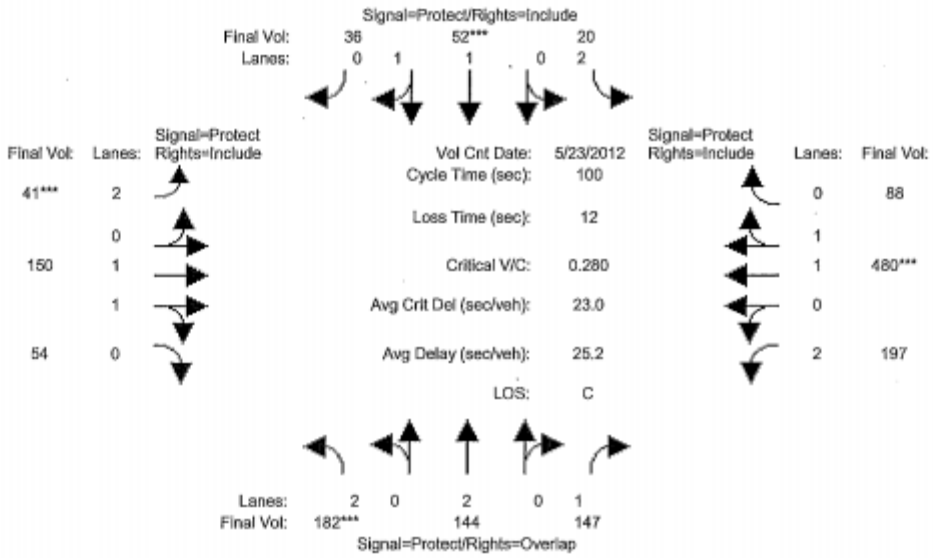
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing-AM

Intersection #1011: Mary Ave. & Maude Ave.



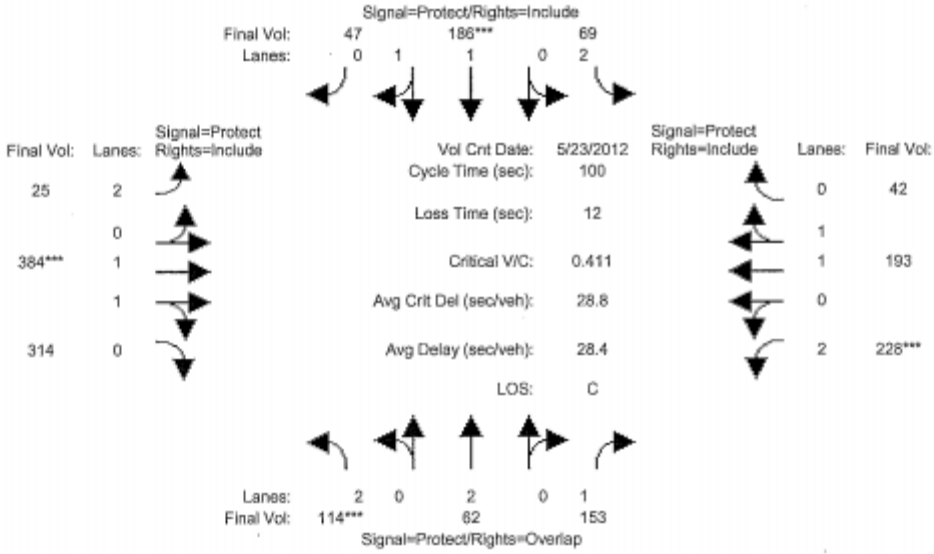
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	182	144	147	20	52	36	41	150	54	197	480	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:	182	144	147	20	52	36	41	150	54	197	480	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:	182	144	147	20	52	36	41	150	54	197	480	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:	182	144	147	20	52	36	41	150	54	197	480	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	182	144	147	20	52	36	41	150	54	197	480	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:	182	144	147	20	52	36	41	150	54	197	480	88
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	1.14	0.86	2.00	1.44	0.56	2.00	1.67	0.33
Final Sat.:	3150	3800	1750	3150	2169	1502	3150	2732	984	3150	3169	581
Capacity Analysis Module:												
Vol/Sat:	0.06	0.04	0.08	0.01	0.02	0.02	0.01	0.05	0.05	0.06	0.15	0.15
Crit Moves:	****				****		****				****	
Green/Cycle:	0.20	0.17	0.41	0.12	0.10	0.10	0.07	0.34	0.34	0.24	0.51	0.51
Volume/Cap:	0.29	0.22	0.20	0.05	0.24	0.24	0.19	0.16	0.16	0.26	0.29	0.29
Delay/Veh:	35.5	36.2	19.3	39.1	43.0	43.0	45.7	23.1	23.1	31.6	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:	35.5	36.2	19.3	39.1	43.0	43.0	45.7	23.1	23.1	31.6	14.3	14.3
LOS by Move:	D	D	B	D	D	D	D	C	C	C	B	B
HCM2kAvgQ:	71	47	77	9	37	37	18	55	55	76	125	125

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1011: Mary Ave. & Maude Ave.



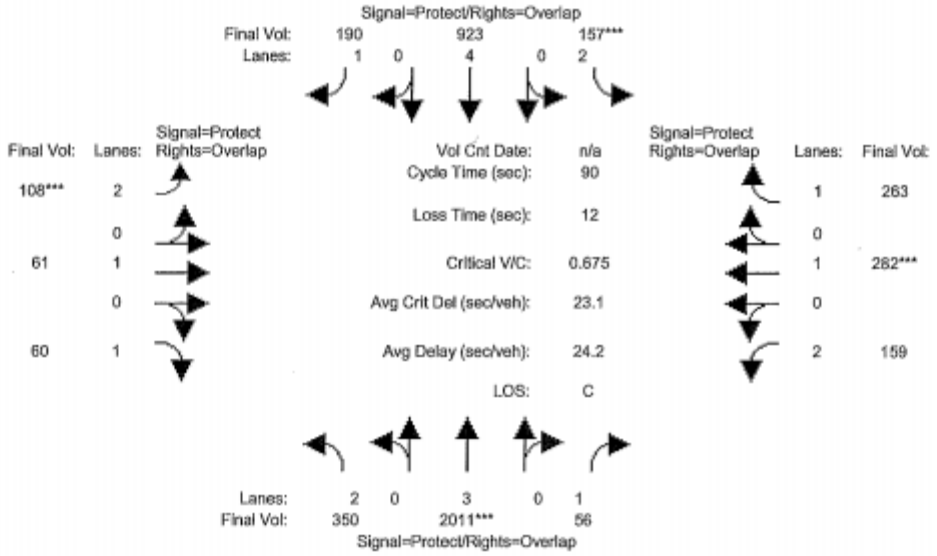
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5-6												
Base Vol:	114	62	153	69	186	47	25	384	314	228	193	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	114	62	153	69	186	47	25	384	314	228	193	42
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:	114	62	153	69	186	47	25	384	314	228	193	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	62	153	69	186	47	25	384	314	228	193	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	62	153	69	186	47	25	384	314	228	193	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	114	62	153	69	186	47	25	384	314	228	193	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	1.57	0.43	2.00	1.06	0.94	2.00	1.62	0.38
Final Sat.:	3150	3800	1750	3150	2982	753	3150	2013	1646	3150	3074	669
Capacity Analysis Module:												
Vol/Sat:	0.04	0.02	0.09	0.02	0.06	0.06	0.01	0.19	0.19	0.07	0.06	0.06
Crit Moves:	****				****			****		****		
Green/Cycle:	0.09	0.14	0.32	0.10	0.15	0.15	0.26	0.46	0.46	0.18	0.38	0.38
Volume/Cap:	0.41	0.12	0.28	0.22	0.41	0.41	0.03	0.41	0.41	0.41	0.17	0.17
Delay/Veh:	47.6	37.9	26.8	43.2	40.6	40.6	27.4	18.5	18.5	38.8	21.0	21.0
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:	47.6	37.9	26.8	43.2	40.6	40.6	27.4	18.5	18.5	38.8	21.0	21.0
LOS by Move:	D	D	C	D	D	D	C	B	B	D	C	C
HCM2kAvgQ:	50	20	93	34	91	91	8	186	186	102	60	60

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1012: Mathilda Ave. & Maude Ave.



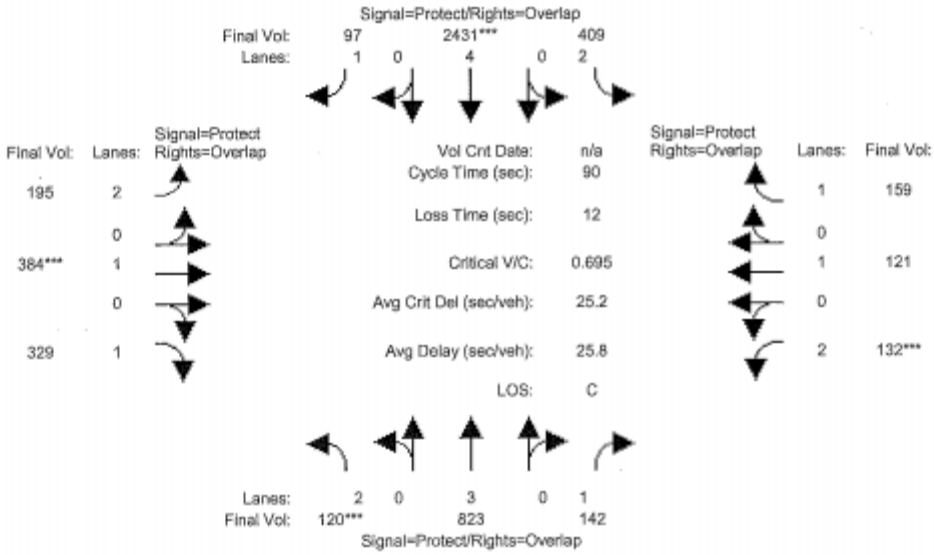
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module:												
Base Vol:	350	2011	56	157	923	190	108	61	60	159	282	263
Growth Adj:	1.00	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	2011	56	157	923	190	108	61	60	159	282	263
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	2011	56	157	923	190	108	61	60	159	282	263
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	2011	56	157	923	190	108	61	60	159	282	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	350	2011	56	157	923	190	108	61	60	159	282	263
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	350	2011	56	157	923	190	108	61	60	159	282	263
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	3150	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.35	0.03	0.05	0.12	0.11	0.03	0.03	0.03	0.05	0.15	0.15
Crit Moves:		****		****			****				****	
Green/Cycle:	0.28	0.50	0.62	0.08	0.30	0.38	0.08	0.17	0.45	0.12	0.21	0.29
Volume/Cap:	0.40	0.70	0.05	0.64	0.40	0.29	0.44	0.19	0.08	0.43	0.70	0.52
Delay/Veh:	26.8	18.2	6.8	45.9	25.1	19.7	40.9	32.3	14.3	37.6	38.6	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:	26.8	18.2	6.8	45.9	25.1	19.7	40.9	32.3	14.3	37.6	38.6	27.8
LOS by Move:	C	B	A	D	C	B	D	C	B	D	D	C
HCM2kAvgQ:	124	379	16	65	122	94	57	39	25	61	186	162

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1012: Mathilda Ave. & Maude Ave.



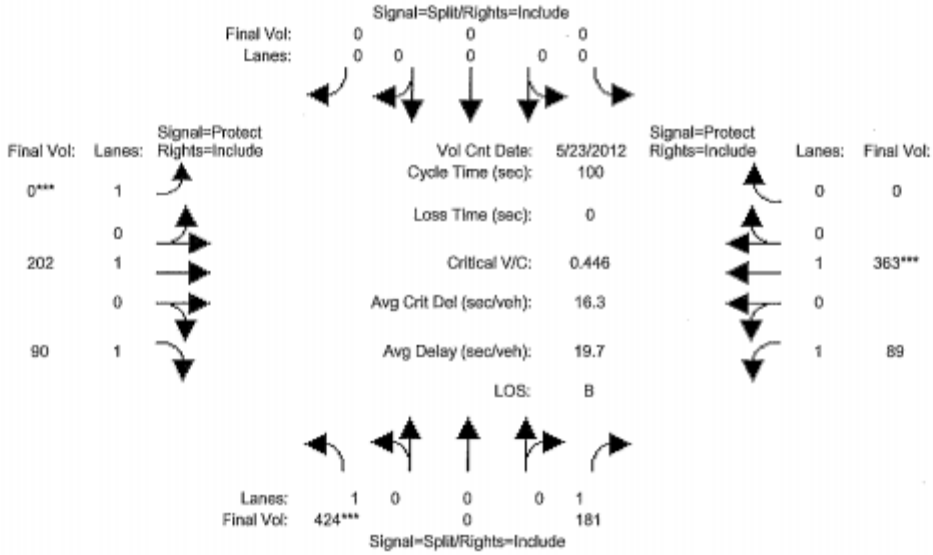
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module:												
Base Vol:	120	823	142	409	2431	97	195	384	329	132	121	159
Growth Adj:	1.00	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	823	142	409	2431	97	195	384	329	132	121	159
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	823	142	409	2431	97	195	384	329	132	121	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	823	142	409	2431	97	195	384	329	132	121	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	823	142	409	2431	97	195	384	329	132	121	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	120	823	142	409	2431	97	195	384	329	132	121	159
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	3150	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.08	0.13	0.32	0.06	0.06	0.20	0.19	0.04	0.06	0.09
Crit Moves:	****				****			****		****		
Green/Cycle:	0.08	0.27	0.35	0.24	0.44	0.58	0.15	0.28	0.35	0.08	0.21	0.45
Volume/Cap:	0.49	0.53	0.23	0.53	0.73	0.10	0.43	0.73	0.53	0.54	0.31	0.20
Delay/Veh:	41.3	28.4	21.0	30.4	21.9	8.4	35.7	35.0	24.1	42.3	30.6	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:	41.3	28.4	21.0	30.4	21.9	8.4	35.7	35.0	24.1	42.3	30.6	15.1
LOS by Move:	D	C	C	C	C	A	D	C	C	D	C	B
HCM2kAvgQ:	65	174	76	141	337	30	85	279	206	53	68	68

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc.
Licensed to TJKM, PLEASANTON, CA

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

Intersection #1013: Bernardo Ave & Evelyn Ave



Street Name:	Bernardo Ave						Evelyn Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	424	0	181	0	0	0	0	202	90	89	363	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:	424	0	181	0	0	0	0	202	90	89	363	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:	424	0	181	0	0	0	0	202	90	89	363	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:	424	0	181	0	0	0	0	202	90	89	363	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	424	0	181	0	0	0	0	202	90	89	363	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:	424	0	181	0	0	0	0	202	90	89	363	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	1.00	0.78	0.92	1.00	0.92	0.92	1.00	0.78	0.88	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1663	0	1488	0	0	0	1750	1900	1488	1663	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.26	0.00	0.12	0.00	0.00	0.00	0.00	0.11	0.06	0.05	0.19	0.00
Crit Moves:	****						****				****	
Green/Cycle:	0.57	0.00	0.57	0.00	0.00	0.00	0.00	0.28	0.28	0.14	0.43	0.00
Volume/Cap:	0.45	0.00	0.21	0.00	0.00	0.00	0.00	0.37	0.21	0.37	0.45	0.00
Delay/Veh:	12.6	0.0	10.6	0.0	0.0	0.0	0.0	29.0	27.5	39.7	20.6	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:	12.6	0.0	10.6	0.0	0.0	0.0	0.0	29.0	27.5	39.7	20.6	0.0
LOS by Move:	B	A	B	A	A	A	A	C	C	D	C	A
HCM2kAvgQ:	204	0	73	0	0	0	0	127	58	65	190	0

Note: Queue reported is the distance per lane in feet.

