

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #1 Rocklin Road/Pacific Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.887
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 153 Level Of Service: D

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

Volume Module:

Base Vol:	25	289	496	183	404	19	22	153	43	370	71	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	289	496	183	404	19	22	153	43	370	71	99
Added Vol:	0	1	5	1	0	0	0	0	0	3	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	290	501	184	404	19	22	153	43	373	71	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
PHF Volume:	30	346	597	219	482	23	26	182	51	445	85	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	346	597	219	482	23	26	182	51	445	85	119
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00
Final Vol.:	30	346	597	219	482	23	26	182	51	489	85	119

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	1.00	1.56	0.44	1.70	0.30	1.00
Final Sat.:	1375	2750	1375	1375	2626	124	1375	2147	603	2344	406	1375

Capacity Analysis Module:

Vol/Sat:	0.02	0.13	0.43	0.16	0.18	0.18	0.02	0.08	0.08	0.21	0.21	0.09
Crit Vol:	597	219					117	287				
Crit Moves:	****	****					****	****				

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #2 Rocklin Road/Granite Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.475
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: A

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

Volume Module:

Base Vol:	17	12	11	304	7	104	128	713	12	6	528	567
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	12	11	304	7	104	128	713	12	6	528	567
Added Vol:	0	0	0	1	0	6	9	4	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	12	11	305	7	110	137	717	12	6	530	567
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.00
PHF Volume:	19	13	12	334	8	120	150	785	13	7	581	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	13	12	334	8	120	150	785	13	7	581	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Vol.:	19	13	12	367	8	120	150	785	13	7	581	0

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.52	0.48	1.96	0.04	1.00	1.00	1.97	0.03	1.00	2.00	1.00
Final Sat.:	1375	717	658	2694	56	1375	1375	2705	45	1375	2750	1375

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.02	0.14	0.14	0.09	0.11	0.29	0.29	0.00	0.21	0.00
Crit Vol:	25	188		150			290					
Crit Moves:	****	****		****			****					

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

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

Intersection #3 Rocklin Road/I-80 Westbound Ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 0.696
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 21.9
Optimal Cycle: 42 Level Of Service: C

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

Volume Module:

Base Vol:	0	0	0	157	2	244	0	620	412	339	862	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	157	2	244	0	620	412	339	862	0
Added Vol:	0	0	0	0	0	0	0	4	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	157	2	246	0	624	413	339	862	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:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	0	0	172	2	270	0	684	453	372	945	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	172	2	270	0	684	453	372	945	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	172	2	270	0	684	453	372	945	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	0.00	0.00	0.00	1.00	0.01	0.99	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1615	13	1604	0	3610	1615	1805	3610	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.17	0.17	0.00	0.19	0.28	0.21	0.26	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.24	0.24	0.24	0.00	0.40	0.40	0.30	0.70	0.00
Volume/Cap:	0.00	0.00	0.00	0.44	0.70	0.70	0.00	0.47	0.70	0.70	0.37	0.00
Delay/Veh:	0.0	0.0	0.0	33.0	40.0	40.0	0.0	22.3	28.1	35.2	6.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	33.0	40.0	40.0	0.0	22.3	28.1	35.2	6.3	0.0
LOS by Move:	A	A	A	C	D	D	A	C	C	D	A	A
HCM2kAvgQ:	0	0	0	5	9	9	0	8	13	11	6	0

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

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

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

Intersection #4 Rocklin Road/I-80 Eastbound Ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 28.1
Optimal Cycle: 78 Level Of Service: C

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

Volume Module:

Base Vol:	570	2	735	0	0	0	208	569	0	0	631	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	570	2	735	0	0	0	208	569	0	0	631	47
Added Vol:	0	0	0	0	0	0	3	1	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	570	2	735	0	0	0	211	570	0	0	631	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	656	2	846	0	0	0	243	656	0	0	726	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	656	2	846	0	0	0	243	656	0	0	726	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
Final Vol.:	656	2	846	0	0	0	243	656	0	0	726	54

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.94	0.94
Lanes:	1.43	0.01	1.56	0.00	0.00	0.00	1.00	2.00	0.00	0.00	1.86	0.14
Final Sat.:	2336	5	2541	0	0	0	1805	3610	0	0	3326	248

Capacity Analysis Module:

Vol/Sat:	0.28	0.46	0.33	0.00	0.00	0.00	0.13	0.18	0.00	0.00	0.22	0.22
Crit Moves:	****			****			****			****		
Green/Cycle:	0.53	0.53	0.53	0.00	0.00	0.00	0.16	0.41	0.00	0.00	0.25	0.25
Volume/Cap:	0.53	0.87	0.62	0.00	0.00	0.00	0.87	0.45	0.00	0.00	0.87	0.87
Delay/Veh:	15.3	25.2	16.8	0.0	0.0	0.0	65.0	21.7	0.0	0.0	44.8	44.8
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:	15.3	25.2	16.8	0.0	0.0	0.0	65.0	21.7	0.0	0.0	44.8	44.8
LOS by Move:	B	C	B	A	A	A	E	C	A	A	D	D
HCM2kAvgQ:	9	23	12	0	0	0	10	8	0	0	15	15

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

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #7 Sierra College Boulevard/Taylor Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.772
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 75 Level Of Service: C

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

Volume Module:

Base Vol:	153	243	142	23	426	167	65	171	67	172	232	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	243	142	23	426	167	65	171	67	172	232	31
Added Vol:	2	12	15	0	18	0	0	0	3	24	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	255	157	23	444	167	65	171	70	196	232	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	170	280	173	25	488	184	71	188	77	215	255	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	280	173	25	488	184	71	188	77	215	255	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	170	280	173	25	488	184	71	188	77	215	255	34

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375

Capacity Analysis Module:

Vol/Sat:	0.12	0.20	0.13	0.02	0.35	0.13	0.05	0.14	0.06	0.16	0.19	0.02
Crit Vol:	170			488			188			215		
Crit Moves:	****			****			****			****		

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #8 Sierra College Boulevard/Brace Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.560
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 129 Level Of Service: A

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

Volume Module:

Base Vol:	0	380	36	68	554	0	0	0	58	67	0	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	380	36	68	554	0	0	0	58	67	0	76
Added Vol:	0	29	15	0	45	0	0	0	0	23	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	409	51	68	599	0	0	0	58	90	0	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	437	54	73	640	0	0	0	62	96	0	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	437	54	73	640	0	0	0	62	96	0	81
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	437	54	73	640	0	0	0	62	96	0	81

Saturation Flow Module:

Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	0	1425	1425	1425	1425	0	0	0	1425	1425	0	1425

Capacity Analysis Module:

Vol/Sat:	0.00	0.31	0.04	0.05	0.45	0.00	0.00	0.00	0.04	0.07	0.00	0.06
Crit Vol:	437			640			62		96			
Crit Moves:				****			****		****	****		

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #9 Sierra College Boulevard/Granite Drive

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.678
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 Level Of Service: B

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

Volume Module:

Base Vol:	152 368 74	103 476 63	61 25 34	126 30 41
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	152 368 74	103 476 63	61 25 34	126 30 41
Added Vol:	1 33 0	0 66 2	10 0 1	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	153 401 74	103 542 65	71 25 35	126 30 41
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.91 0.91 0.91	0.91 0.91 0.91	0.91 0.91 0.91	0.91 0.91 0.91
PHF Volume:	169 442 82	114 598 72	78 28 39	139 33 45
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	169 442 82	114 598 72	78 28 39	139 33 45
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.10 1.00 1.00	1.00 1.00 1.00
Final Vol.:	169 442 82	114 598 72	78 28 42	139 33 45

