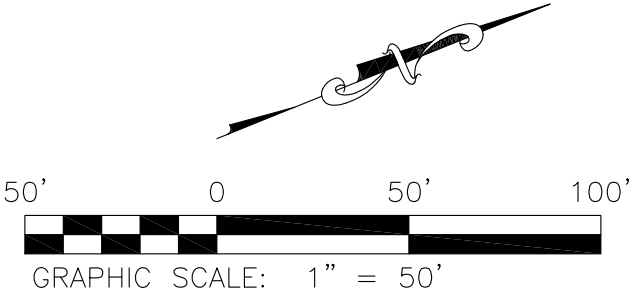


Willow Rd / Bayfront Exp (Proposed)

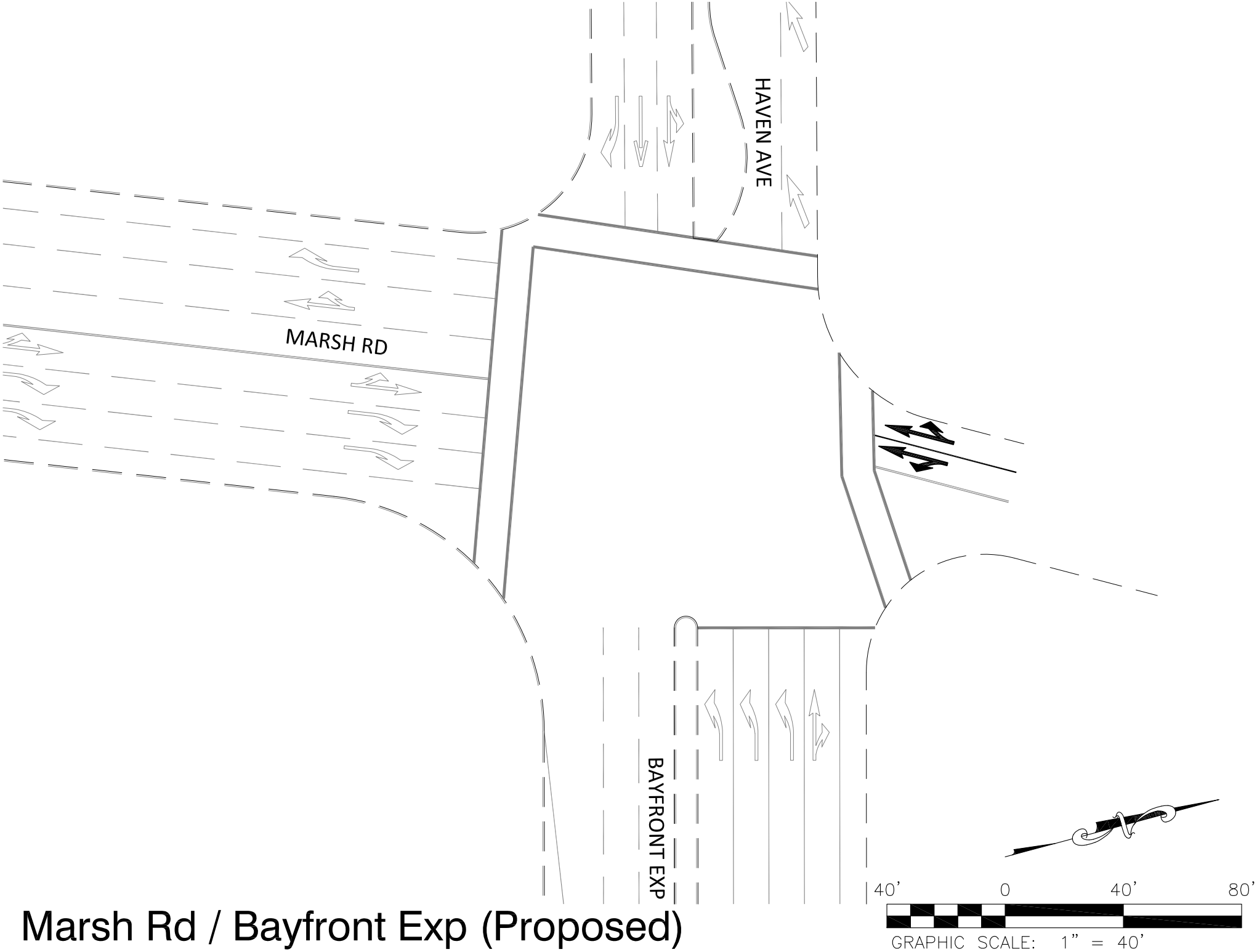