HCM Ops Adjusted Lane Utilization Module:																				
Lanes:	1	0	0	0	1	0	0	0	0	0	1	0	1	0	1	1	0	1	0	0
Lane Group:	L	xxxx			R	xxxx	xxxx		xxxx		L		T		R	L		T		xxxx
#LnsInGrps:	1	0			1	0	0		0		1		1		1	1		1		0

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

```
HCM Ops Input Saturation Adj Module:
Lane Width:     12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:      1 xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx     1 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 xxxx  1.00  xxxx xxxx xxxxx  xxxx 1.00  1.00  1.00 1.00 xxxxx
Hev Veh Adj: 1.00 xxxx  1.00  xxxx xxxx xxxxx  xxxx 1.00  1.00  1.00 1.00 xxxxx
Grade Adj:   1.00 xxxx  1.00  xxxx xxxx xxxxx  xxxx 1.00  1.00  1.00 1.00 xxxxx
Parking Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  xxxx xxxx  1.00  xxxx 1.00 xxxxx
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  xxxx xxxx  1.00  xxxx 1.00 xxxxx
Area Adj:    1.00 xxxx  1.00  xxxx xxxx xxxxx  xxxx 1.00  1.00  1.00 1.00 xxxxx
RT Adj:      xxxx xxxx  0.85  xxxx xxxx xxxxx  xxxx xxxx  0.85  xxxx xxxx xxxxx
LT Adj:      0.95 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  0.95 xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.95 1.00  0.85  1.00 1.00  1.00  1.00 1.00  0.85  0.95 1.00  1.00
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 0.92 1.00  0.92  0.92 1.00  0.92  0.92 1.00  0.92  0.92 1.00  0.92
Fnl Sat Adj: 0.88 1.00  0.78  0.92 1.00  0.92  0.92 1.00  0.78  0.88 1.00  0.92
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < < < < No  > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 0.00  1.00  0.00 0.00  0.00  0.00 1.00  1.00  1.00 1.00  0.00
```

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

```
*******************************************************************************
Intersection #1013 Bernardo Ave & Evelyn Ave
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Green/Cycle: 0.57 0.00  0.57  0.00 0.00  0.00  0.00 0.28  0.28  0.14 0.43  0.00
ArrivalType:          3                3                3                3
ProgFactor:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Q1:           7.4  0.0   2.7   0.0  0.0   0.0   0.0  4.5   2.1   2.4  7.1   0.0
UpstreamVC:  0.00 0.00  0.00  0.00 0.00  0.00  0.00 0.00  0.00  0.45 0.45  0.00
UpstreamAdj: 0.00 0.00  0.00  0.00 0.00  0.00  0.00 0.00  0.00  0.89 0.89  0.00
EarlyArrAdj: 1.00 0.00  1.00  0.00 0.00  0.00  0.00 1.00  1.00  0.29 0.58  0.00
Q2:           0.8  0.0   0.3   0.0  0.0   0.0   0.0  0.6   0.3   0.2  0.5   0.0
HCM2KQueue:   8.1  0.0   2.9   0.0  0.0   0.0   0.0  5.1   2.3   2.6  7.6   0.0
------------|---------------||---------------||---------------||---------------|
70th%Factor: 1.18 1.20  1.19  1.20 1.20  1.20  1.20 1.19  1.19  1.19 1.18  1.20
HCM2k70thQ:   9.6  0.0   3.5   0.0  0.0   0.0   0.0  6.0   2.8   3.1  9.0   0.0
------------|---------------||---------------||---------------||---------------|
85th%Factor: 1.53 1.60  1.57  1.60 1.60  1.60  1.60 1.55  1.58  1.58 1.53  1.60
HCM2k85thQ:  12.5  0.0   4.6   0.0  0.0   0.0   0.0  7.9   3.7   4.1 11.6   0.0
------------|---------------||---------------||---------------||---------------|
90th%Factor: 1.67 1.80  1.75  1.80 1.80  1.80  1.80 1.71  1.76  1.75 1.67  1.80
HCM2k90thQ:  13.6  0.0   5.1   0.0  0.0   0.0   0.0  8.7   4.1   4.6 12.7   0.0
------------|---------------||---------------||---------------||---------------|
95th%Factor: 1.88 2.10  2.01  2.10 2.10  2.10  2.10 1.95  2.03  2.02 1.89  2.10
HCM2k95thQ:  15.3  0.0   5.9   0.0  0.0   0.0   0.0  9.9   4.7   5.3 14.4   0.0
------------|---------------||---------------||---------------||---------------|
98th%Factor: 2.23 2.70  2.50  2.70 2.70  2.70  2.70 2.38  2.54  2.52 2.26  2.70
HCM2k98thQ:  18.2  0.0   7.3   0.0  0.0   0.0   0.0 12.1   5.9   6.6 17.1   0.0
```

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

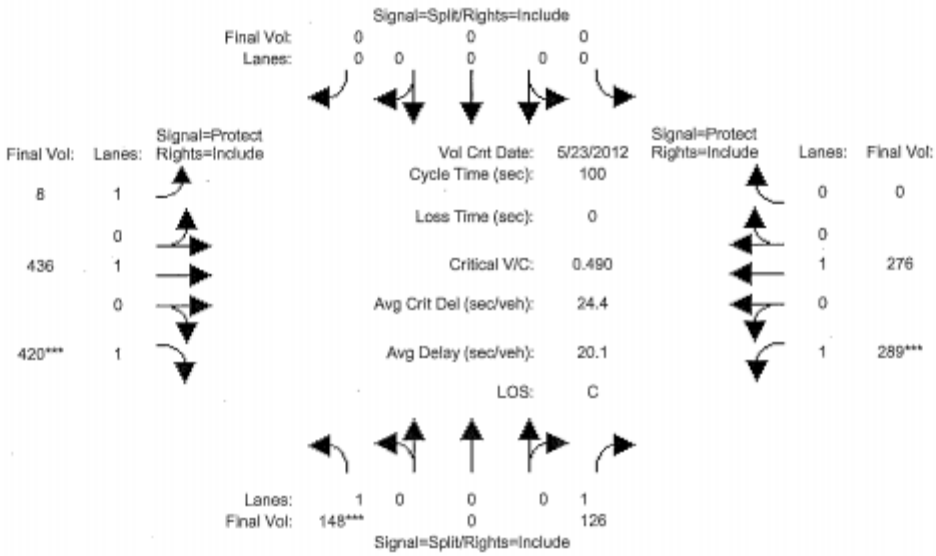
```
*******************************************************************************
Intersection #1013 Bernardo Ave & Evelyn Ave
```

```
*******************************************************************************
Approach:       North Bound       South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Run Speed:          30 MPH            30 MPH            30 MPH            30 MPH
NumOfStops:  60.9  0.0  22.1   0.0  0.0   0.0   0.0 40.4  17.1  20.1 64.1   0.0
-------------------------------------------------------------------------------
Name: year 1995 composite fleet
Fuel Consumption:      34.799 pounds
                        5.637 gallons
Carbon Dioxide:       108.572 pounds
Carbon Monoxide:        8.331 pounds
Hydrocarbons:           1.465 pounds
Nitrogen Oxides:        0.318 pounds
-------------------------------------------------------------------------------
Name: year 2000 composite fleet
Fuel Consumption:      34.799 pounds
                        5.637 gallons
Carbon Dioxide:       108.572 pounds
Carbon Monoxide:        8.331 pounds
Hydrocarbons:           1.465 pounds
Nitrogen Oxides:        0.318 pounds
-------------------------------------------------------------------------------
DISCLAIMER
The fuel consumption and emissions measures should be used with
caution and only for comparisons of different signal timings, geometric
design Future Volume Alternatives or for general planning applications, as these
calculations are applied to the analysis of a single intersection within the
CCG and TRAFFIX.  Network models are more appropriate since they can
account for the influence of the adjacent control measures and other system
elements.
```


Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1013: Bernardo Ave & Evelyn Ave



Street Name:	Bernardo Ave						Evelyn Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5:00-6:00												
Base Vol:	148	0	126	0	0	0	8	436	420	289	276	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:	148	0	126	0	0	0	8	436	420	289	276	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:	148	0	126	0	0	0	8	436	420	289	276	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:	148	0	126	0	0	0	8	436	420	289	276	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	0	126	0	0	0	8	436	420	289	276	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:	148	0	126	0	0	0	8	436	420	289	276	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	0	0	0	1750	1900	1750	1750	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.07	0.00	0.00	0.00	0.00	0.23	0.24	0.17	0.15	0.00
Crit Moves:	****								****	****		
Green/Cycle:	0.17	0.00	0.17	0.00	0.00	0.00	0.03	0.49	0.49	0.34	0.80	0.00
Volume/Cap:	0.49	0.00	0.42	0.00	0.00	0.00	0.18	0.47	0.49	0.49	0.18	0.00
Delay/Veh:	38.6	0.0	37.8	0.0	0.0	0.0	49.7	17.2	17.5	27.0	2.3	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:	38.6	0.0	37.8	0.0	0.0	0.0	49.7	17.2	17.5	27.0	2.3	0.0
LOS by Move:	D	A	D	A	A	A	D	B	B	C	A	A
HCM2kAvgQ:	124	0	102	0	0	0	11	222	236	185	49	0

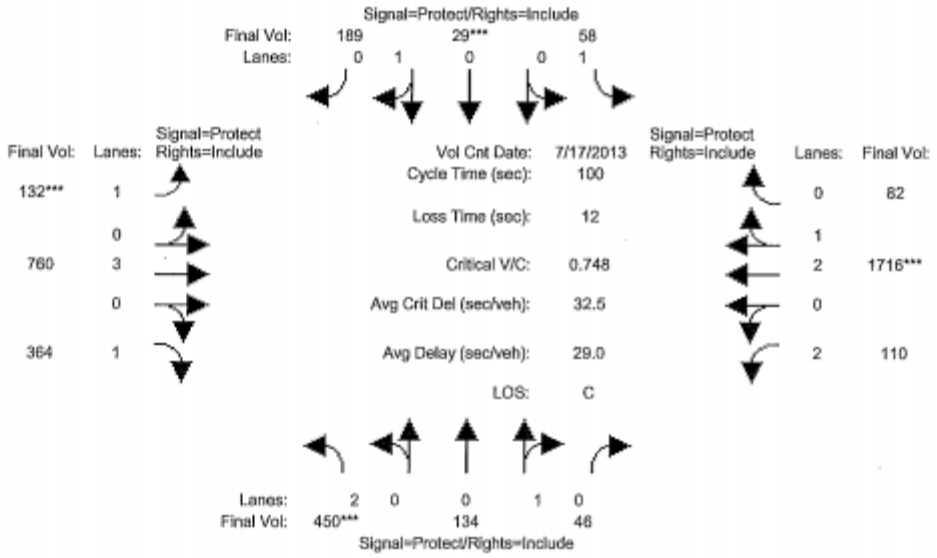
Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Appendix C – Level of Service Worksheets: Existing plus Project Conditions

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

Intersection #1001: Sylvan Ave. & El Camino Real



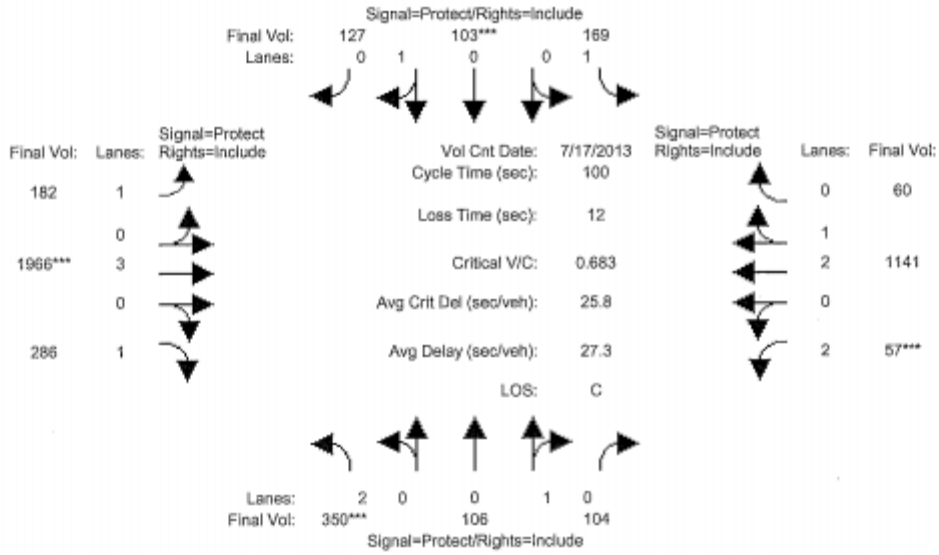
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Jul 2013 << 8:00 AM - 9:00 AM												
Base Vol:	450	134	46	58	29	189	132	740	364	110	1700	82
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	450	134	46	58	29	189	132	740	364	110	1700	82
Added Vol:	0	0	0	0	0	0	0	20	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	450	134	46	58	29	189	132	760	364	110	1716	82
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	450	134	46	58	29	189	132	760	364	110	1716	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	450	134	46	58	29	189	132	760	364	110	1716	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	450	134	46	58	29	189	132	760	364	110	1716	82
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	0.73	0.27	1.00	0.12	0.88	1.00	3.00	1.00	2.00	2.85	0.15
Final Sat.:	3150	1384	475	1750	235	1533	1750	5700	1750	3150	5419	259
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.10	0.03	0.12	0.12	0.08	0.13	0.21	0.03	0.32	0.32
Crit Moves:	****				****		****				****	
Green/Cycle:	0.19	0.27	0.27	0.09	0.16	0.16	0.10	0.45	0.45	0.08	0.42	0.42
Volume/Cap:	0.75	0.37	0.37	0.37	0.75	0.75	0.75	0.30	0.46	0.46	0.75	0.75
Delay/Veh:	43.3	30.4	30.4	44.2	50.0	50.0	59.8	17.6	19.6	45.7	25.7	25.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	30.4	30.4	44.2	50.0	50.0	59.8	17.6	19.6	45.7	25.7	25.7
LOS by Move:	D	C	C	D	D	D	E	B	B	D	C	C
HCM2kAvgQ:	239	118	118	55	215	215	115	119	205	47	379	379

