Appendix L
Transportation Data

ESA

Appendix E-1:
Traffic Counts

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-001 SR 65-Riosa Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	SR 65 Southbound					Riosa Road Westbound					SR 65 Northbound					Riosa Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	62	178	4	0	244	8	4	50	0	62	0	177	1	0	178	3	0	1	0	4	488	0
06:45	47	101	4	0	152	10	4	40	0	54	1	165	3	0	169	4	3	2	0	9	384	0
07:00	41	143	1	0	185	5	9	48	0	62	0	196	3	0	199	2	0	1	0	3	449	0
07:15	46	149	0	0	195	10	5	54	0	69	1	217	2	0	220	0	3	3	0	6	490	0
Total	196	571	9	0	776	33	22	192	0	247	2	755	9	0	766	9	6	7	0	22	1811	0
07:30	54	127	0	0	181	10	6	53	0	69	1	193	6	0	200	0	2	1	0	3	453	0
07:45	57	120	1	0	178	15	2	34	0	51	0	123	3	0	126	0	3	3	0	6	361	0
08:00	35	143	2	0	180	5	2	34	0	41	0	114	1	0	115	1	6	0	0	7	343	0
08:15	34	147	0	0	181	11	0	48	0	59	1	116	5	0	122	3	2	3	0	8	370	0
Total	180	537	3	0	720	41	10	169	0	220	2	546	15	0	563	4	13	7	0	24	1527	0
08:30	36	124	0	0	160	7	5	38	0	50	1	129	2	1	133	0	2	1	0	3	346	1
08:45	39	108	3	0	150	4	1	40	0	45	0	91	1	0	92	1	1	0	0	2	289	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	75	232	3	0	310	11	6	78	0	95	1	220	3	1	225	1	3	1	0	5	635	1
15:30	46	181	1	0	228	8	6	62	0	76	1	137	11	0	149	2	1	2	0	5	458	0
15:45	61	204	0	0	265	4	4	82	0	90	0	161	2	0	163	3	6	0	0	9	527	0
16:00	44	196	1	0	241	5	1	74	0	80	2	123	9	0	134	3	6	0	0	9	464	0
16:15	69	194	0	0	263	6	0	74	0	80	2	147	17	0	166	1	0	3	0	4	513	0
Total	220	775	2	0	997	23	11	292	0	326	5	568	39	0	612	9	13	5	0	27	1962	0
16:30	60	236	0	0	296	6	6	80	0	92	4	107	7	0	118	6	2	1	0	9	515	0
16:45	44	213	4	0	261	3	4	67	0	74	2	164	13	0	179	0	4	1	0	5	519	0
17:00	45	185	0	0	230	7	3	75	0	85	1	144	7	0	152	4	6	1	0	11	478	0
17:15	48	203	2	0	253	1	5	71	0	77	4	149	6	0	159	1	5	0	0	6	495	0
Total	197	837	6	0	1040	17	18	293	0	328	11	564	33	0	608	11	17	3	0	31	2007	0
17:30	41	161	1	0	203	3	1	70	0	74	2	151	7	0	160	1	6	1	0	8	445	0
17:45	28	145	1	0	174	1	4	55	0	60	0	111	4	0	115	2	6	1	0	9	358	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	69	306	2	0	377	4	5	125	0	134	2	262	11	0	275	3	12	2	0	17	803	0
Grand Total	937	3258	25	0	4220	129	72	1149	0	1350	23	2915	110	1	3049	37	64	25	0	126	8745	1
Apprch %	22.2%	77.2%	0.6%	0.0%		9.6%	5.3%	85.1%	0.0%		0.8%	95.6%	3.6%	0.0%		29.4%	50.8%	19.8%	0.0%			
Total %	10.7%	37.3%	0.3%	0.0%	48.3%	1.5%	0.8%	13.1%	0.0%	15.4%	0.3%	33.3%	1.3%	0.0%	34.9%	0.4%	0.7%	0.3%	0.0%	1.4%	100.0%	

AM PEAK HOUR	SR 65 Southbound					Riosa Road Westbound					SR 65 Northbound					Riosa Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	
Peak Hour Analysis From 06:30 to 07:30																						
Peak Hour For Entire Intersection Begins at 06:30																						
06:30	62	178	4	0	244	8	4	50	0	62	0	177	1	0	178	3	0	1	0	4	488	
06:45	47	101	4	0	152	10	4	40	0	54	1	165	3	0	169	4	3	2	0	9	384	
07:00	41	143	1	0	185	5	9	48	0	62	0	196	3	0	199	2	0	1	0	3	449	
07:15	46	149	0	0	195	10	5	54	0	69	1	217	2	0	220	0	3	3	0	6	490	
Total Volume	196	571	9	0	776	33	22	192	0	247	2	755	9	0	766	9	6	7	0	22	1811	Total
% App Total	25.3%	73.6%	1.2%	0.0%		13.4%	8.9%	77.7%	0.0%		0.3%	98.6%	1.2%	0.0%		40.9%	27.3%	31.8%	0.0%			
PHF	.790	.802	.563	.000	.795	.825	.611	.889	.000	.895	.500	.870	.750	.000	.870	.563	.500	.583	.000	.611	.924	PHF

PM PEAK HOUR	SR 65 Southbound					Riosa Road Westbound					SR 65 Northbound					Riosa Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	
Peak Hour Analysis From 16:15 to 17:15																						
Peak Hour For Entire Intersection Begins at 16:15																						
16:15	69	194	0	0	263	6	0	74	0	80	2	147	17	0	166	1	0	3	0	4	513	
16:30	60	236	0	0	296	6	6	80	0	92	4	107	7	0	118	6	2	1	0	9	515	
16:45	44	213	4	0	261	3	4	67	0	74	2	164	13	0	179	0	4	1	0	5	519	
17:00	45	185	0	0	230	7	3	75	0	85	1	144	7	0	152	4	6	1	0	11	478	
Total Volume	218	828	4	0	1050	22	13	296	0	331	9	562	44	0	615	11	12	6	0	29	2025	Total
% App Total	20.8%	78.9%	0.4%	0.0%		6.6%	3.9%	89.4%	0.0%		1.5%	91.4%	7.2%	0.0%		37.9%	41.4%	20.7%	0.0%			
PHF	.790	.877	.250	.000	.887	.786	.542	.925	.000	.899	.563	.857	.647	.000	.859	.458	.500	.500	.000	.659	.975	PHF

Intersection 2

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-002 SR 65-Wise Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	SR 65 Southbound					Wise Road Westbound					SR 65 Northbound					Wise Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	0	160	8	0	168	1	2	1	0	4	0	164	0	0	164	1	2	0	0	3	339	0
06:45	1	144	10	0	155	0	1	0	0	1	2	211	0	0	213	0	0	3	0	3	372	0
07:00	0	120	3	0	123	1	3	1	0	5	1	179	3	0	183	1	1	1	0	3	314	0
07:15	3	154	3	0	160	0	2	1	0	3	0	219	0	0	219	3	0	0	0	3	385	0
Total	4	578	24	0	606	2	8	3	0	13	3	773	3	0	779	5	3	4	0	12	1410	0
07:30	3	153	3	0	159	0	3	2	0	5	0	186	1	0	187	0	1	1	0	2	353	0
07:45	1	119	3	0	123	2	0	1	0	3	0	120	1	0	121	4	2	0	0	6	253	0
08:00	3	159	2	0	164	1	2	0	0	3	1	114	0	0	115	2	4	0	0	6	288	0
08:15	1	124	5	0	130	1	3	1	0	5	0	128	4	0	132	0	2	2	0	4	271	0
Total	8	555	13	0	576	4	8	4	0	16	1	548	6	0	555	6	9	3	0	18	1165	0
08:30	3	154	4	0	161	0	2	1	0	3	0	119	1	0	120	1	1	1	0	3	287	0
08:45	0	104	2	0	106	1	0	0	0	1	0	99	0	0	99	0	0	0	0	0	206	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	258	6	0	267	1	2	1	0	4	0	218	1	0	219	1	1	1	0	3	493	0
15:30	1	192	2	0	195	1	7	4	0	12	2	132	1	0	135	1	3	2	0	6	348	0
15:45	0	199	0	0	199	0	9	1	0	10	4	150	0	0	154	3	1	1	0	5	368	0
16:00	1	188	2	0	191	1	5	5	0	11	1	139	2	0	142	2	1	1	0	4	348	0
16:15	2	213	0	0	215	2	2	1	0	5	2	150	1	0	153	3	1	0	0	4	377	0
Total	4	792	4	0	800	4	23	11	0	38	9	571	4	0	584	9	6	4	0	19	1441	0
16:30	3	220	2	0	225	2	3	2	0	7	1	121	1	0	123	3	2	3	0	8	363	0
16:45	3	210	0	0	213	3	2	3	0	8	3	165	1	0	169	2	1	1	0	4	394	0
17:00	1	210	1	0	212	0	3	2	0	5	4	152	3	0	159	3	4	2	0	9	385	0
17:15	4	189	1	0	194	2	1	5	0	8	4	165	2	0	171	0	7	2	0	9	382	0
Total	11	829	4	0	844	7	9	12	0	28	12	603	7	0	622	8	14	8	0	30	1524	0
17:30	3	178	0	0	181	3	1	0	0	4	8	151	0	0	159	1	9	1	0	11	355	0
17:45	3	133	0	0	136	0	2	2	0	4	9	115	1	0	125	4	8	1	0	13	278	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	311	0	0	317	3	3	2	0	8	17	266	1	0	284	5	17	2	0	24	633	0
Grand Total	36	3323	51	0	3410	21	53	33	0	107	42	2979	22	0	3043	34	50	22	0	106	6666	0
Apprch %	1.1%	97.4%	1.5%	0.0%		19.6%	49.5%	30.8%	0.0%		1.4%	97.9%	0.7%	0.0%		32.1%	47.2%	20.8%	0.0%			
Total %	0.5%	49.8%	0.8%	0.0%	51.2%	0.3%	0.8%	0.5%	0.0%	1.6%	0.6%	44.7%	0.3%	0.0%	45.6%	0.5%	0.8%	0.3%	0.0%	1.6%	100.0%	

AM PEAK HOUR	SR 65 Southbound					Wise Road Westbound					SR 65 Northbound					Wise Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	
Peak Hour Analysis From 06:45 to 07:45																						
Peak Hour For Entire Intersection Begins at 06:45																						
06:45	1	144	10	0	155	0	1	0	0	1	2	211	0	0	213	0	0	3	0	3	372	
07:00	0	120	3	0	123	1	3	1	0	5	1	179	3	0	183	1	1	1	0	3	314	
07:15	3	154	3	0	160	0	2	1	0	3	0	219	0	0	219	3	0	0	0	3	385	
07:30	3	153	3	0	159	0	3	2	0	5	0	186	1	0	187	0	1	1	0	2	353	
Total Volume	7	571	19	0	597	1	9	4	0	14	3	795	4	0	802	4	2	5	0	11	1424	TOTAL
% App Total	1.2%	95.6%	3.2%	0.0%		7.1%	64.3%	28.6%	0.0%		0.4%	99.1%	0.5%	0.0%		36.4%	18.2%	45.5%	0.0%			
PHF	.583	.927	.475	.000	.933	.250	.750	.500	.000	.700	.375	.908	.333	.000	.916	.333	.500	.417	.000	.917	.925	PHF

PM PEAK HOUR	SR 65 Southbound					Wise Road Westbound					SR 65 Northbound					Wise Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	
Peak Hour Analysis From 16:30 to 17:30																						
Peak Hour For Entire Intersection Begins at 16:30																						
16:30	3	220	2	0	225	2	3	2	0	7	1	121	1	0	123	3	2	3	0	8	363	
16:45	3	210	0	0	213	3	2	3	0	8	3	165	1	0	169	2	1	1	0	4	394	
17:00	1	210	1	0	212	0	3	2	0	5	4	152	3	0	159	3	4	2	0	9	385	
17:15	4	189	1	0	194	2	1	5	0	8	4	165	2	0	171	0	7	2	0	9	382	
Total Volume	11	829	4	0	844	7	9	12	0	28	12	603	7	0	622	8	14	8	0	30	1524	TOTAL
% App Total	1.3%	98.2%	0.5%	0.0%		25.0%	32.1%	42.9%	0.0%		1.9%	96.9%	1.1%	0.0%		26.7%	46.7%	26.7%	0.0%			
PHF	.688	.942	.500	.000	.938	.583	.750	.600	.000	.875	.750	.914	.583	.000	.909	.667	.500	.667	.000	.833	.967	PHF

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-003 SR 65-Nelson Lane.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Nelson Lane Southbound					SR 65 Westbound					Nelson Lane Northbound					SR 65 Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	71	7	11	0	89	1	167	40	0	208	12	4	0	0	16	8	141	7	0	156	469	0
06:45	73	10	13	0	96	0	170	40	1	211	5	7	0	0	12	11	140	8	0	159	478	1
07:00	82	11	14	0	107	0	173	21	1	195	10	5	0	0	15	3	91	2	0	96	413	1
07:15	79	10	9	0	98	1	203	30	1	235	8	5	1	0	14	5	140	5	0	150	497	1
Total	305	38	47	0	390	2	713	131	3	849	35	21	1	0	57	27	512	22	0	561	1857	3
07:30	99	4	7	0	110	4	145	43	1	193	6	12	1	0	19	7	164	3	0	174	496	1
07:45	120	12	8	0	140	2	134	53	0	189	2	10	1	0	13	11	112	1	0	124	466	0
08:00	80	13	6	0	99	2	97	48	0	147	1	7	2	0	10	7	138	2	0	147	403	0
08:15	78	9	7	0	94	1	133	48	1	183	1	8	1	0	10	5	140	2	0	147	434	1
Total	377	38	28	0	443	9	509	192	2	712	10	37	5	0	52	30	554	8	0	592	1799	2
08:30	57	6	4	0	67	0	109	29	0	138	2	4	0	0	6	7	147	0	0	154	365	0
08:45	52	7	4	0	63	1	96	25	1	123	1	7	3	0	11	1	105	1	2	109	306	3
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	109	13	8	0	130	1	205	54	1	261	3	11	3	0	17	8	252	1	2	263	671	3
15:30	68	21	11	0	100	2	135	63	0	200	1	14	1	0	16	4	174	4	0	182	498	0
15:45	38	2	6	0	46	1	124	61	1	187	8	11	1	0	20	7	181	6	0	194	447	1
16:00	55	8	10	0	73	2	147	67	0	216	4	5	2	0	11	7	173	12	0	192	492	0
16:15	43	12	4	0	59	1	133	49	3	186	3	11	1	0	15	9	192	5	0	206	466	3
Total	204	43	31	0	278	6	539	240	4	789	16	41	5	0	62	27	720	27	0	774	1903	4
16:30	81	13	9	0	103	2	121	65	0	188	1	9	2	0	12	9	197	9	0	215	518	0
16:45	40	1	9	0	50	0	147	70	0	217	4	12	2	0	18	16	211	3	0	230	515	0
17:00	53	4	4	0	61	1	153	75	0	229	4	9	2	0	15	5	189	9	0	203	508	0
17:15	49	7	2	0	58	1	160	93	2	256	2	12	3	0	17	14	185	8	0	207	538	2
Total	223	25	24	0	272	4	581	303	2	890	11	42	9	0	62	44	782	29	0	855	2079	2
17:30	48	6	11	0	65	0	134	67	0	201	3	13	2	0	18	9	163	4	0	176	460	0
17:45	44	8	2	0	54	2	130	65	1	198	3	15	0	0	18	4	139	4	0	147	417	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	92	14	13	0	119	2	264	132	1	399	6	28	2	0	36	13	302	8	0	323	877	1
Grand Total	1310	171	151	0	1632	24	2811	1052	13	3900	81	180	25	0	286	149	3122	95	2	3368	9186	15
Apprch %	80.3%	10.5%	9.3%	0.0%		0.6%	72.1%	27.0%	0.3%		28.3%	62.9%	8.7%	0.0%		4.4%	92.7%	2.8%	0.1%			
Total %	14.3%	1.9%	1.6%	0.0%	17.8%	0.3%	30.6%	11.5%	0.1%	42.5%	0.9%	2.0%	0.3%	0.0%	3.1%	1.6%	34.0%	1.0%	0.0%	36.7%	100.0%	

AM PEAK HOUR	Nelson Lane Southbound					SR 65 Westbound					Nelson Lane Northbound					SR 65 Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 06:45 to 07:45																					
Peak Hour For Entire Intersection Begins at 06:45																					
06:45	73	10	13	0	96	0	170	40	1	211	5	7	0	0	12	11	140	8	0	159	478
07:00	82	11	14	0	107	0	173	21	1	195	10	5	0	0	15	3	91	2	0	96	413
07:15	79	10	9	0	98	1	203	30	1	235	8	5	1	0	14	5	140	5	0	150	497
07:30	99	4	7	0	110	4	145	43	1	193	6	12	1	0	19	7	164	3	0	174	496
Total Volume	333	35	43	0	411	5	691	134	4	834	29	29	2	0	60	26	535	18	0	579	1884
% App Total	81.0%	8.5%	10.5%	0.0%		0.6%	82.9%	16.1%	0.5%		48.3%	48.3%	3.3%	0.0%		4.5%	92.4%	3.1%	0.0%		
PHF	.841	.795	.768	.000	.934	.313	.851	.779	1.000	.887	.725	.604	.500	.000	.789	.591	.816	.563	.000	.832	.948

PM PEAK HOUR	Nelson Lane Southbound					SR 65 Westbound					Nelson Lane Northbound					SR 65 Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	81	13	9	0	103	2	121	65	0	188	1	9	2	0	12	9	197	9	0	215	518
16:45	40	1	9	0	50	0	147	70	0	217	4	12	2	0	18	16	211	3	0	230	515
17:00	53	4	4	0	61	1	153	75	0	229	4	9	2	0	15	5	189	9	0	203	508
17:15	49	7	2	0	58	1	160	93	2	256	2	12	3	0	17	14	185	8	0	207	538
Total Volume	223	25	24	0	272	4	581	303	2	890	11	42	9	0	62	44	782	29	0	855	2079
% App Total	82.0%	9.2%	8.8%	0.0%		0.4%	65.3%	34.0%	0.2%		17.7%	67.7%	14.5%	0.0%		5.1%	91.5%	3.4%	0.0%		
PHF	.688	.481	.667	.000	.660	.500	.908	.815	.250	.869	.688	.875	.750	.000	.861	.688	.927	.806	.000	.929	.966

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Heavy Trucks on Bank 2

File Name : 13-7665-001 SR-65 Southbound Ramps-Ferrari Ranch Road
Date : 11/7/2013

Unshifted Count = All Vehicles

	SR-65 Southbound Ramps Southbound					Ferrari Ranch Road Westbound					SR-65 Southbound Ramps Northbound					Ferrari Ranch Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	8	0	1	0	9	0	37	155	0	192	0	0	0	0	0	0	66	96	0	162	363	0
07:15	13	0	3	0	16	0	45	145	0	190	0	0	0	0	0	0	85	141	0	226	432	0
07:30	14	0	7	0	21	0	68	193	0	261	0	0	0	0	0	0	162	183	0	345	627	0
07:45	11	0	0	0	11	0	110	199	0	309	0	0	0	0	0	0	216	142	0	358	678	0
Total	46	0	11	0	57	0	260	692	0	952	0	0	0	0	0	0	529	562	0	1091	2100	0
08:00	14	0	3	0	17	0	179	169	0	348	0	0	0	0	0	0	127	78	0	205	570	0
08:15	15	0	5	0	20	0	149	138	0	287	0	0	0	0	0	0	46	70	0	116	423	0
08:30	19	1	3	0	23	0	73	100	0	173	0	0	0	0	0	0	43	80	0	123	319	0
08:45	17	0	4	0	21	0	71	87	0	158	0	0	0	0	0	0	63	73	0	136	315	0
Total	65	1	15	0	81	0	472	494	0	966	0	0	0	0	0	0	279	301	0	580	1627	0
16:00	21	0	9	0	30	0	169	69	0	238	0	0	0	0	0	0	48	41	0	89	357	0
16:15	31	0	7	0	38	0	175	58	0	233	0	0	0	0	0	0	89	48	0	137	408	0
16:30	27	0	13	0	40	0	166	80	0	246	0	0	0	0	0	0	83	53	0	136	422	0
16:45	25	0	15	0	40	0	190	82	0	272	0	0	0	0	0	0	91	43	0	134	446	0
Total	104	0	44	0	148	0	700	289	0	989	0	0	0	0	0	0	311	185	0	496	1633	0
17:00	24	0	10	0	34	0	203	57	0	260	0	0	0	0	0	0	92	39	0	131	425	0
17:15	24	0	12	0	36	0	186	54	0	240	0	0	0	0	0	0	96	43	0	139	415	0
17:30	24	0	10	0	34	0	203	57	0	260	0	0	0	0	0	0	90	39	0	129	423	0
17:45	24	0	12	0	36	0	186	54	0	240	0	0	0	0	0	0	96	43	0	139	415	0
Total	96	0	44	0	140	0	778	222	0	1000	0	0	0	0	0	0	374	164	0	538	1678	0
Grand Total	311	1	114	0	426	0	2210	1697	0	3907	0	0	0	0	0	0	1493	1212	0	2705	7038	0
Apprch %	73.0%	0.2%	26.8%	0.0%		0.0%	56.6%	43.4%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	55.2%	44.8%	0.0%			
Total %	4.4%	0.0%	1.6%	0.0%	6.1%	0.0%	31.4%	24.1%	0.0%	55.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	21.2%	17.2%	0.0%	38.4%	100.0%	

AM PEAK HOUR	SR-65 Southbound Ramps Southbound					Ferrari Ranch Road Westbound					SR-65 Southbound Ramps Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	13	0	3	0	16	0	45	145	0	190	0	0	0	0	0	0	85	141	0	226	432
07:30	14	0	7	0	21	0	68	193	0	261	0	0	0	0	0	0	162	183	0	345	627
07:45	11	0	0	0	11	0	110	199	0	309	0	0	0	0	0	0	216	142	0	358	678
08:00	14	0	3	0	17	0	179	169	0	348	0	0	0	0	0	0	127	78	0	205	570
Total Volume	52	0	13	0	65	0	402	706	0	1108	0	0	0	0	0	0	590	544	0	1134	2307
% App Total	80.0%	0.0%	20.0%	0.0%		0.0%	36.3%	63.7%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	52.0%	48.0%	0.0%		
PHF	.929	.000	.464	.000	.774	.000	.561	.887	.000	.796	.000	.000	.000	.000	.000	.000	.683	.743	.000	.792	.851

PM PEAK HOUR	SR-65 Southbound Ramps Southbound					Ferrari Ranch Road Westbound					SR-65 Southbound Ramps Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	25	0	15	0	40	0	190	82	0	272	0	0	0	0	0	0	91	43	0	134	446
17:00	24	0	10	0	34	0	203	57	0	260	0	0	0	0	0	0	92	39	0	131	425
17:15	24	0	12	0	36	0	186	54	0	240	0	0	0	0	0	0	96	43	0	139	415
17:30	24	0	10	0	34	0	203	57	0	260	0	0	0	0	0	0	90	39	0	129	423
Total Volume	97	0	47	0	144	0	782	250	0	1032	0	0	0	0	0	0	369	164	0	533	1709
% App Total	67.4%	0.0%	32.6%	0.0%		0.0%	75.8%	24.2%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	69.2%	30.8%	0.0%		
PHF	.970	.000	.783	.000	.900	.000	.963	.762	.000	.949	.000	.000	.000	.000	.000	.000	.961	.953	.000	.959	.958

ALL TRAFFIC DATA

City of Lincoln
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Heavy Trucks on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 13-7665-002 SR-65 Northbound Ramps-Ferrari Ranch Road.
Date : 11/7/2013

Unshifted Count = All Vehicles

	SR-65 Northbound Ramps Southbound					Ferrari Ranch Road Westbound					SR-65 Northbound Ramps Northbound					Ferrari Ranch Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	0	0	0	0	0	169	19	0	188	17	0	31	0	48	13	63	0	0	76	312	0
07:15	0	0	0	0	0	0	178	15	0	193	27	0	40	0	67	21	76	0	0	97	357	0
07:30	0	0	0	0	0	0	207	17	0	224	37	0	67	0	104	13	166	0	0	179	507	0
07:45	0	0	0	0	0	0	273	11	0	284	36	0	57	0	93	14	211	0	0	225	602	0
Total	0	0	0	0	0	0	827	62	0	889	117	0	195	0	312	61	516	0	0	577	1778	0
08:00	0	0	0	0	0	0	299	20	0	319	58	0	59	0	117	16	133	0	0	149	585	0
08:15	0	0	0	0	0	0	240	12	0	252	39	0	59	0	98	3	57	0	0	60	410	0
08:30	0	0	0	0	0	0	149	9	0	158	27	0	42	0	69	3	61	0	0	64	291	0
08:45	0	0	0	0	0	0	122	16	0	138	32	0	57	0	89	5	68	0	0	73	300	0
Total	0	0	0	0	0	0	810	57	0	867	156	0	217	0	373	27	319	0	0	346	1586	0
16:00	0	0	0	0	0	0	156	17	0	173	82	0	128	0	210	4	70	0	0	74	457	0
16:15	0	0	0	0	0	0	147	13	0	160	71	0	138	0	209	4	107	0	0	111	480	0
16:30	0	0	0	0	0	0	163	18	0	181	85	0	138	0	223	2	110	0	0	112	516	0
16:45	0	0	0	0	0	0	166	14	0	180	78	0	156	0	234	4	123	0	0	127	541	0
Total	0	0	0	0	0	0	632	62	0	694	316	0	560	0	876	14	410	0	0	424	1994	0
17:00	0	0	0	0	0	0	183	16	0	199	85	0	162	0	247	1	110	0	0	111	557	0
17:15	0	0	0	0	0	0	182	27	0	209	87	0	182	0	269	3	107	0	0	110	588	0
17:30	0	0	0	0	0	0	158	19	0	177	95	0	148	0	243	3	123	0	0	126	546	0
17:45	0	0	0	0	0	0	112	14	0	126	128	0	178	0	306	3	116	0	0	119	551	0
Total	0	0	0	0	0	0	635	76	0	711	395	0	670	0	1065	10	456	0	0	466	2242	0
Grand Total	0	0	0	0	0	0	2904	257	0	3161	984	0	1642	0	2626	112	1701	0	0	1813	7600	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	91.9%	8.1%	0.0%		37.5%	0.0%	62.5%	0.0%		6.2%	93.8%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.2%	3.4%	0.0%	41.6%	12.9%	0.0%	21.6%	0.0%	34.6%	1.5%	22.4%	0.0%	0.0%	23.9%	100.0%	

AM PEAK HOUR	SR-65 Northbound Ramps Southbound					Ferrari Ranch Road Westbound					SR-65 Northbound Ramps Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	0	0	0	0	0	207	17	0	224	37	0	67	0	104	13	166	0	0	179	507
07:45	0	0	0	0	0	0	273	11	0	284	36	0	57	0	93	14	211	0	0	225	602
08:00	0	0	0	0	0	0	299	20	0	319	58	0	59	0	117	16	133	0	0	149	585
08:15	0	0	0	0	0	0	240	12	0	252	39	0	59	0	98	3	57	0	0	60	410
Total Volume	0	0	0	0	0	0	1019	60	0	1079	170	0	242	0	412	46	567	0	0	613	2104
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	94.4%	5.6%	0.0%		41.3%	0.0%	58.7%	0.0%		7.5%	92.5%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.852	.750	.000	.846	.733	.000	.903	.000	.880	.719	.672	.000	.000	.681	.874

PM PEAK HOUR	SR-65 Northbound Ramps Southbound					Ferrari Ranch Road Westbound					SR-65 Northbound Ramps Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	0	0	0	0	0	183	16	0	199	85	0	162	0	247	1	110	0	0	111	557
17:15	0	0	0	0	0	0	182	27	0	209	87	0	182	0	269	3	107	0	0	110	588
17:30	0	0	0	0	0	0	158	19	0	177	95	0	148	0	243	3	123	0	0	126	546
17:45	0	0	0	0	0	0	112	14	0	126	128	0	178	0	306	3	116	0	0	119	551
Total Volume	0	0	0	0	0	0	635	76	0	711	395	0	670	0	1065	10	456	0	0	466	2242
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	89.3%	10.7%	0.0%		37.1%	0.0%	62.9%	0.0%		2.1%	97.9%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.867	.704	.000	.850	.771	.000	.920	.000	.870	.833	.927	.000	.000	.925	.953

ALL TRAFFIC DATA

City of Lincoln
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Heavy Trucks on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 13-7665-003 SR-65 Southbound On-Ramp-Lincoln Boulevard
Date : 11/7/2013

Unshifted Count = All Vehicles

	Southbound					Lincoln Boulevard Westbound					SR-65 Southbound On-Ramp Northbound					Lincoln Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	0	0	0	0	161	41	0	0	202	0	0	0	0	0	0	10	0	0	10	212	0
07:15	0	0	0	0	0	180	36	0	0	216	0	0	0	0	0	0	19	0	0	19	235	0
07:30	0	0	0	0	0	248	59	0	0	307	0	0	0	0	0	0	13	0	0	13	320	0
07:45	0	0	0	0	0	243	39	0	0	282	0	0	0	0	0	0	23	0	0	23	305	0
Total	0	0	0	0	0	832	175	0	0	1007	0	0	0	0	0	0	65	0	0	65	1072	0
08:00	0	0	0	0	0	209	43	0	0	252	0	0	0	0	0	0	22	0	0	22	274	0
08:15	0	0	0	0	0	186	31	0	0	217	0	0	0	0	0	0	14	0	0	14	231	0
08:30	0	0	0	0	0	156	31	0	0	187	0	0	2	0	2	0	16	1	0	17	206	0
08:45	0	0	0	0	0	173	19	0	0	192	0	0	0	0	0	0	28	1	0	29	221	0
Total	0	0	0	0	0	724	124	0	0	848	0	0	2	0	2	0	80	2	0	82	932	0
16:00	0	0	0	0	0	181	23	0	0	204	0	0	0	0	0	0	32	0	0	32	236	0
16:15	0	0	0	0	0	156	47	0	0	203	0	0	0	0	0	0	44	0	0	44	247	0
16:30	0	0	0	0	0	144	42	0	0	186	0	0	0	0	0	0	38	2	0	40	226	0
16:45	0	0	0	0	0	153	40	0	0	193	0	0	0	0	0	0	45	2	0	47	240	0
Total	0	0	0	0	0	634	152	0	0	786	0	0	0	0	0	0	159	4	0	163	949	0
17:00	0	0	0	0	0	166	34	0	0	200	0	0	0	0	0	0	56	0	0	56	256	0
17:15	0	0	0	0	0	182	32	0	0	214	0	0	0	0	0	0	46	1	0	47	261	0
17:30	0	0	0	0	0	149	32	0	0	181	0	0	0	0	0	0	46	2	0	48	229	0
17:45	0	0	0	0	0	129	24	0	0	153	0	0	0	0	0	0	43	0	0	43	196	0
Total	0	0	0	0	0	626	122	0	0	748	0	0	0	0	0	0	191	3	0	194	942	0
Grand Total	0	0	0	0	0	2816	573	0	0	3389	0	0	2	0	2	0	495	9	0	504	3895	0
Apprch %	0.0%	0.0%	0.0%	0.0%		83.1%	16.9%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	98.2%	1.8%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	72.3%	14.7%	0.0%	0.0%	87.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	12.7%	0.2%	0.0%	12.9%	100.0%	