Saturation Flow Module:

Sat/Lane:	1375 1375	1375 1375	1375 1375	1375 1375
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 2.00	1.00 1.00 1.00
Final Sat.:	1375 1375 1375	1375 1375 1375	1375 1375 2750	1375 1375 1375

Capacity Analysis Module:

Vol/Sat:	0.12 0.32 0.06	0.08 0.43 0.05	0.06 0.02 0.02	0.10 0.02 0.03
Crit Vol:	169	598	28	139
Crit Moves:	****	****	****	****

Movement	EBL	EBR	EBR2	WBL2	WBT	WBR	NBL	NBT	NBR	SBT	SBR	SBR2
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	37	57	23	375	13	211	114	460	35	471	193	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	0.95	0.95	1.00	0.91	1.00	0.95	1.00	1.00
Frt	1.00	0.85		1.00	0.87	0.85	1.00	1.00	0.85	1.00	0.85	0.85
Fit Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583		3433	1535	1504	1770	5085	1583	3539	1583	1583
Fit Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583		3433	1535	1504	1770	5085	1583	3539	1583	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	37	57	23	375	13	211	114	460	35	471	193	75
RTOR Reduction (vph)	0	18	0	0	88	99	0	0	0	0	0	35
Lane Group Flow (vph)	37	62	0	375	24	13	114	460	35	471	193	40
Turn Type	Prot	Over		Prot	Perm	Prot	Prot	Free	Perm	Perm		
Protected Phases	7	5		3	8		5	2	6			
Permitted Phases						8			6		6	
Actuated Green, G (s)	5.1	11.1		19.2	10.1	10.1	11.1	62.8	90.0	47.7	47.7	47.7
Effective Green, g (s)	5.1	11.1		19.2	10.1	10.1	11.1	62.8	90.0	47.7	47.7	47.7
Actuated g/C Ratio	0.06	0.12		0.21	0.11	0.11	0.12	0.70	1.00	0.53	0.53	0.53
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	100	195		732	172	169	218	3548	1583	1876	839	839
v/s Ratio Prot	0.02	0.04		c0.11	0.02		c0.06	0.09		c0.13		
v/s Ratio Perm						0.07			0.02		0.12	0.03
v/c Ratio	0.37	0.32		0.51	0.14	0.07	0.52	0.13	0.02	0.25	0.23	0.05
Uniform Delay, d1	40.9	36.0		31.3	36.0	35.8	37.0	4.5	0.0	11.5	11.3	10.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.79	0.62	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3	1.0		0.6	0.4	0.2	2.2	0.1	0.0	0.3	0.6	0.1
Delay (s)	43.2	37.0		31.9	36.4	36.0	31.5	2.9	0.0	11.8	12.0	10.3
Level of Service	D	D		C	D	D	C	A	A	B	B	B
Approach Delay (s)					33.5			8.1		11.7		
Approach LOS					C			A		B		
Intersection Summary												
HCM Average Control Delay				18.5	HCM Level of Service			B				
HCM Volume to Capacity ratio	0.35											
Actuated Cycle Length (s)				90.0	Sum of lost time (s)			12.0				
Intersection Capacity Utilization				41.0%	ICU Level of Service			A				
Analysis Period (min)	15											
c Critical Lane Group												

Existing plus Project
11: I-80 EB & Rocklin Crossings

AM Peak Hour
11/4/2008

Movement	EBL2	EBT	EBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕	↔↔	↕↕↕	↕	↔↔	↕	↔↔
Volume (vph)	241	0	115	362	248	7	744	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97		1.00	0.91	1.00	0.97	0.95	1.00
Frt	1.00		0.85	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95		1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433		1583	5085	1583	3433	3539	1583
Flt Permitted	0.95		1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433		1583	5085	1583	3433	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	241	0	115	362	248	7	744	152
RTOR Reduction (vph)	0	0	100	0	0	0	0	0
Lane Group Flow (vph)	241	0	15	362	248	7	744	152
Turn Type	Prot		Perm		Perm	Prot		Free
Protected Phases	7	4		2		1		6
Permitted Phases			4		2			Free
Actuated Green, G (s)	11.6		11.6	65.0	65.0	1.4	70.4	90.0
Effective Green, g (s)	11.6		11.6	65.0	65.0	1.4	70.4	90.0
Actuated g/C Ratio	0.13		0.13	0.72	0.72	0.02	0.78	1.00
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	442		204	3673	1143	53	2768	1583
v/s Ratio Prot	c0.07			0.07		0.00	c0.21	
v/s Ratio Perm			0.01		0.16			0.10
v/c Ratio	0.55		0.07	0.10	0.22	0.13	0.27	0.10
Uniform Delay, d1	36.7		34.5	3.7	4.1	43.7	2.7	0.0
Progression Factor	1.00		1.00	1.00	1.00	0.87	0.47	1.00
Incremental Delay, d2	1.4		0.2	0.1	0.4	1.1	0.2	0.1
Delay (s)	38.1		34.6	3.8	4.6	39.0	1.5	0.1
Level of Service	D		C	A	A	D	A	A
Approach Delay (s)		37.0		4.1			1.6	
Approach LOS		D		A			A	
Intersection Summary								
HCM Average Control Delay			9.1		HCM Level of Service			A
HCM Volume to Capacity ratio			0.31					
Actuated Cycle Length (s)			90.0		Sum of lost time (s)			8.0
Intersection Capacity Utilization			34.4%		ICU Level of Service			A
Analysis Period (min)			15					
c Critical Lane Group								

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #12 Sierra College Boulevard/Dominguez Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.215
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	2	1	0	0	1	0	3	0	0	0	2
Volume Module:													
Base Vol:	0	598	0	0	831	0	0	0	0	0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	598	0	0	831	0	0	0	0	0	0	0	
Added Vol:	0	43	0	0	3	28	0	0	0	0	0	8	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	0	641	0	0	3	859	0	0	0	0	0	8	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
PHF Volume:	0	675	0	0	3	904	0	0	0	0	0	8	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	675	0	0	3	904	0	0	0	0	0	8	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.10	
Final Vol.:	0	675	0	0	3	904	0	0	0	0	0	9	
Saturation Flow Module:													
Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.00	3.00	0.00	1.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	
Final Sat.:	0	4275	0	1425	4275	0	0	0	0	2850	0	2850	
Capacity Analysis Module:													
Vol/Sat:	0.00	0.16	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Crit Vol:	0				301	0						5	
Crit Moves:	****				****							****	

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #13 Sierra College Boulevard/Rocklin Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.728
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C

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

Volume Module:
 Base Vol: 390 463 58 50 432 47 69 114 242 67 173 66
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 390 463 58 50 432 47 69 114 242 67 173 66
 Added Vol: 0 22 0 9 14 2 4 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 390 485 58 59 446 49 73 114 242 67 173 80
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
 PHF Volume: 405 504 60 61 464 51 76 119 252 70 180 83
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 405 504 60 61 464 51 76 119 252 70 180 83
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 405 504 60 61 464 51 76 119 252 70 180 83

Saturation Flow Module:
 Sat/Lane: 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.79 0.21 1.00 1.80 0.20 1.00 2.00 1.00 1.00 0.68 0.32
 Final Sat.: 1375 2456 294 1375 2478 272 1375 2750 1375 1375 940 435