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1001: Sylvan Ave. & El Camino Real



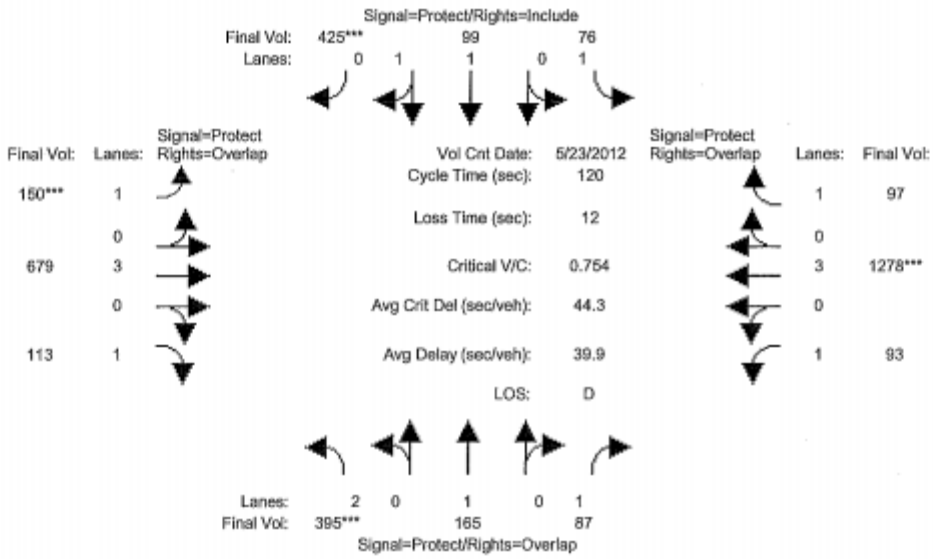
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Jul 2013 << 5:00 PM - 6:00 PM												
Base Vol:	350	106	104	169	103	127	182	1948	286	57	1113	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	350	106	104	169	103	127	182	1948	286	57	1113	60
Added Vol:	0	0	0	0	0	0	0	18	0	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	350	106	104	169	103	127	182	1966	286	57	1141	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	350	106	104	169	103	127	182	1966	286	57	1141	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	350	106	104	169	103	127	182	1966	286	57	1141	60
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	350	106	104	169	103	127	182	1966	286	57	1141	60
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	0.48	0.52	1.00	0.43	0.57	1.00	3.00	1.00	2.00	2.84	0.16
Final Sat.:	3150	920	903	1750	812	1002	1750	5700	1750	3150	5392	284
Capacity Analysis Module:												
Vol/Sat:	0.11	0.12	0.12	0.10	0.13	0.13	0.10	0.34	0.16	0.02	0.21	0.21
Crit Moves:	****				****			****		****		
Green/Cycle:	0.16	0.19	0.19	0.16	0.19	0.19	0.18	0.51	0.51	0.03	0.36	0.36
Volume/Cap:	0.68	0.61	0.61	0.61	0.68	0.68	0.59	0.68	0.32	0.68	0.59	0.59
Delay/Veh:	43.2	40.2	40.2	43.0	43.6	43.6	41.1	19.4	14.9	69.0	26.7	26.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.2	40.2	40.2	43.0	43.6	43.6	41.1	19.4	14.9	69.0	26.7	26.7
LOS by Move:	D	D	D	D	D	D	D	B	B	E	C	C
HCM2kAvgQ:	185	175	175	154	203	203	129	351	129	28	244	244

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (alternative)
Existing plus Project - AM

Intersection #1002: Bernardo Ave. & El Camino Real



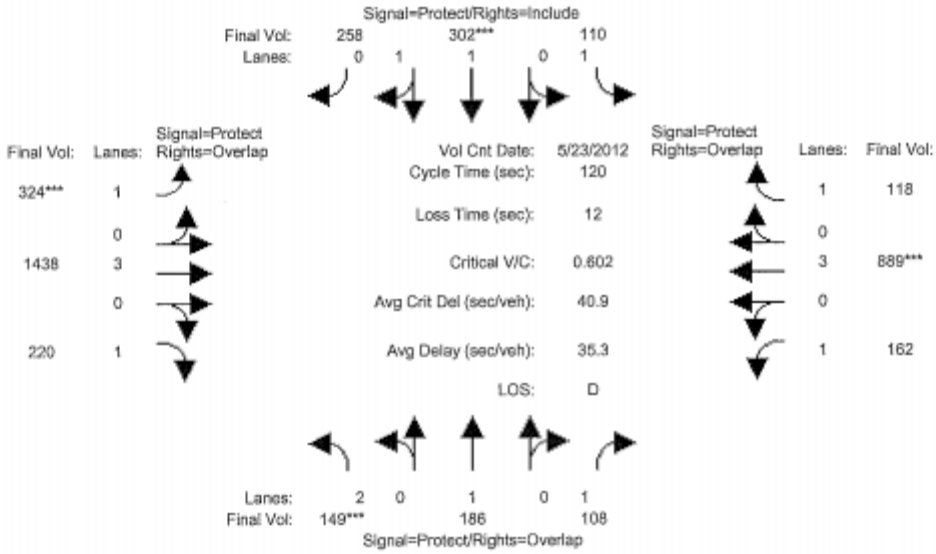
Street Name:	Bernardo Avenue						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8:00-9:00												
Base Vol:	395	161	86	76	96	413	135	674	113	92	1274	97
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	395	161	86	76	96	413	135	674	113	92	1274	97
Added Vol:	0	4	1	0	3	12	15	5	0	1	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	395	165	87	76	99	425	150	679	113	93	1278	97
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	395	165	87	76	99	425	150	679	113	93	1278	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	395	165	87	76	99	425	150	679	113	93	1278	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	395	165	87	76	99	425	150	679	113	93	1278	97
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	1.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	1900	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.13	0.09	0.05	0.04	0.05	0.24	0.09	0.12	0.06	0.05	0.22	0.06
Crit Moves:	****					****	****				****	
Green/Cycle:	0.17	0.29	0.43	0.20	0.32	0.32	0.11	0.28	0.44	0.14	0.30	0.49
Volume/Cap:	0.75	0.30	0.12	0.22	0.16	0.75	0.75	0.43	0.15	0.39	0.75	0.11
Delay/Veh:	53.8	33.2	20.8	40.8	29.1	41.1	66.5	35.9	20.0	48.5	40.1	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:	53.8	33.2	20.8	40.8	29.1	41.1	66.5	35.9	20.0	48.5	40.1	16.3
LOS by Move:	D	C	C	D	C	D	E	D	C	D	D	B
HCM2kAvgQ:	217	113	50	65	64	411	153	165	64	82	360	49

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1002: Bernardo Ave. & El Camino Real



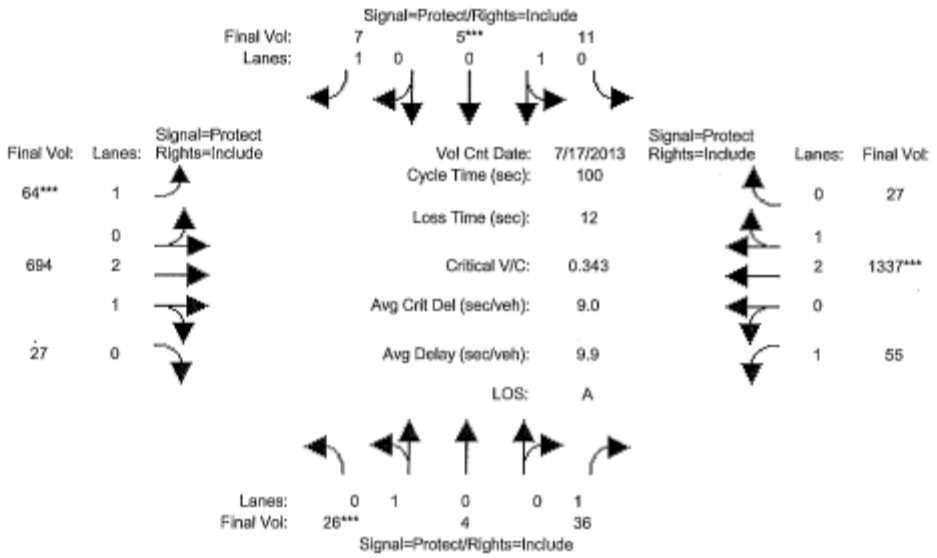
Street Name:	Bernardo Avenue						El Camino Real					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5:00-6:00												
Base Vol:	149	182	107	110	296	237	311	1434	220	160	882	117
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	149	182	107	110	296	237	311	1434	220	160	882	117
Added Vol:	0	4	1	0	6	21	13	4	0	2	7	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	149	186	108	110	302	258	324	1438	220	162	889	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:	149	186	108	110	302	258	324	1438	220	162	889	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	149	186	108	110	302	258	324	1438	220	162	889	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:	149	186	108	110	302	258	324	1438	220	162	889	118
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	1.00	1.00	1.00	1.04	0.96	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	1900	1750	1750	1971	1684	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.06	0.06	0.15	0.15	0.19	0.25	0.13	0.09	0.16	0.07
Crit Moves:	****				****		****				****	
Green/Cycle:	0.08	0.20	0.36	0.13	0.25	0.25	0.31	0.41	0.49	0.15	0.26	0.39
Volume/Cap:	0.60	0.48	0.17	0.48	0.60	0.60	0.60	0.61	0.25	0.61	0.60	0.17
Delay/Veh:	57.6	43.2	26.7	50.0	40.5	40.5	37.2	28.0	17.8	51.6	39.7	24.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.6	43.2	26.7	50.0	40.5	40.5	37.2	28.0	17.8	51.6	39.7	24.1
LOS by Move:	E	D	C	D	D	D	D	C	B	D	D	C
HCM2kAvgQ:	82	147	70	114	249	249	264	331	120	151	236	73

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1003: Grape Ave. & El Camino Real



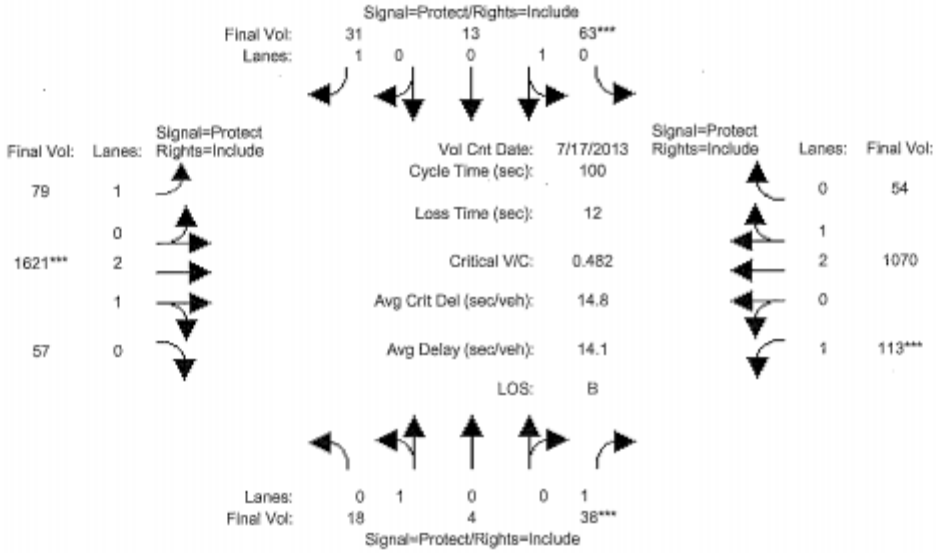
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Jul 2013 << 8:00 AM - 9:00 AM												
Base Vol:	26	4	36	11	5	7	64	688	27	44	1332	27
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	26	4	36	11	5	7	64	688	27	44	1332	27
Added Vol:	0	0	0	0	0	0	0	6	0	11	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	4	36	11	5	7	64	694	27	55	1337	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:	26	4	36	11	5	7	64	694	27	55	1337	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	4	36	11	5	7	64	694	27	55	1337	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:	26	4	36	11	5	7	64	694	27	55	1337	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.88	0.12	1.00	0.70	0.30	1.00	1.00	2.88	0.12	1.00	2.94	0.06
Final Sat.:	1533	236	1750	1234	561	1750	1750	5469	213	1750	5578	113
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.01	0.01	0.00	0.04	0.13	0.13	0.03	0.24	0.24
Crit Moves:	****				****		****				****	
Green/Cycle:	0.05	0.05	0.05	0.02	0.03	0.03	0.11	0.64	0.64	0.16	0.70	0.70
Volume/Cap:	0.34	0.32	0.39	0.39	0.34	0.15	0.34	0.20	0.20	0.20	0.34	0.34
Delay/Veh:	48.3	47.7	48.6	54.3	52.2	49.2	42.5	7.2	7.2	36.8	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:	48.3	47.7	48.6	54.3	52.2	49.2	42.5	7.2	7.2	36.8	6.0	6.0
LOS by Move:	D	D	D	D	D	D	D	A	A	D	A	A
HCM2kAvgQ:	34	33	41	25	23	10	48	73	73	42	139	139

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1003: Grape Ave. & El Camino Real