AM PEAK HOUR	Southbound					Lincoln Boulevard Westbound					SR-65 Southbound On-Ramp Northbound					Lincoln Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	0	0	0	0	0	180	36	0	0	216	0	0	0	0	0	0	19	0	0	19	235
07:30	0	0	0	0	0	248	59	0	0	307	0	0	0	0	0	0	13	0	0	13	320
07:45	0	0	0	0	0	243	39	0	0	282	0	0	0	0	0	0	23	0	0	23	305
08:00	0	0	0	0	0	209	43	0	0	252	0	0	0	0	0	0	22	0	0	22	274
Total Volume	0	0	0	0	0	880	177	0	0	1057	0	0	0	0	0	0	77	0	0	77	1134
% App Total	0.0%	0.0%	0.0%	0.0%		83.3%	16.7%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.887	.750	.000	.000	.861	.000	.000	.000	.000	.000	.000	.837	.000	.000	.837	.886

PM PEAK HOUR	Southbound					Lincoln Boulevard Westbound					SR-65 Southbound On-Ramp Northbound					Lincoln Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	0	0	0	0	153	40	0	0	193	0	0	0	0	0	0	45	2	0	47	240
17:00	0	0	0	0	0	166	34	0	0	200	0	0	0	0	0	0	56	0	0	56	256
17:15	0	0	0	0	0	182	32	0	0	214	0	0	0	0	0	0	46	1	0	47	261
17:30	0	0	0	0	0	149	32	0	0	181	0	0	0	0	0	0	46	2	0	48	229
Total Volume	0	0	0	0	0	650	138	0	0	788	0	0	0	0	0	0	193	5	0	198	986
% App Total	0.0%	0.0%	0.0%	0.0%		82.5%	17.5%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	97.5%	2.5%	0.0%		
PHF	.000	.000	.000	.000	.000	.893	.863	.000	.000	.921	.000	.000	.000	.000	.000	.000	.862	.625	.000	.884	.944

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Heavy Trucks on Bank 2

File Name : 13-7665-004 SR-65 Northbound Off-Ramp-Lincoln Boulevard
Date : 11/7/2013

Unshifted Count = All Vehicles

	Southbound					Lincoln Boulevard Westbound					SR-65 Northbound Off-Ramp Northbound					Lincoln Boulevard Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	0	0	0	0	0	194	0	0	194	0	0	81	0	81	0	9	0	0	9	284	0
07:15	0	0	0	0	0	0	224	0	0	224	1	0	105	0	106	0	19	0	0	19	349	0
07:30	0	0	0	0	0	0	294	0	0	294	3	0	185	0	188	0	13	0	0	13	495	0
07:45	0	0	0	0	0	0	288	0	0	288	0	0	172	0	172	0	25	0	0	25	485	0
Total	0	0	0	0	0	0	1000	0	0	1000	4	0	543	0	547	0	66	0	0	66	1613	0
08:00	0	0	0	0	0	0	243	0	0	243	1	0	139	0	140	0	23	0	0	23	406	0
08:15	0	0	0	0	0	0	221	0	0	221	0	0	120	0	120	0	14	0	0	14	355	0
08:30	0	0	0	0	0	0	185	0	0	185	1	0	129	0	130	0	16	0	0	16	331	0
08:45	0	0	0	0	0	0	196	0	0	196	0	0	120	0	120	0	24	0	0	24	340	0
Total	0	0	0	0	0	0	845	0	0	845	2	0	508	0	510	0	77	0	0	77	1432	0
16:00	0	0	0	0	0	0	212	0	0	212	0	0	274	0	274	0	34	0	0	34	520	0
16:15	0	0	0	0	0	0	187	0	0	187	0	0	239	0	239	0	45	0	0	45	471	0
16:30	0	0	0	0	0	0	195	0	0	195	1	0	236	0	237	0	37	0	0	37	469	0
16:45	0	0	0	0	0	0	183	0	0	183	0	0	245	0	245	0	44	0	0	44	472	0
Total	0	0	0	0	0	0	777	0	0	777	1	0	994	0	995	0	160	0	0	160	1932	0
17:00	0	0	0	0	0	0	207	0	0	207	0	0	254	0	254	0	56	0	0	56	517	0
17:15	0	0	0	0	0	0	211	0	0	211	1	0	232	0	233	0	47	0	0	47	491	0
17:30	0	0	0	0	0	0	178	0	0	178	0	0	195	0	195	0	45	0	0	45	418	0
17:45	0	0	0	0	0	0	154	0	0	154	0	0	201	0	201	0	44	0	0	44	399	0
Total	0	0	0	0	0	0	750	0	0	750	1	0	882	0	883	0	192	0	0	192	1825	0
Grand Total	0	0	0	0	0	0	3372	0	0	3372	8	0	2927	0	2935	0	495	0	0	495	6802	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.3%	0.0%	99.7%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	49.6%	0.0%	0.0%	49.6%	0.1%	0.0%	43.0%	0.0%	43.1%	0.0%	7.3%	0.0%	0.0%	7.3%	100.0%	

AM PEAK HOUR	Southbound					Lincoln Boulevard Westbound					SR-65 Northbound Off-Ramp Northbound					Lincoln Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	0	0	0	0	0	294	0	0	294	3	0	185	0	188	0	13	0	0	13	495
07:45	0	0	0	0	0	0	288	0	0	288	0	0	172	0	172	0	25	0	0	25	485
08:00	0	0	0	0	0	0	243	0	0	243	1	0	139	0	140	0	23	0	0	23	406
08:15	0	0	0	0	0	0	221	0	0	221	0	0	120	0	120	0	14	0	0	14	355
Total Volume	0	0	0	0	0	0	1046	0	0	1046	4	0	616	0	620	0	75	0	0	75	1741
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.6%	0.0%	99.4%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.889	.000	.000	.889	.333	.000	.832	.000	.824	.000	.750	.000	.000	.750	.879

PM PEAK HOUR	Southbound					Lincoln Boulevard Westbound					SR-65 Northbound Off-Ramp Northbound					Lincoln Boulevard Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	0	195	0	0	195	1	0	236	0	237	0	37	0	0	37	469
16:45	0	0	0	0	0	0	183	0	0	183	0	0	245	0	245	0	44	0	0	44	472
17:00	0	0	0	0	0	0	207	0	0	207	0	0	254	0	254	0	56	0	0	56	517
17:15	0	0	0	0	0	0	211	0	0	211	1	0	232	0	233	0	47	0	0	47	491
Total Volume	0	0	0	0	0	0	796	0	0	796	2	0	967	0	969	0	184	0	0	184	1949
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		0.2%	0.0%	99.8%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.943	.000	.000	.943	.500	.000	.952	.000	.954	.000	.821	.000	.000	.821	.942

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Heavy Trucks on Bank 2

File Name : 13-7665-005 SR-65 Southbound Ramps-Twelve Bridges Driv
Date : 11/7/2013

Unshifted Count = All Vehicles

	SR-65 Southbound Ramps Southbound					Twelve Bridges Drive Westbound					SR-65 Southbound Ramps Northbound					Twelve Bridges Drive Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	33	0	21	0	54	0	19	82	0	101	0	0	0	0	0	1	17	0	0	18	173	0
07:15	88	0	17	0	105	0	23	116	0	139	0	0	0	0	0	3	22	0	0	25	269	0
07:30	169	0	12	0	181	0	44	147	0	191	0	0	0	0	0	2	34	0	0	36	408	0
07:45	129	0	15	0	144	0	35	151	0	186	0	0	0	0	0	1	45	0	0	46	376	0
Total	419	0	65	0	484	0	121	496	0	617	0	0	0	0	0	7	118	0	0	125	1226	0
08:00	63	0	18	0	81	0	30	147	0	177	0	0	0	0	0	5	32	0	0	37	295	0
08:15	55	0	17	0	72	0	23	106	0	129	0	0	0	0	0	6	34	0	0	40	241	0
08:30	29	0	4	0	33	0	24	109	0	133	0	0	0	0	0	4	34	0	0	38	204	0
08:45	45	0	14	0	59	0	21	97	0	118	0	0	0	0	0	4	28	0	0	32	209	0
Total	192	0	53	0	245	0	98	459	0	557	0	0	0	0	0	19	128	0	0	147	949	0
16:00	62	0	7	0	69	0	30	103	0	133	0	0	0	0	0	8	53	0	0	61	263	0
16:15	42	0	21	0	63	0	23	89	0	112	0	0	0	0	0	7	48	0	0	55	230	0
16:30	36	0	10	0	46	0	18	83	0	101	0	0	0	0	0	5	58	0	0	63	210	0
16:45	47	0	19	0	66	0	31	78	0	109	0	0	0	0	0	7	56	0	0	63	238	0
Total	187	0	57	0	244	0	102	353	0	455	0	0	0	0	0	27	215	0	0	242	941	0
17:00	40	0	12	0	52	0	29	121	0	150	0	0	0	0	0	8	52	0	0	60	262	0
17:15	46	0	17	0	63	0	27	107	0	134	0	0	0	0	0	8	55	0	0	63	260	0
17:30	52	0	17	0	69	0	22	80	0	102	0	0	0	0	0	9	68	0	0	77	248	0
17:45	42	0	14	0	56	0	25	54	0	79	0	0	0	0	0	6	39	0	0	45	180	0
Total	180	0	60	0	240	0	103	362	0	465	0	0	0	0	0	31	214	0	0	245	950	0
Grand Total	978	0	235	0	1213	0	424	1670	0	2094	0	0	0	0	0	84	675	0	0	759	4066	0
Apprch %	80.6%	0.0%	19.4%	0.0%		0.0%	20.2%	79.8%	0.0%		0.0%	0.0%	0.0%	0.0%		11.1%	88.9%	0.0%	0.0%			
Total %	24.1%	0.0%	5.8%	0.0%	29.8%	0.0%	10.4%	41.1%	0.0%	51.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	16.6%	0.0%	0.0%	18.7%	100.0%	

AM PEAK HOUR	SR-65 Southbound Ramps Southbound					Twelve Bridges Drive Westbound					SR-65 Southbound Ramps Northbound					Twelve Bridges Drive Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	88	0	17	0	105	0	23	116	0	139	0	0	0	0	0	3	22	0	0	25	269
07:30	169	0	12	0	181	0	44	147	0	191	0	0	0	0	0	2	34	0	0	36	408
07:45	129	0	15	0	144	0	35	151	0	186	0	0	0	0	0	1	45	0	0	46	376
08:00	63	0	18	0	81	0	30	147	0	177	0	0	0	0	0	5	32	0	0	37	295
Total Volume	449	0	62	0	511	0	132	561	0	693	0	0	0	0	0	11	133	0	0	144	1348
% App Total	87.9%	0.0%	12.1%	0.0%		0.0%	19.0%	81.0%	0.0%		0.0%	0.0%	0.0%	0.0%		7.6%	92.4%	0.0%	0.0%		
PHF	.664	.000	.861	.000	.706	.000	.750	.929	.000	.907	.000	.000	.000	.000	.000	.550	.739	.000	.000	.783	.826

PM PEAK HOUR	SR-65 Southbound Ramps Southbound					Twelve Bridges Drive Westbound					SR-65 Southbound Ramps Northbound					Twelve Bridges Drive Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	47	0	19	0	66	0	31	78	0	109	0	0	0	0	0	7	56	0	0	63	238
17:00	40	0	12	0	52	0	29	121	0	150	0	0	0	0	0	8	52	0	0	60	262
17:15	46	0	17	0	63	0	27	107	0	134	0	0	0	0	0	8	55	0	0	63	260
17:30	52	0	17	0	69	0	22	80	0	102	0	0	0	0	0	9	68	0	0	77	248
Total Volume	185	0	65	0	250	0	109	386	0	495	0	0	0	0	0	32	231	0	0	263	1008
% App Total	74.0%	0.0%	26.0%	0.0%		0.0%	22.0%	78.0%	0.0%		0.0%	0.0%	0.0%	0.0%		12.2%	87.8%	0.0%	0.0%		
PHF	.889	.000	.855	.000	.906	.000	.879	.798	.000	.825	.000	.000	.000	.000	.000	.889	.849	.000	.000	.854	.962

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Heavy Trucks on Bank 2

File Name : 13-7665-006 SR-65 Northbound Ramps-Twelve Bridges Driv
Date : 11/7/2013

Unshifted Count = All Vehicles

	SR-65 Northbound Ramps Southbound					Twelve Bridges Drive Westbound					SR-65 Northbound Ramps Northbound					Twelve Bridges Drive Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	0	0	0	0	0	95	34	0	129	1	0	43	0	44	6	42	0	0	48	221	0
07:15	0	0	0	0	0	0	135	38	0	173	5	0	80	0	85	7	103	0	0	110	368	0
07:30	0	0	0	0	0	0	178	113	0	291	5	0	89	0	94	11	195	0	0	206	591	0
07:45	0	0	0	0	0	0	178	115	0	293	4	0	78	0	82	14	154	0	0	168	543	0
Total	0	0	0	0	0	0	586	300	0	886	15	0	290	0	305	38	494	0	0	532	1723	0
08:00	0	0	0	0	0	0	182	96	0	278	2	0	89	0	91	13	85	0	0	98	467	0
08:15	0	0	0	0	0	0	111	45	0	156	9	0	75	0	84	7	83	0	0	90	330	0
08:30	0	0	0	0	0	0	129	36	0	165	3	0	66	0	69	15	47	0	0	62	296	0
08:45	0	0	0	0	0	0	117	39	0	156	13	0	86	0	99	10	61	0	0	71	326	0
Total	0	0	0	0	0	0	539	216	0	755	27	0	316	0	343	45	276	0	0	321	1419	0
16:00	0	0	0	0	0	0	115	59	0	174	14	0	171	0	185	32	75	0	0	107	466	0
16:15	0	0	0	0	0	0	103	60	0	163	14	0	129	0	143	15	79	0	0	94	400	0
16:30	0	0	0	0	0	0	84	59	0	143	11	0	120	0	131	27	65	0	0	92	366	0
16:45	0	0	0	0	0	0	92	62	0	154	13	0	105	0	118	22	81	0	0	103	375	0
Total	0	0	0	0	0	0	394	240	0	634	52	0	525	0	577	96	300	0	0	396	1607	0
17:00	0	0	0	0	0	0	151	78	0	229	12	0	125	0	137	23	71	0	0	94	460	0
17:15	0	0	0	0	0	0	116	59	0	175	14	0	128	0	142	22	76	0	0	98	415	0
17:30	0	0	0	0	0	0	99	40	0	139	8	0	121	0	129	25	92	0	0	117	385	0
17:45	0	0	0	0	0	0	66	53	0	119	14	0	108	0	122	14	69	0	0	83	324	0
Total	0	0	0	0	0	0	432	230	0	662	48	0	482	0	530	84	308	0	0	392	1584	0
Grand Total	0	0	0	0	0	0	1951	986	0	2937	142	0	1613	0	1755	263	1378	0	0	1641	6333	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.0%	66.4%	33.6%	0.0%		8.1%	0.0%	91.9%	0.0%		16.0%	84.0%	0.0%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.8%	15.6%	0.0%	46.4%	2.2%	0.0%	25.5%	0.0%	27.7%	4.2%	21.8%	0.0%	0.0%	25.9%	100.0%	

AM PEAK HOUR	SR-65 Northbound Ramps Southbound					Twelve Bridges Drive Westbound					SR-65 Northbound Ramps Northbound					Twelve Bridges Drive Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	0	0	0	0	0	0	135	38	0	173	5	0	80	0	85	7	103	0	0	110	368
07:30	0	0	0	0	0	0	178	113	0	291	5	0	89	0	94	11	195	0	0	206	591
07:45	0	0	0	0	0	0	178	115	0	293	4	0	78	0	82	14	154	0	0	168	543
08:00	0	0	0	0	0	0	182	96	0	278	2	0	89	0	91	13	85	0	0	98	467
Total Volume	0	0	0	0	0	0	673	362	0	1035	16	0	336	0	352	45	537	0	0	582	1969
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	65.0%	35.0%	0.0%		4.5%	0.0%	95.5%	0.0%		7.7%	92.3%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.924	.787	.000	.883	.800	.000	.944	.000	.936	.804	.688	.000	.000	.706	.833

PM PEAK HOUR	SR-65 Northbound Ramps Southbound					Twelve Bridges Drive Westbound					SR-65 Northbound Ramps Northbound					Twelve Bridges Drive Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	0	0	0	0	0	92	62	0	154	13	0	105	0	118	22	81	0	0	103	375
17:00	0	0	0	0	0	0	151	78	0	229	12	0	125	0	137	23	71	0	0	94	460
17:15	0	0	0	0	0	0	116	59	0	175	14	0	128	0	142	22	76	0	0	98	415
17:30	0	0	0	0	0	0	99	40	0	139	8	0	121	0	129	25	92	0	0	117	385
Total Volume	0	0	0	0	0	0	458	239	0	697	47	0	479	0	526	92	320	0	0	412	1635
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	65.7%	34.3%	0.0%		8.9%	0.0%	91.1%	0.0%		22.3%	77.7%	0.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.758	.766	.000	.761	.839	.000	.936	.000	.926	.920	.870	.000	.000	.880	.889

ALL TRAFFIC DATA

Placer County
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 14-7235-004 Nelson Lane-Nicolaus Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Aviation Boulevard Southbound					Nicolaus Road Westbound					Nelson Lane Northbound					Nicolaus Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	6	27	2	0	35	50	24	13	0	87	5	30	10	0	45	3	7	5	0	15	182	0
06:45	4	33	4	0	41	57	16	21	0	94	7	47	9	0	63	10	6	9	0	25	223	0
07:00	12	28	10	0	50	58	28	8	0	94	7	12	9	0	28	4	9	12	0	25	197	0
07:15	6	26	3	0	35	58	26	8	0	92	3	24	14	0	41	6	22	11	0	39	207	0
Total	28	114	19	0	161	223	94	50	0	367	22	113	42	0	177	23	44	37	0	104	809	0
07:30	3	39	2	0	44	68	28	13	0	109	9	25	23	0	57	8	15	7	0	30	240	0
07:45	5	30	8	0	43	98	33	18	0	149	3	56	23	0	82	5	22	9	0	36	310	0
08:00	21	43	8	0	72	47	23	8	1	79	5	28	26	0	59	6	14	15	0	35	245	1
08:15	8	31	0	0	39	44	19	14	0	77	3	32	26	0	61	4	13	14	0	31	208	0
Total	37	143	18	0	198	257	103	53	1	414	20	141	98	0	259	23	64	45	0	132	1003	1
08:30	6	22	4	0	32	43	17	11	0	71	1	21	23	0	45	4	14	8	0	26	174	0
08:45	9	23	2	0	34	23	10	13	0	46	5	15	11	0	31	1	13	12	0	26	137	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	45	6	0	66	66	27	24	0	117	6	36	34	0	76	5	27	20	0	52	311	0
15:30	17	60	1	0	78	32	7	10	0	49	6	21	53	0	80	2	29	16	0	47	254	0
15:45	13	15	3	0	31	20	18	8	1	47	4	22	51	0	77	0	17	7	0	24	179	1
16:00	21	36	11	0	68	28	22	1	1	52	12	20	46	0	78	2	24	10	0	36	234	1
16:15	8	25	5	0	38	20	14	2	0	36	8	27	38	0	73	3	25	17	0	45	192	0
Total	59	136	20	0	215	100	61	21	2	184	30	90	188	0	308	7	95	50	0	152	859	2
16:30	27	63	6	0	96	27	10	0	0	37	6	39	45	0	90	3	22	11	0	36	259	0
16:45	7	20	1	1	29	25	13	6	0	44	8	32	55	0	95	4	24	7	0	35	203	1
17:00	18	25	0	0	43	26	12	1	5	44	7	26	56	0	89	10	20	8	0	38	214	5
17:15	5	18	0	0	23	34	19	3	0	56	11	29	82	0	122	4	27	6	0	37	238	0
Total	57	126	7	1	191	112	54	10	5	181	32	126	238	0	396	21	93	32	0	146	914	6
17:30	8	23	2	0	33	35	15	4	2	56	12	24	50	0	86	4	20	6	0	30	205	2
17:45	3	25	0	0	28	21	15	5	1	42	10	30	47	0	87	5	18	1	0	24	181	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	48	2	0	61	56	30	9	3	98	22	54	97	0	173	9	38	7	0	54	386	3
Grand Total	207	612	72	1	892	814	369	167	11	1361	132	560	697	0	1389	88	361	191	0	640	4282	12
Apprch %	23.2%	68.6%	8.1%	0.1%		59.8%	27.1%	12.3%	0.8%		9.5%	40.3%	50.2%	0.0%		13.8%	56.4%	29.8%	0.0%			
Total %	4.8%	14.3%	1.7%	0.0%	20.8%	19.0%	8.6%	3.9%	0.3%	31.8%	3.1%	13.1%	16.3%	0.0%	32.4%	2.1%	8.4%	4.5%	0.0%	14.9%	100.0%	

AM PEAK HOUR	Aviation Boulevard Southbound					Nicolaus Road Westbound					Nelson Lane Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	3	39	2	0	44	68	28	13	0	109	9	25	23	0	57	8	15	7	0	30	240
07:45	5	30	8	0	43	98	33	18	0	149	3	56	23	0	82	5	22	9	0	36	310
08:00	21	43	8	0	72	47	23	8	1	79	5	28	26	0	59	6	14	15	0	35	245
08:15	8	31	0	0	39	44	19	14	0	77	3	32	26	0	61	4	13	14	0	31	208
Total Volume	37	143	18	0	198	257	103	53	1	414	20	141	98	0	259	23	64	45	0	132	1003
% App Total	18.7%	72.2%	9.1%	0.0%		62.1%	24.9%	12.8%	0.2%		7.7%	54.4%	37.8%	0.0%		17.4%	48.5%	34.1%	0.0%		
PHF	.440	.831	.563	.000	.688	.656	.780	.736	.250	.695	.556	.629	.942	.000	.790	.719	.727	.750	.000	.917	.809

PM PEAK HOUR	Aviation Boulevard Southbound					Nicolaus Road Westbound					Nelson Lane Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	27	63	6	0	96	27	10	0	0	37	6	39	45	0	90	3	22	11	0	36	259
16:45	7	20	1	1	29	25	13	6	0	44	8	32	55	0	95	4	24	7	0	35	203
17:00	18	25	0	0	43	26	12	1	5	44	7	26	56	0	89	10	20	8	0	38	214
17:15	5	18	0	0	23	34	19	3	0	56	11	29	82	0	122	4	27	6	0	37	238
Total Volume	57	126	7	1	191	112	54	10	5	181	32	126	238	0	396	21	93	32	0	146	914
% App Total	29.8%	66.0%	3.7%	0.5%		61.9%	29.8%	5.5%	2.8%		8.1%	31.8%	60.1%	0.0%		14.4%	63.7%	21.9%	0.0%		
PHF	.528	.500	.292	.250	.497	.824	.711	.417	.250	.808	.727	.808	.726	.000	.811	.525	.861	.727	.000	.961	.882

ALL TRAFFIC DATA

Placer County
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 14-7235-005 Airport Road-Nicolaus Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Airport Road Southbound					Nicolaus Road Westbound					Northbound					Nicolaus Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	0	0	0	0	0	0	27	2	0	29	0	0	0	0	0	0	22	0	0	22	51	0
06:45	0	0	0	0	0	0	27	1	0	28	0	0	0	0	0	0	16	0	0	16	44	0
07:00	1	0	0	0	1	0	37	4	0	41	0	0	0	0	0	1	28	0	0	29	71	0
07:15	1	0	1	0	2	0	32	3	0	35	0	0	0	0	0	0	33	0	0	33	70	0
Total	2	0	1	0	3	0	123	10	0	133	0	0	0	0	0	1	99	0	0	100	236	0
07:30	1	0	0	0	1	0	31	5	0	36	0	0	0	0	0	0	33	0	0	33	70	0
07:45	2	0	0	0	2	0	43	1	0	44	0	0	0	0	0	1	33	0	0	34	80	0
08:00	2	0	3	0	5	0	32	2	0	34	0	0	0	0	0	0	26	0	0	26	65	0
08:15	3	0	0	0	3	0	21	0	0	21	0	0	0	0	0	0	25	0	0	25	49	0
Total	8	0	3	0	11	0	127	8	0	135	0	0	0	0	0	1	117	0	0	118	264	0
08:30	2	0	0	0	2	0	21	0	0	21	0	0	0	0	0	0	20	0	0	20	43	0
08:45	0	0	0	0	0	0	12	5	0	17	0	0	0	0	0	0	26	0	0	26	43	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	2	0	33	5	0	38	0	0	0	0	0	0	46	0	0	46	86	0
15:30	2	0	0	0	2	0	14	0	0	14	0	0	0	0	0	0	41	0	0	41	57	0
15:45	4	0	0	0	4	0	22	1	0	23	0	0	0	0	0	0	23	0	0	23	50	0
16:00	3	0	0	0	3	0	39	4	0	43	0	0	0	0	0	0	26	0	0	26	72	0
16:15	5	0	0	0	5	0	23	0	0	23	0	0	0	0	0	0	41	0	0	41	69	0
Total	14	0	0	0	14	0	98	5	0	103	0	0	0	0	0	0	131	0	0	131	248	0
16:30	2	0	0	0	2	0	27	0	0	27	0	0	0	0	0	0	31	0	0	31	60	0
16:45	0	0	0	0	0	0	18	1	0	19	0	0	0	0	0	0	29	0	0	29	48	0
17:00	0	0	1	0	1	0	24	0	0	24	0	0	0	0	0	0	40	0	0	40	65	0
17:15	3	0	0	0	3	0	23	1	0	24	0	0	0	0	0	0	27	0	0	27	54	0
Total	5	0	1	0	6	0	92	2	0	94	0	0	0	0	0	0	127	0	0	127	227	0
17:30	2	0	0	0	2	0	26	0	0	26	0	0	0	0	0	0	33	0	0	33	61	0
17:45	1	0	0	0	1	0	20	2	0	22	0	0	0	0	0	0	20	0	0	20	43	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	3	0	46	2	0	48	0	0	0	0	0	0	53	0	0	53	104	0
Grand Total	34	0	5	0	39	0	519	32	0	551	0	0	0	0	0	2	573	0	0	575	1165	0
Apprch %	87.2%	0.0%	12.8%	0.0%		0.0%	94.2%	5.8%	0.0%		0.0%	0.0%	0.0%	0.0%		0.3%	99.7%	0.0%	0.0%			
Total %	2.9%	0.0%	0.4%	0.0%	3.3%	0.0%	44.5%	2.7%	0.0%	47.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	49.2%	0.0%	0.0%	49.4%	100.0%	

AM PEAK HOUR	Airport Road Southbound					Nicolaus Road Westbound					Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
07:00	1	0	0	0	1	0	37	4	0	41	0	0	0	0	0	1	28	0	0	29	71
07:15	1	0	1	0	2	0	32	3	0	35	0	0	0	0	0	0	33	0	0	33	70
07:30	1	0	0	0	1	0	31	5	0	36	0	0	0	0	0	0	33	0	0	33	70
07:45	2	0	0	0	2	0	43	1	0	44	0	0	0	0	0	1	33	0	0	34	80
Total Volume	5	0	1	0	6	0	143	13	0	156	0	0	0	0	0	2	127	0	0	129	291
% App Total	83.3%	0.0%	16.7%	0.0%		0.0%	91.7%	8.3%	0.0%		0.0%	0.0%	0.0%	0.0%		1.6%	98.4%	0.0%	0.0%		
PHF	.625	.000	.250	.000	.750	.000	.831	.650	.000	.886	.000	.000	.000	.000	.000	.500	.962	.000	.000	.949	.909

PM PEAK HOUR	Airport Road Southbound					Nicolaus Road Westbound					Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 15:45 to 16:45																					
Peak Hour For Entire Intersection Begins at 15:45																					
15:45	4	0	0	0	4	0	22	1	0	23	0	0	0	0	0	0	23	0	0	23	50
16:00	3	0	0	0	3	0	39	4	0	43	0	0	0	0	0	0	26	0	0	26	72
16:15	5	0	0	0	5	0	23	0	0	23	0	0	0	0	0	0	41	0	0	41	69
16:30	2	0	0	0	2	0	27	0	0	27	0	0	0	0	0	0	31	0	0	31	60
Total Volume	14	0	0	0	14	0	111	5	0	116	0	0	0	0	0	0	121	0	0	121	251
% App Total	100.0%	0.0%	0.0%	0.0%		0.0%	95.7%	4.3%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.700	.000	.000	.000	.700	.000	.712	.313	.000	.674	.000	.000	.000	.000	.000	.000	.738	.000	.000	.738	.872