Capacity Analysis Module:
 Vol/Sat: 0.29 0.21 0.21 0.04 0.19 0.19 0.06 0.04 0.18 0.05 0.19 0.19
 Crit Vol: 405 257 76 263
 Crit Moves: ****

Rocklin Commons
Existing + Project Conditions - AM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #14 Taylor Road/Horseshoe Bar Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

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

Volume Module:
 Base Vol: 6 269 66 457 359 6 14 67 22 45 14 406
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 6 269 66 457 359 6 14 67 22 45 14 406
 Added Vol: 0 10 1 0 16 0 0 0 0 2 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 6 279 67 457 375 6 14 67 22 47 14 406
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88
 PHF Volume: 7 318 76 521 427 7 16 76 25 54 16 462
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 7 318 76 521 427 7 16 76 25 54 16 462
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 7 318 76 521 427 7 16 76 25 54 16 462

Saturation Flow Module:
 Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 0.81 0.19 1.00 0.98 0.02 0.14 0.65 0.21 0.77 0.23 1.00
 Final Sat.: 1500 1210 290 1500 1476 24 204 976 320 1156 344 1500

Capacity Analysis Module:
 Vol/Sat: 0.00 0.26 0.26 0.35 0.29 0.29 0.08 0.08 0.08 0.05 0.05 0.31
 Crit Vol: 394 521 16 462
 Crit Moves: ****


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Rocklin Commons
Existing + Project Conditions - AM Peak Hour
-----
Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)
*****
Intersection #19 Sierra College Boulevard/King Road
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.450
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 0 0 1 0 0 0
-----
Volume Module:
Base Vol: 2 190 18 100 425 17 3 16 4 41 11 65
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 190 18 100 425 17 3 16 4 41 11 65
Added Vol: 0 12 0 0 18 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2 202 18 100 443 17 3 16 4 41 11 65
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 2 223 20 110 488 19 3 18 4 45 12 72
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 223 20 110 488 19 3 18 4 45 12 72
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 2 223 20 110 488 19 3 18 4 45 12 72
-----
Saturation Flow Module:
Sat/Lane: 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.92 0.08 1.00 0.96 0.04 0.13 0.70 0.17 0.35 0.09 0.56
Final Sat.: 1425 1308 117 1425 1372 53 186 991 248 499 134 792
-----
Capacity Analysis Module:
Vol/Sat: 0.00 0.17 0.17 0.08 0.36 0.36 0.02 0.02 0.02 0.09 0.09 0.09
Crit Vol: 2 507 3 129
Crit Moves: **** **** ****
*****

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Rocklin Commons
Existing + Project Conditions - AM Peak Hour
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #20 Sierra College Boulevard/English Colony Way
*****
Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[ 11.1]
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0
-----
Volume Module:
Base Vol: 0 257 1 71 518 0 0 0 0 4 0 37
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 257 1 71 518 0 0 0 0 4 0 37
Added Vol: 0 12 0 0 18 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 269 1 71 536 0 0 0 0 4 0 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 285 1 75 567 0 0 0 0 4 0 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 285 1 75 567 0 0 0 0 4 0 39
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.4 xxxx 6.2
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 xxxx 3.3
-----
Capacity Module:
Conflict Vol: xxxx xxxx xxxxx 286 xxxx xxxxx xxxx xxxx xxxxx 1003 xxxx 285
Potent Cap.: xxxx xxxx xxxxx 1288 xxxx xxxxx xxxx xxxx xxxxx 271 xxxx 759
Move Cap.: xxxx xxxx xxxxx 1288 xxxx xxxxx xxxx xxxx xxxxx 259 xxxx 759
Volume/Cap: xxxx xxxx xxxxx 0.06 xxxx xxxxx xxxx xxxx xxxxx 0.02 xxxx 0.05
-----
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.2 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 8.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * A * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 638 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.1 xxxxx
Shared LOS: * * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 11.1
ApproachLOS: * * * B
*****
Note: Queue reported is the number of cars per lane.

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Rocklin Commons
Existing + Project Conditions - AM Peak Hour
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Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)
*****
Intersection #21 Taylor Road/King Road
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.768
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 98 Level Of Service: C
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 1 1 0 1 1 0 1 1 0 0 1 0
-----
Volume Module:
Base Vol: 229 376 67 60 323 0 211 96 242 103 102 119
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 229 376 67 60 323 0 211 96 242 103 102 119
Added Vol: 0 10 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: 229 386 67 60 339 0 211 96 242 103 102 119
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83
PHF Volume: 276 465 81 72 408 0 254 116 291 124 123 143
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 276 465 81 72 408 0 254 116 291 124 123 143
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 276 465 81 72 408 0 254 116 291 124 123 143
-----
Saturation Flow Module:
Sat/Lane: 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 2.00 0.00 1.00 1.00 1.00 1.00 0.46 0.54
Final Sat.: 1375 1375 1375 1375 2750 0 1375 1375 1375 1375 635 740
-----
Capacity Analysis Module:
Vol/Sat: 0.20 0.34 0.06 0.05 0.15 0.00 0.18 0.08 0.21 0.09 0.19 0.19
Crit Vol: 465 72 254 266
Crit Moves: **** **** **** ****
*****

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Rocklin Commons
Existing + Project Conditions - AM Peak Hour
-----
Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)
*****
Intersection #22 Granite Drive/Project Driveway #2
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.092
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 19 Level Of Service: A
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1
-----
Volume Module:
Base Vol: 0 120 0 0 245 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 120 0 0 245 0 0 0 0 0 0 0 0
Added Vol: 0 1 19 0 1 0 0 0 0 0 13 0 0
PasserByVol: 0 0 2 0 0 0 0 0 0 0 2 0 0
Initial Fut: 0 121 21 0 246 0 0 0 0 0 15 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 121 21 0 246 0 0 0 0 0 15 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 121 21 0 246 0 0 0 0 0 15 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
Final Vol.: 0 121 21 0 246 0 0 0 0 0 17 0 0
-----
Saturation Flow Module:
Sat/Lane: 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 2850 1425 1425 2850 0 0 0 0 2850 0 1425
-----
Capacity Analysis Module:
Vol/Sat: 0.00 0.04 0.01 0.00 0.09 0.00 0.00 0.00 0.00 0.01 0.00 0.00
Crit Vol: 0 123 8
Crit Moves: **** **** ****
*****

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Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #1 Rocklin Road/Pacific Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.876
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 139 Level Of Service: D

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

Volume Module:

Base Vol:	41	443	509	122	514	21	34	113	23	595	148	221
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	443	509	122	514	21	34	113	23	595	148	221
Added Vol:	0	2	19	3	2	0	0	0	0	20	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	445	528	125	516	21	34	113	23	615	148	224
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	44	473	561	133	548	22	36	120	24	654	157	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	473	561	133	548	22	36	120	24	654	157	238
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00
Final Vol.:	44	473	561	133	548	22	36	120	24	719	157	238

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.92	0.08	1.00	1.66	0.34	1.64	0.36	1.00
Final Sat.:	1375	2750	1375	1375	2642	108	1375	2285	465	2256	494	1375

Capacity Analysis Module:

Vol/Sat:	0.03	0.17	0.41	0.10	0.21	0.21	0.03	0.05	0.05	0.32	0.32	0.17
Crit Vol:		561	133					72		438		
Crit Moves:		****	****					****		****		

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #2 Rocklin Road/Granite Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.841
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 108 Level Of Service: D

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

Volume Module:

Base Vol:	23	14	35	489	16	357	233	676	23	40	745	586
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	14	35	489	16	357	233	676	23	40	745	586
Added Vol:	0	0	0	7	0	34	31	12	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	14	35	496	16	391	264	688	23	40	758	586
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.00
PHF Volume:	25	15	37	529	17	417	282	734	25	43	809	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	15	37	529	17	417	282	734	25	43	809	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Vol.:	25	15	37	582	17	417	282	734	25	43	809	0

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.29	0.71	1.94	0.06	1.00	1.00	1.94	0.06	1.00	2.00	1.00
Final Sat.:	1375	393	982	2672	78	1375	1375	2661	89	1375	2750	1375

Capacity Analysis Module:

Vol/Sat:	0.02	0.04	0.04	0.22	0.22	0.30	0.20	0.28	0.28	0.03	0.29	0.00
Crit Vol:		52		417	282			404				
Crit Moves:		****		****	****			****				

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

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

Intersection #3 Rocklin Road/I-80 Westbound Ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 0.881
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 84 Level Of Service: C

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

Volume Module:

Base Vol:	0	0	0	52	2	258	0	686	516	503	1102	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	52	2	258	0	686	516	503	1102	0
Added Vol:	0	0	0	0	0	10	0	12	7	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	52	2	268	0	698	523	503	1105	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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	56	2	288	0	751	563	541	1189	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	56	2	288	0	751	563	541	1189	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	56	2	288	0	751	563	541	1189	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.95	0.85	0.95	0.95	1.00
Lanes:	0.00	0.00	0.00	1.00	0.01	0.99	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1615	12	1605	0	3610	1615	1805	3610	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.03	0.18	0.18	0.00	0.21	0.35	0.30	0.33	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.20	0.20	0.20	0.00	0.40	0.40	0.34	0.74	0.00
Volume/Cap:	0.00	0.00	0.00	0.17	0.88	0.88	0.00	0.53	0.88	0.88	0.45	0.00
Delay/Veh:	0.0	0.0	0.0	33.1	61.6	61.6	0.0	23.4	41.5	45.0	5.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	33.1	61.6	61.6	0.0	23.4	41.5	45.0	5.3	0.0
LOS by Move:	A	A	A	C	E	E	A	C	D	D	A	A
HCM2kAvgQ:	0	0	0	1	12	12	0	9	19	19	8	0

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

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

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

Intersection #4 Rocklin Road/I-80 Eastbound Ramp

Cycle (sec): 100 Critical Vol./Cap.(X): 0.880
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 29.5
Optimal Cycle: 83 Level Of Service: C

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

Volume Module:

Base Vol:	548	1	602	0	0	0	211	527	0	0	1057	119
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	548	1	602	0	0	0	211	527	0	0	1057	119
Added Vol:	0	0	0	0	0	0	10	2	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	548	1	602	0	0	0	221	529	0	0	1060	119
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	561	1	616	0	0	0	226	541	0	0	1085	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	561	1	616	0	0	0	226	541	0	0	1085	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	561	1	616	0	0	0	226	541	0	0	1085	122

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.94	0.94
Lanes:	1.47	0.01	1.52	0.00	0.00	0.00	1.00	2.00	0.00	0.00	1.80	0.20
Final Sat.:	2402	3	2478	0	0	0	1805	3610	0	0	3197	359

Capacity Analysis Module:

Vol/Sat:	0.23	0.36	0.25	0.00	0.00	0.00	0.13	0.15	0.00	0.00	0.34	0.34
Crit Moves:	****			****			****			****		
Green/Cycle:	0.41	0.41	0.41	0.00	0.00	0.00	0.14	0.53	0.00	0.00	0.39	0.39
Volume/Cap:	0.57	0.88	0.60	0.00	0.00	0.00	0.88	0.28	0.00	0.00	0.88	0.88
Delay/Veh:	22.9	34.2	23.6	0.0	0.0	0.0	69.4	13.2	0.0	0.0	35.4	35.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.9	34.2	23.6	0.0	0.0	0.0	69.4	13.2	0.0	0.0	35.4	35.4
LOS by Move:	C	C	C	A	A	A	E	B	A	A	D	D
HCM2kAvgQ:	9	20	10	0	0	0	10	5	0	0	21	21

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

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #7 Sierra College Boulevard/Taylor Road
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.992
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

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

Volume Module:

Base Vol:	120	551	253	26	341	109	152	305	97	207	266	36
Growth Adj:	1.00	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	551	253	26	341	109	152	305	97	207	266	36
Added Vol:	10	67	88	0	62	0	0	0	10	81	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	618	341	26	403	109	152	305	107	288	266	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	143	681	376	29	444	120	168	336	118	318	293	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	681	376	29	444	120	168	336	118	318	293	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	143	681	376	29	444	120	168	336	118	318	293	40

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375

Capacity Analysis Module:

Vol/Sat:	0.10	0.50	0.27	0.02	0.32	0.09	0.12	0.24	0.09	0.23	0.21	0.03
Crit Vol:	681	29		336			318					
Crit Moves:	****	****		****			****					

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #8 Sierra College Boulevard/Brace Road
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 80 Level Of Service: C

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

Volume Module:

Base Vol:	0	567	99	84	514	0	0	0	87	75	0	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	567	99	84	514	0	0	0	87	75	0	92
Added Vol:	0	166	84	0	153	0	0	0	0	78	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	733	183	84	667	0	0	0	87	153	0	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	776	194	89	707	0	0	0	92	162	0	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	776	194	89	707	0	0	0	92	162	0	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
Final Vol.:	0	776	194	89	707	0	0	0	92	162	0	97

Saturation Flow Module:

Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Final Sat.:	0	1425	1425	1425	1425	0	0	0	1425	1425	0	1425

Capacity Analysis Module:

Vol/Sat:	0.00	0.54	0.14	0.06	0.50	0.00	0.00	0.00	0.06	0.11	0.00	0.07
Crit Vol:	776	89		92	162							
Crit Moves:	****	****		****			****	****				

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #9 Sierra College Boulevard/Granite Drive

 Cycle (sec): 100 Critical Vol./Cap. (X): 0.842
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 109 Level Of Service: D

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

Volume Module:

Base Vol:	96	526	72	70	504	67	131	32	178	112	20	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	96	526	72	70	504	67	131	32	178	112	20	35
Added Vol:	5	189	0	0	226	5	61	0	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	715	72	70	730	72	192	32	182	112	20	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	111	782	79	77	799	79	210	35	199	123	22	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	782	79	77	799	79	210	35	199	123	22	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.00
Final Vol.:	111	782	79	77	799	79	210	35	219	123	22	38

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00
Final Sat.:	1375	1375	1375	1375	1375	1375	1375	1375	2750	1375	1375	1375

Capacity Analysis Module:

Vol/Sat:	0.08	0.57	0.06	0.06	0.58	0.06	0.15	0.03	0.08	0.09	0.02	0.03
Crit Vol:	111				799		210					38
Crit Moves:	****				****		****					****