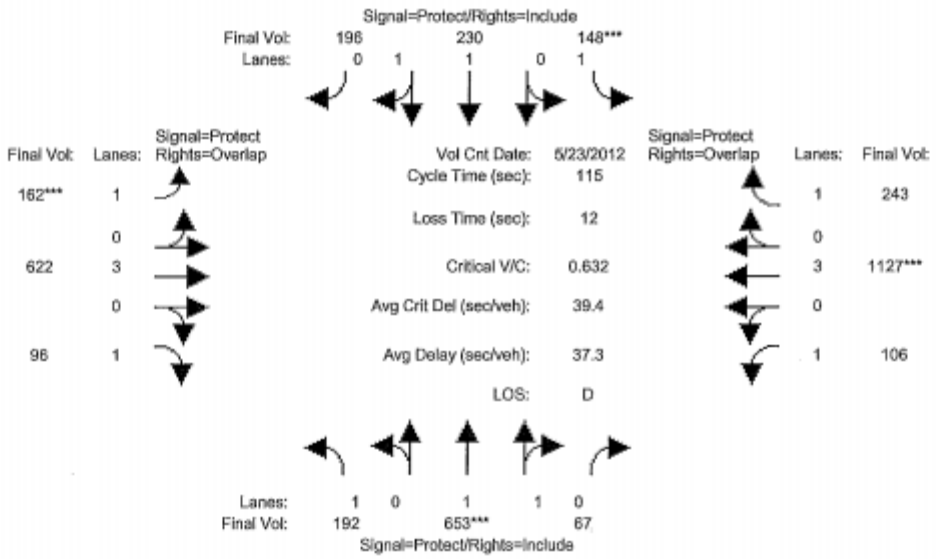
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Jul 2013 << 5:00 PM - 6:00 PM												
Base Vol:	18	4	38	63	13	31	79	1615	57	93	1060	54
Growth Adj:	1.00	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	4	38	63	13	31	79	1615	57	93	1060	54
Added Vol:	0	0	0	0	0	0	0	6	0	20	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	4	38	63	13	31	79	1621	57	113	1070	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:	18	4	38	63	13	31	79	1621	57	113	1070	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	4	38	63	13	31	79	1621	57	113	1070	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:	18	4	38	63	13	31	79	1621	57	113	1070	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.83	0.17	1.00	0.84	0.16	1.00	1.00	2.89	0.11	1.00	2.84	0.16
Final Sat.:	1453	323	1750	1471	303	1750	1750	5490	193	1750	5404	273
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.02	0.04	0.04	0.02	0.05	0.30	0.30	0.06	0.20	0.20
Crit Moves:			****	****				****		****		
Green/Cycle:	0.03	0.05	0.05	0.09	0.10	0.10	0.14	0.61	0.61	0.13	0.61	0.61
Volume/Cap:	0.41	0.28	0.48	0.48	0.41	0.17	0.33	0.48	0.48	0.48	0.33	0.33
Delay/Veh:	52.7	48.0	51.2	45.7	43.5	41.3	39.6	10.8	10.8	41.7	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:	52.7	48.0	51.2	45.7	43.5	41.3	39.6	10.8	10.8	41.7	9.7	9.7
LOS by Move:	D	D	D	D	D	D	D	B	B	D	A	A
HCM2kAvgQ:	31	25	48	75	70	26	57	228	228	101	140	140

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1004: Mary Ave. & El Camino Real



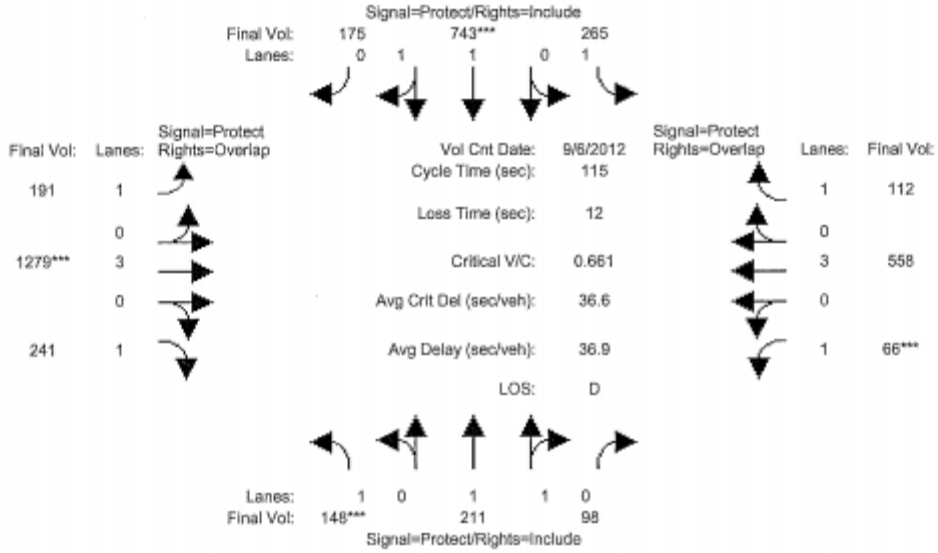
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	188	640	67	128	220	191	152	615	93	106	1118	218
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	640	67	128	220	191	152	615	93	106	1118	218
Added Vol:	4	13	0	20	10	5	10	7	3	0	9	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	192	653	67	148	230	196	162	622	96	106	1127	243
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	192	653	67	148	230	196	162	622	96	106	1127	243
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	192	653	67	148	230	196	162	622	96	106	1127	243
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	192	653	67	148	230	196	162	622	96	106	1127	243
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.80	0.20	1.00	1.04	0.96	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3419	351	1750	1974	1682	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.19	0.19	0.08	0.12	0.12	0.09	0.11	0.05	0.06	0.20	0.14
Crit Moves:		****		****			****				****	
Green/Cycle:	0.21	0.30	0.30	0.13	0.22	0.22	0.15	0.29	0.51	0.16	0.31	0.45
Volume/Cap:	0.52	0.63	0.63	0.63	0.52	0.52	0.63	0.37	0.11	0.37	0.63	0.31
Delay/Veh:	45.3	37.3	37.3	59.4	41.5	41.5	57.4	32.7	15.1	46.3	35.5	21.5
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:	45.3	37.3	37.3	59.4	41.5	41.5	57.4	32.7	15.1	46.3	35.5	21.5
LOS by Move:	D	D	D	E	D	D	E	C	B	D	D	C
HCM2kAvgQ:	166	287	287	159	181	181	170	146	46	89	290	147

Note: Queue reported is the distance per lane in feet.

 Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1004: Mary Ave. & El Camino Real



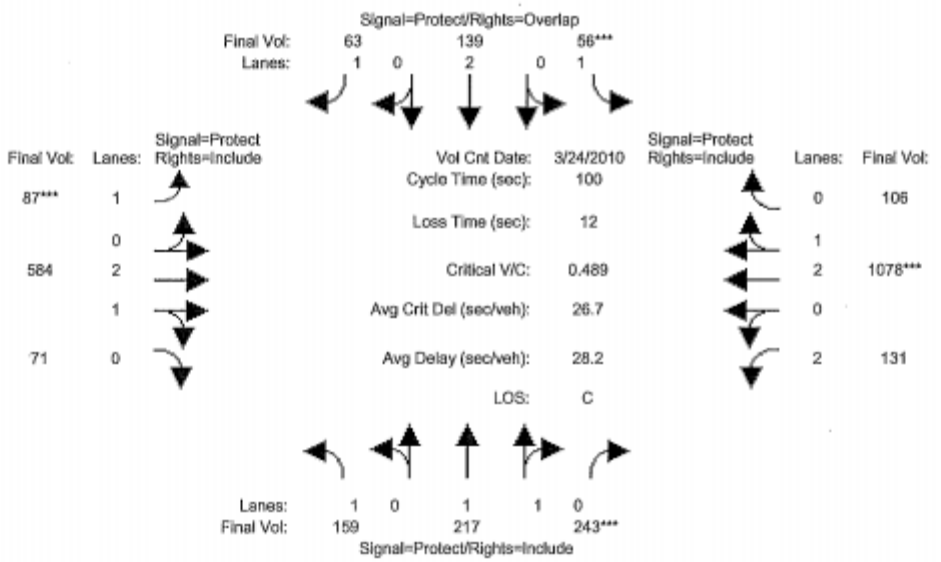
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Sep 2012 << not peak hour 5:00-6:00												
Base Vol:	144	200	98	230	725	171	179	1267	235	66	550	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	144	200	98	230	725	171	179	1267	235	66	550	89
Added Vol:	4	11	0	35	18	4	12	12	6	0	8	23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	148	211	98	265	743	175	191	1279	241	66	558	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:	148	211	98	265	743	175	191	1279	241	66	558	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	211	98	265	743	175	191	1279	241	66	558	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:	148	211	98	265	743	175	191	1279	241	66	558	112
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.33	0.67	1.00	1.59	0.41	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	2526	1173	1750	3026	713	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.15	0.25	0.25	0.11	0.22	0.14	0.04	0.10	0.06
Crit Moves:	****				****			****		****		
Green/Cycle:	0.13	0.18	0.18	0.32	0.37	0.37	0.21	0.34	0.47	0.06	0.19	0.50
Volume/Cap:	0.66	0.46	0.46	0.48	0.66	0.66	0.52	0.66	0.30	0.62	0.52	0.13
Delay/Veh:	62.4	44.3	44.3	34.7	32.8	32.8	45.4	34.3	20.0	76.8	43.8	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:	62.4	44.3	44.3	34.7	32.8	32.8	45.4	34.3	20.0	76.8	43.8	15.4
LOS by Move:	E	D	D	C	C	C	D	C	C	E	D	B
HCM2kAvgQ:	143	126	126	208	358	358	173	337	140	66	150	56

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc.
Licensed to TJKM, PLEASANTON, CA

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

Intersection #1005: Hollenbeck Ave. & El Camino Real



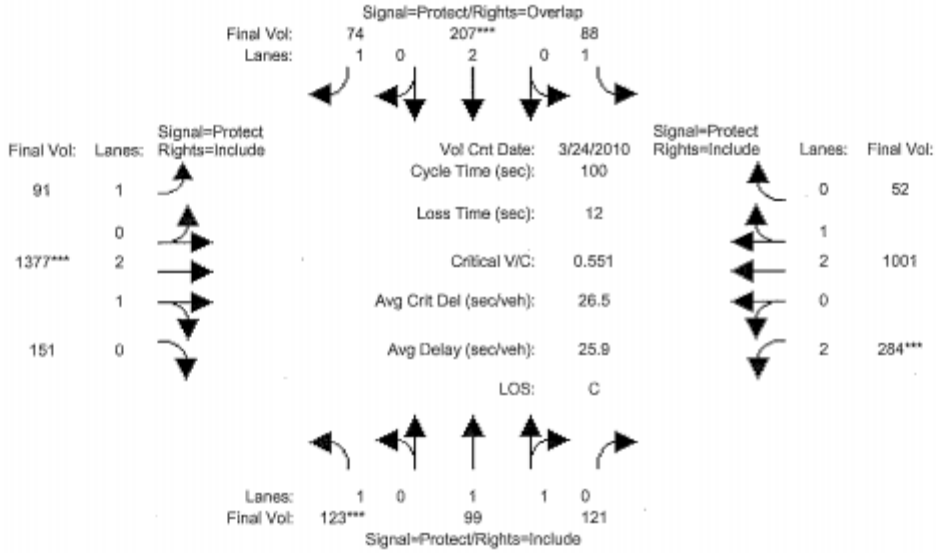
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 24 Mar 2010 <<												
Base Vol:	159	217	243	56	139	63	87	557	71	131	1044	106
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	159	217	243	56	139	63	87	557	71	131	1044	106
Added Vol:	0	0	0	0	0	0	0	27	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	159	217	243	56	139	63	87	584	71	131	1078	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:	159	217	243	56	139	63	87	584	71	131	1078	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	217	243	56	139	63	87	584	71	131	1078	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:	159	217	243	56	139	63	87	584	71	131	1078	106
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.65	0.35	2.00	2.71	0.29
Final Sat.:	1750	1900	1750	1750	3800	1750	1750	5035	612	3150	5150	506
Capacity Analysis Module:												
Vol/Sat:	0.09	0.11	0.14	0.03	0.04	0.04	0.05	0.12	0.12	0.04	0.21	0.21
Crit Moves:			****	****			****				****	
Green/Cycle:	0.17	0.28	0.28	0.07	0.18	0.29	0.10	0.33	0.33	0.20	0.43	0.43
Volume/Cap:	0.54	0.40	0.49	0.46	0.20	0.13	0.49	0.35	0.35	0.21	0.49	0.49
Delay/Veh:	45.1	30.1	31.7	56.5	35.1	27.0	51.9	26.0	26.0	34.3	21.5	21.5
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:	45.1	30.1	31.7	56.5	35.1	27.0	51.9	26.0	26.0	34.3	21.5	21.5
LOS by Move:	D	C	C	E	D	C	D	C	C	C	C	C
HCM2kAvgQ:	125	135	171	60	47	39	71	127	127	52	224	224

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1005: Hollenbeck Ave. & El Camino Real



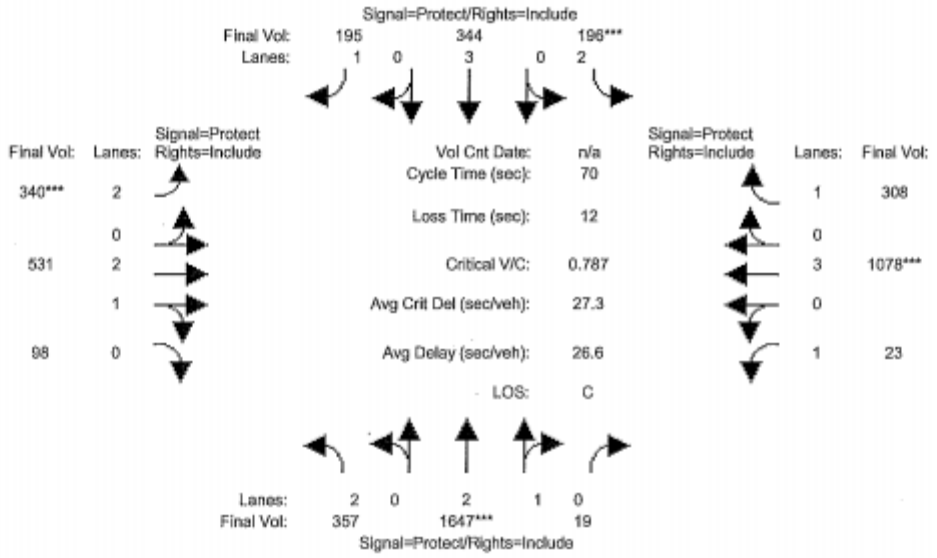
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 24 Mar 2010 <<												
Base Vol:	123	99	121	88	207	74	91	1329	151	284	971	52
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	123	99	121	88	207	74	91	1329	151	284	971	52
Added Vol:	0	0	0	0	0	0	0	48	0	0	30	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	123	99	121	88	207	74	91	1377	151	284	1001	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:	123	99	121	88	207	74	91	1377	151	284	1001	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	99	121	88	207	74	91	1377	151	284	1001	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:	123	99	121	88	207	74	91	1377	151	284	1001	52
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.68	0.32	2.00	2.84	0.16
Final Sat.:	1750	1900	1750	1750	3800	1750	1750	5094	559	3150	5396	280
Capacity Analysis Module:												
Vol/Sat:	0.07	0.05	0.07	0.05	0.05	0.04	0.05	0.27	0.27	0.09	0.19	0.19
Crit Moves:	****				****			****		****		
Green/Cycle:	0.13	0.13	0.13	0.09	0.10	0.28	0.18	0.49	0.49	0.16	0.47	0.47
Volume/Cap:	0.55	0.39	0.52	0.54	0.54	0.15	0.29	0.55	0.55	0.55	0.39	0.39
Delay/Veh:	50.5	41.6	44.8	55.3	48.4	27.8	37.9	18.7	18.7	42.7	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:	50.5	41.6	44.8	55.3	48.4	27.8	37.9	18.7	18.7	42.7	17.4	17.4
LOS by Move:	D	D	D	E	D	C	D	B	B	D	B	B
HCM2kAvgQ:	99	69	96	90	96	46	64	274	274	138	174	174