Intersection 12

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-006 Joiner Parkway-Nicolaus Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Joiner Parkway Southbound					Nicolaus Road Westbound					Joiner Parkway Northbound					Nicolaus Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	4	9	1	0	14	3	16	5	0	24	14	4	1	0	19	0	28	30	0	58	115	0
06:45	12	13	3	0	28	2	19	3	0	24	24	8	4	0	36	0	27	25	1	53	141	1
07:00	13	8	2	0	23	2	19	3	0	24	20	7	9	0	36	1	36	21	0	58	141	0
07:15	10	16	1	0	27	4	26	4	0	34	23	9	20	0	52	0	51	23	0	74	187	0
Total	39	46	7	0	92	11	80	15	0	106	81	28	34	0	143	1	142	99	1	243	584	1
07:30	45	30	6	0	81	7	30	19	0	56	29	13	43	0	85	1	86	46	0	133	355	0
07:45	55	29	9	0	93	16	72	58	0	146	42	40	54	0	136	10	112	48	0	170	545	0
08:00	20	61	12	0	93	16	44	29	0	89	47	35	11	0	93	3	37	46	0	86	361	0
08:15	12	23	2	0	37	3	25	6	0	34	44	13	9	1	67	1	34	31	0	66	204	1
Total	132	143	29	0	304	42	171	112	0	325	162	101	117	1	381	15	269	171	0	455	1465	1
08:30	17	22	1	0	40	2	27	3	0	32	26	6	1	0	33	1	33	23	0	57	162	0
08:45	8	25	1	0	34	2	25	8	0	35	25	5	4	0	34	3	40	21	0	64	167	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	25	47	2	0	74	4	52	11	0	67	51	11	5	0	67	4	73	44	0	121	329	0
15:30	19	12	0	0	31	10	41	7	0	58	44	26	8	0	78	0	55	44	0	99	266	0
15:45	13	21	3	0	37	6	45	18	0	69	42	32	10	0	84	1	45	46	0	92	282	0
16:00	9	17	1	0	27	5	42	15	0	62	32	30	15	0	77	1	42	50	0	93	259	0
16:15	13	21	1	0	35	5	45	15	0	65	37	30	8	0	75	2	48	41	0	91	266	0
Total	54	71	5	0	130	26	173	55	0	254	155	118	41	0	314	4	190	181	0	375	1073	0
16:30	16	20	3	0	39	6	41	18	0	65	35	36	10	0	81	3	50	53	0	106	291	0
16:45	15	19	1	0	35	5	35	22	0	62	34	37	15	0	86	1	58	42	0	101	284	0
17:00	12	29	3	0	44	17	46	15	0	78	41	35	15	0	91	4	48	45	0	97	310	0
17:15	11	26	3	0	40	6	59	28	0	93	39	54	7	0	100	6	37	31	0	74	307	0
Total	54	94	10	0	158	34	181	83	0	298	149	162	47	0	358	14	193	171	0	378	1192	0
17:30	14	39	4	0	57	4	57	30	0	91	35	44	12	0	91	6	34	41	0	81	320	0
17:45	13	35	5	0	53	9	49	12	0	70	40	40	12	0	92	6	38	38	1	83	298	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	27	74	9	0	110	13	106	42	0	161	75	84	24	0	183	12	72	79	1	164	618	1
Grand Total	331	475	62	0	868	130	763	318	0	1211	673	504	268	1	1446	50	939	745	2	1736	5261	3
Apprch %	38.1%	54.7%	7.1%	0.0%		10.7%	63.0%	26.3%	0.0%		46.5%	34.9%	18.5%	0.1%		2.9%	54.1%	42.9%	0.1%			
Total %	6.3%	9.0%	1.2%	0.0%	16.5%	2.5%	14.5%	6.0%	0.0%	23.0%	12.8%	9.6%	5.1%	0.0%	27.5%	1.0%	17.8%	14.2%	0.0%	33.0%	100.0%	

AM PEAK HOUR	Joiner Parkway Southbound					Nicolaus Road Westbound					Joiner Parkway Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	45	30	6	0	81	7	30	19	0	56	29	13	43	0	85	1	86	46	0	133	355
07:45	55	29	9	0	93	16	72	58	0	146	42	40	54	0	136	10	112	48	0	170	545
08:00	20	61	12	0	93	16	44	29	0	89	47	35	11	0	93	3	37	46	0	86	361
08:15	12	23	2	0	37	3	25	6	0	34	44	13	9	1	67	1	34	31	0	66	204
Total Volume	132	143	29	0	304	42	171	112	0	325	162	101	117	1	381	15	269	171	0	455	1465
% App Total	43.4%	47.0%	9.5%	0.0%		12.9%	52.6%	34.5%	0.0%		42.5%	26.5%	30.7%	0.3%		3.3%	59.1%	37.6%	0.0%		
PHF	.600	.586	.604	.000	.817	.656	.594	.483	.000	.557	.862	.631	.542	.250	.700	.375	.600	.891	.000	.669	.672

PM PEAK HOUR	Joiner Parkway Southbound					Nicolaus Road Westbound					Joiner Parkway Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	12	29	3	0	44	17	46	15	0	78	41	35	15	0	91	4	48	45	0	97	310
17:15	11	26	3	0	40	6	59	28	0	93	39	54	7	0	100	6	37	31	0	74	307
17:30	14	39	4	0	57	4	57	30	0	91	35	44	12	0	91	6	34	41	0	81	320
17:45	13	35	5	0	53	9	49	12	0	70	40	40	12	0	92	6	38	38	1	83	298
Total Volume	50	129	15	0	194	36	211	85	0	332	155	173	46	0	374	22	157	155	1	335	1235
% App Total	25.8%	66.5%	7.7%	0.0%		10.8%	63.6%	25.6%	0.0%		41.4%	46.3%	12.3%	0.0%		6.6%	46.9%	46.3%	0.3%		
PHF	.893	.827	.750	.000	.851	.529	.894	.708	.000	.892	.945	.801	.767	.000	.935	.917	.818	.861	.250	.863	.965

Intersection 13

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-007 Dowd Road-Nicolaus Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Dowd Road Southbound					Nicolaus Road Westbound					Dowd Road Northbound					Nicolaus Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	2	3	1	0	6	0	27	2	0	29	0	2	1	0	3	2	17	1	0	20	58	0
06:45	8	1	1	0	10	1	24	1	0	26	1	0	2	0	3	0	9	1	0	10	49	0
07:00	5	0	4	0	9	0	36	2	0	38	0	0	0	0	0	1	23	2	0	26	73	0
07:15	3	1	4	0	8	2	28	1	0	31	2	0	3	0	5	1	27	1	0	29	73	0
Total	18	5	10	0	33	3	115	6	0	124	3	2	6	0	11	4	76	5	0	85	253	0
07:30	5	0	1	0	6	0	32	0	0	32	0	2	1	0	3	0	27	0	0	27	68	0
07:45	2	2	1	0	5	0	42	0	0	42	0	1	1	0	2	2	33	1	0	36	85	0
08:00	1	0	3	0	4	1	35	1	0	37	1	1	2	0	4	0	21	1	0	22	67	0
08:15	1	0	0	0	1	1	16	1	0	18	0	0	2	0	2	1	25	0	0	26	47	0
Total	9	2	5	0	16	2	125	2	0	129	1	4	6	0	11	3	106	2	0	111	267	0
08:30	0	2	2	0	4	4	19	2	0	25	1	1	2	0	4	1	17	0	0	18	51	0
08:45	1	4	1	0	6	2	9	0	0	11	1	0	3	0	4	1	23	3	0	27	48	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	6	3	0	10	6	28	2	0	36	2	1	5	0	8	2	40	3	0	45	99	0
15:30	0	4	1	0	5	2	13	3	0	18	3	0	1	0	4	0	35	1	0	36	63	0
15:45	2	1	0	0	3	3	16	2	0	21	0	2	3	0	5	1	24	1	0	26	55	0
16:00	1	1	1	0	3	3	29	7	0	39	1	3	0	0	4	4	21	0	0	25	71	0
16:15	1	1	0	0	2	1	17	3	0	21	3	3	1	0	7	0	42	1	0	43	73	0
Total	4	7	2	0	13	9	75	15	0	99	7	8	5	0	20	5	122	3	0	130	262	0
16:30	0	2	2	0	4	3	19	7	0	29	1	1	1	0	3	4	28	1	0	33	69	0
16:45	2	1	4	0	7	2	10	2	0	14	1	2	1	0	4	4	28	1	0	33	58	0
17:00	3	0	2	0	5	1	26	2	0	29	0	5	2	0	7	2	31	1	0	34	75	0
17:15	0	0	1	0	1	0	18	3	0	21	0	0	1	0	1	2	30	1	0	33	56	0
Total	5	3	9	0	17	6	73	14	0	93	2	8	5	0	15	12	117	4	0	133	258	0
17:30	2	3	0	0	5	0	26	2	0	28	2	6	1	0	9	3	27	2	0	32	74	0
17:45	1	2	0	0	3	0	15	3	0	18	1	7	1	0	9	1	24	0	0	25	55	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	5	0	0	8	0	41	5	0	46	3	13	2	0	18	4	51	2	0	57	129	0
Grand Total	40	28	29	0	97	26	457	44	0	527	18	36	29	0	83	30	512	19	0	561	1268	0
Apprch %	41.2%	28.9%	29.9%	0.0%		4.9%	86.7%	8.3%	0.0%		21.7%	43.4%	34.9%	0.0%		5.3%	91.3%	3.4%	0.0%			
Total %	3.2%	2.2%	2.3%	0.0%	7.6%	2.1%	36.0%	3.5%	0.0%	41.6%	1.4%	2.8%	2.3%	0.0%	6.5%	2.4%	40.4%	1.5%	0.0%	44.2%	100.0%	

AM PEAK HOUR	Dowd Road Southbound					Nicolaus Road Westbound					Dowd Road Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
07:00	5	0	4	0	9	0	36	2	0	38	0	0	0	0	0	1	23	2	0	26	73
07:15	3	1	4	0	8	2	28	1	0	31	2	0	3	0	5	1	27	1	0	29	73
07:30	5	0	1	0	6	0	32	0	0	32	0	2	1	0	3	0	27	0	0	27	68
07:45	2	2	1	0	5	0	42	0	0	42	0	1	1	0	2	2	33	1	0	36	85
Total Volume	15	3	10	0	28	2	138	3	0	143	2	3	5	0	10	4	110	4	0	118	299
% App Total	53.6%	10.7%	35.7%	0.0%		1.4%	96.5%	2.1%	0.0%		20.0%	30.0%	50.0%	0.0%		3.4%	93.2%	3.4%	0.0%		
PHF	.750	.375	.625	.000	.778	.250	.821	.375	.000	.851	.250	.375	.417	.000	.500	.500	.833	.500	.000	.819	.879

PM PEAK HOUR	Dowd Road Southbound					Nicolaus Road Westbound					Dowd Road Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:15 to 17:15																					
Peak Hour For Entire Intersection Begins at 16:15																					
16:15	1	1	0	0	2	1	17	3	0	21	3	3	1	0	7	0	42	1	0	43	73
16:30	0	2	2	0	4	3	19	7	0	29	1	1	1	0	3	4	28	1	0	33	69
16:45	2	1	4	0	7	2	10	2	0	14	1	2	1	0	4	4	28	1	0	33	58
17:00	3	0	2	0	5	1	26	2	0	29	0	5	2	0	7	2	31	1	0	34	75
Total Volume	6	4	8	0	18	7	72	14	0	93	5	11	5	0	21	10	129	4	0	143	275
% App Total	33.3%	22.2%	44.4%	0.0%		7.5%	77.4%	15.1%	0.0%		23.8%	52.4%	23.8%	0.0%		7.0%	90.2%	2.8%	0.0%		
PHF	.500	.500	.500	.000	.643	.583	.692	.500	.000	.802	.417	.550	.625	.000	.750	.625	.768	1.000	.000	.831	.917

Intersection 14

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-008 Nelson Lane-Moore Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Nelson Lane Southbound					Moore Road Westbound					Northbound					Moore Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	2	0	11	0	13	0	4	3	0	7	0	0	0	0	0	12	2	0	0	14	34	0
06:45	3	0	15	0	18	0	14	0	0	14	0	0	0	0	0	10	2	0	0	12	44	0
07:00	4	0	12	0	16	0	8	0	0	8	0	0	0	0	0	13	2	0	0	15	39	0
07:15	2	0	12	0	14	0	18	4	0	22	0	0	0	0	0	12	3	0	1	16	52	1
Total	11	0	50	0	61	0	44	7	0	51	0	0	0	0	0	47	9	0	1	57	169	1
07:30	1	0	13	0	14	0	12	5	0	17	0	0	0	0	0	11	4	0	0	15	46	0
07:45	0	0	17	0	17	0	15	1	0	16	0	0	0	0	0	10	11	0	0	21	54	0
08:00	3	0	11	0	14	0	9	0	0	9	0	0	0	0	0	10	4	0	0	14	37	0
08:15	2	0	12	0	14	0	13	3	0	16	0	0	0	0	0	7	8	0	0	15	45	0
Total	6	0	53	0	59	0	49	9	0	58	0	0	0	0	0	38	27	0	0	65	182	0
08:30	0	0	5	0	5	0	10	0	0	10	0	0	0	0	0	5	4	0	0	9	24	0
08:45	1	0	9	0	10	0	4	1	0	5	0	0	0	0	0	10	6	0	0	16	31	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	14	0	15	0	14	1	0	15	0	0	0	0	0	15	10	0	0	25	55	0
15:30	3	0	22	0	25	0	9	4	0	13	0	0	0	0	0	14	12	0	0	26	64	0
15:45	0	0	10	0	10	0	5	1	0	6	0	0	0	0	0	14	6	0	0	20	36	0
16:00	2	0	16	0	18	0	8	0	0	8	0	0	0	0	0	10	13	0	0	23	49	0
16:15	1	0	18	0	19	0	3	0	0	3	0	0	0	0	0	13	7	0	0	20	42	0
Total	6	0	66	0	72	0	25	5	0	30	0	0	0	0	0	51	38	0	0	89	191	0
16:30	4	0	16	0	20	0	4	3	0	7	0	0	0	0	0	13	18	0	0	31	58	0
16:45	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	15	24	0	0	39	44	0
17:00	1	0	13	0	14	0	9	0	0	9	0	0	0	0	0	12	16	0	0	28	51	0
17:15	0	0	11	0	11	0	6	2	0	8	0	0	0	0	0	16	14	0	0	30	49	0
Total	5	0	45	0	50	0	19	5	0	24	0	0	0	0	0	56	72	0	0	128	202	0
17:30	0	0	11	0	11	0	4	1	0	5	0	0	0	0	0	13	17	0	0	30	46	0
17:45	1	0	8	0	9	0	2	1	0	3	0	0	0	0	0	15	13	0	0	28	40	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	19	0	20	0	6	2	0	8	0	0	0	0	0	28	30	0	0	58	86	0
Grand Total	30	0	247	0	277	0	157	29	0	186	0	0	0	0	0	235	186	0	1	422	885	1
Apprch %	10.8%	0.0%	89.2%	0.0%		0.0%	84.4%	15.6%	0.0%		0.0%	0.0%	0.0%	0.0%		55.7%	44.1%	0.0%	0.2%			
Total %	3.4%	0.0%	27.9%	0.0%	31.3%	0.0%	17.7%	3.3%	0.0%	21.0%	0.0%	0.0%	0.0%	0.0%	0.0%	26.6%	21.0%	0.0%	0.1%	47.7%	100.0%	

AM PEAK HOUR	Nelson Lane Southbound					Moore Road Westbound					Northbound					Moore Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
07:00	4	0	12	0	16	0	8	0	0	8	0	0	0	0	0	13	2	0	0	15	39
07:15	2	0	12	0	14	0	18	4	0	22	0	0	0	0	0	12	3	0	1	16	52
07:30	1	0	13	0	14	0	12	5	0	17	0	0	0	0	0	11	4	0	0	15	46
07:45	0	0	17	0	17	0	15	1	0	16	0	0	0	0	0	10	11	0	0	21	54
Total Volume	7	0	54	0	61	0	53	10	0	63	0	0	0	0	0	46	20	0	1	67	191
% App Total	11.5%	0.0%	88.5%	0.0%		0.0%	84.1%	15.9%	0.0%		0.0%	0.0%	0.0%	0.0%		68.7%	29.9%	0.0%	1.5%		
PHF	.438	.000	.794	.000	.897	.000	.736	.500	.000	.716	.000	.000	.000	.000	.000	.885	.455	.000	.250	.798	.884

PM PEAK HOUR	Nelson Lane Southbound					Moore Road Westbound					Northbound					Moore Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	4	0	16	0	20	0	4	3	0	7	0	0	0	0	0	13	18	0	0	31	58
16:45	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	15	24	0	0	39	44
17:00	1	0	13	0	14	0	9	0	0	9	0	0	0	0	0	12	16	0	0	28	51
17:15	0	0	11	0	11	0	6	2	0	8	0	0	0	0	0	16	14	0	0	30	49
Total Volume	5	0	45	0	50	0	19	5	0	24	0	0	0	0	0	56	72	0	0	128	202
% App Total	10.0%	0.0%	90.0%	0.0%		0.0%	79.2%	20.8%	0.0%		0.0%	0.0%	0.0%	0.0%		43.8%	56.3%	0.0%	0.0%		
PHF	.313	.000	.703	.000	.625	.000	.528	.417	.000	.667	.000	.000	.000	.000	.000	.875	.750	.000	.000	.821	.871

ALL TRAFFIC DATA

Placer County
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 13-7729-007 Fiddyment Road-Moore Road.ppd
Date : 12/10/2013

Unshifted Count = All Vehicles

	Fiddyment Road Southbound					Moore Road Westbound					Fiddyment Road Northbound					Moore Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	0	0	0	0	17	3	0	0	20	1	0	19	0	20	0	0	2	0	2	42	0
07:15	0	0	0	0	0	19	3	0	0	22	2	0	15	0	17	0	0	4	0	4	43	0
07:30	0	0	0	0	0	30	2	0	0	32	1	0	18	0	19	0	0	6	0	6	57	0
07:45	0	0	0	0	0	23	4	0	0	27	2	0	9	0	11	0	0	1	0	1	39	0
Total	0	0	0	0	0	89	12	0	0	101	6	0	61	0	67	0	0	13	0	13	181	0
08:00	0	0	0	0	0	16	3	1	0	20	2	0	12	0	14	0	1	2	0	3	37	0
08:15	0	0	0	0	0	11	1	0	0	12	1	0	12	0	13	0	4	3	0	7	32	0
08:30	0	0	0	0	0	8	2	0	0	10	2	0	14	0	16	0	1	2	0	3	29	0
08:45	0	0	0	0	0	11	4	0	0	15	3	0	17	0	20	0	0	1	0	1	36	0
Total	0	0	0	0	0	46	10	1	0	57	8	0	55	0	63	0	6	8	0	14	134	0
16:00	0	0	0	0	0	24	2	0	0	26	5	0	22	0	27	0	1	0	0	1	54	0
16:15	0	0	0	0	0	16	2	0	0	18	2	0	25	0	27	0	3	1	0	4	49	0
16:30	0	0	0	0	0	23	1	0	0	24	4	0	26	0	30	0	7	3	0	10	64	0
16:45	0	0	0	0	0	18	1	0	0	19	1	0	19	0	20	0	1	2	0	3	42	0
Total	0	0	0	0	0	81	6	0	0	87	12	0	92	0	104	0	12	6	0	18	209	0
17:00	0	0	0	0	0	17	1	0	0	18	4	0	27	0	31	0	4	6	0	10	59	0
17:15	0	0	0	0	0	18	1	0	0	19	6	0	21	0	27	0	5	0	0	5	51	0
17:30	0	0	0	0	0	11	2	0	0	13	3	0	35	0	38	0	3	2	0	5	56	0
17:45	0	0	0	0	0	10	0	0	0	10	0	0	23	0	23	0	2	0	0	2	35	0
Total	0	0	0	0	0	56	4	0	0	60	13	0	106	0	119	0	14	8	0	22	201	0
Grand Total	0	0	0	0	0	272	32	1	0	305	39	0	314	0	353	0	32	35	0	67	725	0
Apprch %	0.0%	0.0%	0.0%	0.0%		89.2%	10.5%	0.3%	0.0%		11.0%	0.0%	89.0%	0.0%		0.0%	47.8%	52.2%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	37.5%	4.4%	0.1%	0.0%	42.1%	5.4%	0.0%	43.3%	0.0%	48.7%	0.0%	4.4%	4.8%	0.0%	9.2%	100.0%	

AM PEAK HOUR	Fiddyment Road Southbound					Moore Road Westbound					Fiddyment Road Northbound					Moore Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
07:00	0	0	0	0	0	17	3	0	0	20	1	0	19	0	20	0	0	2	0	2	42
07:15	0	0	0	0	0	19	3	0	0	22	2	0	15	0	17	0	0	4	0	4	43
07:30	0	0	0	0	0	30	2	0	0	32	1	0	18	0	19	0	0	6	0	6	57
07:45	0	0	0	0	0	23	4	0	0	27	2	0	9	0	11	0	0	1	0	1	39
Total Volume	0	0	0	0	0	89	12	0	0	101	6	0	61	0	67	0	0	13	0	13	181
% App Total	0.0%	0.0%	0.0%	0.0%		88.1%	11.9%	0.0%	0.0%		9.0%	0.0%	91.0%	0.0%		0.0%	0.0%	100.0%	0.0%		
PHF	.000	.000	.000	.000	.000	.742	.750	.000	.000	.789	.750	.000	.803	.000	.838	.000	.000	.542	.000	.542	.794

PM PEAK HOUR	Fiddyment Road Southbound					Moore Road Westbound					Fiddyment Road Northbound					Moore Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	23	1	0	0	24	4	0	26	0	30	0	7	3	0	10	64
16:45	0	0	0	0	0	18	1	0	0	19	1	0	19	0	20	0	1	2	0	3	42
17:00	0	0	0	0	0	17	1	0	0	18	4	0	27	0	31	0	4	6	0	10	59
17:15	0	0	0	0	0	18	1	0	0	19	6	0	21	0	27	0	5	0	0	5	51
Total Volume	0	0	0	0	0	76	4	0	0	80	15	0	93	0	108	0	17	11	0	28	216
% App Total	0.0%	0.0%	0.0%	0.0%		95.0%	5.0%	0.0%	0.0%		13.9%	0.0%	86.1%	0.0%		0.0%	60.7%	39.3%	0.0%		
PHF	.000	.000	.000	.000	.000	.826	1.000	.000	.000	.833	.625	.000	.861	.000	.871	.000	.607	.458	.000	.700	.844

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-009 Fiddyment Road-Athens Avenue.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Fiddyment Road Southbound					Athens Avenue Westbound					Fiddyment Road Northbound					Athens Avenue Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	6	12	0	0	18	21	0	4	0	25	0	10	36	0	46	0	0	0	0	0	89	0
06:45	5	23	0	0	28	40	0	7	0	47	0	13	43	0	56	0	1	0	0	1	132	0
07:00	3	15	0	0	18	46	0	2	0	48	0	18	29	0	47	0	0	0	0	0	113	0
07:15	2	22	0	0	24	33	0	6	0	39	0	18	52	0	70	0	0	0	0	0	133	0
Total	16	72	0	0	88	140	0	19	0	159	0	59	160	0	219	0	1	0	0	1	467	0
07:30	5	26	0	0	31	37	0	5	0	42	0	12	55	0	67	0	0	0	0	0	140	0
07:45	5	21	0	0	26	40	0	4	0	44	1	19	67	0	87	0	0	0	0	0	157	0
08:00	1	25	0	0	26	45	0	5	0	50	0	10	41	0	51	0	1	0	0	1	128	0
08:15	7	17	0	0	24	44	0	7	0	51	0	12	47	0	59	0	0	0	0	0	134	0
Total	18	89	0	0	107	166	0	21	0	187	1	53	210	0	264	0	1	0	0	1	559	0
08:30	5	14	0	0	19	21	0	3	0	24	0	12	46	0	58	0	0	0	0	0	101	0
08:45	6	9	0	1	16	47	0	6	0	53	0	15	52	0	67	0	0	0	0	0	136	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	23	0	1	35	68	0	9	0	77	0	27	98	0	125	0	0	0	0	0	237	1
15:30	10	29	0	0	39	66	0	9	0	75	0	20	63	0	83	0	0	0	0	0	197	0
15:45	9	21	0	0	30	60	0	12	0	72	0	24	54	0	78	0	0	0	0	0	180	0
16:00	5	18	0	0	23	57	0	9	0	66	0	27	61	0	88	0	0	0	0	0	177	0
16:15	5	20	0	0	25	54	0	9	0	63	0	17	48	0	65	0	0	0	0	0	153	0
Total	29	88	0	0	117	237	0	39	0	276	0	88	226	0	314	0	0	0	0	0	707	0
16:30	8	17	0	0	25	48	1	4	0	53	0	29	47	0	76	0	0	0	0	0	154	0
16:45	5	10	0	0	15	49	0	6	0	55	0	31	66	0	97	0	0	0	0	0	167	0
17:00	4	19	0	0	23	78	1	6	0	85	0	19	57	0	76	0	0	0	0	0	184	0
17:15	7	19	0	0	26	74	0	1	0	75	0	33	85	0	118	0	1	0	0	1	220	0
Total	24	65	0	0	89	249	2	17	0	268	0	112	255	0	367	0	1	0	0	1	725	0
17:30	2	19	0	0	21	46	0	3	0	49	0	38	84	0	122	0	0	0	0	0	192	0
17:45	5	13	0	0	18	38	0	3	0	41	0	25	53	0	78	0	0	0	0	0	137	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	32	0	0	39	84	0	6	0	90	0	63	137	0	200	0	0	0	0	0	329	0
Grand Total	105	369	0	1	475	944	2	111	0	1057	1	402	1086	0	1489	0	3	0	0	3	3024	1
Apprch %	22.1%	77.7%	0.0%	0.2%		89.3%	0.2%	10.5%	0.0%		0.1%	27.0%	72.9%	0.0%		0.0%	100.0%	0.0%	0.0%			
Total %	3.5%	12.2%	0.0%	0.0%	15.7%	31.2%	0.1%	3.7%	0.0%	35.0%	0.0%	13.3%	35.9%	0.0%	49.2%	0.0%	0.1%	0.0%	0.0%	0.1%	100.0%	

AM PEAK HOUR	Fiddyment Road Southbound					Athens Avenue Westbound					Fiddyment Road Northbound					Athens Avenue Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	5	26	0	0	31	37	0	5	0	42	0	12	55	0	67	0	0	0	0	0	140
07:45	5	21	0	0	26	40	0	4	0	44	1	19	67	0	87	0	0	0	0	0	157
08:00	1	25	0	0	26	45	0	5	0	50	0	10	41	0	51	0	1	0	0	1	128
08:15	7	17	0	0	24	44	0	7	0	51	0	12	47	0	59	0	0	0	0	0	134
Total Volume	18	89	0	0	107	166	0	21	0	187	1	53	210	0	264	0	1	0	0	1	559
% App Total	16.8%	83.2%	0.0%	0.0%		88.8%	0.0%	11.2%	0.0%		0.4%	20.1%	79.5%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.643	.856	.000	.000	.863	.922	.000	.750	.000	.917	.250	.697	.784	.000	.759	.000	.250	.000	.000	.250	.890

PM PEAK HOUR	Fiddyment Road Southbound					Athens Avenue Westbound					Fiddyment Road Northbound					Athens Avenue Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	5	10	0	0	15	49	0	6	0	55	0	31	66	0	97	0	0	0	0	0	167
17:00	4	19	0	0	23	78	1	6	0	85	0	19	57	0	76	0	0	0	0	0	184
17:15	7	19	0	0	26	74	0	1	0	75	0	33	85	0	118	0	1	0	0	1	220
17:30	2	19	0	0	21	46	0	3	0	49	0	38	84	0	122	0	0	0	0	0	192
Total Volume	18	67	0	0	85	247	1	16	0	264	0	121	292	0	413	0	1	0	0	1	763
% App Total	21.2%	78.8%	0.0%	0.0%		93.6%	0.4%	6.1%	0.0%		0.0%	29.3%	70.7%	0.0%		0.0%	100.0%	0.0%	0.0%		
PHF	.643	.882	.000	.000	.817	.792	.250	.667	.000	.776	.000	.796	.859	.000	.846	.000	.250	.000	.000	.250	.867

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-010 Fiddyment Road-Catlett Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Fiddyment Road Southbound					Westbound					Fiddyment Road Northbound					Catlett Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	0	15	1	0	16	0	0	0	0	0	3	11	0	0	14	1	0	2	0	3	33	0
06:45	0	25	0	0	25	0	0	0	0	0	5	14	0	0	19	0	0	2	0	2	46	0
07:00	0	16	1	0	17	0	0	0	0	0	1	19	0	0	20	1	0	2	0	3	40	0
07:15	0	28	1	0	29	0	0	0	0	0	5	19	0	0	24	0	0	1	0	1	54	0
Total	0	84	3	0	87	0	0	0	0	0	14	63	0	0	77	2	0	7	0	9	173	0
07:30	0	25	0	0	25	0	0	0	0	0	3	14	0	0	17	0	0	1	0	1	43	0
07:45	0	25	2	0	27	0	0	0	0	0	1	22	0	0	23	0	0	3	0	3	53	0
08:00	0	25	0	0	25	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	40	0
08:15	0	22	4	0	26	0	0	0	0	0	4	13	0	0	17	4	0	2	0	6	49	0
Total	0	97	6	0	103	0	0	0	0	0	8	64	0	0	72	4	0	6	0	10	185	0
08:30	0	17	1	0	18	0	0	0	0	0	2	12	0	0	14	2	0	0	0	2	34	0
08:45	0	13	2	0	15	0	0	0	0	0	2	19	0	0	21	3	0	1	0	4	40	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	30	3	0	33	0	0	0	0	0	4	31	0	0	35	5	0	1	0	6	74	0
15:30	0	32	1	0	33	0	0	0	0	0	7	22	0	0	29	2	0	6	0	8	70	0
15:45	0	29	1	0	30	0	0	0	0	0	8	28	0	0	36	0	0	1	0	1	67	0
16:00	0	20	0	0	20	0	0	0	0	0	1	34	0	0	35	0	0	0	0	0	55	0
16:15	0	25	0	0	25	0	0	0	0	0	1	25	0	0	26	0	0	1	0	1	52	0
Total	0	106	2	0	108	0	0	0	0	0	17	109	0	0	126	2	0	8	0	10	244	0
16:30	0	24	1	0	25	0	0	0	0	0	3	29	0	0	32	2	0	1	0	3	60	0
16:45	0	11	0	0	11	0	0	0	0	0	0	38	0	0	38	0	0	4	0	4	53	0
17:00	0	25	0	0	25	0	0	0	0	0	3	22	0	0	25	0	0	0	0	0	50	0
17:15	0	22	0	0	22	0	0	0	0	0	1	31	0	0	32	3	0	2	0	5	59	0
Total	0	82	1	0	83	0	0	0	0	0	7	120	0	0	127	5	0	7	0	12	222	0
17:30	0	21	1	0	22	0	0	0	0	0	1	41	0	0	42	0	0	1	0	1	65	0
17:45	0	14	0	0	14	0	0	0	0	0	1	27	0	0	28	2	0	4	0	6	48	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	35	1	0	36	0	0	0	0	0	2	68	0	0	70	2	0	5	0	7	113	0
Grand Total	0	434	16	0	450	0	0	0	0	0	52	455	0	0	507	20	0	34	0	54	1011	0
Apprch %	0.0%	96.4%	3.6%	0.0%		0.0%	0.0%	0.0%	0.0%		10.3%	89.7%	0.0%	0.0%		37.0%	0.0%	63.0%	0.0%			
Total %	0.0%	42.9%	1.6%	0.0%	44.5%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	45.0%	0.0%	0.0%	50.1%	2.0%	0.0%	3.4%	0.0%	5.3%	100.0%	