Marsh Rd / Middlefield Rd (Proposed)





Marsh Rd / US 101 NB (Proposed)



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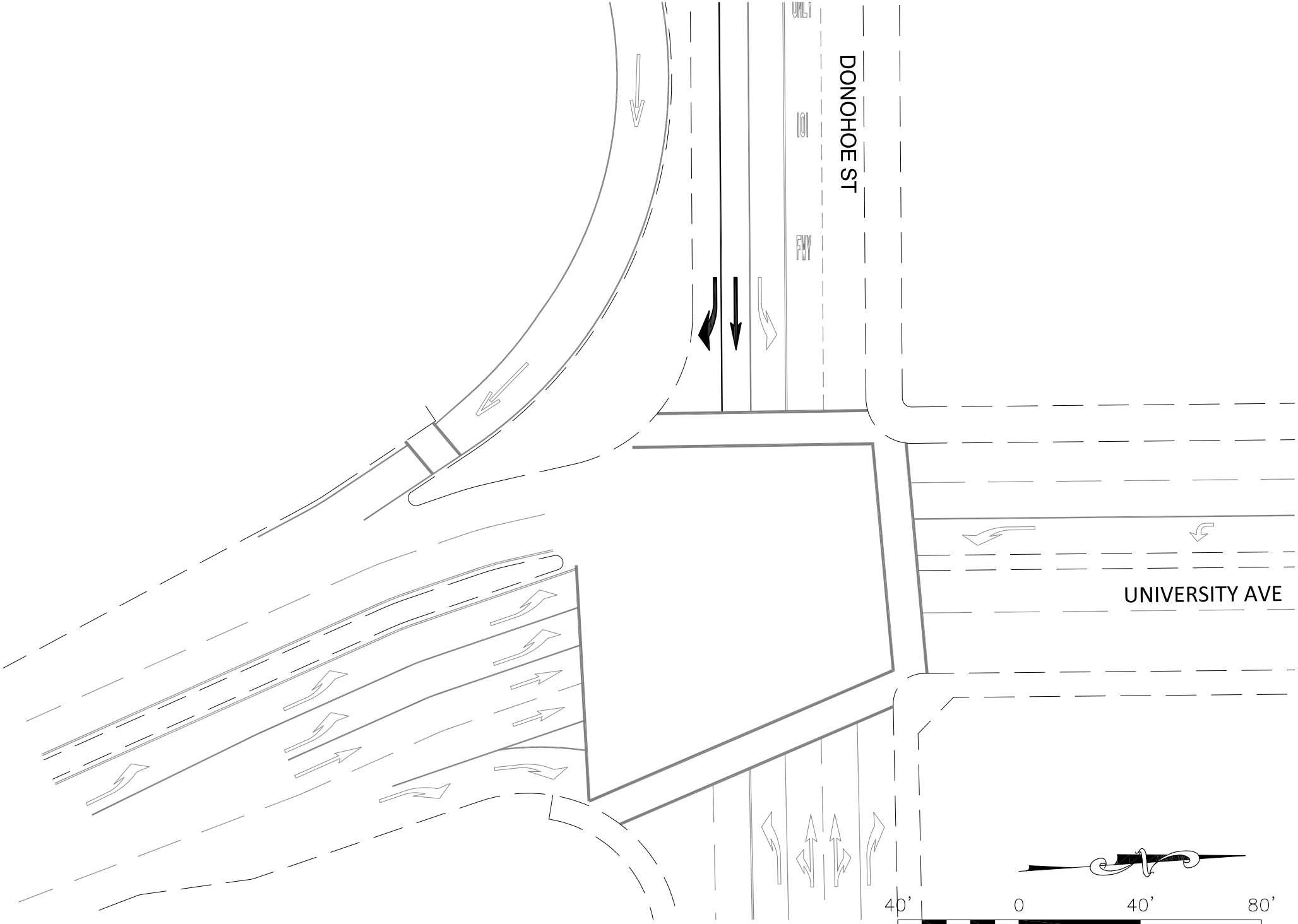
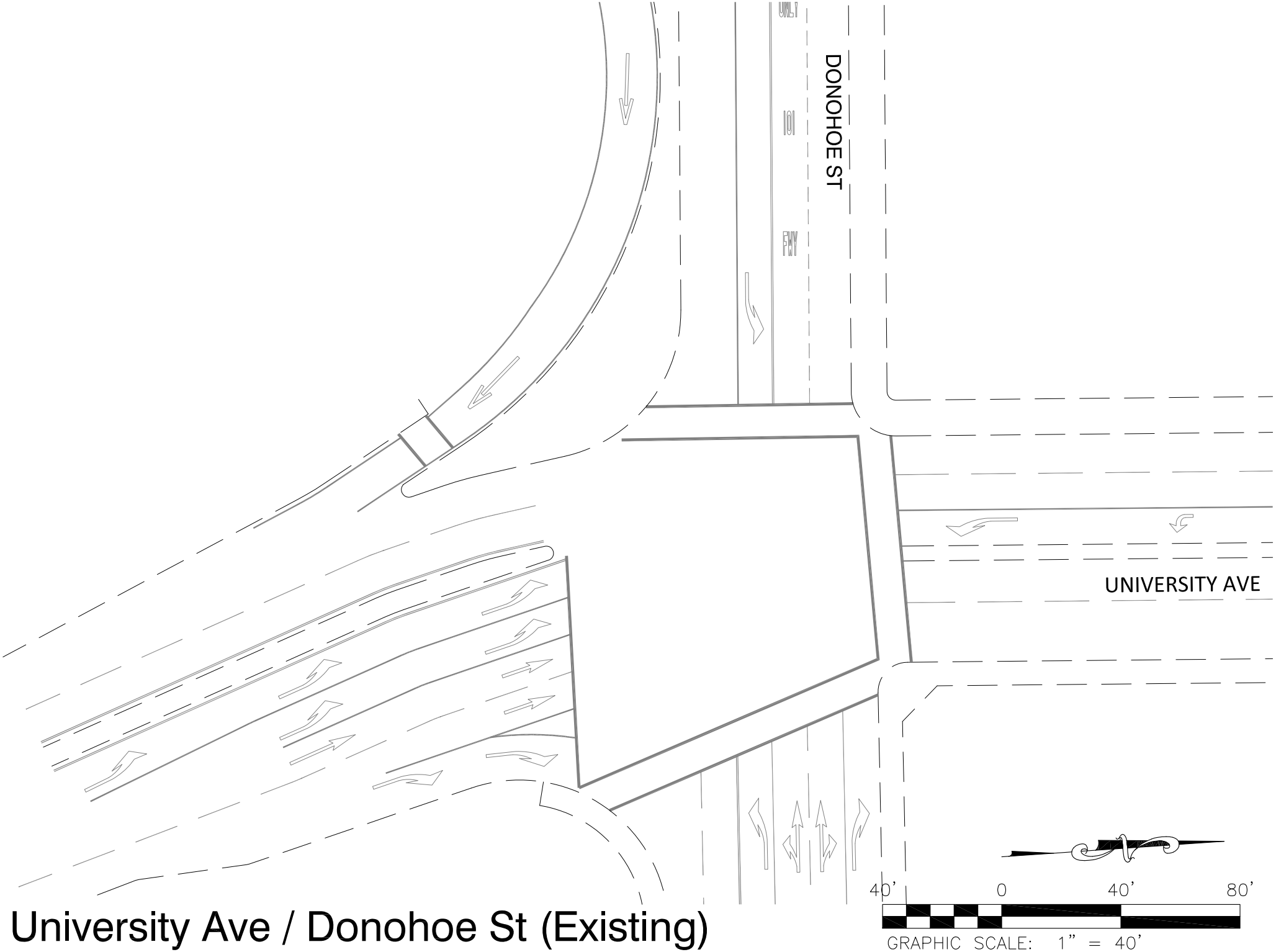