Movement	EBL	EBR	EBR2	WBL2	WBT	WBR	NBL	NBT	NBR	SBT	SBR	SBR2
Lane Configurations	↔	↔		↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	216	329	136	320	46	159	390	560	38	647	142	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	0.95	0.95	1.00	0.91	1.00	0.95	1.00	1.00
Frt	1.00	0.85		1.00	0.92	0.85	1.00	1.00	0.85	1.00	0.85	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583		3433	1619	1504	1770	5085	1583	3539	1583	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583		3433	1619	1504	1770	5085	1583	3539	1583	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	216	329	136	320	46	159	390	560	38	647	142	256
RTOR Reduction (vph)	0	15	0	0	51	90	0	0	0	0	0	185
Lane Group Flow (vph)	216	450	0	320	55	9	390	560	38	647	142	71
Turn Type	Prot	Over		Prot		Perm	Prot		Free		Perm	Perm
Protected Phases	7	5		3	8		5	2		6		
Permitted Phases						8			Free		6	6
Actuated Green, G (s)	14.4	33.0		27.4	9.0	9.0	33.0	64.6	100.0	27.6	27.6	27.6
Effective Green, g (s)	14.4	33.0		27.4	9.0	9.0	33.0	64.6	100.0	27.6	27.6	27.6
Actuated g/C Ratio	0.14	0.33		0.27	0.09	0.09	0.33	0.65	1.00	0.28	0.28	0.28
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	255	522		941	146	135	584	3285	1583	977	437	437
v/s Ratio Prot	c0.12	c0.28		c0.09	0.03		0.22	0.11		c0.18		
v/s Ratio Perm						0.01			0.02		0.09	0.04
v/c Ratio	0.85	0.86		0.34	0.38	0.07	0.67	0.17	0.02	0.66	0.32	0.16
Uniform Delay, d1	41.7	31.4		29.1	42.9	41.7	28.8	7.0	0.0	32.1	28.8	27.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.62	0.62	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.0	13.7		0.2	1.6	0.2	2.8	0.1	0.0	3.5	2.0	0.8
Delay (s)	63.8	45.1		29.3	44.5	41.9	20.7	4.5	0.0	35.6	30.8	28.2
Level of Service	E	D		C	D	D	C	A	A	D	C	C
Approach Delay (s)					34.7			10.7		33.1		
Approach LOS					C			B		C		
Intersection Summary												
HCM Average Control Delay	30.3		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.71											
Actuated Cycle Length (s)	100.0				Sum of lost time (s)				12.0			
Intersection Capacity Utilization	68.1%		ICU Level of Service				C					
Analysis Period (min)	15											
c Critical Lane Group												

Existing plus Project
11: I-80 EB & Rocklin Crossings

PM Peak Hour
11/4/2008

Movement	EBL2	EBT	EBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕	↔↔	↕↕↕	↕	↔↔	↕	↔↔
Volume (vph)	352	0	31	636	260	38	861	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97		1.00	0.91	1.00	0.97	0.95	1.00
Frt	1.00		0.85	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95		1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433		1583	5085	1583	3433	3539	1583
Flt Permitted	0.95		1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433		1583	5085	1583	3433	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	352	0	31	636	260	38	861	397
RTOR Reduction (vph)	0	0	26	0	0	0	0	0
Lane Group Flow (vph)	352	0	5	636	260	38	861	397
Turn Type	Prot		Perm		Perm	Prot		Free
Protected Phases	7	4		2		1		6
Permitted Phases			4		2			Free
Actuated Green, G (s)	15.6		15.6	67.6	67.6	4.8	76.4	100.0
Effective Green, g (s)	15.6		15.6	67.6	67.6	4.8	76.4	100.0
Actuated g/C Ratio	0.16		0.16	0.68	0.68	0.05	0.76	1.00
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	536		247	3437	1070	165	2704	1583
v/s Ratio Prot	c0.10			0.13		0.01	c0.24	
v/s Ratio Perm			0.00		0.16			0.25
v/c Ratio	0.66		0.02	0.19	0.24	0.23	0.32	0.25
Uniform Delay, d1	39.7		35.7	6.0	6.3	45.8	3.7	0.0
Progression Factor	1.00		1.00	1.00	1.00	0.92	0.33	1.00
Incremental Delay, d2	2.9		0.0	0.1	0.5	0.6	0.2	0.3
Delay (s)	42.6		35.8	6.1	6.8	42.7	1.4	0.3
Level of Service	D		D	A	A	D	A	A
Approach Delay (s)		42.0		6.3			2.3	
Approach LOS		D		A			A	
Intersection Summary								
HCM Average Control Delay			9.6		HCM Level of Service			A
HCM Volume to Capacity ratio			0.38					
Actuated Cycle Length (s)			100.0		Sum of lost time (s)			8.0
Intersection Capacity Utilization			40.5%		ICU Level of Service			A
Analysis Period (min)			15					
c Critical Lane Group								

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #12 Sierra College Boulevard/Dominguez Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.260
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

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

Volume Module:

Base Vol:	0	805	0	0	691	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	805	0	0	691	0	0	0	0	0	0	0
Added Vol:	0	148	0	20	160	0	0	0	0	0	0	27
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	953	0	20	851	0	0	0	0	0	0	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1003	0	21	896	0	0	0	0	0	0	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1003	0	21	896	0	0	0	0	0	0	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.10
Final Vol.:	0	1003	0	21	896	0	0	0	0	0	0	31

Saturation Flow Module:

Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	1.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00
Final Sat.:	0	4275	0	1425	4275	0	0	0	0	2850	0	2850

Capacity Analysis Module:

Vol/Sat:	0.00	0.23	0.00	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Crit Vol:	334						0				16	
Crit Moves:	****			****							****	

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #13 Sierra College Boulevard/Rocklin Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.829
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 101 Level Of Service: D

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

Volume Module:
 Base Vol: 298 604 52 67 505 78 171 235 404 30 139 30
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 298 604 52 67 505 78 171 235 404 30 139 30
 Added Vol: 0 76 0 52 82 14 13 0 0 0 0 48
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 298 680 52 119 587 92 184 235 404 30 139 78
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 317 723 55 127 624 98 196 250 430 32 148 83
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 317 723 55 127 624 98 196 250 430 32 148 83
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 317 723 55 127 624 98 196 250 430 32 148 83

Saturation Flow Module:
 Sat/Lane: 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.86 0.14 1.00 1.73 0.27 1.00 2.00 1.00 1.00 0.64 0.36
 Final Sat.: 1375 2555 195 1375 2377 373 1375 2750 1375 1375 881 494

Capacity Analysis Module:
 Vol/Sat: 0.23 0.28 0.28 0.09 0.26 0.26 0.14 0.09 0.31 0.02 0.17 0.17
 Crit Vol: 317 361 430 32
 Crit Moves: **** **** **** ****

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

 Intersection #14 Taylor Road/Horseshoe Bar Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.145
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

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

Volume Module:
 Base Vol: 8 476 104 409 409 10 7 12 8 77 13 572
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 8 476 104 409 409 10 7 12 8 77 13 572
 Added Vol: 0 60 7 0 55 0 0 0 0 7 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 8 536 111 409 464 10 7 12 8 84 13 572
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 8 563 117 430 487 11 7 13 8 88 14 601
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 8 563 117 430 487 11 7 13 8 88 14 601
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 8 563 117 430 487 11 7 13 8 88 14 601

Saturation Flow Module:
 Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 0.83 0.17 1.00 0.98 0.02 0.26 0.44 0.30 0.87 0.13 1.00
 Final Sat.: 1500 1243 257 1500 1468 32 389 667 444 1299 201 1500

Capacity Analysis Module:
 Vol/Sat: 0.01 0.45 0.45 0.29 0.33 0.33 0.02 0.02 0.02 0.07 0.07 0.40
 Crit Vol: 680 430 7
 Crit Moves: **** **** **** ****

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

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

 Intersection #15 Horseshoe Bar Road/I-80 Westbound Ramp
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.347
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 21.7
 Optimal Cycle: 25 Level Of Service: C