AM PEAK HOUR	Fiddyment Road Southbound					Westbound					Fiddyment Road Northbound					Catlett Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
07:00	0	16	1	0	17	0	0	0	0	0	1	19	0	0	20	1	0	2	0	3	40
07:15	0	28	1	0	29	0	0	0	0	0	5	19	0	0	24	0	0	1	0	1	54
07:30	0	25	0	0	25	0	0	0	0	0	3	14	0	0	17	0	0	1	0	1	43
07:45	0	25	2	0	27	0	0	0	0	0	1	22	0	0	23	0	0	3	0	3	53
Total Volume	0	94	4	0	98	0	0	0	0	0	10	74	0	0	84	1	0	7	0	8	190
% App Total	0.0%	95.9%	4.1%	0.0%		0.0%	0.0%	0.0%	0.0%		11.9%	88.1%	0.0%	0.0%		12.5%	0.0%	87.5%	0.0%		
PHF	.000	.839	.500	.000	.845	.000	.000	.000	.000	.000	.500	.841	.000	.000	.875	.250	.000	.583	.000	.667	.880

PM PEAK HOUR	Fiddyment Road Southbound					Westbound					Fiddyment Road Northbound					Catlett Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 15:30 to 16:30																					
Peak Hour For Entire Intersection Begins at 15:30																					
15:30	0	32	1	0	33	0	0	0	0	0	7	22	0	0	29	2	0	6	0	8	70
15:45	0	29	1	0	30	0	0	0	0	0	8	28	0	0	36	0	0	1	0	1	67
16:00	0	20	0	0	20	0	0	0	0	0	1	34	0	0	35	0	0	0	0	0	55
16:15	0	25	0	0	25	0	0	0	0	0	1	25	0	0	26	0	0	1	0	1	52
Total Volume	0	106	2	0	108	0	0	0	0	0	17	109	0	0	126	2	0	8	0	10	244
% App Total	0.0%	98.1%	1.9%	0.0%		0.0%	0.0%	0.0%	0.0%		13.5%	86.5%	0.0%	0.0%		20.0%	0.0%	80.0%	0.0%		
PHF	.000	.828	.500	.000	.818	.000	.000	.000	.000	.000	.531	.801	.000	.000	.875	.250	.000	.333	.000	.313	.871

ALL TRAFFIC DATA

Placer County
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 13-7729-002 Fiddyment Road-Sunset Blvd.ppd
Date : 12/10/2013

Unshifted Count = All Vehicles

	Fiddyment Road Southbound					Sunset Blvd Westbound					Fiddyment Road Northbound					Sunset Blvd Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	38	21	0	59	0	0	0	0	0	9	45	0	0	54	5	0	12	0	17	130	0
07:15	0	35	29	0	64	0	0	0	0	0	14	42	0	0	56	3	0	7	0	10	130	0
07:30	0	43	22	0	65	0	0	0	0	0	20	54	0	0	74	18	0	9	0	27	166	0
07:45	0	37	23	0	60	0	0	0	0	0	8	49	0	0	57	10	0	11	0	21	138	0
Total	0	153	95	0	248	0	0	0	0	0	51	190	0	0	241	36	0	39	0	75	564	0
08:00	0	37	25	0	62	0	0	0	0	0	4	41	0	0	45	11	0	11	0	22	129	0
08:15	0	32	18	0	50	0	0	0	0	0	11	43	0	0	54	10	0	10	0	20	124	0
08:30	0	24	13	0	37	0	0	0	0	0	13	48	0	0	61	12	0	11	0	23	121	0
08:45	0	22	11	0	33	0	0	0	0	0	5	43	0	0	48	10	0	10	0	20	101	0
Total	0	115	67	0	182	0	0	0	0	0	33	175	0	0	208	43	0	42	0	85	475	0
16:00	0	68	13	0	81	0	0	0	0	0	14	59	0	0	73	26	0	11	0	37	191	0
16:15	0	48	9	0	57	0	0	0	0	0	6	39	0	0	45	23	0	13	0	36	138	0
16:30	0	54	19	0	73	0	0	0	0	0	16	46	0	0	62	31	0	7	0	38	173	0
16:45	0	53	24	0	77	0	0	0	0	0	7	59	0	0	66	22	0	10	0	32	175	0
Total	0	223	65	0	288	0	0	0	0	0	43	203	0	0	246	102	0	41	0	143	677	0
17:00	0	59	15	0	74	0	0	0	0	0	14	51	0	0	65	35	0	15	0	50	189	0
17:15	0	51	12	0	63	0	0	0	0	0	12	58	0	0	70	43	0	18	0	61	194	0
17:30	0	53	16	0	69	0	0	0	0	0	12	79	0	0	91	42	0	15	0	57	217	0
17:45	0	30	11	0	41	0	0	0	0	0	16	52	0	0	68	25	0	11	0	36	145	0
Total	0	193	54	0	247	0	0	0	0	0	54	240	0	0	294	145	0	59	0	204	745	0
Grand Total	0	684	281	0	965	0	0	0	0	0	181	808	0	0	989	326	0	181	0	507	2461	0
Apprch %	0.0%	70.9%	29.1%	0.0%		0.0%	0.0%	0.0%	0.0%		18.3%	81.7%	0.0%	0.0%		64.3%	0.0%	35.7%	0.0%			
Total %	0.0%	27.8%	11.4%	0.0%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%	32.8%	0.0%	0.0%	40.2%	13.2%	0.0%	7.4%	0.0%	20.6%	100.0%	

AM PEAK HOUR	Fiddyment Road Southbound					Sunset Blvd Westbound					Fiddyment Road Northbound					Sunset Blvd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
07:00	0	38	21	0	59	0	0	0	0	0	9	45	0	0	54	5	0	12	0	17	130
07:15	0	35	29	0	64	0	0	0	0	0	14	42	0	0	56	3	0	7	0	10	130
07:30	0	43	22	0	65	0	0	0	0	0	20	54	0	0	74	18	0	9	0	27	166
07:45	0	37	23	0	60	0	0	0	0	0	8	49	0	0	57	10	0	11	0	21	138
Total Volume	0	153	95	0	248	0	0	0	0	0	51	190	0	0	241	36	0	39	0	75	564
% App Total	0.0%	61.7%	38.3%	0.0%		0.0%	0.0%	0.0%	0.0%		21.2%	78.8%	0.0%	0.0%		48.0%	0.0%	52.0%	0.0%		
PHF	.000	.890	.819	.000	.954	.000	.000	.000	.000	.000	.638	.880	.000	.000	.814	.500	.000	.813	.000	.694	.849

PM PEAK HOUR	Fiddyment Road Southbound					Sunset Blvd Westbound					Fiddyment Road Northbound					Sunset Blvd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	53	24	0	77	0	0	0	0	0	7	59	0	0	66	22	0	10	0	32	175
17:00	0	59	15	0	74	0	0	0	0	0	14	51	0	0	65	35	0	15	0	50	189
17:15	0	51	12	0	63	0	0	0	0	0	12	58	0	0	70	43	0	18	0	61	194
17:30	0	53	16	0	69	0	0	0	0	0	12	79	0	0	91	42	0	15	0	57	217
Total Volume	0	216	67	0	283	0	0	0	0	0	45	247	0	0	292	142	0	58	0	200	775
% App Total	0.0%	76.3%	23.7%	0.0%		0.0%	0.0%	0.0%	0.0%		15.4%	84.6%	0.0%	0.0%		71.0%	0.0%	29.0%	0.0%		
PHF	.000	.915	.698	.000	.919	.000	.000	.000	.000	.000	.804	.782	.000	.000	.802	.826	.000	.806	.000	.820	.893

Turning Movement Volume Report

1/17/2014

Blue Oaks & Fiddyment

Intersection: 155

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/14/2014 00:00 - 00:59	0	28	11	39	4	52	1	57	0	0	0	0	24	12	7	43	139
1/14/2014 01:00 - 01:59	0	25	4	29	0	43	1	44	1	3	0	4	33	30	11	74	151
1/14/2014 02:00 - 02:59	0	11	5	16	0	29	0	29	0	1	0	1	17	16	6	39	85
1/14/2014 03:00 - 03:59	0	11	7	18	0	35	0	35	0	1	0	1	14	15	5	34	88
1/14/2014 04:00 - 04:59	0	9	20	29	4	12	0	16	1	2	0	3	34	32	11	77	125
1/14/2014 05:00 - 05:59	0	45	70	115	11	52	0	63	0	6	0	6	53	26	16	95	279
1/14/2014 06:00 - 06:59	2	128	124	254	36	115	3	154	2	27	0	29	100	30	24	154	591
1/14/2014 07:00 - 07:59	2	208	295	505	60	217	2	279	8	32	3	43	312	65	51	428	1,255
1/14/2014 08:00 - 08:59	0	259	361	620	72	218	17	307	48	51	1	100	334	51	67	452	1,479
1/14/2014 09:00 - 09:59	2	169	245	416	67	171	20	258	15	39	0	54	195	65	56	316	1,044
1/14/2014 10:00 - 10:59	4	128	186	318	40	133	3	176	5	45	1	51	166	70	55	291	836
1/14/2014 11:00 - 11:59	0	135	168	303	64	121	3	188	6	48	1	55	159	71	68	298	844
1/14/2014 12:00 - 12:59	2	153	192	347	58	130	5	193	7	54	5	66	210	85	91	386	992
1/14/2014 13:00 - 13:59	5	161	208	374	45	158	1	204	12	20	2	34	185	76	65	326	938
1/14/2014 14:00 - 14:59	3	149	170	322	63	185	16	264	14	41	3	58	242	52	60	354	998
1/14/2014 15:00 - 15:59	2	228	296	526	74	270	40	384	37	45	5	87	303	105	97	505	1,502
1/14/2014 16:00 - 16:59	5	230	288	523	62	242	3	307	7	36	1	44	336	101	102	539	1,413
1/14/2014 17:00 - 17:59	3	272	353	628	58	238	10	306	8	48	6	62	396	95	102	593	1,589
1/14/2014 18:00 - 18:59	3	194	307	504	51	159	7	217	4	38	1	43	287	99	82	468	1,232
1/14/2014 19:00 - 19:59	2	125	119	246	16	99	3	118	1	24	3	28	197	85	65	347	739
1/14/2014 20:00 - 20:59	0	80	82	162	19	73	3	95	2	13	1	16	173	89	47	309	582
1/14/2014 21:00 - 21:59	1	69	90	160	12	80	2	94	4	8	1	13	147	68	42	257	524
1/14/2014 22:00 - 22:59	2	66	43	111	11	74	0	85	1	8	0	9	89	51	32	172	377
1/15/2014 23:00 - 23:59	0	45	22	67	4	63	1	68	1	5	0	6	58	42	17	117	258
1/15/2014 00:00 - 00:59	0	20	15	35	8	56	2	66	1	1	1	3	21	9	7	37	141
1/15/2014 01:00 - 01:59	0	24	9	33	3	42	1	46	1	0	0	1	46	43	19	108	188

Turning Movement Volume Report

1/17/2014

Blue Oaks & Fiddyment

Intersection: 155

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/15/2014 02:00 - 02:59	0	12	6	18	1	29	0	30	0	2	2	4	23	22	8	53	105
1/15/2014 03:00 - 03:59	3	14	6	23	1	17	0	18	0	2	1	3	27	26	9	62	106
1/15/2014 04:00 - 04:59	0	14	16	30	5	21	0	26	0	5	0	5	41	30	10	81	142
1/15/2014 05:00 - 05:59	1	49	64	114	13	41	0	54	1	9	1	11	45	35	13	93	272
1/15/2014 06:00 - 06:59	0	123	136	259	35	118	2	155	2	31	0	33	110	43	32	185	632
1/15/2014 07:00 - 07:59	1	197	289	487	54	219	8	281	4	38	2	44	270	42	35	347	1,159
1/15/2014 08:00 - 08:59	2	255	345	602	72	228	16	316	54	43	2	99	331	67	75	473	1,490
1/15/2014 09:00 - 09:59	2	177	231	410	66	150	20	236	11	47	5	63	175	56	63	294	1,003
1/15/2014 10:00 - 10:59	2	141	187	330	50	99	4	153	7	34	1	42	148	58	60	266	791
1/15/2014 11:00 - 11:59	2	167	173	342	53	128	10	191	10	48	1	59	198	77	83	358	950
1/15/2014 12:00 - 12:59	1	170	191	362	80	147	11	238	13	29	1	43	183	69	90	342	985
1/15/2014 13:00 - 13:59	6	159	179	344	53	167	3	223	16	50	3	69	186	77	81	344	980
1/15/2014 14:00 - 14:59	4	184	176	364	58	227	17	302	13	34	2	49	212	63	73	348	1,063
1/15/2014 15:00 - 15:59	2	240	253	495	68	273	40	381	32	37	3	72	306	94	122	522	1,470
1/15/2014 16:00 - 16:59	2	247	263	512	72	261	9	342	9	32	1	42	309	83	86	478	1,374
1/15/2014 17:00 - 17:59	0	265	350	615	76	274	10	360	8	42	7	57	411	98	88	597	1,629
1/15/2014 18:00 - 18:59	1	216	307	524	49	180	7	236	7	36	3	46	285	130	95	510	1,316
1/15/2014 19:00 - 19:59	1	116	142	259	20	118	4	142	4	21	2	27	211	68	60	339	767
1/15/2014 20:00 - 20:59	0	99	106	205	21	99	1	121	3	25	1	29	191	91	53	335	690
1/15/2014 21:00 - 21:59	3	84	75	162	9	83	5	97	1	16	0	17	142	68	50	260	536
1/15/2014 22:00 - 22:59	0	58	36	94	14	59	2	75	1	6	0	7	74	58	28	160	336
1/16/2014 23:00 - 23:59	2	43	29	74	6	59	2	67	2	7	0	9	68	42	22	132	282
1/16/2014 00:00 - 00:59	2	27	14	43	6	57	0	63	0	1	1	2	30	22	11	63	171
1/16/2014 01:00 - 01:59	1	25	7	33	3	58	2	63	0	1	0	1	38	43	19	100	197
1/16/2014 02:00 - 02:59	0	16	9	25	1	34	0	35	0	1	0	1	21	23	7	51	112
1/16/2014 03:00 - 03:59	1	14	6	21	0	30	0	30	0	0	0	0	22	22	8	52	103

Turning Movement Volume Report

1/17/2014

Blue Oaks & Fiddyment

Intersection: 155

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/16/2014 04:00 - 04:59	0	13	18	31	5	18	0	23	0	8	0	8	35	38	17	90	152
1/16/2014 05:00 - 05:59	0	53	67	120	16	37	0	53	0	6	0	6	55	37	14	106	285
1/16/2014 06:00 - 06:59	1	125	133	259	37	121	2	160	4	33	0	37	113	52	37	202	658
1/16/2014 07:00 - 07:59	1	222	276	499	49	229	7	285	6	32	1	39	306	38	33	377	1,200
1/16/2014 08:00 - 08:59	1	271	382	654	76	229	23	328	56	53	1	110	268	56	83	407	1,499
1/16/2014 09:00 - 09:59	2	174	234	410	71	154	15	240	22	44	3	69	179	63	70	312	1,031
1/16/2014 10:00 - 10:59	5	162	185	352	48	132	9	189	9	42	1	52	138	65	54	257	850
1/16/2014 11:00 - 11:59	0	154	190	344	61	133	7	201	10	39	2	51	187	104	68	359	955
1/16/2014 12:00 - 12:59	1	145	160	306	66	144	11	221	9	34	1	44	184	66	85	335	906
1/16/2014 13:00 - 13:59	4	152	190	346	51	149	9	209	7	47	7	61	198	79	72	349	965
1/16/2014 14:00 - 14:59	3	188	183	374	64	165	15	244	14	29	2	45	252	88	86	426	1,089
1/16/2014 15:00 - 15:59	5	255	223	483	70	304	37	411	39	38	3	80	297	77	97	471	1,445
1/16/2014 16:00 - 16:59	2	246	287	535	63	286	10	359	2	31	2	35	353	95	93	541	1,470
1/16/2014 17:00 - 17:59	2	266	352	620	61	267	6	334	10	43	5	58	369	86	78	533	1,545
1/16/2014 18:00 - 18:59	3	215	295	513	51	158	9	218	7	53	4	64	263	97	88	448	1,243
1/16/2014 19:00 - 19:59	4	120	145	269	31	94	2	127	1	22	1	24	241	116	65	422	842
1/16/2014 20:00 - 20:59	2	90	92	184	21	85	2	108	2	18	1	21	183	60	54	297	610
1/16/2014 21:00 - 21:59	2	79	68	149	13	91	5	109	2	8	1	11	150	55	41	246	515
1/16/2014 22:00 - 22:59	0	79	55	134	9	52	1	62	1	12	3	16	89	43	22	154	366
Total:	**115**	**9,093**	**10,821**	**20,029**	**2,591**	**9,091**	**487**	**12,169**	**585**	**1,785**	**112**	**2,482**	**12,048**	**4,305**	**3,643**	**19,996**	**54,676**
Approach%:	0%	45%	54%		21%	74%	4%		23%	71%	4%		60%	21%	18%		
Int. %:	0%	16%	19%	36%	4%	16%	0%	22%	1%	3%	0%	4%	22%	7%	6%	36%	

Turning Movement Volume Report

1/17/2014

Pleasant Grove & Fiddyment

Intersection: 128

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/14/2014 00:00 - 00:59	18	48	15	81	3	62	6	71	2	1	5	8	22	18	9	49	209
1/14/2014 01:00 - 01:59	11	32	7	50	2	53	2	57	1	0	7	8	41	33	18	92	207
1/14/2014 02:00 - 02:59	3	12	6	21	0	37	0	37	0	3	3	6	33	25	14	72	136
1/14/2014 03:00 - 03:59	1	17	12	30	2	38	0	40	1	5	5	11	21	16	10	47	128
1/14/2014 04:00 - 04:59	2	30	22	54	3	44	1	48	1	10	26	37	43	13	6	62	201
1/14/2014 05:00 - 05:59	12	111	94	217	14	134	1	149	1	29	60	90	56	16	8	80	536
1/14/2014 06:00 - 06:59	41	231	130	402	38	320	6	364	8	85	210	303	155	36	22	213	1,282
1/14/2014 07:00 - 07:59	117	430	304	851	104	713	6	823	17	198	322	537	349	69	35	453	2,664
1/14/2014 08:00 - 08:59	140	451	403	994	105	617	19	741	28	242	237	507	392	109	86	587	2,829
1/14/2014 09:00 - 09:59	90	309	232	631	89	335	16	440	21	187	133	341	183	140	59	382	1,794
1/14/2014 10:00 - 10:59	66	268	189	523	85	284	14	383	21	166	93	280	137	121	61	319	1,505
1/14/2014 11:00 - 11:59	86	242	203	531	90	302	14	406	18	167	87	272	195	174	61	430	1,639
1/14/2014 12:00 - 12:59	108	302	195	605	115	320	24	459	14	184	84	282	212	201	112	525	1,871
1/14/2014 13:00 - 13:59	106	306	199	611	68	312	15	395	22	121	84	227	232	222	89	543	1,776
1/14/2014 14:00 - 14:59	85	304	242	631	99	423	24	546	13	150	100	263	262	156	87	505	1,945
1/14/2014 15:00 - 15:59	174	426	311	911	103	504	22	629	23	175	148	346	330	246	118	694	2,580
1/14/2014 16:00 - 16:59	210	549	358	1,117	105	513	22	640	18	154	100	272	393	260	123	776	2,805
1/14/2014 17:00 - 17:59	265	658	415	1,338	98	556	27	681	16	149	102	267	478	312	132	922	3,208
1/14/2014 18:00 - 18:59	252	494	332	1,078	71	361	16	448	10	166	77	253	334	270	110	714	2,493
1/14/2014 19:00 - 19:59	145	281	162	588	49	205	14	268	4	95	54	153	204	210	76	490	1,499
1/14/2014 20:00 - 20:59	102	196	92	390	37	176	8	221	6	53	40	99	199	163	64	426	1,136
1/14/2014 21:00 - 21:59	77	166	80	323	15	163	9	187	5	48	30	83	193	113	45	351	944
1/14/2014 22:00 - 22:59	41	130	41	212	15	114	6	135	1	21	20	42	89	53	24	166	555
1/15/2014 23:00 - 23:59	18	84	28	130	5	88	2	95	2	5	12	19	89	48	18	155	399
1/15/2014 00:00 - 00:59	19	36	10	65	2	66	2	70	3	7	5	15	44	30	13	87	237
1/15/2014 01:00 - 01:59	3	32	16	51	1	50	1	52	1	1	6	8	38	37	14	89	200

Turning Movement Volume Report

1/17/2014

Pleasant Grove & Fiddyment

Intersection: 128

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/15/2014 02:00 - 02:59	9	19	5	33	0	42	0	42	0	2	4	6	31	19	10	60	141
1/15/2014 03:00 - 03:59	4	25	8	37	1	31	0	32	0	4	5	9	14	4	3	21	99
1/15/2014 04:00 - 04:59	3	26	28	57	2	52	1	55	3	9	20	32	35	10	5	50	194
1/15/2014 05:00 - 05:59	6	109	101	216	14	104	0	118	0	31	74	105	47	15	5	67	506
1/15/2014 06:00 - 06:59	35	243	136	414	36	310	4	350	8	88	186	282	136	36	18	190	1,236
1/15/2014 07:00 - 07:59	107	419	296	822	110	680	15	805	12	211	310	533	367	70	42	479	2,639
1/15/2014 08:00 - 08:59	125	467	414	1,006	116	627	13	756	26	224	258	508	365	117	82	564	2,834
1/15/2014 09:00 - 09:59	89	310	247	646	89	343	14	446	23	180	127	330	198	130	44	372	1,794
1/15/2014 10:00 - 10:59	66	240	212	518	84	265	18	367	29	176	71	276	144	135	64	343	1,504
1/15/2014 11:00 - 11:59	79	307	226	612	73	286	23	382	17	158	78	253	193	166	83	442	1,689
1/15/2014 12:00 - 12:59	98	283	215	596	106	309	20	435	22	166	97	285	253	195	98	546	1,862
1/15/2014 13:00 - 13:59	92	283	212	587	96	338	18	452	19	148	75	242	254	193	106	553	1,834
1/15/2014 14:00 - 14:59	108	326	275	709	84	411	13	508	23	151	114	288	286	216	83	585	2,090
1/15/2014 15:00 - 15:59	166	412	324	902	107	508	21	636	25	170	136	331	362	259	171	792	2,661
1/15/2014 16:00 - 16:59	215	518	367	1,100	87	547	14	648	21	170	116	307	368	281	134	783	2,838
1/15/2014 17:00 - 17:59	286	623	452	1,361	119	576	27	722	17	162	105	284	459	349	138	946	3,313
1/15/2014 18:00 - 18:59	261	533	355	1,149	82	421	16	519	13	174	94	281	355	304	102	761	2,710
1/15/2014 19:00 - 19:59	141	291	199	631	56	254	17	327	6	89	51	146	272	234	105	611	1,715
1/15/2014 20:00 - 20:59	91	214	88	393	24	189	13	226	11	59	43	113	229	166	67	462	1,194
1/15/2014 21:00 - 21:59	76	172	87	335	30	179	9	218	11	40	30	81	197	120	52	369	1,003
1/15/2014 22:00 - 22:59	48	112	51	211	20	113	4	137	2	24	18	44	114	60	25	199	591
1/16/2014 23:00 - 23:59	27	77	23	127	3	101	1	105	1	11	8	20	75	56	23	154	406
1/16/2014 00:00 - 00:59	19	40	16	75	3	68	0	71	0	2	4	6	27	22	10	59	211
1/16/2014 01:00 - 01:59	5	38	11	54	2	68	0	70	1	4	6	11	33	32	16	81	216
1/16/2014 02:00 - 02:59	6	26	7	39	1	40	1	42	0	4	2	6	12	8	5	25	112
1/16/2014 03:00 - 03:59	7	23	10	40	2	40	1	43	0	4	4	8	16	10	8	34	125

Turning Movement Volume Report

1/17/2014

Pleasant Grove & Fiddyment

Intersection: 128

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/16/2014 04:00 - 04:59	4	27	23	54	5	38	0	43	1	7	19	27	33	17	7	57	181
1/16/2014 05:00 - 05:59	9	122	108	239	13	99	0	112	2	30	67	99	65	19	8	92	542
1/16/2014 06:00 - 06:59	37	237	143	417	37	305	7	349	6	77	185	268	144	27	12	183	1,217
1/16/2014 07:00 - 07:59	109	420	308	837	111	718	11	840	18	212	333	563	338	68	53	459	2,699
1/16/2014 08:00 - 08:59	125	486	405	1,016	106	567	11	684	29	231	245	505	370	105	81	556	2,761
1/16/2014 09:00 - 09:59	103	315	261	679	101	335	19	455	21	157	120	298	215	110	62	387	1,819
1/16/2014 10:00 - 10:59	59	261	196	516	99	275	20	394	17	162	83	262	172	120	61	353	1,525
1/16/2014 11:00 - 11:59	92	271	224	587	84	305	19	408	13	163	94	270	173	181	81	435	1,700
1/16/2014 12:00 - 12:59	98	271	188	557	108	303	13	424	24	167	78	269	252	209	96	557	1,807
1/16/2014 13:00 - 13:59	114	288	206	608	82	304	20	406	24	138	96	258	222	229	105	556	1,828
1/16/2014 14:00 - 14:59	108	325	253	686	100	363	21	484	11	156	93	260	299	183	80	562	1,992
1/16/2014 15:00 - 15:59	155	401	331	887	130	516	35	681	20	201	123	344	326	233	117	676	2,588
1/16/2014 16:00 - 16:59	210	528	390	1,128	105	576	18	699	25	149	118	292	431	265	130	826	2,945
1/16/2014 17:00 - 17:59	294	681	426	1,401	106	559	27	692	14	168	127	309	483	335	134	952	3,354
1/16/2014 18:00 - 18:59	260	558	350	1,168	77	387	14	478	11	139	118	268	373	311	123	807	2,721
1/16/2014 19:00 - 19:59	168	282	181	631	46	247	9	302	8	95	56	159	224	208	92	524	1,616
1/16/2014 20:00 - 20:59	130	186	127	443	30	199	22	251	11	69	40	120	222	183	62	467	1,281
1/16/2014 21:00 - 21:59	77	184	95	356	19	199	10	228	5	41	35	81	177	92	41	310	975
1/16/2014 22:00 - 22:59	50	144	65	259	24	140	6	170	0	27	17	44	148	57	29	234	707
Total:	**6,563**	**18,268**	**12,743**	**37,574**	**4,048**	**20,127**	**822**	**24,997**	**807**	**7,272**	**6,133**	**14,212**	**14,233**	**9,250**	**4,287**	**27,770**	**104,553**
Approach%:	17%	48%	33%		16%	80%	3%		5%	51%	43%		51%	33%	15%		
Int. %:	6%	17%	12%	35%	3%	19%	0%	23%	0%	6%	5%	13%	13%	8%	4%	26%	

Turning Movement Volume Report

1/12/6715

Baseline & Fiddyment

Intersection: 122

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/14/2014 00:00 - 00:59	1	84	15	35	6	23	12	45	65	6	7	69	19	9	18	83	209
1/14/2014 01:00 - 01:59	7	83	4	55	2	90	14	45	18	8	7	19	14	8	3	62	181
1/14/2014 02:00 - 02:59	1	16	9	14	6	38	0	98	2	7	7	2	11	9	6	14	108
1/14/2014 03:00 - 03:59	6	14	5	63	8	83	65	96	2	1	7	0	0	4	8	67	115
1/14/2014 04:00 - 04:59	8	66	0	88	5	39	99	169	61	8	7	65	5	61	5	64	212
1/14/2014 05:00 - 05:59	9	184	60	128	63	152	111	608	92	0	7	23	68	35	2	05	615
1/14/2014 06:00 - 06:59	3	651	50	645	92	801	870	239	111	11	7	166	90	165	84	681	1,403
1/14/2014 07:00 - 07:59	14	550	163	346	139	345	997	1,517	687	69	1	632	109	694	177	333	2,814
1/14/2014 08:00 - 08:59	18	339	181	277	138	337	305	1,602	659	69	1	628	136	149	157	500	2,748
1/14/2014 09:00 - 09:59	3	885	176	551	177	887	680	990	139	14	1	123	20	01	43	635	1,538
1/14/2014 10:00 - 10:59	2	603	06	825	08	629	153	375	163	19	1	151	03	95	27	614	1,238
1/14/2014 11:00 - 11:59	9	691	178	827	43	813	154	334	181	61	1	136	08	93	172	633	1,336
1/14/2014 12:00 - 12:59	2	602	175	840	02	865	191	326	130	67	1	120	42	91	162	603	1,433
1/14/2014 13:00 - 13:59	1	646	115	572	04	886	130	324	102	61	1	670	173	97	28	680	1,432
1/14/2014 14:00 - 14:59	0	898	168	545	46	986	108	472	127	60	1	144	155	96	165	887	1,930
1/14/2014 15:00 - 15:59	4	569	107	913	153	208	653	1,128	653	84	6	603	133	09	121	516	2,485
1/14/2014 16:00 - 16:59	18	378	195	907	110	333	632	487	592	94	8	380	126	116	193	554	2,597
1/14/2014 17:00 - 17:59	0	337	102	253	119	910	866	1,739	919	175	5	265	105	173	145	508	3,008
1/14/2014 18:00 - 18:59	17	535	105	950	26	542	108	236	596	47	5	333	125	05	158	571	2,356
1/14/2014 19:00 - 19:59	8	620	111	846	54	867	44	590	126	69	1	144	182	53	110	877	1,359
1/14/2014 20:00 - 20:59	6	672	22	609	88	692	02	802	174	15	1	168	114	51	25	685	1,030
1/14/2014 21:00 - 21:59	6	199	98	681	13	635	41	897	02	15	1	171	42	58	32	142	889
1/14/2014 22:00 - 22:59	6	110	51	191	11	122	31	684	90	17	7	20	96	64	69	112	595
1/15/2014 23:00 - 23:59	1	22	66	177	17	154	56	671	53	8	7	50	84	4	10	99	415
1/15/2014 00:00 - 00:59	1	89	19	38	0	00	69	166	67	8	7	68	17	17	16	86	230
1/15/2014 01:00 - 01:59	1	86	2	57	2	94	16	00	14	7	7	14	16	5	9	66	169