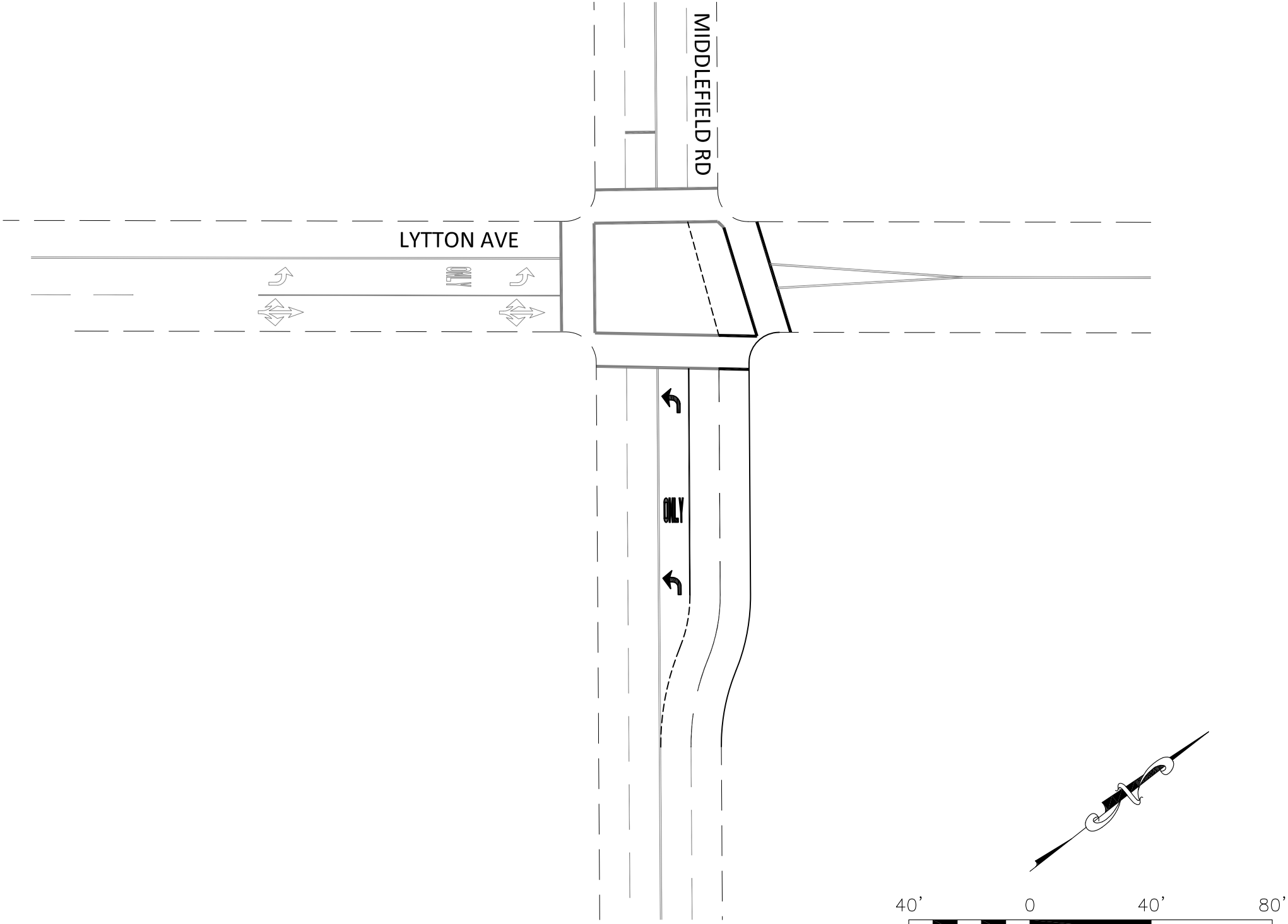


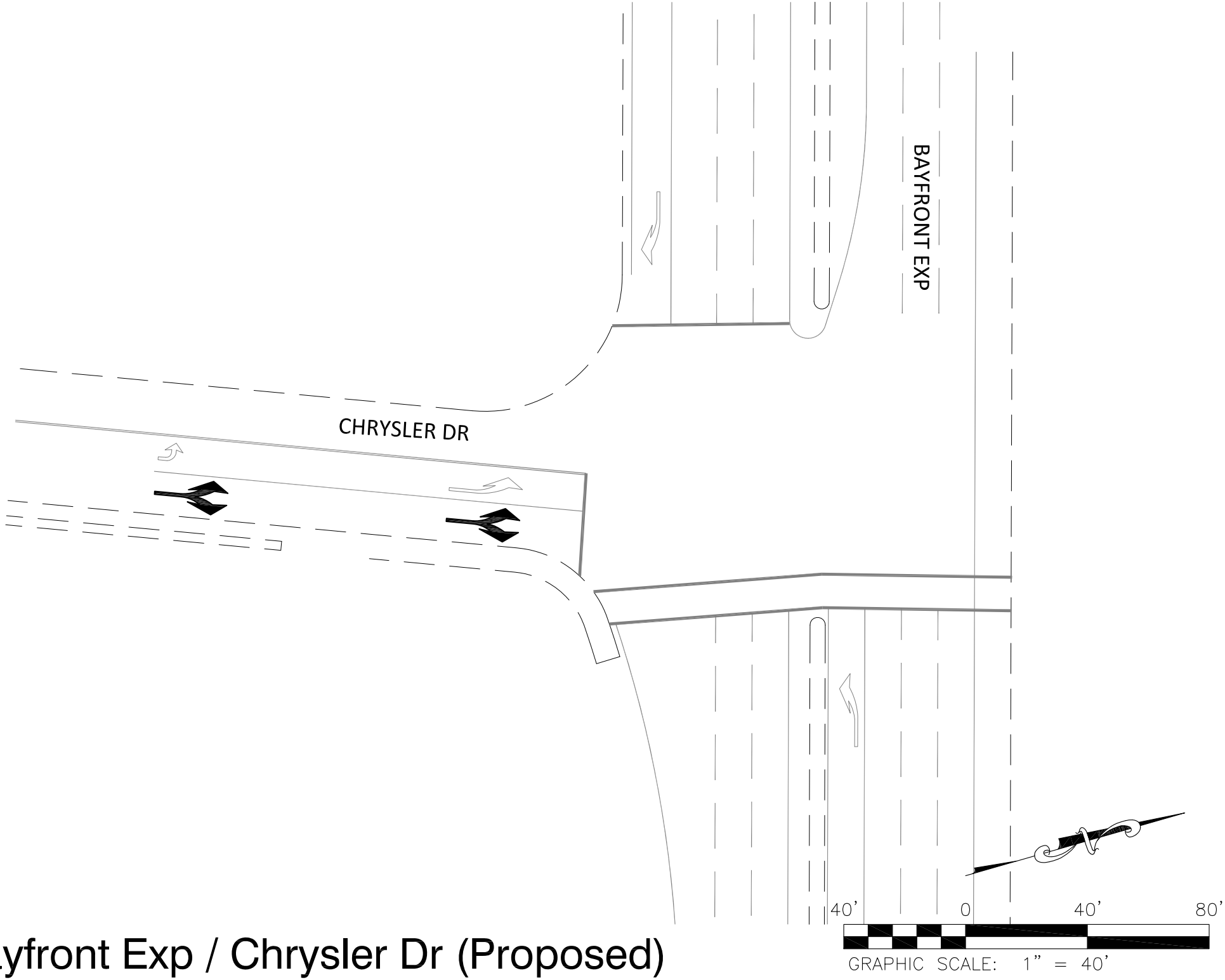