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1006: Mathilda Ave. & El Camino Real



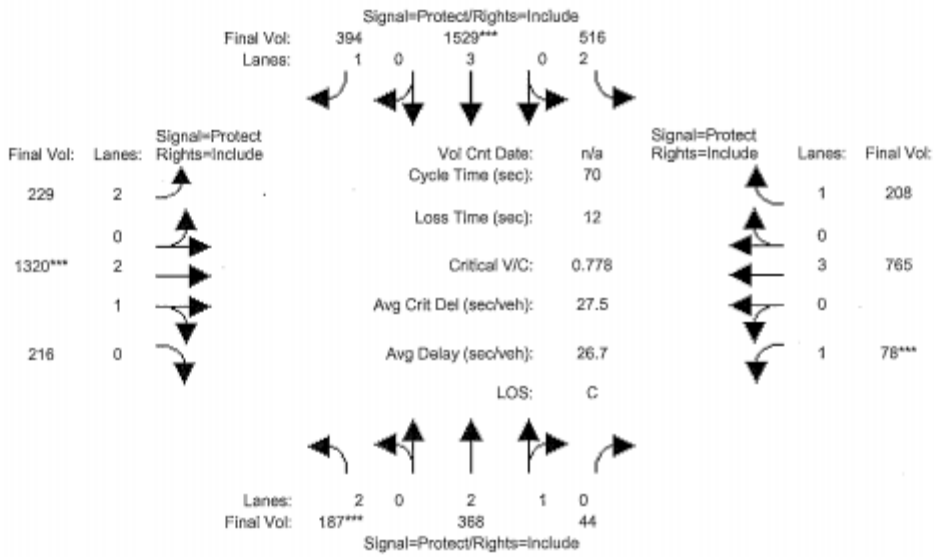
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module:												
Base Vol:	342	1647	19	196	344	187	334	522	86	23	1067	308
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	342	1647	19	196	344	187	334	522	86	23	1067	308
Added Vol:	15	0	0	0	0	8	6	9	12	0	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	357	1647	19	196	344	195	340	531	98	23	1078	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:	357	1647	19	196	344	195	340	531	98	23	1078	308
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	357	1647	19	196	344	195	340	531	98	23	1078	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:	357	1647	19	196	344	195	340	531	98	23	1078	308
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.96	0.04	2.00	3.00	1.00	2.00	2.50	0.50	1.00	3.00	1.00
Final Sat.:	3150	5629	65	3150	5700	1750	3150	4749	876	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.29	0.29	0.06	0.06	0.11	0.11	0.11	0.11	0.01	0.19	0.18
Crit Moves:		****		****			****				****	
Green/Cycle:	0.20	0.36	0.36	0.10	0.26	0.26	0.13	0.22	0.22	0.15	0.23	0.23
Volume/Cap:	0.56	0.81	0.81	0.62	0.23	0.43	0.81	0.52	0.52	0.09	0.81	0.75
Delay/Veh:	26.1	22.7	22.7	34.1	20.6	22.4	40.6	24.6	24.6	25.7	29.2	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:	26.1	22.7	22.7	34.1	20.6	22.4	40.6	24.6	24.6	25.7	29.2	32.7
LOS by Move:	C	C	C	C	C	C	D	C	C	C	C	C
HCM2kAvgQ:	104	289	289	91	52	105	169	117	117	11	197	175

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1006: Mathilda Ave. & El Camino Real



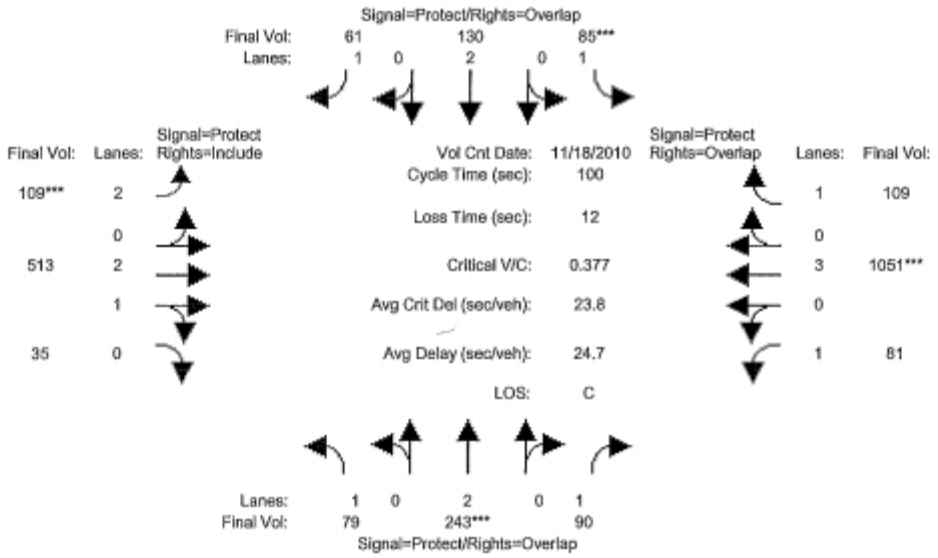
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module:												
Base Vol:	174	368	44	516	1529	387	218	1304	195	78	755	208
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	174	368	44	516	1529	387	218	1304	195	78	755	208
Added Vol:	13	0	0	0	0	7	11	16	21	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	368	44	516	1529	394	229	1320	216	78	765	208
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	187	368	44	516	1529	394	229	1320	216	78	765	208
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	368	44	516	1529	394	229	1320	216	78	765	208
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	187	368	44	516	1529	394	229	1320	216	78	765	208
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.66	0.34	2.00	3.00	1.00	2.00	2.55	0.45	1.00	3.00	1.00
Final Sat.:	3150	5045	603	3150	5700	1750	3150	4840	792	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.07	0.07	0.16	0.27	0.23	0.07	0.27	0.27	0.04	0.13	0.12
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.19	0.19	0.22	0.31	0.31	0.17	0.32	0.32	0.10	0.25	0.25
Volume/Cap:	0.59	0.38	0.38	0.74	0.86	0.72	0.42	0.86	0.86	0.45	0.55	0.48
Delay/Veh:	33.2	24.9	24.9	29.9	27.2	26.1	26.4	27.0	27.0	31.5	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:	33.2	24.9	24.9	29.9	27.2	26.1	26.4	27.0	27.0	31.5	23.5	23.5
LOS by Move:	C	C	C	C	C	C	C	C	C	C	C	C
HCM2kAvgQ:	60	64	64	203	342	243	78	346	346	43	118	102

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1007: Sunnyvale Ave. & El Camino Real



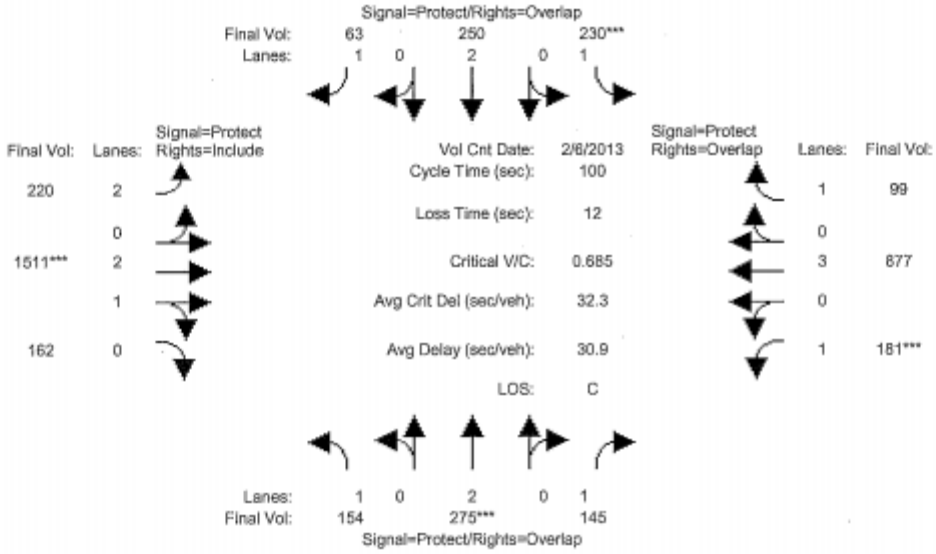
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 18 Nov 2010 <<												
Base Vol:	79	243	90	85	130	57	106	507	35	81	1043	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:	79	243	90	85	130	57	106	507	35	81	1043	109
Added Vol:	0	0	0	0	0	4	3	6	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	243	90	85	130	61	109	513	35	81	1051	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:	79	243	90	85	130	61	109	513	35	81	1051	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	243	90	85	130	61	109	513	35	81	1051	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:	79	243	90	85	130	61	109	513	35	81	1051	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.79	0.21	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	5307	362	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.06	0.05	0.05	0.03	0.03	0.03	0.10	0.10	0.05	0.18	0.06
Crit Moves:		****		****			****				****	
Green/Cycle:	0.12	0.17	0.41	0.13	0.18	0.27	0.09	0.34	0.34	0.24	0.49	0.62
Volume/Cap:	0.37	0.38	0.13	0.38	0.19	0.13	0.38	0.28	0.28	0.19	0.38	0.10
Delay/Veh:	45.0	38.5	18.8	44.6	35.8	28.4	46.4	24.3	24.3	31.4	16.4	8.0
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:	45.0	38.5	18.8	44.6	35.8	28.4	46.4	24.3	24.3	31.4	16.4	8.0
LOS by Move:	D	D	B	D	D	C	D	C	C	C	B	A
HCM2kAvgQ:	69	90	46	73	45	39	48	100	100	55	167	36

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1007: Sunnyvale Ave. & El Camino Real



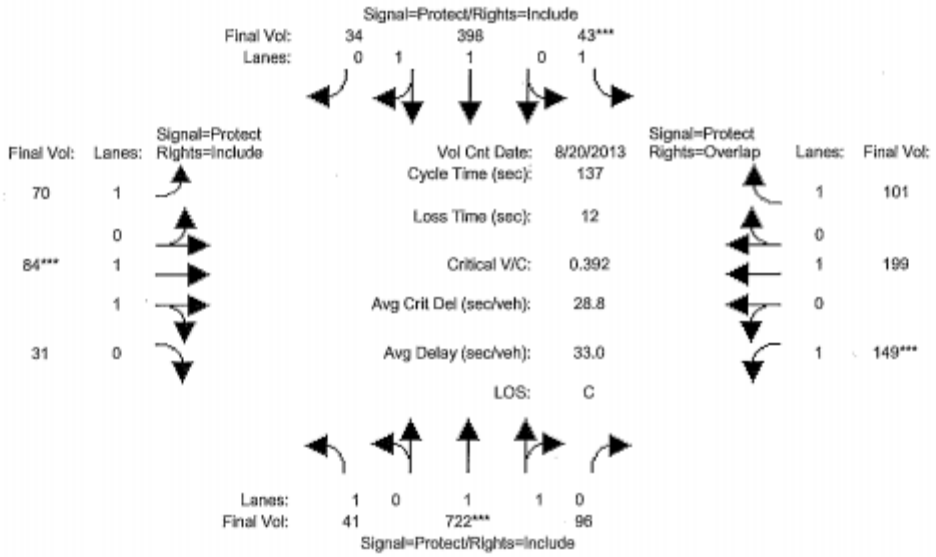
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 6 Feb 2013 <<												
Base Vol:	154	275	145	230	250	60	215	1500	162	181	870	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	154	275	145	230	250	60	215	1500	162	181	870	99
Added Vol:	0	0	0	0	0	3	5	11	0	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	154	275	145	230	250	63	220	1511	162	181	877	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	154	275	145	230	250	63	220	1511	162	181	877	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	154	275	145	230	250	63	220	1511	162	181	877	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	154	275	145	230	250	63	220	1511	162	181	877	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.69	0.31	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	5106	547	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.07	0.08	0.13	0.07	0.04	0.07	0.30	0.30	0.10	0.15	0.06
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.11	0.26	0.19	0.16	0.34	0.18	0.43	0.43	0.15	0.40	0.59
Volume/Cap:	0.63	0.69	0.32	0.69	0.42	0.11	0.38	0.69	0.69	0.69	0.38	0.10
Delay/Veh:	52.5	52.3	32.0	48.5	40.0	22.9	37.9	24.5	24.5	53.8	21.7	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:	52.5	52.3	32.0	48.5	40.0	22.9	37.9	24.5	24.5	53.8	21.7	9.0
LOS by Move:	D	D	C	D	D	C	D	C	C	D	C	A
HCM2kAvgQ:	148	137	100	209	95	35	85	337	337	176	159	35

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1008: Fair Oaks Ave. & Old San Francisco Rd.



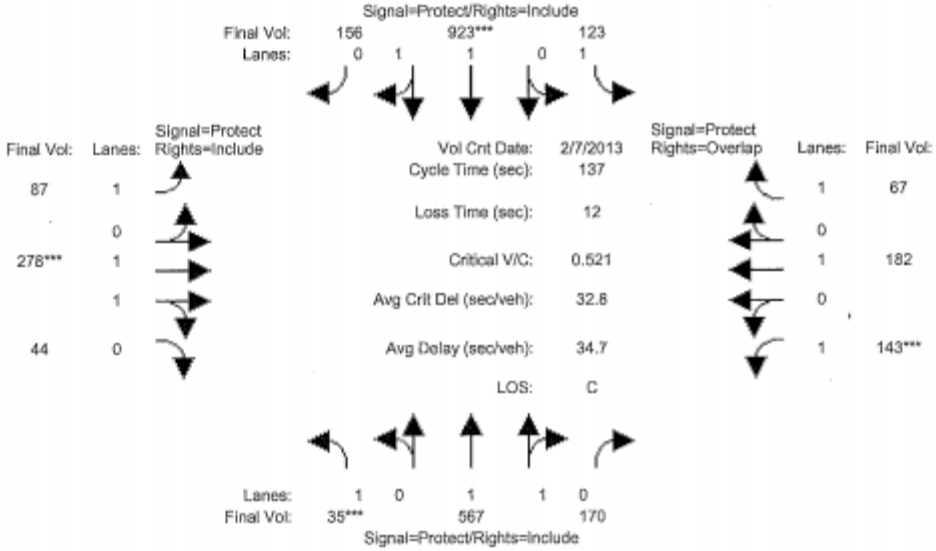
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 20 Aug 2013 << 8:00 AM - 9:00 AM												
Base Vol:	41	722	96	43	398	33	69	82	31	149	196	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	722	96	43	398	33	69	82	31	149	196	101
Added Vol:	0	0	0	0	0	1	1	2	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	722	96	43	398	34	70	84	31	149	199	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	722	96	43	398	34	70	84	31	149	199	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	722	96	43	398	34	70	84	31	149	199	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	722	96	43	398	34	70	84	31	149	199	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.75	0.25	1.00	1.83	0.17	1.00	1.43	0.57	1.00	1.00	1.00
Final Sat.:	1750	3321	442	1750	3477	297	1750	2713	1001	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.22	0.22	0.02	0.11	0.11	0.04	0.03	0.03	0.09	0.10	0.06
Crit Moves:		****		****				****		****		
Green/Cycle:	0.19	0.55	0.55	0.06	0.43	0.43	0.10	0.08	0.08	0.22	0.20	0.26
Volume/Cap:	0.12	0.39	0.39	0.39	0.27	0.27	0.41	0.39	0.39	0.39	0.53	0.22
Delay/Veh:	46.7	18.0	18.0	71.9	25.9	25.9	65.4	63.9	63.9	48.9	54.3	40.8
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	18.0	18.0	71.9	25.9	25.9	65.4	63.9	63.9	48.9	54.3	40.8
LOS by Move:	D	B	B	E	C	C	E	E	E	D	D	D
HCM2kAvgQ:	38	249	249	48	146	146	85	69	69	148	196	89

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1008: Fair Oaks Ave. & Old San Francisco Rd.