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

Volume Module:
 Base Vol: 88 373 177 48 202 387 75 46 67 140 50 72
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 88 373 177 48 202 387 75 46 67 140 50 72
 Added Vol: 7 7 0 0 7 0 0 0 7 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 95 380 177 48 209 387 75 46 74 140 50 72
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
 PHF Volume: 99 397 185 50 218 0 78 48 77 146 52 75
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 99 397 185 50 218 0 78 48 77 146 52 75
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 99 397 185 50 218 0 78 48 77 146 52 75

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.90 0.90 0.95 1.00 1.00 0.77 0.77 0.85 0.63 0.91 0.91
 Lanes: 1.00 1.36 0.64 1.00 1.00 1.00 0.62 0.38 1.00 1.00 0.41 0.59
 Final Sat.: 1805 2345 1092 1805 1900 1900 903 554 1615 1195 710 1023

Capacity Analysis Module:
 Vol/Sat: 0.05 0.17 0.17 0.03 0.11 0.00 0.09 0.09 0.05 0.12 0.07 0.07
 Crit Moves: ****

Green/Cycle: 0.18 0.49 0.49 0.08 0.38 0.00 0.35 0.35 0.35 0.35 0.35 0.35
 Volume/Cap: 0.30 0.35 0.35 0.35 0.30 0.00 0.25 0.25 0.14 0.35 0.21 0.21
 Delay/Veh: 35.8 15.9 15.9 45.0 21.7 0.0 23.2 23.2 22.1 24.4 22.8 22.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 35.8 15.9 15.9 45.0 21.7 0.0 23.2 23.2 22.1 24.4 22.8 22.8
 LOS by Move: D B B D C A C C C C C C
 HCM2kAvgQ: 3 6 6 2 5 0 3 3 2 4 3 3

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

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

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

 Intersection #16 Horseshoe Bar Road/I-80 Eastbound Ramp
 Average Delay (sec/veh): 8.7 Worst Case Level Of Service: C[19.1]

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	0 0 1 0 1	0 1 0 0 0	0 0 0 0 0	1 0 0 0 1

Volume Module:
 Base Vol: 0 273 61 157 242 0 0 0 0 114 0 398
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 273 61 157 242 0 0 0 0 114 0 398
 Added Vol: 0 14 0 0 15 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 287 61 157 257 0 0 0 0 114 0 398
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 0 306 65 167 274 0 0 0 0 122 0 424
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol.: 0 306 65 167 274 0 0 0 0 122 0 424

Critical Gap Module:
 Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.4 xxxx 6.2
 FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 xxxx 3.3

Capacity Module:
 Cnflct Vol: xxxx xxxx xxxxx 371 xxxx xxxxx xxxx xxxx xxxxx 915 xxxx 306
 Potent Cap.: xxxx xxxx xxxxx 1199 xxxx xxxxx xxxx xxxx xxxxx 305 xxxx 739
 Move Cap.: xxxx xxxx xxxxx 1199 xxxx xxxxx xxxx xxxx xxxxx 269 xxxx 739
 Volume/Cap: xxxx xxxx xxxxx 0.14 xxxx xxxxx xxxx xxxx xxxxx 0.45 xxxx 0.57

Level Of Service Module:
 2Way95thQ: xxxx xxxx xxxxx 0.5 xxxx xxxxx xxxx xxxx xxxxx 2.2 xxxx 3.7
 Control Del:xxxxx xxxx xxxxx 8.5 xxxx xxxxx xxxxx xxxx xxxxx 28.9 xxxx 16.2
 LOS by Move: * * * A * * * * * D * C
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 SharedQueue:xxxxx xxxx xxxxx 0.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx 8.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 Shared LOS: * * * A * * * * * * * * *
 ApproachDel: xxxxxx xxxxxx xxxxxx 19.1
 ApproachLOS: * * * C

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

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #21 Taylor Road/King Road
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.744
 Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 89 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected Include			Protected Include			Protected Include			Protected Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	0

Volume Module:
 Base Vol: 362 282 114 28 239 0 67 91 317 95 83 32
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 362 282 114 28 239 0 67 91 317 95 83 32
 Added Vol: 0 60 0 0 55 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 362 342 114 28 294 0 67 91 317 95 83 32
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 402 380 127 31 327 0 74 101 352 106 92 36
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 402 380 127 31 327 0 74 101 352 106 92 36
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 402 380 127 31 327 0 74 101 352 106 92 36

Saturation Flow Module:
 Sat/Lane: 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.00 1.00 1.00 2.00 0.00 1.00 1.00 1.00 1.00 0.72 0.28
 Final Sat.: 1375 1375 1375 1375 2750 0 1375 1375 1375 1375 992 383

Capacity Analysis Module:
 Vol/Sat: 0.29 0.28 0.09 0.02 0.12 0.00 0.05 0.07 0.26 0.08 0.09 0.09
 Crit Vol: 402 163 352 106
 Crit Moves: ****

Rocklin Commons
Existing + Project Conditions - PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #22 Granite Drive/Project Driveway #2
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.154
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 20 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected Include			Protected Include			Protected Include			Protected Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	2	0	0	0	0	2	0	0

Volume Module:
 Base Vol: 0 341 0 0 183 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 341 0 0 183 0 0 0 0 0 0 0
 Added Vol: 0 4 64 0 5 0 0 0 0 0 76 0
 PasserByVol: 0 0 7 0 0 0 0 0 0 0 9 0
 Initial Fut: 0 345 71 0 188 0 0 0 0 0 85 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 345 71 0 188 0 0 0 0 0 85 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 345 71 0 188 0 0 0 0 0 85 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 1.10 1.00 1.00
 Final Vol.: 0 345 71 0 188 0 0 0 0 0 94 0

Saturation Flow Module:
 Sat/Lane: 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 2850 1425 1425 2850 0 0 0 0 2850 0 1425

Capacity Analysis Module:
 Vol/Sat: 0.00 0.12 0.05 0.00 0.07 0.00 0.00 0.00 0.00 0.03 0.00 0.00
 Crit Vol: 173 0 0 47
 Crit Moves: ****

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #1 Rocklin Road/Pacific Street
Cycle (sec): 100 Critical Vol./Cap.(X): 0.578
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing traffic volumes and 11 rows of metrics including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows of metrics including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows of metrics including Vol/Sat, Crit Vol, and Crit Moves.

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #2 Rocklin Road/Granite Road
Cycle (sec): 100 Critical Vol./Cap.(X): 0.589
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing traffic volumes and 11 rows of metrics including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows of metrics including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows of metrics including Vol/Sat, Crit Vol, and Crit Moves.

Rocklin Commons
Existing + Project Conditions - Saturday

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

Intersection #3 Rocklin Road/I-80 Westbound Ramp
Cycle (sec): 100 Critical Vol./Cap.(X): 0.561
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 23.3
Optimal Cycle: 30 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 11 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

Rocklin Commons
Existing + Project Conditions - Saturday

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

Intersection #4 Rocklin Road/I-80 Eastbound Ramp
Cycle (sec): 100 Critical Vol./Cap.(X): 0.448
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 12.8
Optimal Cycle: 25 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 11 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

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

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #5 Dominguez Road/Pacific Street
Cycle (sec): 100 Critical Vol./Cap.(X): 0.266
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing traffic movements. Rows include Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol), PCE Adj, M/F Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows: Vol/Sat, Crit Vol, Crit Moves.