University Ave / Donohoe St (Proposed)



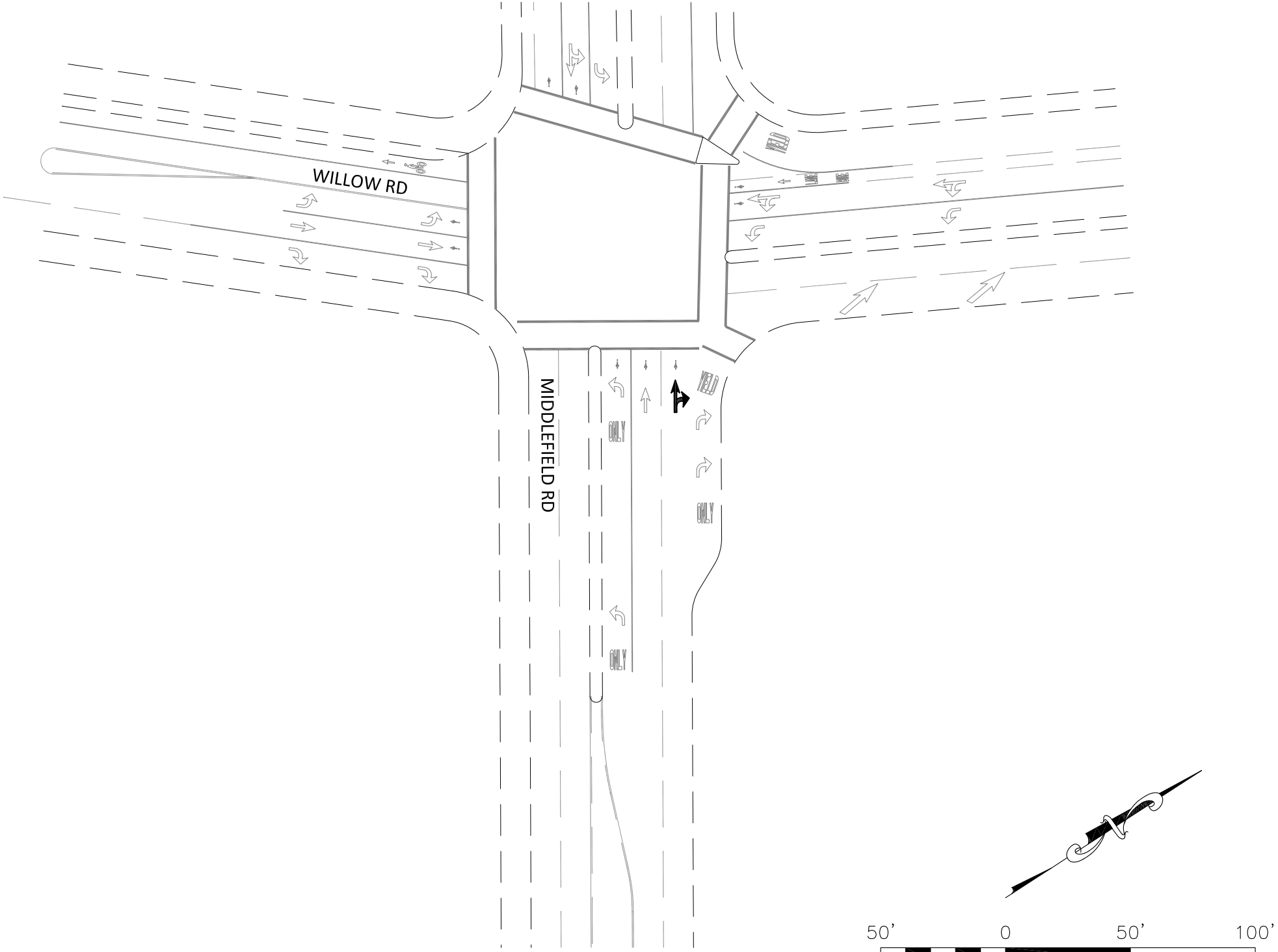
University Ave / Donohoe