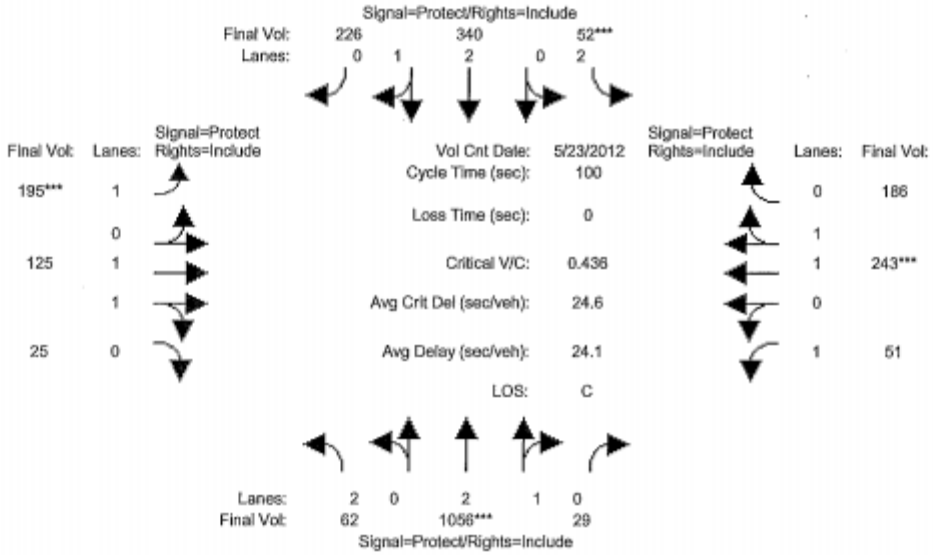
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 7 Feb 2013 <<												
Base Vol:	35	567	170	123	923	155	86	274	44	143	179	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:	35	567	170	123	923	155	86	274	44	143	179	67
Added Vol:	0	0	0	0	0	1	1	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	567	170	123	923	156	87	278	44	143	182	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:	35	567	170	123	923	156	87	278	44	143	182	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	567	170	123	923	156	87	278	44	143	182	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:	35	567	170	123	923	156	87	278	44	143	182	67
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.51	0.49	1.00	1.69	0.31	1.00	1.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	2867	860	1750	3211	543	1750	3243	513	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.20	0.20	0.07	0.29	0.29	0.05	0.09	0.09	0.08	0.10	0.04
Crit Moves:	****				****			****		****		
Green/Cycle:	0.05	0.44	0.44	0.16	0.54	0.54	0.11	0.16	0.16	0.15	0.21	0.36
Volume/Cap:	0.39	0.45	0.45	0.45	0.53	0.53	0.45	0.53	0.53	0.53	0.46	0.11
Delay/Veh:	75.3	27.7	27.7	57.8	20.9	20.9	64.5	55.8	55.8	60.5	51.6	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:	75.3	27.7	27.7	57.8	20.9	20.9	64.5	55.8	55.8	60.5	51.6	29.2
LOS by Move:	E	C	C	E	C	C	E	E	E	E	D	C
HCM2kAvgQ:	39	272	272	127	369	369	104	168	168	162	173	49

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc.
Licensed to TJKM, PLEASANTON, CA

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

Intersection #1009: Mary Av & Evelyn Av



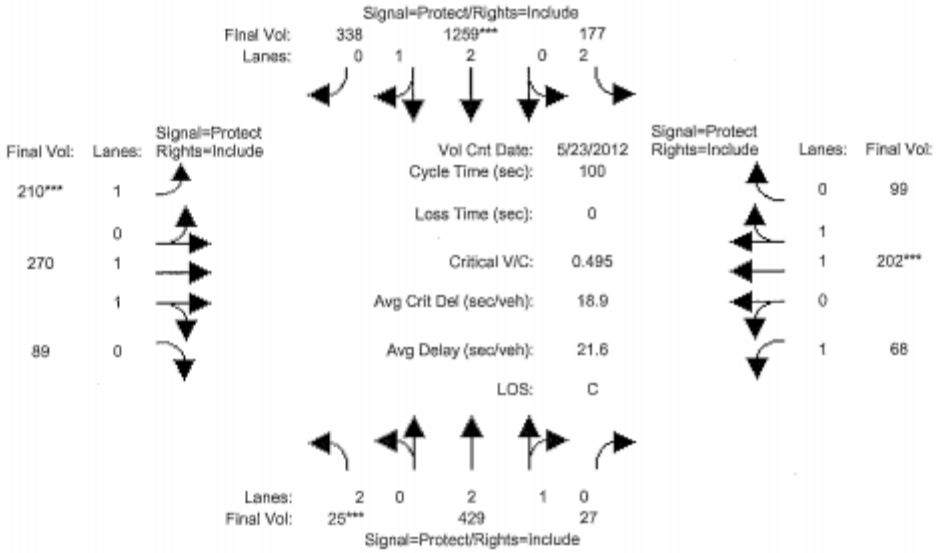
Street Name:	Mary Av						Evelyn Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	62	1043	29	52	324	226	195	125	25	51	243	186
Growth Adj:	1.00	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	1043	29	52	324	226	195	125	25	51	243	186
Added Vol:	0	13	0	0	16	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	1056	29	52	340	226	195	125	25	51	243	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	1056	29	52	340	226	195	125	25	51	243	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	1056	29	52	340	226	195	125	25	51	243	186
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	1056	29	52	340	226	195	125	25	51	243	186
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.91	0.09	2.00	2.00	1.00	1.00	1.64	0.36	1.00	1.09	0.91
Final Sat.:	3150	5535	152	3150	3800	1750	1750	3122	624	1750	2075	1589
Capacity Analysis Module:												
Vol/Sat:	0.02	0.19	0.19	0.02	0.09	0.13	0.11	0.04	0.04	0.03	0.12	0.12
Crit Moves:		****		****			****				****	
Green/Cycle:	0.06	0.44	0.44	0.04	0.41	0.41	0.26	0.30	0.30	0.22	0.27	0.27
Volume/Cap:	0.31	0.44	0.44	0.44	0.22	0.31	0.44	0.13	0.13	0.13	0.44	0.44
Delay/Veh:	45.7	19.7	19.7	49.6	19.0	19.9	31.9	25.3	25.3	31.4	30.6	30.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.7	19.7	19.7	49.6	19.0	19.9	31.9	25.3	25.3	31.4	30.6	30.6
LOS by Move:	D	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	36	194	194	24	80	121	132	40	40	33	137	137

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1009: Mary Av & Evelyn Av



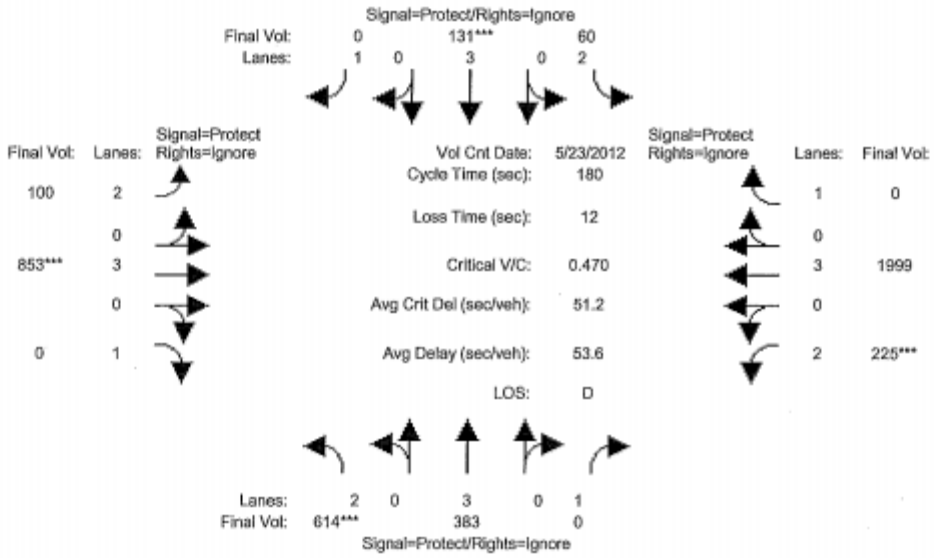
Street Name:	Mary Av						Evelyn Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5-6												
Base Vol:	25	407	27	177	1245	338	210	270	89	68	202	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	407	27	177	1245	338	210	270	89	68	202	99
Added Vol:	0	22	0	0	14	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	429	27	177	1259	338	210	270	89	68	202	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	429	27	177	1259	338	210	270	89	68	202	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	429	27	177	1259	338	210	270	89	68	202	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	429	27	177	1259	338	210	270	89	68	202	99
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.81	0.19	2.00	2.32	0.68	1.00	1.47	0.53	1.00	1.31	0.69
Final Sat.:	3150	5335	336	3150	4414	1185	1750	2798	922	1750	2480	1216
Capacity Analysis Module:												
Vol/Sat:	0.01	0.08	0.08	0.06	0.29	0.29	0.12	0.10	0.10	0.04	0.08	0.08
Crit Moves:	****				****		****				****	
Green/Cycle:	0.02	0.35	0.35	0.24	0.58	0.58	0.24	0.29	0.29	0.12	0.16	0.16
Volume/Cap:	0.49	0.23	0.23	0.23	0.49	0.49	0.49	0.33	0.33	0.33	0.49	0.49
Delay/Veh:	56.2	23.1	23.1	30.4	12.7	12.7	33.5	28.1	28.1	41.5	38.6	38.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.2	23.1	23.1	30.4	12.7	12.7	33.5	28.1	28.1	41.5	38.6	38.6
LOS by Move:	E	C	C	C	B	B	C	C	C	D	D	D
HCM2kAvgQ:	28	83	83	61	233	233	146	106	106	51	106	106

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1010: Mary Ave. & Central Expwy.



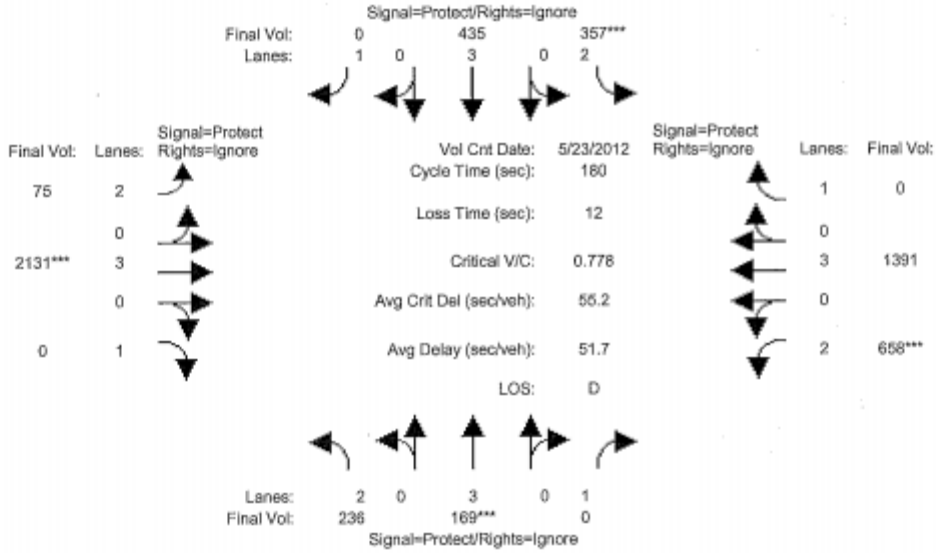
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	14	10	10	14	10	10	14	65	10	14	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	607	380	517	60	127	145	100	853	146	221	1999	156
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	607	380	517	60	127	145	100	853	146	221	1999	156
Added Vol:	7	3	3	0	4	0	0	0	8	4	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	614	383	520	60	131	145	100	853	154	225	1999	156
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	614	383	0	60	131	0	100	853	0	225	1999	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	614	383	0	60	131	0	100	853	0	225	1999	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	614	383	0	60	131	0	100	853	0	225	1999	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.07	0.00	0.02	0.02	0.00	0.03	0.15	0.00	0.07	0.35	0.00
Crit Moves:	****				****			****		****		
Green/Cycle:	0.38	0.20	0.00	0.23	0.06	0.00	0.09	0.36	0.00	0.14	0.41	0.00
Volume/Cap:	0.52	0.33	0.00	0.08	0.41	0.00	0.35	0.41	0.00	0.52	0.86	0.00
Delay/Veh:	44.8	62.4	0.0	54.2	86.1	0.0	80.2	43.8	0.0	76.2	52.8	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:	44.8	62.4	0.0	54.2	86.1	0.0	80.2	43.8	0.0	76.2	52.8	0.0
LOS by Move:	D	E	A	D	F	A	F	D	A	E	D	A
HCM2kAvgQ:	392	147	0	38	59	0	78	292	0	182	872	0

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1010: Mary Ave. & Central Expwy.