Turning Movement Volume Report

1/12/6715

Baseline & Fiddyment

Intersection: 122

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/15/2014 02:00 - 02:59	6	67	2	64	5	30	16	25	4	7	7	4	3	8	2	13	127
1/15/2014 03:00 - 03:59	1	12	3	68	6	88	69	91	17	1	7	11	0	15	3	62	122
1/15/2014 04:00 - 04:59	5	83	2	59	5	58	90	113	67	1	7	61	0	68	1	86	214
1/15/2014 05:00 - 05:59	9	189	81	128	14	154	175	626	98	3	7	90	66	55	5	27	583
1/15/2014 06:00 - 06:59	9	694	52	866	37	829	649	266	178	16	7	113	20	170	62	618	1,372
1/15/2014 07:00 - 07:59	4	509	113	917	137	306	954	1,801	619	64	1	659	107	694	20	362	2,764
1/15/2014 08:00 - 08:59	13	353	162	902	150	347	385	1,626	680	68	1	691	135	677	189	547	2,710
1/15/2014 09:00 - 09:59	16	839	09	535	175	859	612	992	136	12	1	194	116	22	46	601	1,571
1/15/2014 10:00 - 10:59	17	623	177	803	34	699	153	527	162	18	1	157	00	27	27	660	1,223
1/15/2014 11:00 - 11:59	8	874	166	585	21	624	199	319	187	63	1	139	03	32	161	698	1,369
1/15/2014 12:00 - 12:59	8	644	116	515	179	882	191	975	127	19	1	109	176	99	44	692	1,471
1/15/2014 13:00 - 13:59	0	692	174	805	09	858	190	342	666	161	6	853	45	28	176	694	1,595
1/15/2014 14:00 - 14:59	18	570	150	394	114	554	676	227	122	125	8	835	184	44	165	896	2,055
1/15/2014 15:00 - 15:59	87	321	104	247	157	327	653	433	156	691	3	570	196	178	134	565	2,577
1/15/2014 16:00 - 16:59	81	985	614	005	175	977	627	425	813	898	9	908	136	44	197	511	2,952
1/15/2014 17:00 - 17:59	0	390	665	077	186	978	602	1,766	989	543	9	1,189	670	174	147	372	3,465
1/15/2014 18:00 - 18:59	0	540	141	942	24	381	100	240	592	859	8	019	199	178	190	582	2,748
1/15/2014 19:00 - 19:59	9	871	116	514	31	839	180	353	677	182	1	880	183	178	115	836	1,654
1/15/2014 20:00 - 20:59	5	141	94	695	51	627	175	513	169	29	1	676	110	56	28	688	1,114
1/15/2014 21:00 - 21:59	9	199	21	658	82	630	07	823	178	09	1	104	46	54	99	672	1,014
1/15/2014 22:00 - 22:59	8	115	55	191	11	193	58	614	97	33	7	113	59	88	87	174	604
1/16/2014 23:00 - 23:59	8	21	85	170	11	180	57	104	84	81	7	27	65	67	10	96	429
1/16/2014 00:00 - 00:59	6	38	15	94	5	05	65	116	66	61	7	58	14	0	17	82	261
1/16/2014 01:00 - 01:59	7	89	4	53	9	06	19	175	16	4	7	61	18	1	0	66	192
1/16/2014 02:00 - 02:59	7	67	5	65	8	52	15	95	15	4	7	68	9	6	3	18	124
1/16/2014 03:00 - 03:59	8	14	2	64	6	89	12	33	4	2	7	19	4	18	4	81	131

Turning Movement Volume Report

1/12/6715

Baseline & Fiddyment

Intersection: 122

	N				S				E				W				
Date & Time	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Left**	**Thru**	**Right**	**App. Total**	**Int. Total**
1/16/2014 04:00 - 04:59	5	60	18	53	8	59	36	171	67	2	7	62	17	66	8	83	208
1/16/2014 05:00 - 05:59	8	131	60	106	10	150	174	623	27	85	7	175	67	24	4	170	669
1/16/2014 06:00 - 06:59	5	658	80	603	31	807	606	218	118	35	7	192	98	163	88	661	1,386
1/16/2014 07:00 - 07:59	15	594	165	972	132	971	954	1,572	684	175	1	855	135	834	00	971	2,959
1/16/2014 08:00 - 08:59	2	382	165	990	137	331	351	1,656	607	163	1	573	199	649	127	986	2,947
1/16/2014 09:00 - 09:59	13	837	04	535	176	891	662	947	198	47	1	638	26	172	42	629	1,673
1/16/2014 10:00 - 10:59	5	605	175	846	27	640	152	313	114	08	7	676	04	48	97	656	1,351
1/16/2014 11:00 - 11:59	4	872	47	579	176	646	131	353	150	41	1	684	41	93	03	651	1,431
1/16/2014 12:00 - 12:59	11	694	02	892	08	872	197	337	135	178	1	632	01	23	111	692	1,441
1/16/2014 13:00 - 13:59	17	878	47	578	172	810	131	329	197	112	1	622	42	39	111	695	1,520
1/16/2014 14:00 - 14:59	0	837	160	509	45	566	195	907	672	189	1	858	161	08	117	815	1,823
1/16/2014 15:00 - 15:59	11	532	133	968	168	345	650	493	659	144	6	559	135	27	134	808	2,417
1/16/2014 16:00 - 16:59	17	545	137	935	171	935	871	1,739	500	860	8	010	163	45	189	833	2,883
1/16/2014 17:00 - 17:59	11	334	671	221	164	921	873	1,173	937	677	9	033	100	49	612	371	3,232
1/16/2014 18:00 - 18:59	3	532	126	985	118	538	675	227	379	814	5	064	100	171	105	528	2,706
1/16/2014 19:00 - 19:59	9	879	160	557	91	863	48	524	123	165	1	877	189	39	184	881	1,550
1/16/2014 20:00 - 20:59	5	675	06	647	84	622	177	519	156	03	1	662	171	80	49	683	1,168
1/16/2014 21:00 - 21:59	6	146	23	694	66	650	172	822	117	95	7	125	03	89	33	129	996
1/16/2014 22:00 - 22:59	1	187	33	109	10	141	03	645	43	59	7	151	84	65	14	06	703
Total:	**471**	**18,934**	**6,189**	**25,594**	**4,635**	**22,673**	**12,536**	**39,844**	**11,830**	**5,219**	**81**	**17,103**	**6,445**	**5,312**	**5,651**	**17,408**	**99,949**
Approach%:	1%	73%	24%		11%	56%	31%		69%	30%	0%		37%	30%	32%		
Int. %:	0%	18%	6%	25%	4%	22%	12%	39%	11%	5%	0%	17%	6%	5%	5%	17%	

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-011 Dowd Road-Moore Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Dowd Road Southbound					Moore Road Westbound					Dowd Road Northbound					Moore Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	3	1	0	0	4	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	6	0
06:45	3	1	0	0	4	1	5	4	0	10	0	0	3	0	3	0	1	2	0	3	20	0
07:00	2	1	0	0	3	0	1	1	0	2	1	0	2	0	3	0	0	0	0	0	8	0
07:15	1	1	1	0	3	0	1	3	0	4	0	0	0	0	0	1	1	0	0	2	9	0
Total	9	4	1	0	14	1	7	9	0	17	1	0	5	0	6	1	3	2	0	6	43	0
07:30	1	0	0	0	1	4	3	1	0	8	0	0	0	0	0	0	2	0	0	2	11	0
07:45	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	0	0	0	0	0	6	0
08:00	4	0	0	0	4	2	4	2	0	8	1	0	0	0	1	2	1	0	0	3	16	0
08:15	3	0	0	0	3	0	5	0	0	5	2	0	0	0	2	1	4	2	0	7	17	0
Total	8	0	0	0	8	6	16	4	0	26	3	0	1	0	4	3	7	2	0	12	50	0
08:30	3	0	0	0	3	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	7	0
08:45	9	0	3	0	12	1	1	5	0	7	0	0	0	0	0	2	0	2	0	4	23	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12	0	3	0	15	1	3	7	0	11	0	0	0	0	0	2	0	2	0	4	30	0
15:30	7	0	0	0	7	1	4	4	0	9	0	0	0	0	0	1	2	0	0	3	19	0
15:45	2	0	3	0	5	0	4	3	0	7	0	1	1	0	2	1	1	0	0	2	16	0
16:00	2	0	0	0	2	1	4	3	1	9	0	0	1	0	1	0	6	0	0	6	18	1
16:15	0	1	0	0	1	0	5	6	0	11	1	0	0	0	1	0	2	0	0	2	15	0
Total	11	1	3	0	15	2	17	16	1	36	1	1	2	0	4	2	11	0	0	13	68	1
16:30	3	0	3	0	6	0	1	4	0	5	0	0	1	0	1	0	10	0	0	10	22	0
16:45	5	0	1	0	6	1	4	1	0	6	0	1	0	0	1	1	3	0	0	4	17	0
17:00	1	0	0	0	1	0	1	5	0	6	0	2	0	0	2	1	3	0	0	4	13	0
17:15	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	1	5	0	0	6	9	0
Total	9	0	4	0	13	1	7	11	0	19	0	4	1	0	5	3	21	0	0	24	61	0
17:30	3	0	0	0	3	0	1	7	0	8	0	0	0	0	0	0	6	0	0	6	17	0
17:45	2	0	0	0	2	0	0	9	0	9	0	0	0	0	0	1	5	0	0	6	17	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	0	0	0	5	0	1	16	0	17	0	0	0	0	0	1	11	0	0	12	34	0
Grand Total	54	5	11	0	70	11	51	63	1	126	5	5	9	0	19	12	53	6	0	71	286	1
Apprch %	77.1%	7.1%	15.7%	0.0%		8.7%	40.5%	50.0%	0.8%		26.3%	26.3%	47.4%	0.0%		16.9%	74.6%	8.5%	0.0%			
Total %	18.9%	1.7%	3.8%	0.0%	24.5%	3.8%	17.8%	22.0%	0.3%	44.1%	1.7%	1.7%	3.1%	0.0%	6.6%	4.2%	18.5%	2.1%	0.0%	24.8%	100.0%	

AM PEAK HOUR	Dowd Road Southbound					Moore Road Westbound					Dowd Road Northbound					Moore Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	4	0	0	0	4	2	4	2	0	8	1	0	0	0	1	2	1	0	0	3	16
08:15	3	0	0	0	3	0	5	0	0	5	2	0	0	0	2	1	4	2	0	7	17
08:30	3	0	0	0	3	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	7
08:45	9	0	3	0	12	1	1	5	0	7	0	0	0	0	0	2	0	2	0	4	23
Total Volume	19	0	3	0	22	3	12	9	0	24	3	0	0	0	3	5	5	4	0	14	63
% App Total	86.4%	0.0%	13.6%	0.0%		12.5%	50.0%	37.5%	0.0%		100.0%	0.0%	0.0%	0.0%		35.7%	35.7%	28.6%	0.0%		
PHF	.528	.000	.250	.000	.458	.375	.600	.450	.000	.750	.375	.000	.000	.000	.375	.625	.313	.500	.000	.500	.685

PM PEAK HOUR	Dowd Road Southbound					Moore Road Westbound					Dowd Road Northbound					Moore Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	2	0	0	0	2	1	4	3	1	9	0	0	1	0	1	0	6	0	0	6	18
16:15	0	1	0	0	1	0	5	6	0	11	1	0	0	0	1	0	2	0	0	2	15
16:30	3	0	3	0	6	0	1	4	0	5	0	0	1	0	1	0	10	0	0	10	22
16:45	5	0	1	0	6	1	4	1	0	6	0	1	0	0	1	1	3	0	0	4	17
Total Volume	10	1	4	0	15	2	14	14	1	31	1	1	2	0	4	1	21	0	0	22	72
% App Total	66.7%	6.7%	26.7%	0.0%		6.5%	45.2%	45.2%	3.2%		25.0%	25.0%	50.0%	0.0%		4.5%	95.5%	0.0%	0.0%		
PHF	.500	.250	.333	.000	.625	.500	.700	.583	.250	.705	.250	.250	.500	.000	1.000	.250	.525	.000	.000	.550	.818

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 14-7491-001 Moore Road-Sorrento Parkway.ppd
Date : 8/5/2014

Unshifted Count = All Vehicles

	Moore Road Southbound					Sorrento Parkway Westbound					Moore Road Northbound					Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	11	1	0	0	12	9	0	4	0	13	0	2	5	0	7	0	0	0	0	0	32	0
07:15	19	1	0	0	20	14	0	2	0	16	0	0	7	0	7	0	0	0	0	0	43	0
07:30	16	3	0	0	19	12	0	6	0	18	0	1	8	0	9	0	0	0	0	0	46	0
07:45	7	2	0	0	9	5	0	3	0	8	0	1	5	0	6	0	0	0	0	0	23	0
Total	53	7	0	0	60	40	0	15	0	55	0	4	25	0	29	0	0	0	0	0	144	0
08:00	11	1	0	0	12	12	0	2	0	14	0	1	5	0	6	0	0	0	0	0	32	0
08:15	9	1	0	0	10	6	0	1	0	7	0	0	7	0	7	0	0	0	0	0	24	0
08:30	19	2	0	0	21	12	0	5	0	17	0	0	5	0	5	0	0	0	0	0	43	0
08:45	7	1	0	0	8	6	0	4	0	10	0	2	7	0	9	0	0	0	0	0	27	0
Total	46	5	0	0	51	36	0	12	0	48	0	3	24	0	27	0	0	0	0	0	126	0
16:00	5	0	0	0	5	7	0	8	0	15	0	2	15	0	17	0	0	0	0	0	37	0
16:15	6	0	0	0	6	5	0	9	0	14	0	2	14	0	16	0	0	0	0	0	36	0
16:30	10	0	0	0	10	10	0	8	0	18	0	1	8	0	9	0	0	0	0	0	37	0
16:45	14	0	0	0	14	6	0	20	0	26	0	2	6	0	8	0	0	0	0	0	48	0
Total	35	0	0	0	35	28	0	45	0	73	0	7	43	0	50	0	0	0	0	0	158	0
17:00	6	2	0	0	8	14	0	18	0	32	0	4	17	0	21	0	0	0	0	0	61	0
17:15	10	1	0	0	11	13	0	22	0	35	0	3	15	0	18	0	0	0	0	0	64	0
17:30	9	1	0	0	10	7	0	14	0	21	0	4	14	0	18	0	0	0	0	0	49	0
17:45	14	1	0	0	15	6	0	22	0	28	0	2	10	0	12	0	0	0	0	0	55	0
Total	39	5	0	0	44	40	0	76	0	116	0	13	56	0	69	0	0	0	0	0	229	0
Grand Total	173	17	0	0	190	144	0	148	0	292	0	27	148	0	175	0	0	0	0	0	657	0
Apprch %	91.1%	8.9%	0.0%	0.0%		49.3%	0.0%	50.7%	0.0%		0.0%	15.4%	84.6%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	26.3%	2.6%	0.0%	0.0%	28.9%	21.9%	0.0%	22.5%	0.0%	44.4%	0.0%	4.1%	22.5%	0.0%	26.6%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Moore Road Southbound					Sorrento Parkway Westbound					Moore Road Northbound					Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:00 to 08:00																					
Peak Hour For Entire Intersection Begins at 07:00																					
07:00	11	1	0	0	12	9	0	4	0	13	0	2	5	0	7	0	0	0	0	0	32
07:15	19	1	0	0	20	14	0	2	0	16	0	0	7	0	7	0	0	0	0	0	43
07:30	16	3	0	0	19	12	0	6	0	18	0	1	8	0	9	0	0	0	0	0	46
07:45	7	2	0	0	9	5	0	3	0	8	0	1	5	0	6	0	0	0	0	0	23
Total Volume	53	7	0	0	60	40	0	15	0	55	0	4	25	0	29	0	0	0	0	0	144
% App Total	88.3%	11.7%	0.0%	0.0%		72.7%	0.0%	27.3%	0.0%		0.0%	13.8%	86.2%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.697	.583	.000	.000	.750	.714	.000	.625	.000	.764	.000	.500	.781	.000	.806	.000	.000	.000	.000	.000	.783

PM PEAK HOUR	Moore Road Southbound					Sorrento Parkway Westbound					Moore Road Northbound					Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	6	2	0	0	8	14	0	18	0	32	0	4	17	0	21	0	0	0	0	0	61
17:15	10	1	0	0	11	13	0	22	0	35	0	3	15	0	18	0	0	0	0	0	64
17:30	9	1	0	0	10	7	0	14	0	21	0	4	14	0	18	0	0	0	0	0	49
17:45	14	1	0	0	15	6	0	22	0	28	0	2	10	0	12	0	0	0	0	0	55
Total Volume	39	5	0	0	44	40	0	76	0	116	0	13	56	0	69	0	0	0	0	0	229
% App Total	88.6%	11.4%	0.0%	0.0%		34.5%	0.0%	65.5%	0.0%		0.0%	18.8%	81.2%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.696	.625	.000	.000	.733	.714	.000	.864	.000	.829	.000	.813	.824	.000	.821	.000	.000	.000	.000	.000	.895

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-012 Sorrento Parkway-Ferrari Ranch Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Sorrento Parkway Southbound					Ferrari Ranch Road Westbound					Northbound					Ferrari Ranch Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	24	0	1	0	25	0	0	11	0	11	0	0	0	0	0	1	16	0	0	17	53	0
06:45	27	0	0	0	27	0	3	20	0	23	0	0	0	0	0	2	17	0	0	19	69	0
07:00	27	0	2	0	29	0	5	18	1	24	0	0	0	0	0	2	28	0	0	30	83	1
07:15	47	0	1	0	48	0	4	18	0	22	0	0	0	0	0	4	33	0	0	37	107	0
Total	125	0	4	0	129	0	12	67	1	80	0	0	0	0	0	9	94	0	0	103	312	1
07:30	47	0	3	0	50	0	8	15	0	23	0	0	0	0	0	4	72	0	1	77	150	1
07:45	46	0	1	0	47	0	19	33	1	53	0	0	0	0	0	2	53	0	0	55	155	1
08:00	38	0	0	0	38	0	33	27	3	63	0	0	0	0	0	1	32	0	0	33	134	3
08:15	31	0	1	0	32	0	19	30	1	50	0	0	0	0	0	1	21	0	0	22	104	1
Total	162	0	5	0	167	0	79	105	5	189	0	0	0	0	0	8	178	0	1	187	543	6
08:30	27	0	1	0	28	0	6	15	3	24	0	0	0	0	0	0	13	0	0	13	65	3
08:45	40	0	2	0	42	0	7	19	0	26	0	0	0	0	0	3	14	0	0	17	85	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	67	0	3	0	70	0	13	34	3	50	0	0	0	0	0	3	27	0	0	30	150	3
15:30	25	0	2	0	27	0	24	27	0	51	0	0	0	0	0	2	12	0	0	14	92	0
15:45	17	0	2	1	20	0	18	26	1	45	0	0	0	0	0	1	13	0	0	14	79	2
16:00	34	0	1	0	35	0	17	32	0	49	0	0	0	0	0	3	19	0	0	22	106	0
16:15	19	0	3	0	22	0	24	35	0	59	0	0	0	0	0	0	11	0	0	11	92	0
Total	95	0	8	1	104	0	83	120	1	204	0	0	0	0	0	6	55	0	0	61	369	2
16:30	38	0	1	0	39	0	18	40	0	58	0	0	0	0	0	0	15	0	0	15	112	0
16:45	41	0	1	0	42	0	23	25	0	48	0	0	0	0	0	0	17	0	0	17	107	0
17:00	32	0	1	0	33	0	35	37	0	72	0	0	0	0	0	0	21	0	0	21	126	0
17:15	27	0	1	0	28	0	31	32	0	63	0	0	0	0	0	1	16	0	0	17	108	0
Total	138	0	4	0	142	0	107	134	0	241	0	0	0	0	0	1	69	0	0	70	453	0
17:30	29	0	1	0	30	0	30	37	1	68	0	0	0	0	0	2	20	0	0	22	120	1
17:45	31	0	1	1	33	0	24	33	0	57	0	0	0	0	0	3	16	0	0	19	109	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	60	0	2	1	63	0	54	70	1	125	0	0	0	0	0	5	36	0	0	41	229	2
Grand Total	647	0	26	2	675	0	348	530	11	889	0	0	0	0	0	32	459	0	1	492	2056	14
Apprch %	95.9%	0.0%	3.9%	0.3%		0.0%	39.1%	59.6%	1.2%		0.0%	0.0%	0.0%	0.0%		6.5%	93.3%	0.0%	0.2%			
Total %	31.5%	0.0%	1.3%	0.1%	32.8%	0.0%	16.9%	25.8%	0.5%	43.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	22.3%	0.0%	0.0%	23.9%	100.0%	

AM PEAK HOUR	Sorrento Parkway Southbound					Ferrari Ranch Road Westbound					Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	47	0	1	0	48	0	4	18	0	22	0	0	0	0	0	4	33	0	0	37	107
07:30	47	0	3	0	50	0	8	15	0	23	0	0	0	0	0	4	72	0	1	77	150
07:45	46	0	1	0	47	0	19	33	1	53	0	0	0	0	0	2	53	0	0	55	155
08:00	38	0	0	0	38	0	33	27	3	63	0	0	0	0	0	1	32	0	0	33	134
Total Volume	178	0	5	0	183	0	64	93	4	161	0	0	0	0	0	11	190	0	1	202	546
% App Total	97.3%	0.0%	2.7%	0.0%		0.0%	39.8%	57.8%	2.5%		0.0%	0.0%	0.0%	0.0%		5.4%	94.1%	0.0%	0.5%		
PHF	.947	.000	.417	.000	.915	.000	.485	.705	.333	.639	.000	.000	.000	.000	.000	.688	.660	.000	.250	.656	.881

PM PEAK HOUR	Sorrento Parkway Southbound					Ferrari Ranch Road Westbound					Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	32	0	1	0	33	0	35	37	0	72	0	0	0	0	0	0	21	0	0	21	126
17:15	27	0	1	0	28	0	31	32	0	63	0	0	0	0	0	1	16	0	0	17	108
17:30	29	0	1	0	30	0	30	37	1	68	0	0	0	0	0	2	20	0	0	22	120
17:45	31	0	1	1	33	0	24	33	0	57	0	0	0	0	0	3	16	0	0	19	109
Total Volume	119	0	4	1	124	0	120	139	1	260	0	0	0	0	0	6	73	0	0	79	463
% App Total	96.0%	0.0%	3.2%	0.8%		0.0%	46.2%	53.5%	0.4%		0.0%	0.0%	0.0%	0.0%		7.6%	92.4%	0.0%	0.0%		
PHF	.930	.000	1.000	.250	.939	.000	.857	.939	.250	.903	.000	.000	.000	.000	.000	.500	.869	.000	.000	.898	.919

Intersection 25

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-013 Caledon Circle-Ferrari Ranch Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Courtyard Loop Southbound					Ferrari Ranch Road Westbound					Caledon Circle Northbound					Ferrari Ranch Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	14	0	0	0	14	16	9	2	0	27	2	0	75	0	77	0	39	1	0	40	158	0
06:45	12	0	0	0	12	18	23	1	0	42	0	0	88	0	88	0	41	0	0	41	183	0
07:00	15	0	0	0	15	27	21	1	0	49	3	0	131	1	135	1	57	1	0	59	258	1
07:15	26	0	1	0	27	22	20	3	2	47	1	0	145	0	146	1	73	0	0	74	294	2
Total	67	0	1	0	68	83	73	7	2	165	6	0	439	1	446	2	210	2	0	214	893	3
07:30	17	0	1	0	18	37	18	2	0	57	4	1	212	1	218	0	115	3	0	118	411	1
07:45	14	0	1	0	15	55	50	5	1	111	3	1	196	1	201	0	104	2	0	106	433	2
08:00	13	0	0	0	13	126	57	14	0	197	5	0	155	0	160	0	68	4	0	72	442	0
08:15	7	1	1	0	9	88	49	9	2	148	1	0	95	0	96	0	49	1	0	50	303	2
Total	51	1	3	0	55	306	174	30	3	513	13	2	658	2	675	0	336	10	0	346	1589	5
08:30	13	0	0	0	13	49	18	2	2	71	5	0	98	0	103	0	47	0	0	47	234	2
08:45	13	0	1	0	14	40	24	2	0	66	3	0	82	0	85	0	52	0	0	52	217	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	26	0	1	0	27	89	42	4	2	137	8	0	180	0	188	0	99	0	0	99	451	2
15:30	5	0	0	0	5	83	50	6	2	141	2	0	77	0	79	1	30	4	0	35	260	2
15:45	4	0	0	0	4	103	44	12	1	160	1	0	79	0	80	0	30	2	0	32	276	1
16:00	9	0	0	0	9	94	49	13	1	157	3	1	85	0	89	1	49	0	0	50	305	1
16:15	8	0	1	0	9	104	56	10	0	170	1	0	70	1	72	1	32	2	0	35	286	1
Total	26	0	1	0	27	384	199	41	4	628	7	1	311	1	320	3	141	8	0	152	1127	5
16:30	4	0	1	0	5	112	54	14	2	182	1	0	84	0	85	0	45	3	0	48	320	2
16:45	5	1	0	0	6	104	46	21	1	172	3	1	102	0	106	2	52	8	0	62	346	1
17:00	11	1	1	1	14	113	67	9	3	192	2	1	74	0	77	1	43	5	1	50	333	5
17:15	11	1	1	0	13	118	61	15	2	196	3	0	70	0	73	1	37	5	0	43	325	2
Total	31	3	3	1	38	447	228	59	8	742	9	2	330	0	341	4	177	21	1	203	1324	10
17:30	7	0	1	0	8	129	65	7	4	205	0	0	74	0	74	0	46	7	0	53	340	4
17:45	7	0	1	0	8	132	55	12	2	201	1	2	75	0	78	0	39	5	0	44	331	2
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	14	0	2	0	16	261	120	19	6	406	1	2	149	0	152	0	85	12	0	97	671	6
Grand Total	215	4	11	1	231	1570	836	160	25	2591	44	7	2067	4	2122	9	1048	53	1	1111	6055	31
Apprch %	93.1%	1.7%	4.8%	0.4%		60.6%	32.3%	6.2%	1.0%		2.1%	0.3%	97.4%	0.2%		0.8%	94.3%	4.8%	0.1%			
Total %	3.6%	0.1%	0.2%	0.0%	3.8%	25.9%	13.8%	2.6%	0.4%	42.8%	0.7%	0.1%	34.1%	0.1%	35.0%	0.1%	17.3%	0.9%	0.0%	18.3%	100.0%	

AM PEAK HOUR	Courtyard Loop Southbound					Ferrari Ranch Road Westbound					Caledon Circle Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	17	0	1	0	18	37	18	2	0	57	4	1	212	1	218	0	115	3	0	118	411
07:45	14	0	1	0	15	55	50	5	1	111	3	1	196	1	201	0	104	2	0	106	433
08:00	13	0	0	0	13	126	57	14	0	197	5	0	155	0	160	0	68	4	0	72	442
08:15	7	1	1	0	9	88	49	9	2	148	1	0	95	0	96	0	49	1	0	50	303
Total Volume	51	1	3	0	55	306	174	30	3	513	13	2	658	2	675	0	336	10	0	346	1589
% App Total	92.7%	1.8%	5.5%	0.0%		59.6%	33.9%	5.8%	0.6%		1.9%	0.3%	97.5%	0.3%		0.0%	97.1%	2.9%	0.0%		
PHF	.750	.250	.750	.000	.764	.607	.763	.536	.375	.651	.650	.500	.776	.500	.774	.000	.730	.625	.000	.733	.899

PM PEAK HOUR	Courtyard Loop Southbound					Ferrari Ranch Road Westbound					Caledon Circle Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	5	1	0	0	6	104	46	21	1	172	3	1	102	0	106	2	52	8	0	62	346
17:00	11	1	1	1	14	113	67	9	3	192	2	1	74	0	77	1	43	5	1	50	333
17:15	11	1	1	0	13	118	61	15	2	196	3	0	70	0	73	1	37	5	0	43	325
17:30	7	0	1	0	8	129	65	7	4	205	0	0	74	0	74	0	46	7	0	53	340
Total Volume	34	3	3	1	41	464	239	52	10	765	8	2	320	0	330	4	178	25	1	208	1344
% App Total	82.9%	7.3%	7.3%	2.4%		60.7%	31.2%	6.8%	1.3%		2.4%	0.6%	97.0%	0.0%		1.9%	85.6%	12.0%	0.5%		
PHF	.773	.750	.750	.250	.732	.899	.892	.619	.625	.933	.667	.500	.784	.000	.778	.500	.856	.781	.250	.839	.971

ALL TRAFFIC DATA

Placer County
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 13-7729-010 Joiner Parkway-Ferrari Ranch Road.ppd
Date : 12/10/2013