St (Existing)



Middlefield Rd / Lytton Ave (Proposed)



Bayfront Exp / Chrysler Dr (Proposed)



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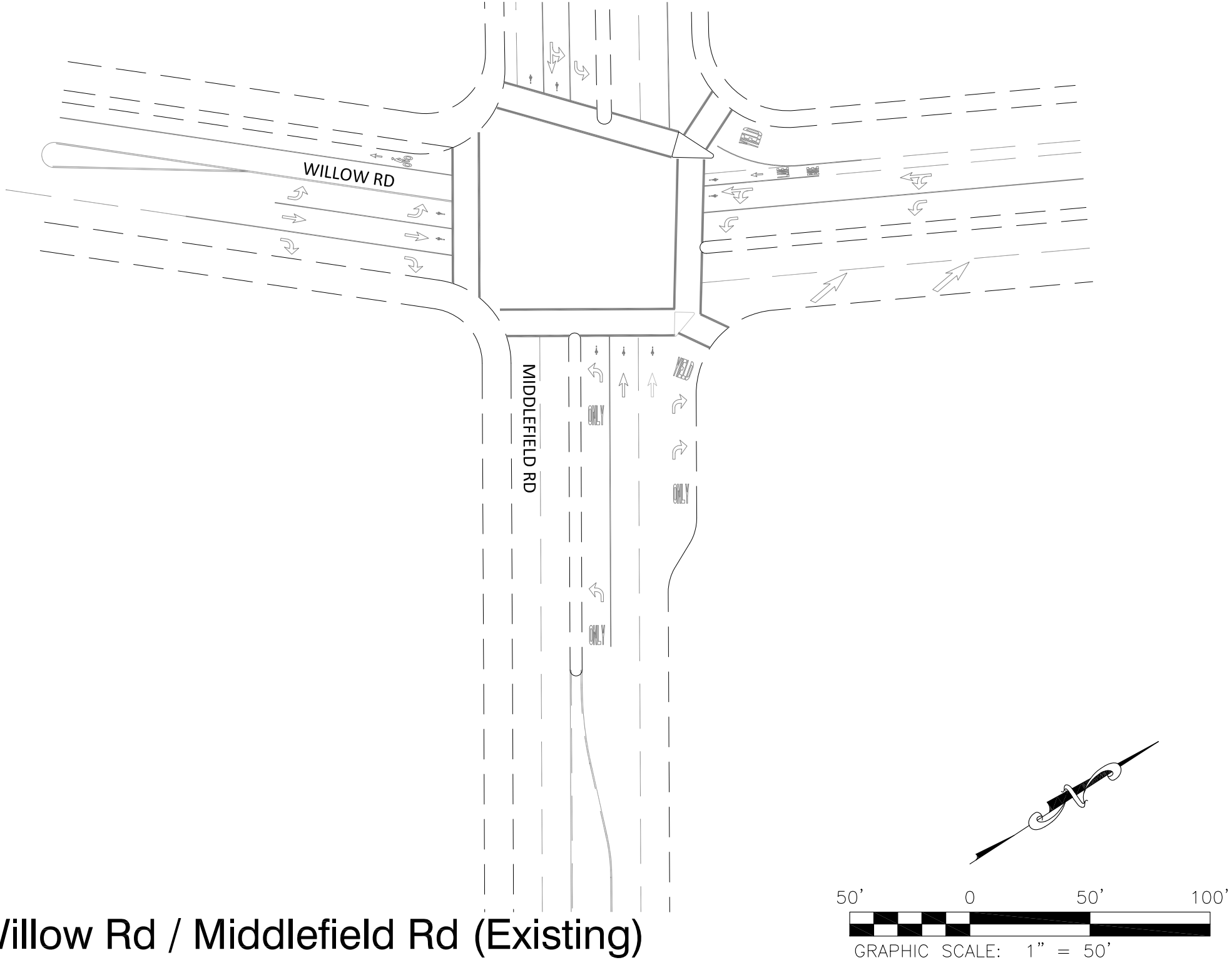