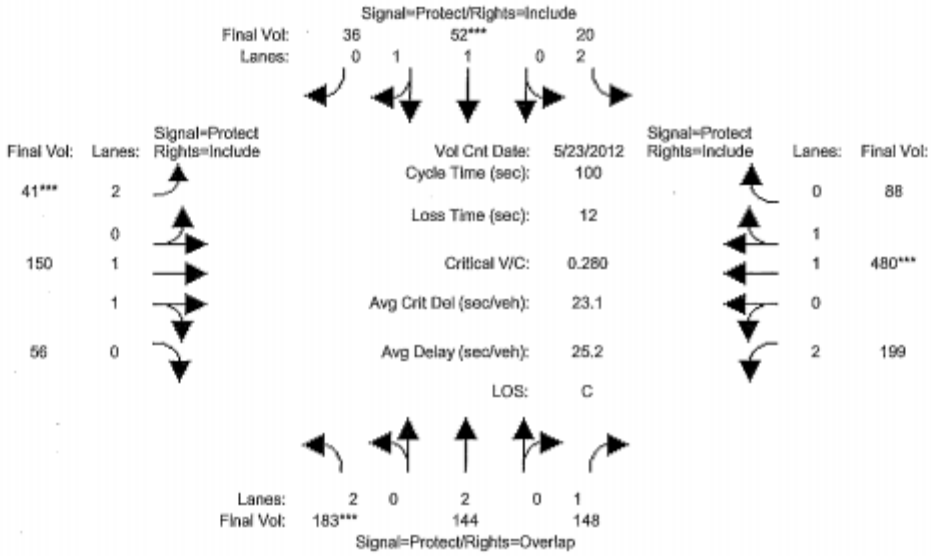
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	14	10	10	14	10	10	14	65	10	14	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5-6												
Base Vol:	224	164	324	357	432	146	75	2131	795	655	1391	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	224	164	324	357	432	146	75	2131	795	655	1391	69
Added Vol:	12	5	5	0	3	0	0	0	8	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	236	169	329	357	435	146	75	2131	803	658	1391	69
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	236	169	0	357	435	0	75	2131	0	658	1391	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	169	0	357	435	0	75	2131	0	658	1391	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	236	169	0	357	435	0	75	2131	0	658	1391	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	5700	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.03	0.00	0.11	0.08	0.00	0.02	0.37	0.00	0.21	0.24	0.00
Crit Moves:		****		****				****		****		
Green/Cycle:	0.10	0.06	0.00	0.14	0.10	0.00	0.18	0.47	0.00	0.26	0.56	0.00
Volume/Cap:	0.75	0.53	0.00	0.79	0.78	0.00	0.13	0.79	0.00	0.79	0.44	0.00
Delay/Veh:	93.7	89.0	0.0	88.0	89.4	0.0	62.9	42.7	0.0	69.4	23.8	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:	93.7	89.0	0.0	88.0	89.4	0.0	62.9	42.7	0.0	69.4	23.8	0.0
LOS by Move:	F	F	A	F	F	A	E	D	A	E	C	A
HCM2kAvgQ:	207	79	0	311	213	0	50	861	0	539	359	0

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1011: Mary Ave. & Maude Ave.



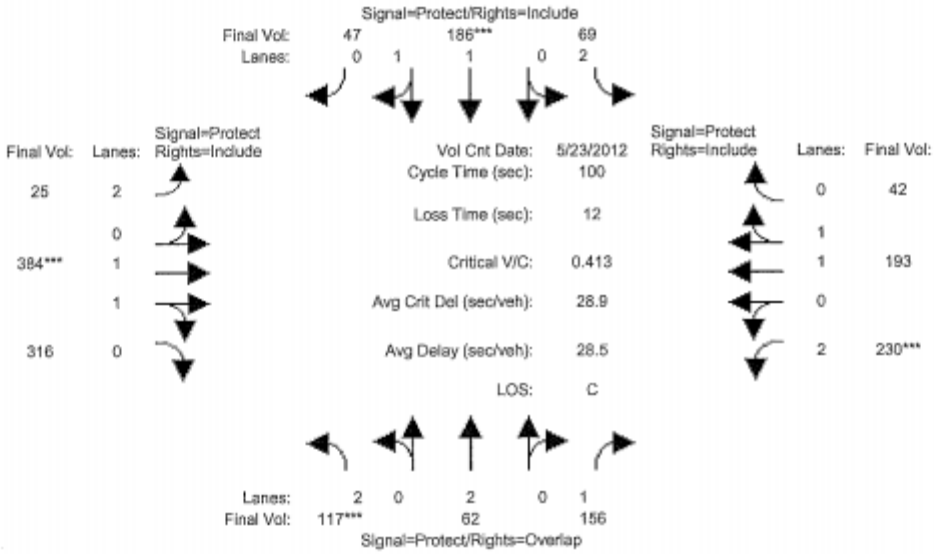
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	182	144	147	20	52	36	41	150	54	197	480	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:	182	144	147	20	52	36	41	150	54	197	480	88
Added Vol:	1	0	1	0	0	0	0	0	2	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	183	144	148	20	52	36	41	150	56	199	480	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:	183	144	148	20	52	36	41	150	56	199	480	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	144	148	20	52	36	41	150	56	199	480	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:	183	144	148	20	52	36	41	150	56	199	480	88
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	1.14	0.86	2.00	1.42	0.58	2.00	1.67	0.33
Final Sat.:	3150	3800	1750	3150	2169	1502	3150	2704	1009	3150	3169	581
Capacity Analysis Module:												
Vol/Sat:	0.06	0.04	0.08	0.01	0.02	0.02	0.01	0.06	0.06	0.06	0.15	0.15
Crit Moves:	****				****		****				****	
Green/Cycle:	0.20	0.17	0.41	0.12	0.10	0.10	0.07	0.34	0.34	0.24	0.51	0.51
Volume/Cap:	0.30	0.22	0.20	0.05	0.24	0.24	0.19	0.16	0.16	0.26	0.30	0.30
Delay/Veh:	35.5	36.2	19.3	39.0	43.0	43.0	45.7	23.1	23.1	31.7	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:	35.5	36.2	19.3	39.0	43.0	43.0	45.7	23.1	23.1	31.7	14.4	14.4
LOS by Move:	D	D	B	D	D	D	D	C	C	C	B	B
HCM2kAvgQ:	71	47	78	9	37	37	18	55	55	76	125	125

Note: Queue reported is the distance per lane in feet.

 Copyright (c) 2008 Dowling Associates, Inc.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1011: Mary Ave. & Maude Ave.



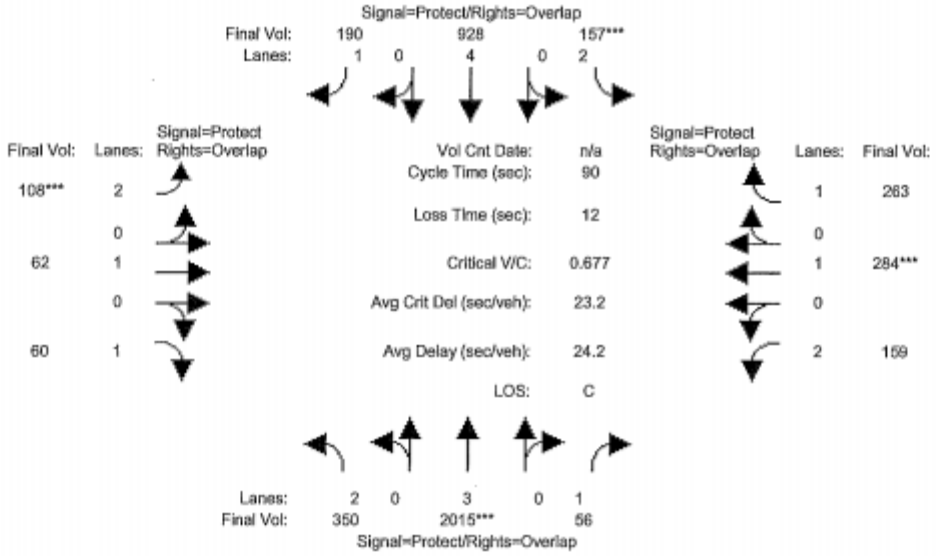
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5-6												
Base Vol:	114	62	153	69	186	47	25	384	314	228	193	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	114	62	153	69	186	47	25	384	314	228	193	42
Added Vol:	3	0	3	0	0	0	0	0	2	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	62	156	69	186	47	25	384	316	230	193	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	62	156	69	186	47	25	384	316	230	193	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	62	156	69	186	47	25	384	316	230	193	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	117	62	156	69	186	47	25	384	316	230	193	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	1.57	0.43	2.00	1.06	0.94	2.00	1.62	0.38
Final Sat.:	3150	3800	1750	3150	2982	753	3150	2007	1652	3150	3074	669
Capacity Analysis Module:												
Vol/Sat:	0.04	0.02	0.09	0.02	0.06	0.06	0.01	0.19	0.19	0.07	0.06	0.06
Crit Moves:	****				****			****		****		
Green/Cycle:	0.09	0.14	0.32	0.10	0.15	0.15	0.26	0.46	0.46	0.18	0.38	0.38
Volume/Cap:	0.41	0.12	0.28	0.22	0.41	0.41	0.03	0.41	0.41	0.41	0.17	0.17
Delay/Veh:	47.4	37.9	26.8	43.1	40.7	40.7	27.4	18.6	18.6	38.8	21.0	21.0
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:	47.4	37.9	26.8	43.1	40.7	40.7	27.4	18.6	18.6	38.8	21.0	21.0
LOS by Move:	D	D	C	D	D	D	C	B	B	D	C	C
HCM2kAvgQ:	51	20	95	34	92	92	8	187	187	103	60	60

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

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

Intersection #1012: Mathilda Ave. & Maude Ave.



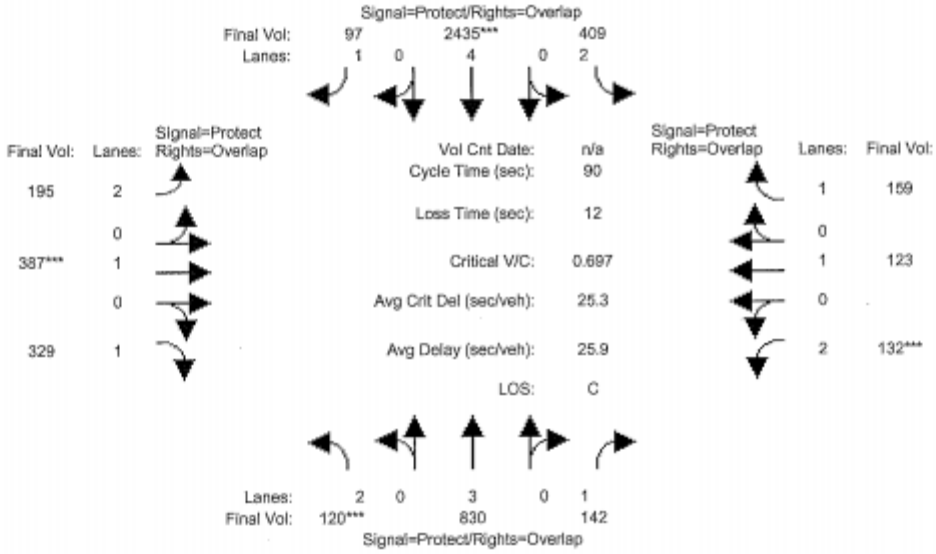
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module:												
Base Vol:	350	2011	56	157	923	190	108	61	60	159	282	263
Growth Adj:	1.00	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	2011	56	157	923	190	108	61	60	159	282	263
Added Vol:	0	4	0	0	5	0	0	1	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	350	2015	56	157	928	190	108	62	60	159	284	263
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	2015	56	157	928	190	108	62	60	159	284	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	350	2015	56	157	928	190	108	62	60	159	284	263
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	350	2015	56	157	928	190	108	62	60	159	284	263
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	3150	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.35	0.03	0.05	0.12	0.11	0.03	0.03	0.03	0.05	0.15	0.15
Crit Moves:		****		****			****				****	
Green/Cycle:	0.28	0.50	0.62	0.08	0.30	0.38	0.08	0.17	0.45	0.12	0.21	0.29
Volume/Cap:	0.40	0.71	0.05	0.64	0.40	0.29	0.44	0.19	0.08	0.42	0.71	0.52
Delay/Veh:	26.9	18.3	6.8	45.9	25.1	19.6	40.9	32.3	14.4	37.6	38.6	27.7
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:	26.9	18.3	6.8	45.9	25.1	19.6	40.9	32.3	14.4	37.6	38.6	27.7
LOS by Move:	C	B	A	D	C	B	D	C	B	D	D	C
HCM2kAvgQ:	124	382	16	65	122	94	57	39	25	61	187	162

Note: Queue reported is the distance per lane in feet.

 Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1012: Mathilda Ave. & Maude Ave.



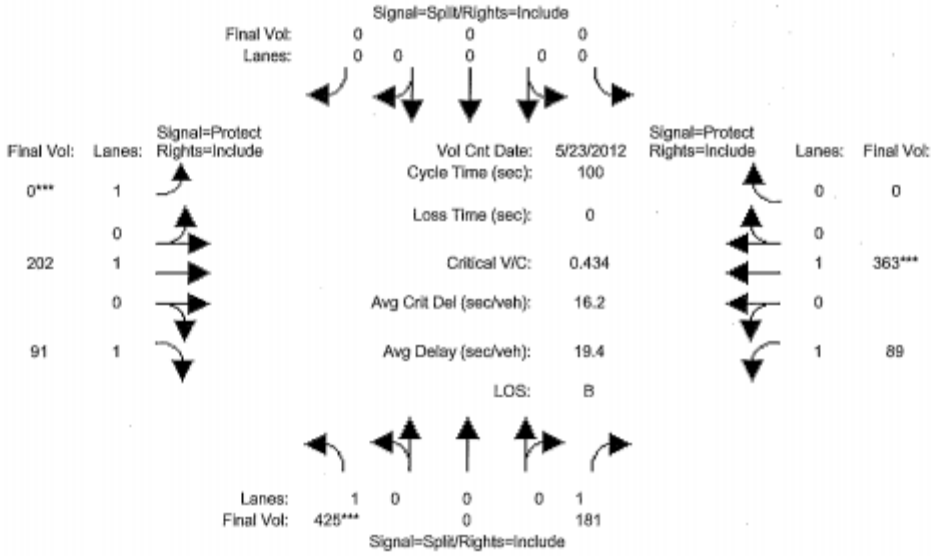
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module:												
Base Vol:	120	823	142	409	2431	97	195	384	329	132	121	159
Growth Adj:	1.00	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	823	142	409	2431	97	195	384	329	132	121	159
Added Vol:	0	7	0	0	4	0	0	3	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	120	830	142	409	2435	97	195	387	329	132	123	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	830	142	409	2435	97	195	387	329	132	123	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	830	142	409	2435	97	195	387	329	132	123	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	120	830	142	409	2435	97	195	387	329	132	123	159
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	3150	1900	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.08	0.13	0.32	0.06	0.06	0.20	0.19	0.04	0.06	0.09
Crit Moves:	****				****			****		****		
Green/Cycle:	0.08	0.27	0.35	0.24	0.43	0.58	0.15	0.28	0.35	0.08	0.21	0.45
Volume/Cap:	0.49	0.54	0.23	0.54	0.74	0.10	0.42	0.74	0.53	0.54	0.31	0.20
Delay/Veh:	41.3	28.4	21.0	30.5	22.1	8.4	35.6	35.0	24.0	42.3	30.6	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:	41.3	28.4	21.0	30.5	22.1	8.4	35.6	35.0	24.0	42.3	30.6	15.1
LOS by Move:	D	C	C	C	C	A	D	D	C	D	C	B
HCM2kAvgQ:	65	176	76	141	338	30	85	281	205	53	69	69