Unshifted Count = All Vehicles

	Joiner Parkway Southbound					Ferrari Ranch Road Westbound					Joiner Parkway Northbound					Ferrari Ranch Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	2	24	3	0	29	2	3	1	0	6	13	18	15	0	46	3	28	4	0	35	116	0
07:15	3	21	4	0	28	4	6	1	0	11	20	33	9	0	62	5	41	8	0	54	155	0
07:30	14	30	6	0	50	6	21	5	0	32	41	44	21	0	106	8	67	7	0	82	270	0
07:45	16	44	5	0	65	9	44	6	0	59	76	69	23	0	168	12	54	15	0	81	373	0
Total	35	119	18	0	172	21	74	13	0	108	150	164	68	0	382	28	190	34	0	252	914	0
08:00	14	71	2	0	87	15	38	4	0	57	72	55	16	0	143	14	77	20	0	111	398	0
08:15	9	44	5	0	58	4	26	1	0	31	33	40	11	0	84	5	57	19	0	81	254	0
08:30	9	30	4	0	43	12	10	1	0	23	19	27	21	0	67	10	40	11	0	61	194	0
08:45	10	31	7	0	48	5	11	1	0	17	19	43	22	0	84	3	36	7	0	46	195	0
Total	42	176	18	0	236	36	85	7	0	128	143	165	70	0	378	32	210	57	0	299	1041	0
16:00	17	64	14	0	95	22	35	2	0	59	48	69	23	0	140	12	31	20	0	63	357	0
16:15	24	64	10	0	98	21	32	5	0	58	37	92	28	0	157	10	32	8	0	50	363	0
16:30	17	64	15	0	96	20	30	3	0	53	44	69	30	0	143	2	51	8	0	61	353	0
16:45	10	59	21	0	90	20	34	6	0	60	77	73	32	0	182	6	53	9	0	68	400	0
Total	68	251	60	0	379	83	131	16	0	230	206	303	113	0	622	30	167	45	0	242	1473	0
17:00	11	77	15	0	103	23	39	7	0	69	52	59	25	0	136	11	48	19	0	78	386	0
17:15	9	52	19	0	80	21	61	5	0	87	75	57	32	0	164	6	37	17	0	60	391	0
17:30	13	63	26	0	102	23	38	2	0	63	60	75	23	0	158	8	43	17	0	68	391	0
17:45	19	52	22	0	93	25	41	4	0	70	46	69	39	0	154	6	54	12	0	72	389	0
Total	52	244	82	0	378	92	179	18	0	289	233	260	119	0	612	31	182	65	0	278	1557	0
Grand Total	197	790	178	0	1165	232	469	54	0	755	732	892	370	0	1994	121	749	201	0	1071	4985	0
Apprch %	16.9%	67.8%	15.3%	0.0%		30.7%	62.1%	7.2%	0.0%		36.7%	44.7%	18.6%	0.0%		11.3%	69.9%	18.8%	0.0%			
Total %	4.0%	15.8%	3.6%	0.0%	23.4%	4.7%	9.4%	1.1%	0.0%	15.1%	14.7%	17.9%	7.4%	0.0%	40.0%	2.4%	15.0%	4.0%	0.0%	21.5%	100.0%	

AM PEAK HOUR	Joiner Parkway Southbound					Ferrari Ranch Road Westbound					Joiner Parkway Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	14	30	6	0	50	6	21	5	0	32	41	44	21	0	106	8	67	7	0	82	270
07:45	16	44	5	0	65	9	44	6	0	59	76	69	23	0	168	12	54	15	0	81	373
08:00	14	71	2	0	87	15	38	4	0	57	72	55	16	0	143	14	77	20	0	111	398
08:15	9	44	5	0	58	4	26	1	0	31	33	40	11	0	84	5	57	19	0	81	254
Total Volume	53	189	18	0	260	34	129	16	0	179	222	208	71	0	501	39	255	61	0	355	1295
% App Total	20.4%	72.7%	6.9%	0.0%		19.0%	72.1%	8.9%	0.0%		44.3%	41.5%	14.2%	0.0%		11.0%	71.8%	17.2%	0.0%		
PHF	.828	.665	.750	.000	.747	.567	.733	.667	.000	.758	.730	.754	.772	.000	.746	.696	.828	.763	.000	.800	.813

PM PEAK HOUR	Joiner Parkway Southbound					Ferrari Ranch Road Westbound					Joiner Parkway Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	10	59	21	0	90	20	34	6	0	60	77	73	32	0	182	6	53	9	0	68	400
17:00	11	77	15	0	103	23	39	7	0	69	52	59	25	0	136	11	48	19	0	78	386
17:15	9	52	19	0	80	21	61	5	0	87	75	57	32	0	164	6	37	17	0	60	391
17:30	13	63	26	0	102	23	38	2	0	63	60	75	23	0	158	8	43	17	0	68	391
Total Volume	43	251	81	0	375	87	172	20	0	279	264	264	112	0	640	31	181	62	0	274	1568
% App Total	11.5%	66.9%	21.6%	0.0%		31.2%	61.6%	7.2%	0.0%		41.3%	41.3%	17.5%	0.0%		11.3%	66.1%	22.6%	0.0%		
PHF	.827	.815	.779	.000	.910	.946	.705	.714	.000	.802	.857	.880	.875	.000	.879	.705	.854	.816	.000	.878	.980

Intersection 27

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-014 Joiner Parkway-1st Street.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Joiner Parkway Southbound					1st Street Westbound					Joiner Parkway Northbound					1st Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	3	64	0	0	67	35	1	6	0	42	5	9	5	0	19	2	1	13	0	16	144	0
06:45	5	60	2	0	67	32	1	7	0	40	5	20	4	0	29	2	2	21	0	25	161	0
07:00	2	61	4	0	67	16	0	6	0	22	6	24	6	0	36	8	5	27	0	40	165	0
07:15	3	73	7	0	83	25	4	5	0	34	9	45	5	0	59	7	7	30	0	44	220	0
Total	13	258	13	0	284	108	6	24	0	138	25	98	20	0	143	19	15	91	0	125	690	0
07:30	8	92	26	0	126	26	16	5	0	47	23	87	16	0	126	12	13	44	0	69	368	0
07:45	5	88	53	0	146	41	55	10	0	106	48	98	36	0	182	25	20	74	0	119	553	0
08:00	16	120	44	0	180	42	32	5	0	79	47	69	32	0	148	24	22	93	0	139	546	0
08:15	7	77	2	0	86	39	10	14	0	63	10	50	15	0	75	8	8	21	0	37	261	0
Total	36	377	125	0	538	148	113	34	0	295	128	304	99	0	531	69	63	232	0	364	1728	0
08:30	3	68	3	0	74	31	1	3	0	35	7	39	7	1	54	5	1	17	0	23	186	1
08:45	7	68	1	0	76	24	2	8	0	34	11	37	6	0	54	6	4	19	0	29	193	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	10	136	4	0	150	55	3	11	0	69	18	76	13	1	108	11	5	36	0	52	379	1
15:30	7	74	1	0	82	23	8	8	0	39	26	91	26	0	143	5	5	16	0	26	290	0
15:45	12	72	10	0	94	20	7	8	0	35	30	105	23	0	158	10	11	32	0	53	340	0
16:00	15	75	8	0	98	27	8	10	0	45	24	90	20	0	134	3	6	15	0	24	301	0
16:15	8	78	10	1	97	43	12	4	0	59	34	109	30	0	173	10	5	21	0	36	365	1
Total	42	299	29	1	371	113	35	30	0	178	114	395	99	0	608	28	27	84	0	139	1296	1
16:30	10	70	8	0	88	25	7	6	0	38	31	106	25	0	162	10	10	18	0	38	326	0
16:45	10	57	13	0	80	31	12	11	0	54	34	126	34	0	194	9	8	23	0	40	368	0
17:00	7	106	5	0	118	28	10	6	0	44	31	114	18	0	163	8	7	35	0	50	375	0
17:15	9	66	9	1	85	21	10	10	0	41	33	136	26	0	195	7	8	15	0	30	351	1
Total	36	299	35	1	371	105	39	33	0	177	129	482	103	0	714	34	33	91	0	158	1420	1
17:30	12	83	10	0	105	27	10	12	0	49	33	118	18	0	169	10	3	17	0	30	353	0
17:45	8	80	6	0	94	18	10	10	0	38	37	112	15	0	164	11	2	21	0	34	330	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	20	163	16	0	199	45	20	22	0	87	70	230	33	0	333	21	5	38	0	64	683	0
Grand Total	157	1532	222	2	1913	574	216	154	0	944	484	1585	367	1	2437	182	148	572	0	902	6196	3
Apprch %	8.2%	80.1%	11.6%	0.1%		60.8%	22.9%	16.3%	0.0%		19.9%	65.0%	15.1%	0.0%		20.2%	16.4%	63.4%	0.0%			
Total %	2.5%	24.7%	3.6%	0.0%	30.9%	9.3%	3.5%	2.5%	0.0%	15.2%	7.8%	25.6%	5.9%	0.0%	39.3%	2.9%	2.4%	9.2%	0.0%	14.6%	100.0%	

AM PEAK HOUR	Joiner Parkway Southbound					1st Street Westbound					Joiner Parkway Northbound					1st Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	8	92	26	0	126	26	16	5	0	47	23	87	16	0	126	12	13	44	0	69	368
07:45	5	88	53	0	146	41	55	10	0	106	48	98	36	0	182	25	20	74	0	119	553
08:00	16	120	44	0	180	42	32	5	0	79	47	69	32	0	148	24	22	93	0	139	546
08:15	7	77	2	0	86	39	10	14	0	63	10	50	15	0	75	8	8	21	0	37	261
Total Volume	36	377	125	0	538	148	113	34	0	295	128	304	99	0	531	69	63	232	0	364	1728
% App Total	6.7%	70.1%	23.2%	0.0%		50.2%	38.3%	11.5%	0.0%		24.1%	57.3%	18.6%	0.0%		19.0%	17.3%	63.7%	0.0%		
PHF	.563	.785	.590	.000	.747	.881	.514	.607	.000	.696	.667	.776	.688	.000	.729	.690	.716	.624	.000	.655	.781

PM PEAK HOUR	Joiner Parkway Southbound					1st Street Westbound					Joiner Parkway Northbound					1st Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	10	57	13	0	80	31	12	11	0	54	34	126	34	0	194	9	8	23	0	40	368
17:00	7	106	5	0	118	28	10	6	0	44	31	114	18	0	163	8	7	35	0	50	375
17:15	9	66	9	1	85	21	10	10	0	41	33	136	26	0	195	7	8	15	0	30	351
17:30	12	83	10	0	105	27	10	12	0	49	33	118	18	0	169	10	3	17	0	30	353
Total Volume	38	312	37	1	388	107	42	39	0	188	131	494	96	0	721	34	26	90	0	150	1447
% App Total	9.8%	80.4%	9.5%	0.3%		56.9%	22.3%	20.7%	0.0%		18.2%	68.5%	13.3%	0.0%		22.7%	17.3%	60.0%	0.0%		
PHF	.792	.736	.712	.250	.822	.863	.875	.813	.000	.870	.963	.908	.706	.000	.924	.850	.813	.643	.000	.750	.965

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 14-7491-002 Lincoln Boulevard-Ferrari Ranch Road.ppd
Date : 8/5/2014

Unshifted Count = All Vehicles

	Lincoln Boulevard Southbound					Ferrari Ranch Road Westbound					Lincoln Boulevard Northbound					Ferrari Ranch Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	14	82	8	0	104	37	8	3	0	48	7	67	18	0	92	8	12	17	0	37	281	0
07:15	13	126	4	0	143	50	9	6	0	65	13	60	20	0	93	16	30	11	0	57	358	0
07:30	8	134	7	0	149	56	11	6	0	73	7	78	19	0	104	16	30	16	0	62	388	0
07:45	16	134	11	1	162	64	13	7	0	84	9	106	26	0	141	17	26	20	0	63	450	1
Total	51	476	30	1	558	207	41	22	0	270	36	311	83	0	430	57	98	64	0	219	1477	1
08:00	21	111	10	0	142	51	8	3	0	62	12	102	26	0	140	8	32	11	0	51	395	0
08:15	19	106	16	0	141	66	10	12	0	88	10	114	25	0	149	13	29	9	0	51	429	0
08:30	20	128	18	0	166	56	12	10	0	78	14	107	17	0	138	16	20	12	0	48	430	0
08:45	18	115	15	0	148	42	12	9	0	63	10	121	23	0	154	23	26	9	0	58	423	0
Total	78	460	59	0	597	215	42	34	0	291	46	444	91	0	581	60	107	41	0	208	1677	0
16:00	27	154	31	0	212	33	17	13	0	63	42	192	66	0	300	32	36	11	0	79	654	0
16:15	24	108	32	0	164	34	21	20	0	75	43	177	69	0	289	21	33	6	0	60	588	0
16:30	32	122	28	0	182	41	23	8	0	72	51	185	73	0	309	25	47	15	0	87	650	0
16:45	23	113	31	0	167	35	33	14	0	82	22	212	83	0	317	45	31	13	0	89	655	0
Total	106	497	122	0	725	143	94	55	0	292	158	766	291	0	1215	123	147	45	0	315	2547	0
17:00	24	137	41	0	202	32	25	21	0	78	45	218	84	0	347	28	45	7	0	80	707	0
17:15	32	119	26	0	177	42	39	13	0	94	59	221	63	0	343	40	50	10	0	100	714	0
17:30	29	121	35	0	185	37	30	12	0	79	39	209	58	0	306	37	26	11	0	74	644	0
17:45	24	87	37	0	148	43	28	12	0	83	50	199	71	0	320	36	29	8	1	74	625	1
Total	109	464	139	0	712	154	122	58	0	334	193	847	276	0	1316	141	150	36	1	328	2690	1
Grand Total	344	1897	350	1	2592	719	299	169	0	1187	433	2368	741	0	3542	381	502	186	1	1070	8391	2
Apprch %	13.3%	73.2%	13.5%	0.0%		60.6%	25.2%	14.2%	0.0%		12.2%	66.9%	20.9%	0.0%		35.6%	46.9%	17.4%	0.1%			
Total %	4.1%	22.6%	4.2%	0.0%	30.9%	8.6%	3.6%	2.0%	0.0%	14.1%	5.2%	28.2%	8.8%	0.0%	42.2%	4.5%	6.0%	2.2%	0.0%	12.8%	100.0%	

AM PEAK HOUR	Lincoln Boulevard Southbound					Ferrari Ranch Road Westbound					Lincoln Boulevard Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	16	134	11	1	162	64	13	7	0	84	9	106	26	0	141	17	26	20	0	63	450
08:00	21	111	10	0	142	51	8	3	0	62	12	102	26	0	140	8	32	11	0	51	395
08:15	19	106	16	0	141	66	10	12	0	88	10	114	25	0	149	13	29	9	0	51	429
08:30	20	128	18	0	166	56	12	10	0	78	14	107	17	0	138	16	20	12	0	48	430
Total Volume	76	479	55	1	611	237	43	32	0	312	45	429	94	0	568	54	107	52	0	213	1704
% App Total	12.4%	78.4%	9.0%	0.2%		76.0%	13.8%	10.3%	0.0%		7.9%	75.5%	16.5%	0.0%		25.4%	50.2%	24.4%	0.0%		
PHF	.905	.894	.764	.250	.920	.898	.827	.667	.000	.886	.804	.941	.904	.000	.953	.794	.836	.650	.000	.845	.947

PM PEAK HOUR	Lincoln Boulevard Southbound					Ferrari Ranch Road Westbound					Lincoln Boulevard Northbound					Ferrari Ranch Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	32	122	28	0	182	41	23	8	0	72	51	185	73	0	309	25	47	15	0	87	650
16:45	23	113	31	0	167	35	33	14	0	82	22	212	83	0	317	45	31	13	0	89	655
17:00	24	137	41	0	202	32	25	21	0	78	45	218	84	0	347	28	45	7	0	80	707
17:15	32	119	26	0	177	42	39	13	0	94	59	221	63	0	343	40	50	10	0	100	714
Total Volume	111	491	126	0	728	150	120	56	0	326	177	836	303	0	1316	138	173	45	0	356	2726
% App Total	15.2%	67.4%	17.3%	0.0%		46.0%	36.8%	17.2%	0.0%		13.4%	63.5%	23.0%	0.0%		38.8%	48.6%	12.6%	0.0%		
PHF	.867	.896	.768	.000	.901	.893	.769	.667	.000	.867	.750	.946	.902	.000	.948	.767	.865	.750	.000	.890	.954

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

File Name : 13-7290-001 Lincoln-1st
Date : 5/9/2013

Unshifted Count = All Vehicles

	Lincoln Boulevard Southbound					1st Street Westbound					Lincoln Boulevard Northbound					1st Street Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Ped Total
07:00	0	89	6	0	95	2	5	0	0	7	17	60	3	0	80	9	7	26	0	42	224	0
07:15	0	99	4	0	103	6	12	2	0	20	14	76	3	0	93	2	8	29	0	39	255	0
07:30	1	123	7	0	131	10	16	2	0	28	28	125	5	0	158	10	13	48	0	71	388	0
07:45	4	148	7	0	159	6	18	3	0	27	54	157	17	0	228	11	15	49	0	75	489	0
Total	5	459	24	0	488	24	51	7	0	82	113	418	28	0	559	32	43	152	0	227	1356	0
08:00	2	113	11	0	126	7	18	0	0	25	47	76	12	0	135	15	14	72	0	101	387	0
08:15	0	101	12	0	113	7	5	1	0	13	25	85	10	0	120	13	11	31	0	55	301	0
08:30	0	81	7	0	88	11	8	2	0	21	13	67	11	0	91	8	9	28	0	45	245	0
08:45	0	89	7	0	96	8	7	2	0	17	26	104	11	0	141	12	12	16	0	40	294	0
Total	2	384	37	0	423	33	38	5	0	76	111	332	44	0	487	48	46	147	0	241	1227	0
16:00	1	88	16	0	105	18	15	41	0	74	32	173	23	0	228	10	14	0	0	24	431	0
16:15	2	112	14	0	128	13	16	33	0	62	43	166	22	0	231	9	16	2	0	27	448	0
16:30	3	106	18	0	127	15	28	35	0	78	29	153	31	0	213	16	15	1	0	32	450	0
16:45	1	101	15	0	117	5	17	33	0	55	39	130	39	0	208	14	14	2	0	30	410	0
Total	7	407	63	0	477	51	76	142	0	269	143	622	115	0	880	49	59	5	0	113	1739	0
17:00	1	107	14	0	122	10	6	35	0	51	38	133	24	0	195	12	7	2	0	21	389	0
17:15	2	114	19	0	135	18	8	36	0	62	45	132	24	0	201	15	14	1	0	30	428	0
17:30	0	88	14	0	102	11	15	36	0	62	24	138	22	0	184	7	13	0	0	20	368	0
17:45	0	86	9	0	95	11	9	26	0	46	27	126	18	0	171	14	11	2	0	27	339	0
Total	3	395	56	0	454	50	38	133	0	221	134	529	88	0	751	48	45	5	0	98	1524	0
Grand Total	17	1645	180	0	1842	158	203	287	0	648	501	1901	275	0	2677	177	193	309	0	679	5846	0
Apprch %	0.9%	89.3%	9.8%			24.4%	31.3%	44.3%			18.7%	71.0%	10.3%			26.1%	28.4%	45.5%				
Total %	0.3%	28.1%	3.1%		31.5%	2.7%	3.5%	4.9%		11.1%	8.6%	32.5%	4.7%		45.8%	3.0%	3.3%	5.3%		11.6%	100.0%	

AM PEAK HOUR	Lincoln Boulevard Southbound					1st Street Westbound					Lincoln Boulevard Northbound					1st Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	1	123	7		131	10	16	2		28	28	125	5		158	10	13	48		71	388
07:45	4	148	7		159	6	18	3		27	54	157	17		228	11	15	49		75	489
08:00	2	113	11		126	7	18	0		25	47	76	12		135	15	14	72		101	387
08:15	0	101	12		113	7	5	1		13	25	85	10		120	13	11	31		55	301
Total Volume	7	485	37		529	30	57	6		93	154	443	44		641	49	53	200		302	1565
% App Total	1.3%	91.7%	7.0%			32.3%	61.3%	6.5%			24.0%	69.1%	6.9%			16.2%	17.5%	66.2%			
PHF	.438	.819	.771		.832	.750	.792	.500		.830	.713	.705	.647		.703	.817	.883	.694		.748	.800

PM PEAK HOUR	Lincoln Boulevard Southbound					1st Street Westbound					Lincoln Boulevard Northbound					1st Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	1	88	16		105	18	15	41		74	32	173	23		228	10	14	0		24	431
16:15	2	112	14		128	13	16	33		62	43	166	22		231	9	16	2		27	448
16:30	3	106	18		127	15	28	35		78	29	153	31		213	16	15	1		32	450
16:45	1	101	15		117	5	17	33		55	39	130	39		208	14	14	2		30	410
Total Volume	7	407	63		477	51	76	142		269	143	622	115		880	49	59	5		113	1739
% App Total	1.5%	85.3%	13.2%			19.0%	28.3%	52.8%			16.3%	70.7%	13.1%			43.4%	52.2%	4.4%			
PHF	.583	.908	.875		.932	.708	.679	.866		.862	.831	.899	.737		.952	.766	.922	.625		.883	.966

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

File Name : 13-7290-003 Lincoln-McBean
Date : 5/9/2013

Unshifted Count = All Vehicles

	Lincoln Boulevard Southbound					McBean Parkway Westbound					Lincoln Boulevard Northbound					McBean Parkway Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Ped Total
07:00	14	57	0	0	71	31	0	13	0	44	0	54	27	0	81	0	0	0	0	0	196	0
07:15	29	77	0	0	106	16	0	31	0	47	0	60	32	0	92	0	0	0	0	0	245	0
07:30	30	112	0	0	142	34	0	18	0	52	0	105	43	0	148	0	1	1	0	2	344	0
07:45	34	128	0	0	162	37	0	16	0	53	0	151	33	0	184	0	0	0	0	0	399	0
Total	107	374	0	0	481	118	0	78	0	196	0	370	135	0	505	0	1	1	0	2	1184	0
08:00	30	90	0	0	120	34	0	12	0	46	0	60	34	0	94	0	0	0	0	0	260	0
08:15	29	58	0	0	87	41	1	17	0	59	0	80	18	0	98	0	0	1	0	1	245	0
08:30	25	71	0	0	96	37	0	16	0	53	0	50	25	0	75	0	0	0	0	0	224	0
08:45	21	62	0	0	83	42	0	26	0	68	1	77	22	0	100	1	2	1	0	4	255	0
Total	105	281	0	0	386	154	1	71	0	226	1	267	99	0	367	1	2	2	0	5	984	0
16:00	23	71	0	0	94	43	0	16	0	59	2	126	25	0	153	1	1	3	0	5	311	0
16:15	16	65	0	0	81	44	0	32	0	76	2	116	30	0	148	3	1	2	0	6	311	0
16:30	21	70	0	0	91	50	2	30	0	82	1	118	21	0	140	3	2	5	0	10	323	0
16:45	24	68	0	0	92	38	3	34	0	75	0	123	27	0	150	1	3	4	0	8	325	0
Total	84	274	0	0	358	175	5	112	0	292	5	483	103	0	591	8	7	14	0	29	1270	0
17:00	23	78	1	0	102	50	0	17	0	67	0	120	21	0	141	0	1	5	0	6	316	0
17:15	28	75	0	0	103	47	1	34	0	82	3	112	31	0	146	0	1	1	0	2	333	0
17:30	12	57	0	0	69	32	0	36	0	68	4	140	19	0	163	2	0	7	0	9	309	0
17:45	23	72	2	0	97	44	1	38	0	83	3	98	25	0	126	2	0	2	0	4	310	0
Total	86	282	3	0	371	173	2	125	0	300	10	470	96	0	576	4	2	15	0	21	1268	0
Grand Total	382	1211	3	0	1596	620	8	386	0	1014	16	1590	433	0	2039	13	12	32	0	57	4706	0
Apprch %	23.9%	75.9%	0.2%			61.1%	0.8%	38.1%			0.8%	78.0%	21.2%			22.8%	21.1%	56.1%				
Total %	8.1%	25.7%	0.1%		33.9%	13.2%	0.2%	8.2%		21.5%	0.3%	33.8%	9.2%		43.3%	0.3%	0.3%	0.7%		1.2%	100.0%	

AM PEAK HOUR	Lincoln Boulevard Southbound					McBean Parkway Westbound					Lincoln Boulevard Northbound					McBean Parkway Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	29	77	0		106	16	0	31		47	0	60	32		92	0	0	0		0	245
07:30	30	112	0		142	34	0	18		52	0	105	43		148	0	1	1		2	344
07:45	34	128	0		162	37	0	16		53	0	151	33		184	0	0	0		0	399
08:00	30	90	0		120	34	0	12		46	0	60	34		94	0	0	0		0	260
Total Volume	123	407	0		530	121	0	77		198	0	376	142		518	0	1	1		2	1248
% App Total	23.2%	76.8%	0.0%			61.1%	0.0%	38.9%			0.0%	72.6%	27.4%			0.0%	50.0%	50.0%			
PHF	.904	.795	.000		.818	.818	.000	.621		.934	.000	.623	.826		.704	.000	.250	.250		.250	.782

PM PEAK HOUR	Lincoln Boulevard Southbound					McBean Parkway Westbound					Lincoln Boulevard Northbound					McBean Parkway Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	23	71	0		94	43	0	16		59	2	126	25		153	1	1	3		5	311
16:15	16	65	0		81	44	0	32		76	2	116	30		148	3	1	2		6	311
16:30	21	70	0		91	50	2	30		82	1	118	21		140	3	2	5		10	323
16:45	24	68	0		92	38	3	34		75	0	123	27		150	1	3	4		8	325
Total Volume	84	274	0		358	175	5	112		292	5	483	103		591	8	7	14		29	1270
% App Total	23.5%	76.5%	0.0%			59.9%	1.7%	38.4%			0.8%	81.7%	17.4%			27.6%	24.1%	48.3%			
PHF	.875	.965	.000		.952	.875	.417	.824		.890	.625	.958	.858		.966	.667	.583	.700		.725	.977

ALL TRAFFIC DATA

City of Lincoln
(916) 771-8700
orders@atdtraffic.com

All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

File Name : 13-7290-005 Lincoln-7th
Date : 5/9/2013

Unshifted Count = All Vehicles

	Lincoln Boulevard Southbound					7th Street Westbound					Lincoln Boulevard Northbound					7th Street Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Ped Total
07:00	0	55	5	0	60	4	18	8	0	30	5	26	11	0	42	5	14	11	0	30	162	0
07:15	4	65	13	0	82	3	35	14	0	52	10	38	6	0	54	3	31	32	0	66	254	0
07:30	9	68	20	0	97	4	58	11	0	73	18	37	13	0	68	4	48	25	0	77	315	0
07:45	2	84	18	0	104	8	66	9	0	83	24	43	21	0	88	6	44	40	0	90	365	0
Total	15	272	56	0	343	19	177	42	0	238	57	144	51	0	252	18	137	108	0	263	1096	0
08:00	9	53	6	0	68	23	25	8	0	56	7	28	12	0	47	11	32	34	0	77	248	0
08:15	6	44	2	0	52	5	25	12	0	42	12	36	7	0	55	3	23	24	0	50	199	0
08:30	6	62	3	0	71	3	21	10	0	34	8	28	7	0	43	5	15	18	0	38	186	0
08:45	6	43	3	0	52	3	25	9	0	37	11	27	10	0	48	4	22	27	0	53	190	0
Total	27	202	14	0	243	34	96	39	0	169	38	119	36	0	193	23	92	103	0	218	823	0
16:00	10	56	7	0	73	8	29	28	0	65	18	64	14	0	96	4	31	21	0	56	290	0
16:15	11	50	7	0	68	7	37	27	0	71	7	63	13	0	83	6	18	28	0	52	274	0
16:30	8	55	13	0	76	8	26	29	0	63	15	71	12	0	98	10	28	16	0	54	291	0
16:45	4	53	6	0	63	11	36	26	0	73	23	62	15	0	100	5	41	23	0	69	305	0
Total	33	214	33	0	280	34	128	110	0	272	63	260	54	0	377	25	118	88	0	231	1160	0
17:00	6	37	3	0	46	7	28	22	0	57	16	61	18	0	95	9	23	24	0	56	254	0
17:15	2	59	13	0	74	8	35	15	0	58	17	61	16	0	94	7	23	22	0	52	278	0
17:30	5	38	12	0	55	0	33	12	0	45	21	61	5	0	87	9	27	19	0	55	242	0
17:45	7	41	0	0	48	5	37	21	0	63	12	42	9	0	63	7	18	20	0	45	219	0
Total	20	175	28	0	223	20	133	70	0	223	66	225	48	0	339	32	91	85	0	208	993	0
Grand Total	95	863	131	0	1089	107	534	261	0	902	224	748	189	0	1161	98	438	384	0	920	4072	0
Apprch %	8.7%	79.2%	12.0%			11.9%	59.2%	28.9%			19.3%	64.4%	16.3%			10.7%	47.6%	41.7%				
Total %	2.3%	21.2%	3.2%		26.7%	2.6%	13.1%	6.4%		22.2%	5.5%	18.4%	4.6%		28.5%	2.4%	10.8%	9.4%		22.6%	100.0%	

AM PEAK HOUR	Lincoln Boulevard Southbound					7th Street Westbound					Lincoln Boulevard Northbound					7th Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	4	65	13		82	3	35	14		52	10	38	6		54	3	31	32		66	254
07:30	9	68	20		97	4	58	11		73	18	37	13		68	4	48	25		77	315
07:45	2	84	18		104	8	66	9		83	24	43	21		88	6	44	40		90	365
08:00	9	53	6		68	23	25	8		56	7	28	12		47	11	32	34		77	248
Total Volume	24	270	57		351	38	184	42		264	59	146	52		257	24	155	131		310	1182
% App Total	6.8%	76.9%	16.2%			14.4%	69.7%	15.9%			23.0%	56.8%	20.2%			7.7%	50.0%	42.3%			
PHF	.667	.804	.713		.844	.413	.697	.750		.795	.615	.849	.619		.730	.545	.807	.819		.861	.810