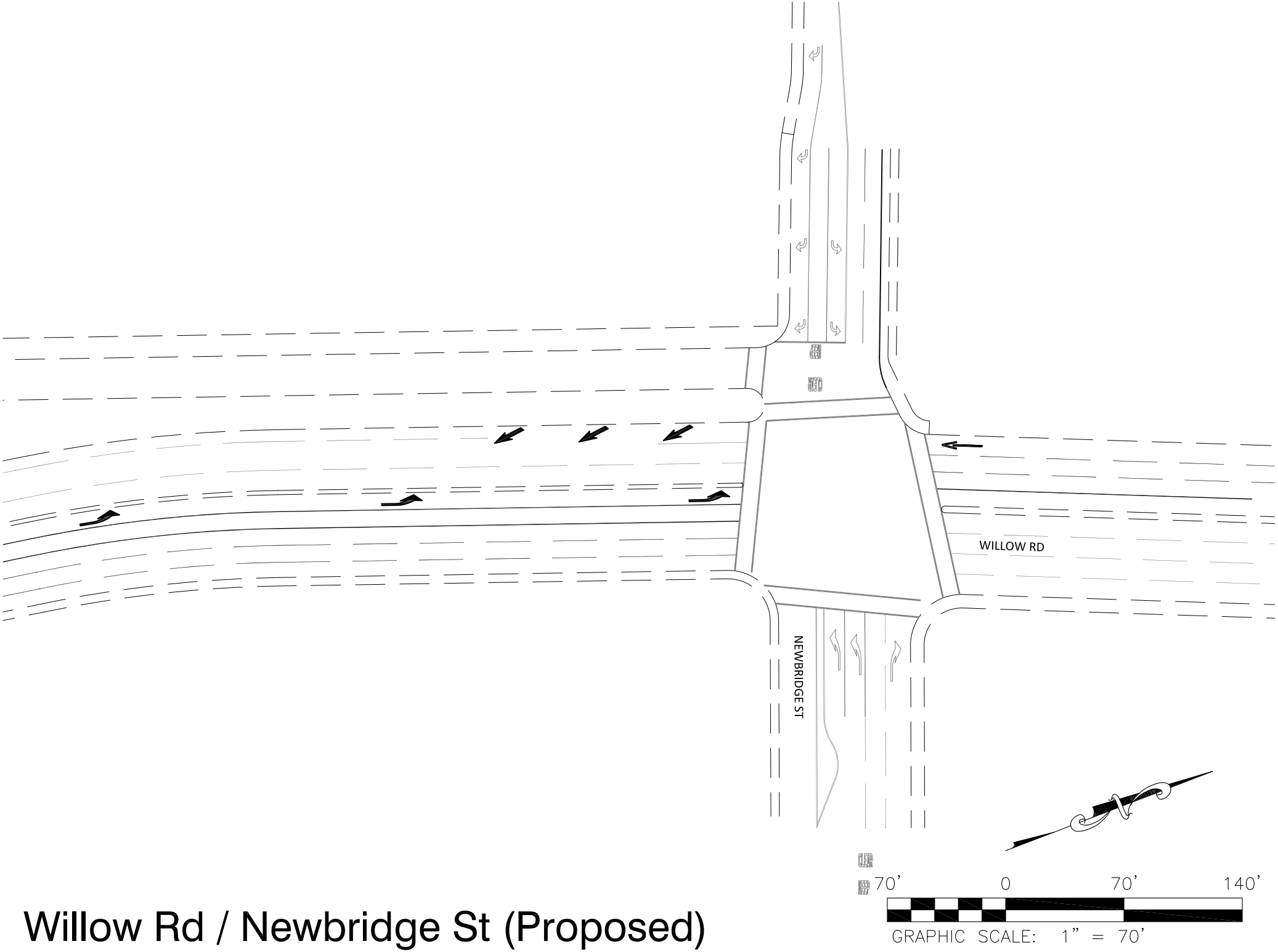


Willow Rd / Middlefield Rd (Existing)



Willow Rd / Newbridge St (Proposed)