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (alternative)
Existing plus Project - AM

Intersection #1013: Bernardo Ave & Evelyn Ave

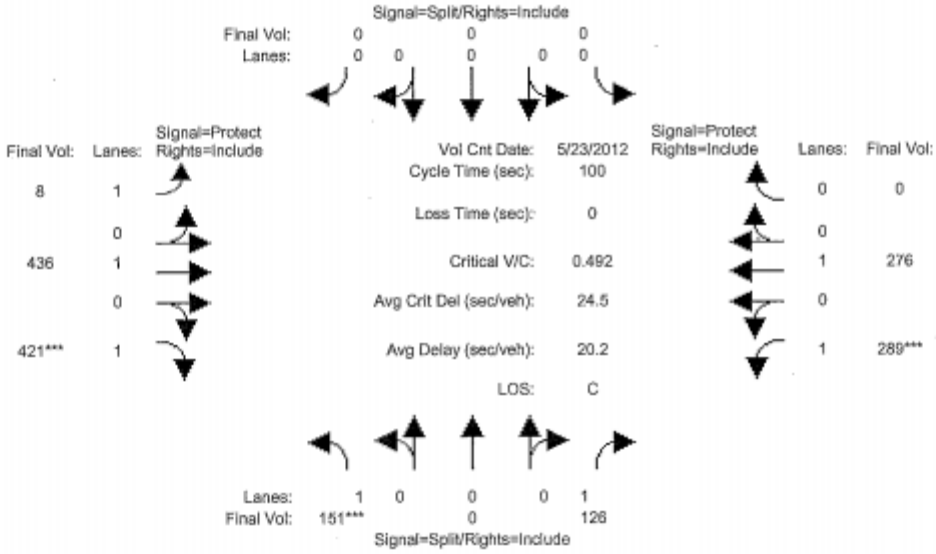


Street Name:	Bernardo Ave						Evelyn Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	424	0	181	0	0	0	0	202	90	89	363	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:	424	0	181	0	0	0	0	202	90	89	363	0
Added Vol:	1	0	0	0	0	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	425	0	181	0	0	0	0	202	91	89	363	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:	425	0	181	0	0	0	0	202	91	89	363	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	425	0	181	0	0	0	0	202	91	89	363	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:	425	0	181	0	0	0	0	202	91	89	363	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	0	0	0	1750	1900	1750	1750	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.24	0.00	0.10	0.00	0.00	0.00	0.00	0.11	0.05	0.05	0.19	0.00
Crit Moves:	****						****				****	
Green/Cycle:	0.56	0.00	0.56	0.00	0.00	0.00	0.00	0.30	0.30	0.14	0.44	0.00
Volume/Cap:	0.43	0.00	0.18	0.00	0.00	0.00	0.00	0.36	0.17	0.36	0.43	0.00
Delay/Veh:	13.1	0.0	10.9	0.0	0.0	0.0	0.0	28.0	26.2	39.6	19.7	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:	13.1	0.0	10.9	0.0	0.0	0.0	0.0	28.0	26.2	39.6	19.7	0.0
LOS by Move:	B	A	B	A	A	A	A	C	C	D	B	A
HCM2kAvgQ:	205	0	73	0	0	0	0	124	56	65	186	0

Note: Queue reported is the distance per lane in feet.

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing plus Project - PM

Intersection #1013: Bernardo Ave & Evelyn Ave



Street Name:	Bernardo Ave						Evelyn Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5:00-6:00												
Base Vol:	148	0	126	0	0	0	8	436	420	289	276	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:	148	0	126	0	0	0	8	436	420	289	276	0
Added Vol:	3	0	0	0	0	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	151	0	126	0	0	0	8	436	421	289	276	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:	151	0	126	0	0	0	8	436	421	289	276	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	0	126	0	0	0	8	436	421	289	276	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:	151	0	126	0	0	0	8	436	421	289	276	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	0	0	0	1750	1900	1750	1750	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.07	0.00	0.00	0.00	0.00	0.23	0.24	0.17	0.15	0.00
Crit Moves:	****								****	****		
Green/Cycle:	0.18	0.00	0.18	0.00	0.00	0.00	0.03	0.49	0.49	0.34	0.80	0.00
Volume/Cap:	0.49	0.00	0.41	0.00	0.00	0.00	0.18	0.47	0.49	0.49	0.18	0.00
Delay/Veh:	38.5	0.0	37.5	0.0	0.0	0.0	49.7	17.3	17.6	27.1	2.4	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:	38.5	0.0	37.5	0.0	0.0	0.0	49.7	17.3	17.6	27.1	2.4	0.0
LOS by Move:	D	A	D	A	A	A	D	B	B	C	A	A
HCM2kAvgQ:	126	0	101	0	0	0	11	223	237	185	49	0

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Appendix D – Approved and Pending Developments within Study Area

City of Sunnyvale - 1095 W. El Camino Real Mixed-Use Project

Approvded/Pending Developments within Project Vicinity

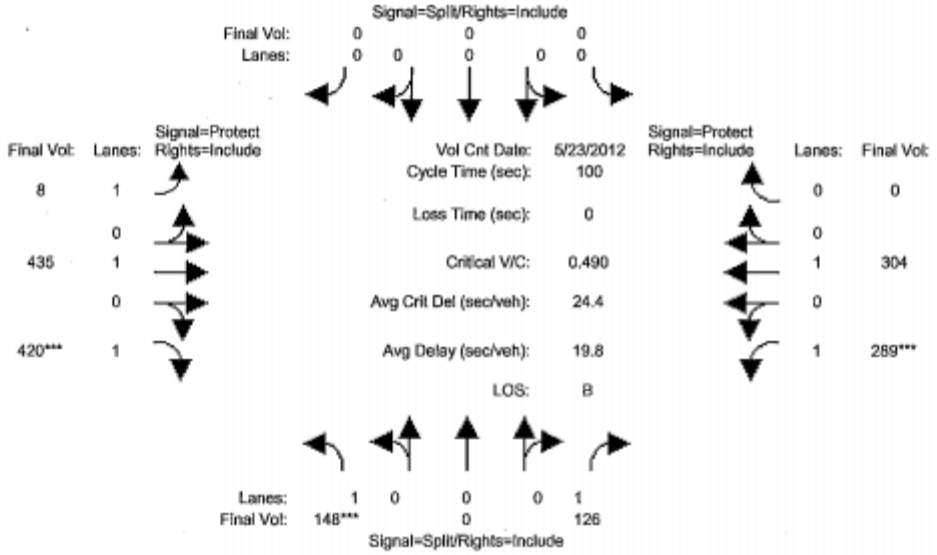
Address	Existing Usage	Existing Size (S.F.)	Proposed Usage	Proposed Size (S.F.)	Net Total A.M. Peak			Net Total P.M. Peak		
					Trips In	*Trips Out*	*Total Trips*	*Trips In*	*Trips Out*	*Total Trips*
111 Java Dr	Office R&D	206,471	Office R&D	387,000	147	30	177	25	140	165
495 E Java Drive	Office	1,375,978	Office	1,496,971	96	13	109	23	112	136
549 Baltic Way	Office	285,000	Office	483,000	204	28	232	38	184	222
589 W. Java	Office	171,409	Office	339,000	188	26	214	32	156	188
505 -599 N Mathilda, 550 Del Rey, 683 W. Maude, 510 N. Pastoria	Office R&D	282,605	Office	643,947	481	47	528	89	398	487
580 N. Mary Ave.	Post office	50,406	Office	124,000	-16	-172	-188	-251	-97	-348
645 Almanor Ave	Office R&D	159,226	Office R&D	541,214	307	63	370	51	290	342
1101 N Fair Oaks Ave	Industrial	40,680	Units	97	-23	37	14	41	-10	32
600 W. California	On Vacant area of Lot	0	Office R&D	106,617	163	23	186	31	156	187
433 N Mathilda	Industrial	96,300	Office	210,000	227	31	258	42	178	220
660 W El Camino Real	Auto Dealership	42,948	130 Units145 Room Hotel	Mixed	8	73	81	62	15	76
455 Mathilda Ave	Office	29,000	Units	105	-52	36	-16	30	-66	-36
457-475 E Evelyn Ave	Office	31,000	Units	117	-54	40	-14	34	-65	-31
1165 E Arques Ave	Vacant	0	Fitness Center	45,000	32	32	63	91	68	159
384 Santa Trinita Ave	Vacant	0	Office R&D	99,000	107	22	129	20	111	131
1020 Kifer Rd	Office R&D	93,000	Office R&D	155,000	57	12	68	10	56	66
955 Stewart	Office R&D	140,120	Units	186	-126	46	-79	52	-106	-55
620 E. Maude	Armory	13,920	Units	121	13	50	63	55	29	84
1000 Enterprise Way	Office	370,856	Office	1,741,083	1,175	160	1,335	261	1,274	1,535
1100 Enterprise	Office	208,000	Office	325,000	130	18	148	22	109	131
1111 Lockheed Martin Way	Office R&D	984,000	Office R&D	2,430,000	942	193	1,135	148	836	984
815 Eleventh	Office	615,562	Office	815,562	182	25	207	38	186	224
1287 Lawrence Station Rd.	Industrial	74,316	348 Units16,000 Retail	Mixed	-5	130	124	170	65	236

Source: TIA Land Use Data 6/12/2013, City of Sunnyvale; TJKM Transportation Consultants, August 2013

Appendix E – Level of Service Worksheets: Background Conditions

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background No Project - PM

Intersection #1013: Bernardo Ave & Evelyn Ave



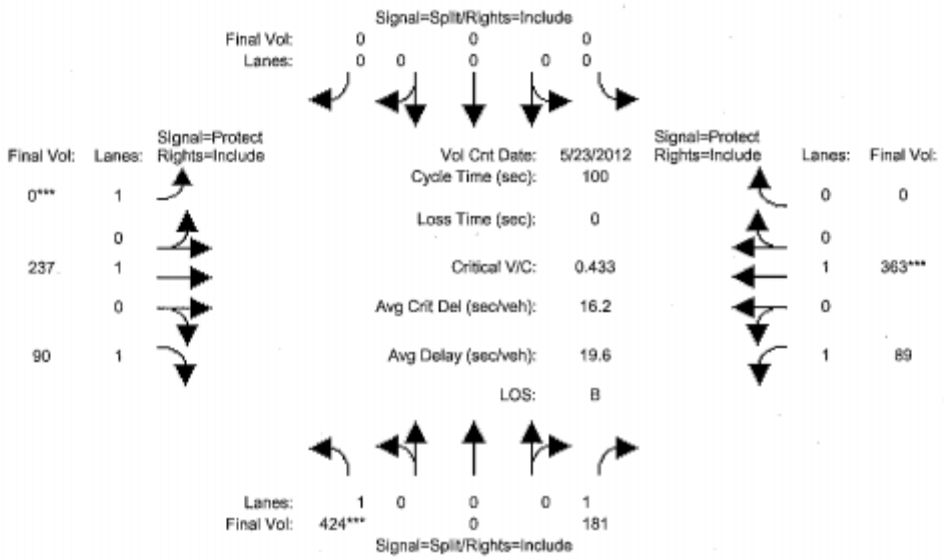
Street Name:	Bernardo Ave						Evelyn Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 5:00-6:00												
Base Vol:	148	0	126	0	0	0	8	436	420	289	276	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:	148	0	126	0	0	0	8	436	420	289	276	0
Added Vol:	0	0	0	0	0	0	0	-1	0	0	28	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	148	0	126	0	0	0	8	435	420	289	304	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:	148	0	126	0	0	0	8	435	420	289	304	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	0	126	0	0	0	8	435	420	289	304	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:	148	0	126	0	0	0	8	435	420	289	304	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	0	0	0	1750	1900	1750	1750	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.07	0.00	0.00	0.00	0.00	0.23	0.24	0.17	0.16	0.00
Crit Moves:	****								****	****		
Green/Cycle:	0.17	0.00	0.17	0.00	0.00	0.00	0.02	0.49	0.49	0.34	0.80	0.00
Volume/Cap:	0.49	0.00	0.42	0.00	0.00	0.00	0.20	0.47	0.49	0.49	0.20	0.00
Delay/Veh:	38.6	0.0	37.8	0.0	0.0	0.0	50.4	17.2	17.5	27.0	2.3	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:	38.6	0.0	37.8	0.0	0.0	0.0	50.4	17.2	17.5	27.0	2.3	0.0
LOS by Move:	D	A	D	A	A	A	D	B	B	C	A	A
HCM2kAvgQ:	124	0	102	0	0	0	12	221	236	184	54	0

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background No Project - AM

Intersection #1013: Bernardo Ave & Evelyn Ave



Street Name:	Bernardo Ave						Evelyn Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 23 May 2012 << 8-9												
Base Vol:	424	0	181	0	0	0	0	202	90	89	363	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:	424	0	181	0	0	0	0	202	90	89	363	0
Added Vol:	0	0	0	0	0	0	0	35	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	424	0	181	0	0	0	0	237	90	89	363	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:	424	0	181	0	0	0	0	237	90	89	363	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	424	0	181	0	0	0	0	237	90	89	363	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:	424	0	181	0	0	0	0	237	90	89	363	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1750	0	1750	0	0	0	1750	1900	1750	1750	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.24	0.00	0.10	0.00	0.00	0.00	0.00	0.12	0.05	0.05	0.19	0.00
Crit Moves:	****						****				****	
Green/Cycle:	0.56	0.00	0.56	0.00	0.00	0.00	0.00	0.31	0.31	0.13	0.44	0.00
Volume/Cap:	0.43	0.00	0.18	0.00	0.00	0.00	0.00	0.40	0.16	0.40	0.43	0.00
Delay/Veh:	13.1	0.0	10.9	0.0	0.0	0.0	0.0	27.4	25.0	41.3	19.7	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:	13.1	0.0	10.9	0.0	0.0	0.0	0.0	27.4	25.0	41.3	19.7	0.0
LOS by Move:	B	A	B	A	A	A	A	C	C	D	B	A
HCM2kAvgQ:	205	0	73	0	0	0	0	145	54	66	185	0

Note: Queue reported is the distance per lane in feet.

Copyright (c) 2008 Dowling Associates, Inc. Licensed to TJKM, PLEASANTON, CA