PM PEAK HOUR	Lincoln Boulevard Southbound					7th Street Westbound					Lincoln Boulevard Northbound					7th Street Eastbound					
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	Total
Peak Hour Analysis From 16:00 to 17:00																					
Peak Hour For Entire Intersection Begins at 16:00																					
16:00	10	56	7		73	8	29	28		65	18	64	14		96	4	31	21		56	290
16:15	11	50	7		68	7	37	27		71	7	63	13		83	6	18	28		52	274
16:30	8	55	13		76	8	26	29		63	15	71	12		98	10	28	16		54	291
16:45	4	53	6		63	11	36	26		73	23	62	15		100	5	41	23		69	305
Total Volume	33	214	33		280	34	128	110		272	63	260	54		377	25	118	88		231	1160
% App Total	11.8%	76.4%	11.8%			12.5%	47.1%	40.4%			16.7%	69.0%	14.3%			10.8%	51.1%	38.1%			
PHF	.750	.955	.635		.921	.773	.865	.948		.932	.685	.915	.900		.943	.625	.720	.786		.837	.951

Intersection 32

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-017 Lakeside Drive-Nicolaus Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Lakeside Drive Southbound					Nicolaus Road Westbound					Lakeside Drive Northbound					Nicolaus Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	17	0	18	0	35	2	41	3	0	46	1	1	11	0	13	6	24	0	0	30	124	0
06:45	21	0	21	0	42	1	44	3	1	49	2	1	9	0	12	5	20	0	0	25	128	1
07:00	25	1	15	0	41	3	47	4	3	57	2	1	3	0	6	6	27	0	0	33	137	3
07:15	21	0	16	0	37	2	47	11	2	62	1	1	11	0	13	7	36	0	0	43	155	2
Total	84	1	70	0	155	8	179	21	6	214	6	4	34	0	44	24	107	0	0	131	544	6
07:30	54	0	20	0	74	5	58	8	1	72	4	4	26	0	34	6	55	1	0	62	242	1
07:45	69	8	25	0	102	13	94	19	4	130	2	8	28	0	38	7	57	0	0	64	334	4
08:00	24	5	16	0	45	11	75	21	4	111	2	7	9	0	18	8	45	0	0	53	227	4
08:15	19	2	14	0	35	4	60	12	1	77	2	1	3	0	6	16	35	0	0	51	169	1
Total	166	15	75	0	256	33	287	60	10	390	10	20	66	0	96	37	192	1	0	230	972	10
08:30	18	0	19	0	37	1	46	10	4	61	3	1	3	0	7	5	29	1	0	35	140	4
08:45	22	1	6	0	29	6	36	9	1	52	1	2	11	0	14	4	28	0	0	32	127	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	40	1	25	0	66	7	82	19	5	113	4	3	14	0	21	9	57	1	0	67	267	5
15:30	30	0	10	0	40	11	46	23	5	85	0	0	8	0	8	23	53	1	0	77	210	5
15:45	27	3	5	0	35	11	36	27	4	78	1	3	3	0	7	14	64	1	0	79	199	4
16:00	27	1	12	0	40	4	51	20	4	79	0	2	4	0	6	20	52	1	0	73	198	4
16:15	23	4	6	1	34	8	36	24	5	73	1	5	8	0	14	16	56	1	0	73	194	6
Total	107	8	33	1	149	34	169	94	18	315	2	10	23	0	35	73	225	4	0	302	801	19
16:30	27	1	8	1	37	11	38	25	4	78	1	1	5	0	7	15	68	1	0	84	206	5
16:45	24	0	4	0	28	18	29	19	4	70	0	3	15	0	18	21	54	2	0	77	193	4
17:00	25	3	6	0	34	10	46	35	3	94	0	4	7	0	11	24	65	4	0	93	232	3
17:15	25	0	10	0	35	11	56	24	6	97	3	3	4	0	10	27	49	1	0	77	219	6
Total	101	4	28	1	134	50	169	103	17	339	4	11	31	0	46	87	236	8	0	331	850	18
17:30	28	2	13	0	43	10	50	27	7	94	0	2	6	0	8	29	38	2	1	70	215	8
17:45	27	2	6	0	35	13	50	30	0	93	0	3	13	0	16	12	48	0	0	60	204	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	55	4	19	0	78	23	100	57	7	187	0	5	19	0	24	41	86	2	1	130	419	8
Grand Total	553	33	250	2	838	155	986	354	63	1558	26	53	187	0	266	271	903	16	1	1191	3853	66
Apprch %	66.0%	3.9%	29.8%	0.2%		9.9%	63.3%	22.7%	4.0%		9.8%	19.9%	70.3%	0.0%		22.8%	75.8%	1.3%	0.1%			
Total %	14.4%	0.9%	6.5%	0.1%	21.7%	4.0%	25.6%	9.2%	1.6%	40.4%	0.7%	1.4%	4.9%	0.0%	6.9%	7.0%	23.4%	0.4%	0.0%	30.9%	100.0%	

AM PEAK HOUR	Lakeside Drive Southbound					Nicolaus Road Westbound					Lakeside Drive Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	54	0	20	0	74	5	58	8	1	72	4	4	26	0	34	6	55	1	0	62	242
07:45	69	8	25	0	102	13	94	19	4	130	2	8	28	0	38	7	57	0	0	64	334
08:00	24	5	16	0	45	11	75	21	4	111	2	7	9	0	18	8	45	0	0	53	227
08:15	19	2	14	0	35	4	60	12	1	77	2	1	3	0	6	16	35	0	0	51	169
Total Volume	166	15	75	0	256	33	287	60	10	390	10	20	66	0	96	37	192	1	0	230	972
% App Total	64.8%	5.9%	29.3%	0.0%		8.5%	73.6%	15.4%	2.6%		10.4%	20.8%	68.8%	0.0%		16.1%	83.5%	0.4%	0.0%		
PHF	.601	.469	.750	.000	.627	.635	.763	.714	.625	.750	.625	.625	.589	.000	.632	.578	.842	.250	.000	.898	.728

PM PEAK HOUR	Lakeside Drive Southbound					Nicolaus Road Westbound					Lakeside Drive Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	25	3	6	0	34	10	46	35	3	94	0	4	7	0	11	24	65	4	0	93	232
17:15	25	0	10	0	35	11	56	24	6	97	3	3	4	0	10	27	49	1	0	77	219
17:30	28	2	13	0	43	10	50	27	7	94	0	2	6	0	8	29	38	2	1	70	215
17:45	27	2	6	0	35	13	50	30	0	93	0	3	13	0	16	12	48	0	0	60	204
Total Volume	105	7	35	0	147	44	202	116	16	378	3	12	30	0	45	92	200	7	1	300	870
% App Total	71.4%	4.8%	23.8%	0.0%		11.6%	53.4%	30.7%	4.2%		6.7%	26.7%	66.7%	0.0%		30.7%	66.7%	2.3%	0.3%		
PHF	.938	.583	.673	.000	.855	.846	.902	.829	.571	.974	.250	.750	.577	.000	.703	.793	.769	.438	.250	.806	.938

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-016 Teal Hollow Drive-Nicolaus Road.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Teal Hollow Drive Southbound					Nicolaus Road Westbound					Waverly Drive Northbound					Nicolaus Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	9	0	26	0	35	0	58	3	0	61	6	0	3	0	9	5	16	3	1	25	130	1
06:45	7	0	24	0	31	1	59	3	0	63	6	2	0	0	8	3	17	3	0	23	125	0
07:00	8	0	28	0	36	1	63	4	0	68	11	0	1	0	12	3	24	3	0	30	146	0
07:15	9	1	21	0	31	0	57	5	0	62	9	0	1	0	10	4	35	1	1	41	144	1
Total	33	1	99	0	133	2	237	15	0	254	32	2	5	0	39	15	92	10	2	119	545	2
07:30	29	0	27	0	56	2	75	3	0	80	14	0	5	0	19	5	33	2	1	41	196	1
07:45	21	0	24	0	45	3	108	13	0	124	17	1	3	0	21	3	37	2	6	48	238	6
08:00	14	0	12	0	26	6	64	22	0	92	3	1	2	0	6	18	40	2	1	61	185	1
08:15	12	0	14	0	26	2	58	16	1	77	4	4	2	0	10	11	34	4	3	52	165	4
Total	76	0	77	0	153	13	305	54	1	373	38	6	12	0	56	37	144	10	11	202	784	12
08:30	11	0	16	0	27	3	54	12	0	69	6	0	0	0	6	5	23	5	3	36	138	3
08:45	7	0	6	0	13	0	40	6	0	46	3	0	4	0	7	5	23	0	2	30	96	2
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18	0	22	0	40	3	94	18	0	115	9	0	4	0	13	10	46	5	5	66	234	5
15:30	6	1	9	0	16	3	33	16	0	52	3	0	4	0	7	15	69	7	1	92	167	1
15:45	12	1	11	0	24	1	30	14	0	45	5	1	4	0	10	18	63	13	0	94	173	0
16:00	11	1	8	0	20	5	37	20	0	62	3	0	5	0	8	21	57	7	1	86	176	1
16:15	12	0	7	0	19	5	28	13	0	46	3	1	3	0	7	15	56	3	0	74	146	0
Total	41	3	35	0	79	14	128	63	0	205	14	2	16	0	32	69	245	30	2	346	662	2
16:30	18	0	9	0	27	5	23	17	0	45	4	0	4	0	8	13	64	16	0	93	173	0
16:45	17	0	9	0	26	2	24	9	0	35	7	2	0	0	9	23	58	6	0	87	157	0
17:00	19	1	11	0	31	3	30	14	0	47	4	0	5	0	9	26	64	6	1	97	184	1
17:15	17	0	10	0	27	0	38	33	0	71	6	0	0	0	6	33	66	11	3	113	217	3
Total	71	1	39	0	111	10	115	73	0	198	21	2	9	0	32	95	252	39	4	390	731	4
17:30	12	0	8	0	20	3	42	19	1	65	6	0	0	0	6	22	55	10	0	87	178	1
17:45	14	0	7	0	21	2	34	14	2	52	2	0	3	0	5	18	40	8	1	67	145	3
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	26	0	15	0	41	5	76	33	3	117	8	0	3	0	11	40	95	18	1	154	323	4
Grand Total	265	5	287	0	557	47	955	256	4	1262	122	12	49	0	183	266	874	112	25	1277	3279	29
Apprch %	47.6%	0.9%	51.5%	0.0%		3.7%	75.7%	20.3%	0.3%		66.7%	6.6%	26.8%	0.0%		20.8%	68.4%	8.8%	2.0%			
Total %	8.1%	0.2%	8.8%	0.0%	17.0%	1.4%	29.1%	7.8%	0.1%	38.5%	3.7%	0.4%	1.5%	0.0%	5.6%	8.1%	26.7%	3.4%	0.8%	38.9%	100.0%	

AM PEAK HOUR	Teal Hollow Drive Southbound					Nicolaus Road Westbound					Waverly Drive Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	29	0	27	0	56	2	75	3	0	80	14	0	5	0	19	5	33	2	1	41	196
07:45	21	0	24	0	45	3	108	13	0	124	17	1	3	0	21	3	37	2	6	48	238
08:00	14	0	12	0	26	6	64	22	0	92	3	1	2	0	6	18	40	2	1	61	185
08:15	12	0	14	0	26	2	58	16	1	77	4	4	2	0	10	11	34	4	3	52	165
Total Volume	76	0	77	0	153	13	305	54	1	373	38	6	12	0	56	37	144	10	11	202	784
% App Total	49.7%	0.0%	50.3%	0.0%		3.5%	81.8%	14.5%	0.3%		67.9%	10.7%	21.4%	0.0%		18.3%	71.3%	5.0%	5.4%		
PHF	.655	.000	.713	.000	.683	.542	.706	.614	.250	.752	.559	.375	.600	.000	.667	.514	.900	.625	.458	.828	.824

PM PEAK HOUR	Teal Hollow Drive Southbound					Nicolaus Road Westbound					Waverly Drive Northbound					Nicolaus Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	17	0	9	0	26	2	24	9	0	35	7	2	0	0	9	23	58	6	0	87	157
17:00	19	1	11	0	31	3	30	14	0	47	4	0	5	0	9	26	64	6	1	97	184
17:15	17	0	10	0	27	0	38	33	0	71	6	0	0	0	6	33	66	11	3	113	217
17:30	12	0	8	0	20	3	42	19	1	65	6	0	0	0	6	22	55	10	0	87	178
Total Volume	65	1	38	0	104	8	134	75	1	218	23	2	5	0	30	104	243	33	4	384	736
% App Total	62.5%	1.0%	36.5%	0.0%		3.7%	61.5%	34.4%	0.5%		76.7%	6.7%	16.7%	0.0%		27.1%	63.3%	8.6%	1.0%		
PHF	.855	.250	.864	.000	.839	.667	.798	.568	.250	.768	.821	.250	.250	.000	.833	.788	.920	.750	.333	.850	.848

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-018 Lincoln Boulevard-Sterling Parkway.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Lincoln Boulevard Southbound					Sterling Parkway Westbound					Lincoln Boulevard Northbound					Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	1	177	0	0	178	19	0	0	0	19	0	63	6	0	69	0	0	0	0	0	266	0
06:45	3	174	0	0	177	8	0	1	0	9	0	96	8	0	104	0	0	0	0	0	290	0
07:00	1	166	0	0	167	26	0	0	0	26	0	81	11	0	92	0	0	0	0	0	285	0
07:15	0	198	0	0	198	23	0	1	0	24	0	127	15	0	142	0	0	0	0	0	364	0
Total	5	715	0	0	720	76	0	2	0	78	0	367	40	0	407	0	0	0	0	0	1205	0
07:30	7	250	0	0	257	22	0	3	0	25	0	172	17	0	189	0	0	0	0	0	471	0
07:45	7	271	0	0	278	18	0	3	0	21	0	192	30	0	222	0	0	0	0	0	521	0
08:00	8	227	0	0	235	31	0	3	0	34	0	142	19	0	161	0	0	0	0	0	430	0
08:15	7	170	0	0	177	39	0	3	0	42	0	143	21	0	164	0	0	0	0	0	383	0
Total	29	918	0	0	947	110	0	12	0	122	0	649	87	0	736	0	0	0	0	0	1805	0
08:30	6	177	0	0	183	24	0	7	0	31	0	116	21	0	137	0	0	0	0	0	351	0
08:45	12	173	0	0	185	30	0	5	0	35	0	135	12	0	147	0	0	0	0	0	367	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18	350	0	0	368	54	0	12	0	66	0	251	33	0	284	0	0	0	0	0	718	0
15:30	8	181	0	0	189	26	0	7	0	33	0	289	27	0	316	0	0	0	0	0	538	0
15:45	8	164	0	0	172	38	0	7	0	45	0	270	40	0	310	0	0	0	0	0	527	0
16:00	7	163	0	0	170	50	0	4	0	54	0	278	35	0	313	0	0	0	0	0	537	0
16:15	7	149	0	0	156	28	0	6	0	34	0	277	33	0	310	0	0	0	0	0	500	0
Total	30	657	0	0	687	142	0	24	0	166	0	1114	135	0	1249	0	0	0	0	0	2102	0
16:30	4	180	0	0	184	30	0	7	0	37	0	280	24	0	304	0	0	0	0	0	525	0
16:45	11	170	0	0	181	51	0	4	0	55	0	262	26	0	288	0	0	0	0	0	524	0
17:00	8	207	0	0	215	44	0	8	0	52	0	290	27	0	317	0	0	0	0	0	584	0
17:15	5	186	0	0	191	36	0	3	0	39	0	273	29	0	302	0	0	0	0	0	532	0
Total	28	743	0	0	771	161	0	22	0	183	0	1105	106	0	1211	0	0	0	0	0	2165	0
17:30	7	171	0	0	178	31	0	8	0	39	0	267	28	0	295	0	0	0	0	0	512	0
17:45	4	142	0	0	146	23	0	1	0	24	0	259	26	0	285	0	0	0	0	0	455	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	313	0	0	324	54	0	9	0	63	0	526	54	0	580	0	0	0	0	0	967	0
Grand Total	121	3696	0	0	3817	597	0	81	0	678	0	4012	455	0	4467	0	0	0	0	0	8962	0
Apprch %	3.2%	96.8%	0.0%	0.0%		88.1%	0.0%	11.9%	0.0%		0.0%	89.8%	10.2%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	1.4%	41.2%	0.0%	0.0%	42.6%	6.7%	0.0%	0.9%	0.0%	7.6%	0.0%	44.8%	5.1%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Lincoln Boulevard Southbound					Sterling Parkway Westbound					Lincoln Boulevard Northbound					Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	7	250	0	0	257	22	0	3	0	25	0	172	17	0	189	0	0	0	0	0	471
07:45	7	271	0	0	278	18	0	3	0	21	0	192	30	0	222	0	0	0	0	0	521
08:00	8	227	0	0	235	31	0	3	0	34	0	142	19	0	161	0	0	0	0	0	430
08:15	7	170	0	0	177	39	0	3	0	42	0	143	21	0	164	0	0	0	0	0	383
Total Volume	29	918	0	0	947	110	0	12	0	122	0	649	87	0	736	0	0	0	0	0	1805
% App Total	3.1%	96.9%	0.0%	0.0%		90.2%	0.0%	9.8%	0.0%		0.0%	88.2%	11.8%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.906	.847	.000	.000	.852	.705	.000	1.000	.000	.726	.000	.845	.725	.000	.829	.000	.000	.000	.000	.000	.866

PM PEAK HOUR	Lincoln Boulevard Southbound					Sterling Parkway Westbound					Lincoln Boulevard Northbound					Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	4	180	0	0	184	30	0	7	0	37	0	280	24	0	304	0	0	0	0	0	525
16:45	11	170	0	0	181	51	0	4	0	55	0	262	26	0	288	0	0	0	0	0	524
17:00	8	207	0	0	215	44	0	8	0	52	0	290	27	0	317	0	0	0	0	0	584
17:15	5	186	0	0	191	36	0	3	0	39	0	273	29	0	302	0	0	0	0	0	532
Total Volume	28	743	0	0	771	161	0	22	0	183	0	1105	106	0	1211	0	0	0	0	0	2165
% App Total	3.6%	96.4%	0.0%	0.0%		88.0%	0.0%	12.0%	0.0%		0.0%	91.2%	8.8%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.636	.897	.000	.000	.897	.789	.000	.688	.000	.832	.000	.953	.914	.000	.955	.000	.000	.000	.000	.000	.927

Intersection 35

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-019 Industrial Avenue-Athens Avenue.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Industrial Avenue Southbound					Westbound					Industrial Avenue Northbound					Athens Avenue Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	0	21	38	0	59	0	0	0	0	0	29	4	0	0	33	22	0	16	0	38	130	0
06:45	0	21	45	0	66	0	0	0	0	0	31	5	0	0	36	24	0	22	0	46	148	0
07:00	0	23	40	0	63	0	0	0	0	0	18	9	0	0	27	28	0	20	0	48	138	0
07:15	0	16	44	0	60	0	0	0	0	0	26	9	0	0	35	32	0	29	0	61	156	0
Total	0	81	167	0	248	0	0	0	0	0	104	27	0	0	131	106	0	87	0	193	572	0
07:30	0	33	51	0	84	0	0	0	0	0	47	16	0	0	63	35	0	22	0	57	204	0
07:45	0	31	46	0	77	0	0	0	0	0	54	14	0	0	68	41	0	16	0	57	202	0
08:00	0	22	52	0	74	0	0	0	0	0	42	22	0	0	64	36	0	27	0	63	201	0
08:15	0	29	52	0	81	0	0	0	0	0	44	12	0	0	56	37	0	28	0	65	202	0
Total	0	115	201	0	316	0	0	0	0	0	187	64	0	0	251	149	0	93	0	242	809	0
08:30	0	15	20	0	35	0	0	0	0	0	27	10	0	0	37	11	0	16	0	27	99	0
08:45	0	18	85	0	103	0	0	0	0	0	90	10	0	0	100	53	0	40	0	93	296	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	33	105	0	138	0	0	0	0	0	117	20	0	0	137	64	0	56	0	120	395	0
15:30	0	19	71	0	90	0	0	0	0	0	75	56	0	0	131	58	0	61	0	119	340	0
15:45	0	15	56	0	71	0	0	0	0	0	54	26	0	0	80	64	0	66	0	130	281	0
16:00	0	12	51	0	63	0	0	0	0	0	51	47	0	0	98	86	0	73	0	159	320	0
16:15	0	19	52	0	71	0	0	0	0	0	59	30	0	0	89	52	0	60	0	112	272	0
Total	0	65	230	0	295	0	0	0	0	0	239	159	0	0	398	260	0	260	0	520	1213	0
16:30	0	12	72	0	84	0	0	0	0	0	54	47	0	0	101	72	0	52	0	124	309	0
16:45	0	22	72	0	94	0	0	0	0	0	54	22	0	0	76	66	0	38	0	104	274	0
17:00	0	20	77	0	97	0	0	0	0	0	57	40	0	0	97	68	0	69	0	137	331	0
17:15	0	17	67	0	84	0	0	0	0	0	59	34	0	0	93	83	0	77	0	160	337	0
Total	0	71	288	0	359	0	0	0	0	0	224	143	0	0	367	289	0	236	0	525	1251	0
17:30	0	25	59	0	84	0	0	0	0	0	73	36	0	0	109	82	0	84	0	166	359	0
17:45	0	13	43	0	56	0	0	0	0	0	59	25	0	0	84	76	0	79	0	155	295	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	38	102	0	140	0	0	0	0	0	132	61	0	0	193	158	0	163	0	321	654	0
Grand Total	0	403	1093	0	1496	0	0	0	0	0	1003	474	0	0	1477	1026	0	895	0	1921	4894	0
Apprch %	0.0%	26.9%	73.1%	0.0%		0.0%	0.0%	0.0%	0.0%		67.9%	32.1%	0.0%	0.0%		53.4%	0.0%	46.6%	0.0%			
Total %	0.0%	8.2%	22.3%	0.0%	30.6%	0.0%	0.0%	0.0%	0.0%	0.0%	20.5%	9.7%	0.0%	0.0%	30.2%	21.0%	0.0%	18.3%	0.0%	39.3%	100.0%	

AM PEAK HOUR	Industrial Avenue Southbound					Westbound					Industrial Avenue Northbound					Athens Avenue Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	33	51	0	84	0	0	0	0	0	47	16	0	0	63	35	0	22	0	57	204
07:45	0	31	46	0	77	0	0	0	0	0	54	14	0	0	68	41	0	16	0	57	202
08:00	0	22	52	0	74	0	0	0	0	0	42	22	0	0	64	36	0	27	0	63	201
08:15	0	29	52	0	81	0	0	0	0	0	44	12	0	0	56	37	0	28	0	65	202
Total Volume	0	115	201	0	316	0	0	0	0	0	187	64	0	0	251	149	0	93	0	242	809
% App Total	0.0%	36.4%	63.6%	0.0%		0.0%	0.0%	0.0%	0.0%		74.5%	25.5%	0.0%	0.0%		61.6%	0.0%	38.4%	0.0%		
PHF	.000	.871	.966	.000	.940	.000	.000	.000	.000	.000	.866	.727	.000	.000	.923	.909	.000	.830	.000	.931	.991

PM PEAK HOUR	Industrial Avenue Southbound					Westbound					Industrial Avenue Northbound					Athens Avenue Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	20	77	0	97	0	0	0	0	0	57	40	0	0	97	68	0	69	0	137	331
17:15	0	17	67	0	84	0	0	0	0	0	59	34	0	0	93	83	0	77	0	160	337
17:30	0	25	59	0	84	0	0	0	0	0	73	36	0	0	109	82	0	84	0	166	359
17:45	0	13	43	0	56	0	0	0	0	0	59	25	0	0	84	76	0	79	0	155	295
Total Volume	0	75	246	0	321	0	0	0	0	0	248	135	0	0	383	309	0	309	0	618	1322
% App Total	0.0%	23.4%	76.6%	0.0%		0.0%	0.0%	0.0%	0.0%		64.8%	35.2%	0.0%	0.0%		50.0%	0.0%	50.0%	0.0%		
PHF	.000	.750	.799	.000	.827	.000	.000	.000	.000	.000	.849	.844	.000	.000	.878	.931	.000	.920	.000	.931	.921

ALL TRAFFIC DATA

Placer County
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 14-7235-020 Industrial Avenue-Twelve Bridges Drive.ppd
Date : 4/9/2014

Unshifted Count = All Vehicles

	Industrial Avenue Southbound					Twelve Bridges Drive Westbound					Industrial Avenue Northbound					Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
06:30	0	28	0	0	28	35	0	0	0	35	0	9	17	0	26	0	0	0	0	0	89	0
06:45	3	31	0	0	34	31	0	1	0	32	0	11	19	0	30	0	0	0	0	0	96	0
07:00	3	29	0	0	32	38	0	0	0	38	0	17	18	0	35	0	0	0	0	0	105	0
07:15	4	27	0	0	31	35	0	2	0	37	0	22	24	0	46	0	0	0	0	0	114	0
Total	10	115	0	0	125	139	0	3	0	142	0	59	78	0	137	0	0	0	0	0	404	0
07:30	9	33	0	0	42	46	0	0	0	46	0	21	28	0	49	0	0	0	0	0	137	0
07:45	10	34	0	0	44	46	0	1	0	47	0	23	33	0	56	0	0	0	0	0	147	0
08:00	9	33	0	0	42	43	0	0	1	44	0	28	34	0	62	0	0	0	0	0	148	1
08:15	7	36	0	0	43	42	0	0	0	42	0	19	28	0	47	0	0	0	0	0	132	0
Total	35	136	0	0	171	177	0	1	1	179	0	91	123	0	214	0	0	0	0	0	564	1
08:30	2	25	0	0	27	34	0	0	0	34	0	11	11	0	22	0	0	0	0	0	83	0
08:45	9	30	0	0	39	47	0	0	0	47	0	27	33	0	60	0	0	0	0	0	146	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	55	0	0	66	81	0	0	0	81	0	38	44	0	82	0	0	0	0	0	229	0
15:30	7	33	0	0	40	57	0	4	1	62	0	54	56	0	110	0	0	0	0	0	212	1
15:45	5	24	0	0	29	46	0	4	0	50	0	45	48	0	93	0	0	0	0	0	172	0
16:00	7	28	0	0	35	38	0	1	0	39	0	61	65	0	126	0	0	0	0	0	200	0
16:15	5	23	0	0	28	42	0	2	0	44	0	34	60	0	94	0	0	0	0	0	166	0
Total	24	108	0	0	132	183	0	11	1	195	0	194	229	0	423	0	0	0	0	0	750	1
16:30	6	45	0	0	51	45	0	2	0	47	0	50	62	0	112	0	0	0	0	0	210	0
16:45	9	34	0	0	43	57	0	0	0	57	0	40	49	0	89	0	0	0	0	0	189	0
17:00	9	41	0	0	50	52	0	1	0	53	0	45	62	0	107	0	0	0	0	0	210	0
17:15	5	33	0	0	38	56	0	0	1	57	0	49	70	0	119	0	0	0	0	0	214	1
Total	29	153	0	0	182	210	0	3	1	214	0	184	243	0	427	0	0	0	0	0	823	1
17:30	3	32	0	0	35	43	0	1	0	44	0	54	64	0	118	0	0	0	0	0	197	0
17:45	4	29	0	0	33	37	0	1	0	38	0	50	48	0	98	0	0	0	0	0	169	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	61	0	0	68	80	0	2	0	82	0	104	112	0	216	0	0	0	0	0	366	0
Grand Total	116	628	0	0	744	870	0	20	3	893	0	670	829	0	1499	0	0	0	0	0	3136	3
Apprch %	15.6%	84.4%	0.0%	0.0%		97.4%	0.0%	2.2%	0.3%		0.0%	44.7%	55.3%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	3.7%	20.0%	0.0%	0.0%	23.7%	27.7%	0.0%	0.6%	0.1%	28.5%	0.0%	21.4%	26.4%	0.0%	47.8%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Industrial Avenue Southbound					Twelve Bridges Drive Westbound					Industrial Avenue Northbound					Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	9	33	0	0	42	46	0	0	0	46	0	21	28	0	49	0	0	0	0	0	137
07:45	10	34	0	0	44	46	0	1	0	47	0	23	33	0	56	0	0	0	0	0	147
08:00	9	33	0	0	42	43	0	0	1	44	0	28	34	0	62	0	0	0	0	0	148
08:15	7	36	0	0	43	42	0	0	0	42	0	19	28	0	47	0	0	0	0	0	132
Total Volume	35	136	0	0	171	177	0	1	1	179	0	91	123	0	214	0	0	0	0	0	564
% App Total	20.5%	79.5%	0.0%	0.0%		98.9%	0.0%	0.6%	0.6%		0.0%	42.5%	57.5%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.875	.944	.000	.000	.972	.962	.000	.250	.250	.952	.000	.813	.904	.000	.863	.000	.000	.000	.000	.000	.953

PM PEAK HOUR	Industrial Avenue Southbound					Twelve Bridges Drive Westbound					Industrial Avenue Northbound					Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	6	45	0	0	51	45	0	2	0	47	0	50	62	0	112	0	0	0	0	0	210
16:45	9	34	0	0	43	57	0	0	0	57	0	40	49	0	89	0	0	0	0	0	189
17:00	9	41	0	0	50	52	0	1	0	53	0	45	62	0	107	0	0	0	0	0	210
17:15	5	33	0	0	38	56	0	0	1	57	0	49	70	0	119	0	0	0	0	0	214
Total Volume	29	153	0	0	182	210	0	3	1	214	0	184	243	0	427	0	0	0	0	0	823
% App Total	15.9%	84.1%	0.0%	0.0%		98.1%	0.0%	1.4%	0.5%		0.0%	43.1%	56.9%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.806	.850	.000	.000	.892	.921	.000	.375	.250	.939	.000	.920	.868	.000	.897	.000	.000	.000	.000	.000	.961

Prepared by NDS/ATD

Volumes for: Wednesday, April 09, 2014 City: Placer County Project #: 14-7236-001