Rocklin Commons
Existing + Project Conditions - Saturday

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

Intersection #6 Dominguez Road/Granite Drive
Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[11.0]

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Lanes.

Table with 12 columns representing traffic movements. Rows include Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol), Critical Gap Module, and FollowUpTim.

Capacity Module table with 12 columns and 4 rows: Conflict Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module table with 12 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

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

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #7 Sierra College Boulevard/Taylor Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 28 324 69 29 267 60 25 220 28 83 202 24
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 28 324 69 29 267 60 25 220 28 83 202 24
Added Vol: 13 85 111 0 92 0 0 0 14 120 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 41 409 180 29 359 60 25 220 42 203 202 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 44 436 192 31 382 64 27 234 45 216 215 26
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 44 436 192 31 382 64 27 234 45 216 215 26
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 44 436 192 31 382 64 27 234 45 216 215 26

Saturation Flow Module:
Sat/Lane: 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375 1375

Capacity Analysis Module:
Vol/Sat: 0.03 0.32 0.14 0.02 0.28 0.05 0.02 0.17 0.03 0.16 0.16 0.02
Crit Vol: 436 31 234 216
Crit Moves: **** * 234 216

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #8 Sierra College Boulevard/Brace Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.576
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 1 1 0 0 1 0 0 0 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 383 11 31 374 0 0 0 14 43 0 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 383 11 31 374 0 0 0 14 43 0 35
Added Vol: 0 209 106 0 226 0 0 0 0 115 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 592 117 31 600 0 0 0 14 158 0 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 0 612 121 32 620 0 0 0 14 163 0 36
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 612 121 32 620 0 0 0 14 163 0 36
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 612 121 32 620 0 0 0 14 163 0 36

Saturation Flow Module:
Sat/Lane: 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425 1425
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00
Final Sat.: 0 1425 1425 1425 1425 0 0 0 1425 1425 0 1425

Capacity Analysis Module:
Vol/Sat: 0.00 0.43 0.08 0.02 0.43 0.00 0.00 0.00 0.01 0.11 0.00 0.03
Crit Vol: 612 32 14 163
Crit Moves: **** * 32 14 163

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #9 Sierra College Boulevard/Granite Drive

Cycle (sec): 100 Critical Vol./Cap. (X): 0.764
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:

Base Vol:	146	298	94	56	278	98	107	19	78	119	18	25
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	298	94	56	278	98	107	19	78	119	18	25
Added Vol:	6	238	0	0	334	8	76	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	152	536	94	56	612	106	183	19	85	119	18	25
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	164	579	102	61	662	115	198	21	92	129	19	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	579	102	61	662	115	198	21	92	129	19	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	1.10	1.00	1.00	1.00
Final Vol.:	164	579	102	61	662	115	198	21	101	129	19	27

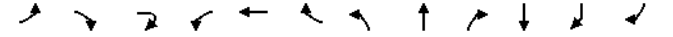
Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00
Final Sat.:	1375	1375	1375	1375	1375	1375	1375	1375	2750	1375	1375	1375

Capacity Analysis Module:

Vol/Sat:	0.12	0.42	0.07	0.04	0.48	0.08	0.14	0.01	0.04	0.09	0.01	0.02
Crit Vol:	164			662	198							27
Crit Moves:	****			****	****		****					****

Existing plus Project
10: I-80 WB & Sierra College Blvd. Saturday Peak Hour
12/31/2008



Movement	EBL	EBR	EBR2	WBL2	WBT	WBR	NBL	NBT	NBR	SBT	SBR	SBR2
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	270	465	116	162	67	28	572	489	69	361	75	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	0.95	0.95	1.00	0.91	1.00	0.95	1.00	1.00
Frt	1.00	0.85		1.00	0.99	0.85	1.00	1.00	0.85	1.00	0.85	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583		3433	1758	1504	1770	5085	1583	3539	1583	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583		3433	1758	1504	1770	5085	1583	3539	1583	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	270	465	116	162	67	28	572	489	69	361	75	375
RTOR Reduction (vph)	0	8	0	0	2	23	0	0	0	0	0	292
Lane Group Flow (vph)	270	573	0	162	68	2	572	489	69	361	75	83
Turn Type	Prot	Over		Prot		Perm	Prot		Free		Perm	Perm
Protected Phases	7	5		3	8		5	2		6		6
Permitted Phases						8			Free		6	6
Actuated Green, G (s)	19.2	42.0		31.6	8.4	8.4	42.0	70.4	110.0	24.4	24.4	24.4
Effective Green, g (s)	19.2	42.0		31.6	8.4	8.4	42.0	70.4	110.0	24.4	24.4	24.4
Actuated g/C Ratio	0.17	0.38		0.29	0.08	0.08	0.38	0.64	1.00	0.22	0.22	0.22
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	309	604		986	134	115	676	3254	1583	785	351	351
v/s Ratio Prot	c0.15	c0.36		0.05	c0.04		0.32	0.10		c0.10		
v/s Ratio Perm						0.00			0.04		0.05	0.05
v/c Ratio	0.87	0.95		0.16	0.51	0.02	0.85	0.15	0.04	0.46	0.21	0.24
Uniform Delay, d1	44.2	33.0		29.3	48.8	47.0	31.0	7.9	0.0	37.1	35.0	35.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.54	0.36	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.8	24.3		0.1	3.0	0.1	9.4	0.1	0.1	1.9	1.4	1.6
Delay (s)	67.0	57.2		29.4	51.8	47.0	26.1	2.9	0.1	39.0	36.4	36.7
Level of Service	E	E		C	D	D	C	A	A	D	D	D
Approach Delay (s)					37.2			14.5		37.7		
Approach LOS					D			B		D		

Intersection Summary

HCM Average Control Delay	35.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Existing plus Project
11: I-80 EB & Rocklin Crossings

Saturday Peak Hour
12/31/2008

Movement	EBL2	EBT	EBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	455	0	192	675	45	48	645	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97		1.00	0.91	1.00	0.97	0.95	1.00
Frt	1.00		0.85	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95		1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433		1583	5085	1583	3433	3539	1583
Flt Permitted	0.95		1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433		1583	5085	1583	3433	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	455	0	192	675	45	48	645	295
RTOR Reduction (vph)	0	0	157	0	0	0	0	0
Lane Group Flow (vph)	455	0	35	675	45	48	645	295
Turn Type	Prot		Perm		Perm	Prot		Free
Protected Phases	7	4		2		1	6	
Permitted Phases			4		2			Free
Actuated Green, G (s)	20.2		20.2	69.8	69.8	8.0	81.8	110.0
Effective Green, g (s)	20.2		20.2	69.8	69.8	8.0	81.8	110.0
Actuated g/C Ratio	0.18		0.18	0.63	0.63	0.07	0.74	1.00
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	630		291	3227	1004	250	2632	1583
v/s Ratio Prot	c0.13			0.13		0.01	c0.18	
v/s Ratio Perm			0.02		0.03		0.19	
v/c Ratio	0.72		0.12	0.21	0.04	0.19	0.25	0.19
Uniform Delay, d1	42.3		37.5	8.5	7.6	48.0	4.4	0.0
Progression Factor	1.00		1.00	0.56	0.49	0.93	0.49	1.00
Incremental Delay, d2	4.1		0.2	0.1	0.0	0.3	0.2	0.2
Delay (s)	46.3		37.7	4.8	3.8	44.9	2.3	0.2
Level of Service	D		D	A	A	D	A	A
Approach Delay (s)		43.8		4.7			3.8	
Approach LOS		D		A			A	
Intersection Summary								
HCM Average Control Delay			15.1		HCM Level of Service			B
HCM Volume to Capacity ratio			0.34					
Actuated Cycle Length (s)			110.0		Sum of lost time (s)			8.0
Intersection Capacity Utilization			39.4%		ICU Level of Service			A
Analysis Period (min)			15					
c Critical Lane Group								

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #12 Sierra College Boulevard/Dominguez Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.213
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	1	0	3	0	0	0	0	0	2
Volume Module:												
Base Vol:	0	441	0	0	599	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	441	0	0	599	0	0	0	0	0	0	0
Added Vol:	0	218	0	25	201	0	0	0	0	0	0	40
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	659	0	25	800	0	0	0	0	0	0	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	694	0	26	842	0	0	0	0	0	0	42
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	694	0	26	842	0	0	0	0	0	0	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	1.10	1.00	1.10
Final Vol.:	0	694	0	26	842	0	0	0	0	0	0	46
Saturation Flow Module:												
Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	0.00	1.00	3.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00
Final Sat.:	0	4275	0	1425	4275	0	0	0	0	2850	0	2850
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.00	0.02	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Crit Vol:	0			281			0					23
Crit Moves:	****			****								****

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #13 Sierra College Boulevard/Rocklin Road
Cycle (sec): 100 Critical Vol./Cap.(X): 0.651
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table with 12 columns representing traffic flows and 10 rows of data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows of data including Vol/Sat, Crit Vol, and Crit Moves.

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #14 Taylor Road/Horseshoe Bar Road
Cycle (sec): 100 Critical Vol./Cap.(X): 0.746
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted), Rights (Include), Min. Green, and Lanes.

Volume Module table with 12 columns representing traffic flows and 10 rows of data including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows of data including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 4 rows of data including Vol/Sat, Crit Vol, and Crit Moves.

Rocklin Commons
Existing + Project Conditions - Saturday

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

Intersection #17 Barton Road/Brace Road

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: A[9.9]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0 0

Volume Module:

Base Vol: 22 0 90 0 0 0 0 0 52 21 60 56 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 22 0 90 0 0 0 0 0 52 21 60 56 0
Added Vol: 10 0 0 0 0 0 0 0 19 9 0 20 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 0 90 0 0 0 0 0 71 30 60 76 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: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 35 0 98 0 0 0 0 0 77 33 65 83 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 35 0 98 0 0 0 0 0 77 33 65 83 0

Critical Gap Module:
Critical Gp: 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx
FollowUpTim: 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx

Capacity Module:

Cnflct Vol: 307 xxxxx 94 xxxxx xxxxx xxxxx xxxxx xxxxx 110 xxxxx xxxxx
Potent Cap.: 689 xxxxx 969 xxxxx xxxxx xxxxx xxxxx xxxxx 1493 xxxxx xxxxx
Move Cap.: 665 xxxxx 969 xxxxx xxxxx xxxxx xxxxx xxxxx 1493 xxxxx xxxxx
Volume/Cap: 0.05 xxxxx 0.10 xxxxx xxxxx xxxxx xxxxx xxxxx 0.04 xxxxx xxxxx

Level Of Service Module:

2Way95thQ: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx
Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
LOS by Move: * * * * * * * * * * A * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 865 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue: xxxxx 0.5 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx
Shrd ConDel: xxxxx 9.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.5 xxxxx xxxxx
Shared LOS: * A * * * * * * * * * * A * * *
ApproachDel: 9.9 xxxxxxx xxxxxxx xxxxxxx
ApproachLOS: A * * * * * B * * * * *

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

Rocklin Commons
Existing + Project Conditions - Saturday

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

Intersection #18 Barton Road/Rocklin Road

Average Delay (sec/veh): 7.2 Worst Case Level Of Service: B[11.0]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 1 0 0 0 0 0 0 1 0 1 0 0 0 0 0

Volume Module:

Base Vol: 85 48 0 0 38 96 75 0 173 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 85 48 0 0 38 96 75 0 173 0 0 0
Added Vol: 72 0 0 0 0 0 0 0 66 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 157 48 0 0 38 96 75 0 239 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 171 52 0 0 41 104 82 0 260 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 171 52 0 0 41 104 82 0 260 0 0 0

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx

Capacity Module:

Cnflct Vol: 146 xxxxx xxxxx xxxxx xxxxx 487 xxxxx 93 xxxxx xxxxx xxxxx
Potent Cap.: 1449 xxxxx xxxxx xxxxx xxxxx 543 xxxxx 969 xxxxx xxxxx xxxxx
Move Cap.: 1449 xxxxx xxxxx xxxxx xxxxx 489 xxxxx 969 xxxxx xxxxx xxxxx
Volume/Cap: 0.12 xxxxx xxxxx xxxxx xxxxx 0.17 xxxxx 0.27 xxxxx xxxxx xxxxx

Level Of Service Module:

2Way95thQ: 0.4 xxxxx xxxxx xxxxx xxxxx 0.6 xxxxx 1.1 xxxxx xxxxx xxxxx
Control Del: 7.8 xxxxx xxxxx xxxxx xxxxx 13.8 xxxxx 10.1 xxxxx xxxxx xxxxx
LOS by Move: A * * * * * B * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue: 0.4 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd ConDel: 7.8 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: A * * * * * * * * * * B * * * * *

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

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #21 Taylor Road/King Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.541
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: A

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

Volume Module:

Base Vol:	159	274	110	19	244	49	54	47	171	110	55	176
Growth Adj:	1.00	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	274	110	19	244	49	54	47	171	110	55	176
Added Vol:	0	75	0	0	82	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	159	349	110	19	326	49	54	47	171	110	55	176
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	182	400	126	22	373	56	62	54	196	126	63	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	182	400	126	22	373	56	62	54	196	126	63	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	182	400	126	22	373	56	62	54	196	126	63	202

Saturation Flow Module:

Sat/Lane:	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.74	0.26	1.00	1.00	1.00	1.00	0.24	0.76
Final Sat.:	1375	1375	1375	1375	2391	359	1375	1375	1375	1375	327	1048

Capacity Analysis Module:

Vol/Sat:	0.13	0.29	0.09	0.02	0.16	0.16	0.04	0.04	0.14	0.09	0.19	0.19
Crit Vol:	400	22					196	126				
Crit Moves:	****	****					****	****				

Rocklin Commons
Existing + Project Conditions - Saturday

Level Of Service Computation Report
Circular 212 Planning Method (Future Volume Alternative)

Intersection #22 Granite Drive/Project Driveway #2

Cycle (sec): 100 Critical Vol./Cap.(X): 0.135
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 20 Level Of Service: A

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

Volume Module:

Base Vol:	0	204	0	0	262	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	204	0	0	262	0	0	0	0	0	0	0
Added Vol:	0	7	94	0	6	0	0	0	0	96	0	0
PasserByVol:	0	0	9	0	0	0	0	0	0	10	0	0
Initial Fut:	0	211	103	0	268	0	0	0	0	106	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	211	103	0	268	0	0	0	0	106	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	211	103	0	268	0	0	0	0	106	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00
Final Vol.:	0	211	103	0	268	0	0	0	0	117	0	0

Saturation Flow Module:

Sat/Lane:	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425	1425
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	2850	1425	1425	2850	0	0	0	0	2850	0	1425

Capacity Analysis Module:

Vol/Sat:	0.00	0.07	0.07	0.00	0.09	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Crit Vol:	0				134				0	58		
Crit Moves:	****				****				****			