Location: Fiddyment Road between Moore Road and Athens Avenue

Start	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	3	26			2	12				
12:15	0	12			2	16				
12:30	1	17			0	16				
12:45	1	30	5	85	1	10	5	54	10	139
1:00	0	9			2	20				
1:15	1	19			1	23				
1:30	0	18			1	18				
1:45	2	14	3	60	1	22	5	83	8	143
2:00	3	28			2	18				
2:15	0	19			2	20				
2:30	0	24			1	16				
2:45	1	39	4	110	1	33	6	87	10	197
3:00	2	28			3	27				
3:15	2	24			1	31				
3:30	0	26			1	37				
3:45	2	38	6	116	0	33	5	128	11	244
4:00	5	33			0	19				
4:15	3	29			1	28				
4:30	4	35			0	22				
4:45	5	35	17	132	4	18	5	87	22	219
5:00	2	27			5	19				
5:15	16	34			5	28				
5:30	15	38			22	20				
5:45	22	26	55	125	10	17	42	84	97	209
6:00	23	22			19	10				
6:15	22	20			28	4				
6:30	16	16			18	9				
6:45	18	15	79	73	28	8	93	31	172	104
7:00	22	15			18	14				
7:15	23	12			29	7				
7:30	20	10			26	8				
7:45	22	9	87	46	27	9	100	38	187	84
8:00	16	7			25	7				
8:15	17	10			23	9				
8:30	16	12			20	2				
8:45	20	16	69	45	14	8	82	26	151	71
9:00	21	3			14	5				
9:15	17	3			16	7				
9:30	11	6			5	5	0			
9:45	24	4	73	16	12	2	47	19	120	35
10:00	21	5			13	6				
10:15	19	6			14	3				
10:30	17	6			20	4				
10:45	20	4	77	21	14	3	61	16	138	37
11:00	18	2			19	0				
11:15	17	7			8	4				
11:30	20	3			8	2				
11:45	19	3	74	15	22	1	57	7	131	22
Total	549	844	549	844	508	660	508	660	1057	1504
Combined Total	1393		1393		1168		1168		2561	
AM Peak	7:00 AM				7:15 AM					
Vol.	87				107					
P.H.F.	0.946				0.922					
PM Peak		3:45 PM				2:45 PM				
Vol.		135				128				
P.H.F.		0.849				0.865				
Percentage	39.4%	60.6%			43.5%	56.5%				

Prepared by NDS/ATD

Volumes for: Wednesday, April 09, 2014 City: Placer County Project #: 14-7236-002
Location: Fiddyment Road between Athens Avenue and Roseville City Limits

Start	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	13	45			19	52				
12:15	11	50			16	46				
12:30	4	45			13	54				
12:45	5	52	33	192	5	42	53	194	86	386
1:00	2	54			12	33				
1:15	9	39			11	44				
1:30	10	60			10	49				
1:45	5	61	26	214	14	40	47	166	73	380
2:00	3	53			17	54				
2:15	5	64			11	42				
2:30	0	63			11	52				
2:45	1	58	9	238	11	60	50	208	59	446
3:00	6	82			11	86				
3:15	3	71			4	87				
3:30	5	78			4	109				
3:45	5	77	19	308	5	67	24	349	43	657
4:00	4	83			5	87				
4:15	7	72			3	62				
4:30	11	79			6	76				
4:45	11	85	33	319	7	52	21	277	54	596
5:00	13	89			14	111				
5:15	14	113			16	86				
5:30	31	105			12	66				
5:45	38	70	96	377	18	53	60	316	156	693
6:00	42	78			20	56				
6:15	45	72			42	50				
6:30	47	67			40	27				
6:45	55	50	189	267	65	41	167	174	356	441
7:00	56	48			60	41				
7:15	68	40			61	40				
7:30	89	42			58	39				
7:45	68	32	281	162	67	27	246	147	527	309
8:00	54	34			65	48				
8:15	62	30			53	27				
8:30	71	33			35	29				
8:45	62	22	249	119	37	36	190	140	439	259
9:00	40	23			32	29				
9:15	53	28			40	34				
9:30	60	17			34	27	0			
9:45	49	29	202	97	36	33	142	123	344	220
10:00	38	16			24	26				
10:15	58	16			29	31				
10:30	53	17			43	22				
10:45	47	12	196	61	35	20	131	99	327	160
11:00	44	22			38	23				
11:15	56	19			30	22				
11:30	65	21			42	30				
11:45	51	8	216	70	35	22	145	97	361	167
Total	1549	2424	1549	2424	1276	2290	1276	2290	2825	4714
Combined Total	3973		3973		3566		3566		7539	
AM Peak	7:00 AM				7:15 AM					
Vol.	281				251					
P.H.F.	0.789				0.937					
PM Peak		4:45 PM				3:15 PM				
Vol.		392				350				
P.H.F.		0.885				0.803				
Percentage	39.0%	61.0%			35.8%	64.2%				

Roadway 3

Volumes for: Wednesday, April 09, 2014 City: Placer County Project #: 14-7236-003
Location: Athens Avenue between Fiddyment Road and Foothills Boulevard

Start	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	8	51			15	49				
12:15	9	45			16	50				
12:30	6	52			11	46				
12:45	6	54	29	202	7	49	49	194	78	396
1:00	5	50			10	37				
1:15	8	48			10	41				
1:30	10	68			10	43				
1:45	4	59	27	225	12	32	42	153	69	378
2:00	4	53			15	48				
2:15	4	54			13	49				
2:30	2	72			11	42				
2:45	1	43	11	222	10	56	49	195	60	417
3:00	3	72			12	53				
3:15	7	76			5	53				
3:30	1	70			3	73				
3:45	7	69	18	287	5	69	25	248	43	535
4:00	5	60			8	68				
4:15	6	61			6	61				
4:30	3	57			7	54				
4:45	10	65	24	243	8	51	29	234	53	477
5:00	10	68			15	87				
5:15	10	85			10	71				
5:30	17	91			13	53				
5:45	18	59	55	303	18	42	56	253	111	556
6:00	21	54			23	44				
6:15	28	61			32	53				
6:30	44	54			28	28				
6:45	45	49	138	218	45	35	128	160	266	378
7:00	36	40			43	46				
7:15	47	29			42	28				
7:30	69	30			38	36				
7:45	69	28	221	127	48	27	171	137	392	264
8:00	48	31			55	39				
8:15	45	23			47	26				
8:30	59	29			28	25				
8:45	49	19	201	102	46	41	176	131	377	233
9:00	30	10			30	21				
9:15	42	23			36	41				
9:30	46	22			34	25				
9:45	48	21	166	76	32	29	132	116	298	192
10:00	36	17			31	26				
10:15	47	12			29	29				
10:30	45	12			42	21				
10:45	61	9	189	50	26	16	128	92	317	142
11:00	41	23			36	23				
11:15	46	16			26	23				
11:30	57	21			39	18				
11:45	49	7	193	67	36	19	137	83	330	150
Total	1272	2122	1272	2122	1122	1996	1122	1996	2394	4118
Combined Total	3394		3394		3118		3118		6512	
AM Peak	7:15 AM				7:30 AM					
Vol.	233				188					
P.H.F.	0.844				0.855					
PM Peak		4:45 PM				3:30 PM				
Vol.		309				271				
P.H.F.		0.849				0.928				
Percentage	37.5%	62.5%			36.0%	64.0%				

Appendix E-2:
Technical Calculations
Existing Conditions –
Intersection Level of Service

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	6	7	33	22	192	2	755	9	196	571	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Cap, veh/h	290	301	256	338	301	507	10	1340	569	547	1911	812
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.01	0.36	0.36	0.16	0.51	0.51
Sat Flow, veh/h	1143	1863	1583	1393	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	10	7	8	36	24	209	2	821	10	213	621	10
Grp Sat Flow(s),veh/h/ln	1143	1863	1583	1393	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.5	0.2	0.3	1.4	0.7	6.3	0.1	11.1	0.2	3.4	6.0	0.2
Cycle Q Clear(g_c), s	1.1	0.2	0.3	1.6	0.7	6.3	0.1	11.1	0.2	3.4	6.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	301	256	338	301	507	10	1340	569	547	1911	812
V/C Ratio(X)	0.03	0.02	0.03	0.11	0.08	0.41	0.21	0.61	0.02	0.39	0.32	0.01
Avail Cap(c_a), veh/h	926	1338	1137	1113	1338	1389	290	5473	2326	1124	5473	2326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	21.6	21.6	22.3	21.8	16.3	30.3	16.1	12.6	23.1	8.7	7.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2	3.8	0.3	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.1	0.1	0.4	0.3	2.1	0.0	4.3	0.1	1.3	1.9	0.1
Lane Grp Delay (d), s/veh	22.3	21.6	21.7	22.3	21.9	16.5	34.2	16.5	12.7	23.3	8.8	7.3
Lane Grp LOS	C	C	C	C	C	B	C	B	B	C	A	A
Approach Vol, veh/h		25			269			833			844	
Approach Delay, s/veh		21.9			17.8			16.4			12.4	
Approach LOS		C			B			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		15.7			15.7		6.1	30.0		15.5	39.4	
Change Period (Y+Rc), s		5.8			5.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		10.0	90.0		20.0	90.0	
Max Q Clear Time (g_c+I1), s		3.1			8.3		2.1	13.1		5.4	8.0	
Green Ext Time (p_c), s		0.5			0.5		0.0	8.9		0.3	8.9	

Intersection Summary		
HCM 2010 Ctrl Delay		15.0
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	2	5	1	9	4	3	795	4	7	571	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Cap, veh/h	242	115	108	248	115	131	12	1683	715	38	1737	738
Arrive On Green	0.06	0.06	0.06	0.06	0.06	0.06	0.01	0.45	0.45	0.02	0.47	0.47
Sat Flow, veh/h	1394	1863	1583	1403	1863	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	4	2	5	1	10	4	3	864	4	8	621	21
Grp Sat Flow(s),veh/h/ln	1394	1863	1583	1403	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.1	0.0	0.1	0.0	0.2	0.1	0.1	7.3	0.1	0.2	4.7	0.3
Cycle Q Clear(g_c), s	0.3	0.0	0.1	0.1	0.2	0.1	0.1	7.3	0.1	0.2	4.7	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	115	108	248	115	131	12	1683	715	38	1737	738
V/C Ratio(X)	0.02	0.02	0.05	0.00	0.09	0.03	0.26	0.51	0.01	0.21	0.36	0.03
Avail Cap(c_a), veh/h	1541	1851	1584	1555	1851	1607	321	5049	2146	401	5049	2146
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	19.5	19.3	19.5	19.6	18.7	21.9	8.7	6.7	21.3	7.6	6.4
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.2	0.1	4.3	0.2	0.0	1.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.2	0.0	0.1	1.3	0.1
Lane Grp Delay (d), s/veh	19.8	19.5	19.4	19.5	19.8	18.7	26.2	8.8	6.7	22.3	7.7	6.4
Lane Grp LOS	B	B	B	B	B	B	C	A	A	C	A	A
Approach Vol, veh/h		11			15			871			650	
Approach Delay, s/veh		19.6			19.5			8.9			7.8	
Approach LOS		B			B			A			A	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		9.5			9.5		6.1	28.0		6.7	28.6	
Change Period (Y+Rc), s		6.8			6.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		8.0	60.0		10.0	60.0	
Max Q Clear Time (g_c+I1), s		2.3			2.2		2.1	9.3		2.2	6.7	
Green Ext Time (p_c), s		0.1			0.1		0.0	9.3		0.0	9.3	

Intersection Summary												
HCM 2010 Ctrl Delay			8.6									
HCM 2010 LOS			A									

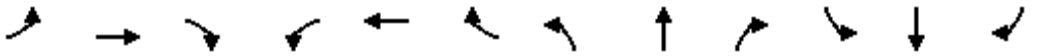
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	535	18	9	691	134	29	29	2	333	35	43
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	1	1	2	1	1
Cap, veh/h	200	1279	544	79	1148	709	221	260	221	480	400	340
Arrive On Green	0.06	0.34	0.34	0.02	0.31	0.31	0.06	0.14	0.14	0.14	0.21	0.21
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	1863	1583	3442	1863	1583
Grp Volume(v), veh/h	27	563	19	9	727	141	31	31	2	351	37	45
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.5	8.4	0.6	0.2	12.0	3.9	0.6	1.0	0.1	7.0	1.1	1.6
Cycle Q Clear(g_c), s	0.5	8.4	0.6	0.2	12.0	3.9	0.6	1.0	0.1	7.0	1.1	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	1279	544	79	1148	709	221	260	221	480	400	340
V/C Ratio(X)	0.14	0.44	0.03	0.11	0.63	0.20	0.14	0.12	0.01	0.73	0.09	0.13
Avail Cap(c_a), veh/h	961	4682	1990	961	4682	2211	481	1144	973	961	1066	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	18.2	15.6	34.3	21.3	12.0	31.6	27.0	26.5	29.5	22.5	22.7
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.2	0.4	0.1	0.1	0.2	0.0	0.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	3.4	0.2	0.1	4.9	1.4	0.3	0.5	0.0	3.0	0.5	0.6
Lane Grp Delay (d), s/veh	32.1	18.4	15.6	34.5	21.7	12.1	31.7	27.1	26.6	30.3	22.6	22.9
Lane Grp LOS	C	B	B	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		609			877			64			433	
Approach Delay, s/veh		18.9			20.3			29.3			28.9	
Approach LOS		B			C			C			C	

Timer												
Assigned Phs	1	6		5	2		7	4		3	8	
Phs Duration (G+Y+Rc), s	10.0	32.6		7.4	30.1		10.4	15.8		15.8	21.2	
Change Period (Y+Rc), s	5.8	8.0		5.8	8.0		5.8	5.8		5.8	5.8	
Max Green Setting (Gmax), s	20.0	90.0		20.0	90.0		10.0	44.0		20.0	41.0	
Max Q Clear Time (g_c+I1), s	2.5	10.4		2.2	14.0		2.6	3.0		9.0	3.6	
Green Ext Time (p_c), s	0.0	8.1		0.0	8.1		0.0	0.4		0.5	0.4	

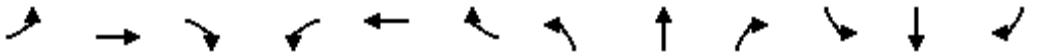
Intersection Summary			
HCM 2010 Ctrl Delay		22.0	
HCM 2010 LOS		C	

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	590	544	0	483	706	0	0	0	52	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.0					4.2	4.2
Lane Util. Factor		0.95			0.91	1.00					1.00	1.00
Frt		0.93			1.00	0.85					1.00	0.85
Flt Protected		1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)		3285			5085	1583					1770	1583
Flt Permitted		1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)		3285			5085	1583					1770	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	694	640	0	568	831	0	0	0	61	0	35
RTOR Reduction (vph)	0	144	0	0	0	0	0	0	0	0	0	30
Lane Group Flow (vph)	0	1190	0	0	568	831	0	0	0	0	61	5
Turn Type		NA			NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases						Free				4		4
Actuated Green, G (s)		29.8			29.8	45.0					6.1	6.1
Effective Green, g (s)		29.8			29.8	45.0					6.1	6.1
Actuated g/C Ratio		0.66			0.66	1.00					0.14	0.14
Clearance Time (s)		4.9			4.9						4.2	4.2
Vehicle Extension (s)		3.6			3.6						2.0	2.0
Lane Grp Cap (vph)		2175			3367	1583					239	214
v/s Ratio Prot		0.36			0.11							
v/s Ratio Perm						c0.52					0.03	0.00
v/c Ratio		0.55			0.17	0.52					0.26	0.02
Uniform Delay, d1		4.0			2.9	0.0					17.4	16.9
Progression Factor		1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2		0.3			0.0	1.2					0.2	0.0
Delay (s)		4.3			2.9	1.2					17.6	16.9
Level of Service		A			A	A					B	B
Approach Delay (s)		4.3			1.9			0.0			17.4	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	587	0	0	1019	60	170	0	242	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	0.88			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1770	3539			5085	1583	1681	1681	2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1770	3539			5085	1583	1681	1681	2787			
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	63	675	0	0	1171	69	195	0	278	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	226	0	0	0
Lane Group Flow (vph)	63	675	0	0	1171	36	97	98	52	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	5.0	35.2			26.0	26.0	10.4	10.4	10.4			
Effective Green, g (s)	5.0	35.2			26.0	26.0	10.4	10.4	10.4			
Actuated g/C Ratio	0.09	0.64			0.47	0.47	0.19	0.19	0.19			
Clearance Time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Vehicle Extension (s)	2.0	3.6			3.6	3.6	2.0	2.0	2.0			
Lane Grp Cap (vph)	159	2248			2386	742	315	315	523			
v/s Ratio Prot	0.04	c0.19			c0.23							
v/s Ratio Perm						0.02	0.06	0.06	0.02			
v/c Ratio	0.40	0.30			0.49	0.05	0.31	0.31	0.10			
Uniform Delay, d1	23.8	4.6			10.1	8.0	19.4	19.4	18.6			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.6	0.1			0.2	0.0	0.2	0.2	0.0			
Delay (s)	24.4	4.6			10.3	8.0	19.6	19.6	18.7			
Level of Service	C	A			B	A	B	B	B			
Approach Delay (s)		6.3			10.2			19.0			0.0	
Approach LOS		A			B			B			A	

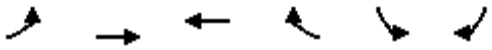
Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	55.4	Sum of lost time (s)	14.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (vph)	77	0	880	177	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3		4.2	5.3		
Lane Util. Factor	0.95		0.97	1.00		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3539		3433	1863		
Flt Permitted	1.00		0.95	1.00		
Satd. Flow (perm)	3539		3433	1863		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	87	0	989	199	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	87	0	989	199	0	0
Turn Type	NA		Prot	NA		
Protected Phases	2		1	6		
Permitted Phases						
Actuated Green, G (s)	4.8		15.2	29.5		
Effective Green, g (s)	4.8		15.2	29.5		
Actuated g/C Ratio	0.16		0.52	1.00		
Clearance Time (s)	5.3		4.2	5.3		
Vehicle Extension (s)	2.0		2.0	2.0		
Lane Grp Cap (vph)	575		1768	1863		
v/s Ratio Prot	0.02		c0.29	c0.11		
v/s Ratio Perm						
v/c Ratio	0.15		0.56	0.11		
Uniform Delay, d1	10.6		4.9	0.0		
Progression Factor	1.00		1.00	1.00		
Incremental Delay, d2	0.0		0.2	0.0		
Delay (s)	10.6		5.1	0.0		
Level of Service	B		A	A		
Approach Delay (s)	10.6			4.2	0.0	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	29.5	Sum of lost time (s)	9.5
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

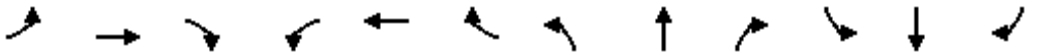
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	11	616	77	0	0	1046
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	5.3			5.3
Lane Util. Factor	1.00	0.88	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	2787	3539			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	2787	3539			3539
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	12	700	88	0	0	1189
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	12	700	88	0	0	1189
Turn Type	NA	Free	NA			NA
Protected Phases	8		2			6
Permitted Phases		Free				
Actuated Green, G (s)	1.0	38.4	27.9			27.9
Effective Green, g (s)	1.0	38.4	27.9			27.9
Actuated g/C Ratio	0.03	1.00	0.73			0.73
Clearance Time (s)	4.2		5.3			5.3
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	46	2787	2571			2571
v/s Ratio Prot	0.01		0.02			c0.34
v/s Ratio Perm		c0.25				
v/c Ratio	0.26	0.25	0.03			0.46
Uniform Delay, d1	18.3	0.0	1.5			2.2
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.1	0.2	0.0			0.0
Delay (s)	19.4	0.2	1.5			2.2
Level of Service	B	A	A			A
Approach Delay (s)	0.5		1.5			2.2
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay	1.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	38.4	Sum of lost time (s)	9.5
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	16	143	132	561	449	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	19	172	159	676	541	75
RTOR Reduction (vph)	0	0	0	508	0	41
Lane Group Flow (vph)	19	172	159	168	541	34
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	0.8	15.7	11.4	11.4	20.8	20.8
Effective Green, g (s)	0.8	15.7	11.4	11.4	20.8	20.8
Actuated g/C Ratio	0.02	0.34	0.25	0.25	0.45	0.45
Clearance Time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	30	637	462	393	802	717
v/s Ratio Prot	c0.01	0.09	0.09		c0.31	
v/s Ratio Perm				c0.11		0.02
v/c Ratio	0.63	0.27	0.34	0.43	0.67	0.05
Uniform Delay, d1	22.4	10.9	14.2	14.5	9.9	7.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	27.8	0.1	0.2	0.3	1.8	0.0
Delay (s)	50.2	11.0	14.3	14.8	11.7	7.0
Level of Service	D	B	B	B	B	A
Approach Delay (s)		14.9	14.7		11.1	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	12.9
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	542	0	0	677	362	16	0	336	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	1770		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	1770		1583			
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	60	653	0	0	816	436	19	0	405	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	261	0	0	178	0	0	0
Lane Group Flow (vph)	60	653	0	0	816	175	19	0	227	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	3.8	27.0			19.7	19.7	12.6		12.6			
Effective Green, g (s)	3.8	27.0			19.7	19.7	12.6		12.6			
Actuated g/C Ratio	0.08	0.55			0.40	0.40	0.26		0.26			
Clearance Time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Vehicle Extension (s)	2.0	2.0			2.0	2.0	2.0		2.0			
Lane Grp Cap (vph)	137	1950			1422	636	455		407			
v/s Ratio Prot	c0.03	0.18			c0.23							
v/s Ratio Perm						0.11	0.01		c0.14			
v/c Ratio	0.44	0.33			0.57	0.28	0.04		0.56			
Uniform Delay, d1	21.6	6.1			11.4	9.9	13.7		15.8			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.8	0.0			0.4	0.1	0.0		0.9			
Delay (s)	22.4	6.1			11.7	9.9	13.7		16.7			
Level of Service	C	A			B	A	B		B			
Approach Delay (s)		7.5			11.1			16.6			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	49.0	Sum of lost time (s)	12.9
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	66	45	261	106	53	20	141	98	37	143	18
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	81	56	322	131	65	25	174	121	46	177	22
Number of Lanes	1	2	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	12.3	21.1	22.6	13.5
HCM LOS	B	C	C	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	8%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	0%	100%	33%	0%	100%	0%	0%	100%	0%
Vol Right, %	38%	0%	0%	67%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	259	23	44	67	261	106	53	37	143	18
LT Vol	141	0	44	22	0	106	0	0	143	0
Through Vol	98	0	0	45	0	0	53	0	0	18
RT Vol	20	23	0	0	261	0	0	37	0	0
Lane Flow Rate	320	28	54	83	322	131	65	46	177	22
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.648	0.069	0.125	0.179	0.698	0.265	0.12	0.101	0.365	0.042
Departure Headway (Hd)	7.297	8.788	8.272	7.787	7.802	7.292	6.576	7.957	7.449	6.738
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	496	407	432	459	464	492	544	450	482	530
Service Time	5.05	6.561	6.045	5.559	5.559	5.047	4.332	5.716	5.208	4.497
HCM Lane V/C Ratio	0.645	0.069	0.125	0.181	0.694	0.266	0.119	0.102	0.367	0.042
HCM Control Delay	22.6	12.2	12.2	12.3	26.8	12.7	10.2	11.6	14.5	9.8
HCM Lane LOS	C	B	B	B	D	B	B	B	B	A
HCM 95th-tile Q	4.6	0.2	0.4	0.6	5.3	1.1	0.4	0.3	1.7	0.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	2	127	143	13	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	140	157	14	5	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	171	0	-	0	308	164
Stage 1	-	-	-	-	164	-
Stage 2	-	-	-	-	144	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1406	-	-	-	684	881
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	883	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1406	-	-	-	683	881
Mov Capacity-2 Maneuver	-	-	-	-	683	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	881	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1406	-	-	-	710
HCM Lane V/C Ratio	0.002	-	-	-	0.009
HCM Control Delay (s)	7.564	0	-	-	10.1
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.005	-	-	-	0.028

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	269	171	42	171	112	163	101	117	132	143	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Cap, veh/h	38	1180	502	89	1287	547	914	480	408	457	960	408
Arrive On Green	0.02	0.32	0.32	0.05	0.35	0.35	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	3548	1863	1583	1774	3725	1583
Grp Volume(v), veh/h	22	401	255	63	255	167	243	151	175	137	297	43
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.5	3.3	5.2	1.4	1.9	3.1	2.2	2.6	3.7	2.5	2.6	0.8
Cycle Q Clear(g_c), s	0.5	3.3	5.2	1.4	1.9	3.1	2.2	2.6	3.7	2.5	2.6	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	38	1180	502	89	1287	547	914	480	408	457	960	408
V/C Ratio(X)	0.57	0.34	0.51	0.71	0.20	0.31	0.27	0.31	0.43	0.30	0.31	0.11
Avail Cap(c_a), veh/h	444	2330	990	444	2330	990	2219	1165	990	1110	2330	990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	10.5	11.1	18.7	9.2	9.6	11.8	12.0	12.4	11.9	12.0	11.3
Incr Delay (d2), s/veh	12.7	0.2	0.8	9.7	0.1	0.3	0.2	0.4	0.7	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	1.2	1.7	0.8	0.7	1.0	0.8	1.0	1.2	0.9	0.9	0.3
Lane Grp Delay (d), s/veh	32.0	10.6	11.9	28.4	9.3	9.9	12.0	12.4	13.1	12.3	12.2	11.4
Lane Grp LOS	C	B	B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		678			485			569			477	
Approach Delay, s/veh		11.8			12.0			12.4			12.1	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.9	17.7		7.0	18.8			15.3			15.3	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	10.0	25.0		10.0	25.0			25.0			25.0	
Max Q Clear Time (g_c+I1), s	2.5	7.2		3.4	5.1			5.7			4.6	
Green Ext Time (p_c), s	0.0	5.4		0.1	5.7			4.6			4.7	

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	110	4	2	138	3	2	3	5	15	3	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	125	5	2	157	3	2	3	6	17	3	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	160	0	0	130	0	0	306	301	127	304	302	159
Stage 1	-	-	-	-	-	-	136	136	-	163	163	-
Stage 2	-	-	-	-	-	-	170	165	-	141	139	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1419	-	-	1455	-	-	646	612	923	648	611	886
Stage 1	-	-	-	-	-	-	867	784	-	839	763	-
Stage 2	-	-	-	-	-	-	832	762	-	862	782	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1419	-	-	1455	-	-	632	608	923	638	607	886
Mov Capacity-2 Maneuver	-	-	-	-	-	-	632	608	-	638	607	-
Stage 1	-	-	-	-	-	-	864	781	-	836	761	-
Stage 2	-	-	-	-	-	-	816	760	-	850	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10	10

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	740	1419	-	-	1455	-	-	705
HCM Lane V/C Ratio	0.015	0.003	-	-	0.002	-	-	0.045
HCM Control Delay (s)	9.9	7.545	0	-	7.478	0	-	10.3
HCM Lane LOS	A	A	A		A	A		B
HCM 95th %tile Q(veh)	0.047	0.01	-	-	0.005	-	-	0.142

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	47	20	54	10	7	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	23	61	11	8	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	73	0	-	0	197	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	130	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1527	-	-	-	792	997
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	896	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1527	-	-	-	764	997
Mov Capacity-2 Maneuver	-	-	-	-	764	-
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	865	-

Approach	EB	WB	SB
HCM Control Delay, s	5	0	9

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	963
HCM Lane V/C Ratio	0.035	-	-	-	0.072
HCM Control Delay (s)	7.443	0	-	-	9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.109	-	-	-	0.232

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	6	13	90	18	6	61
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	16	114	23	8	77
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.9	8.1	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	9%	0%	83%
Vol Thru, %	0%	32%	17%
Vol Right, %	91%	68%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	67	19	108
LT Vol	0	6	18
Through Vol	61	13	0
RT Vol	6	0	90
Lane Flow Rate	85	24	137
Geometry Grp	1	1	1
Degree of Util (X)	0.087	0.025	0.162
Departure Headway (Hd)	3.682	3.776	4.267
Convergence, Y/N	Yes	Yes	Yes
Cap	957	939	841
Service Time	1.767	1.835	2.294
HCM Lane V/C Ratio	0.089	0.026	0.163
HCM Control Delay	7.1	6.9	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.1	0.6

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	166	31	53	210	18	89
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	187	35	60	236	20	100
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	10.1	9.4	8.8
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	84%	17%
Vol Thru, %	20%	0%	83%
Vol Right, %	80%	16%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	263	197	107
LT Vol	53	0	89
Through Vol	210	31	0
RT Vol	0	166	18
Lane Flow Rate	296	221	120
Geometry Grp	1	1	1
Degree of Util (X)	0.342	0.302	0.162
Departure Headway (Hd)	4.171	4.907	4.849
Convergence, Y/N	Yes	Yes	Yes
Cap	860	730	737
Service Time	2.203	2.955	2.893
HCM Lane V/C Ratio	0.344	0.303	0.163
HCM Control Delay	9.4	10.1	8.8
HCM Lane LOS	A	B	A
HCM 95th-tile Q	1.5	1.3	0.6

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	13	10	74	94	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	15	11	84	107	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	216	109	111	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	772	945	1479	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	766	945	1479	-	-	-
Mov Capacity-2 Maneuver	766	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	1	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1479	-	929	-	-
HCM Lane V/C Ratio	0.008	-	0.017	-	-
HCM Control Delay (s)	7.453	0	8.9	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.023	-	0.052	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	36	39	51	190	153	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	46	60	224	180	112

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	580	236	292	0	-	0
Stage 1	236	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	477	803	1270	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	451	803	1270	-	-	-
Mov Capacity-2 Maneuver	451	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	679	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	2	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1270	-	584	-	-
HCM Lane V/C Ratio	0.047	-	0.151	-	-
HCM Control Delay (s)	7.975	0	12.3	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.149	-	0.529	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	43	2	333	61	58	2	223	358	59	221	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	423	871	192	569	615	206	750	1560	597	210	827	286
Arrive On Green	0.12	0.16	0.12	0.17	0.17	0.13	0.22	0.42	0.38	0.06	0.22	0.18
Sat Flow, veh/h	3442	5588	1564	3442	3725	1565	3442	3725	1577	3442	3725	1570
Grp Volume(v), veh/h	11	48	2	370	68	64	2	248	398	66	246	7
Grp Sat Flow(s),veh/h/ln	1721	1863	1564	1721	1863	1565	1721	1863	1577	1721	1863	1570
Q Serve(g_s), s	0.2	0.4	0.0	6.1	0.9	1.6	0.0	2.5	12.6	1.1	3.3	0.2
Cycle Q Clear(g_c), s	0.2	0.4	0.0	6.1	0.9	1.6	0.0	2.5	12.6	1.1	3.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	423	871	192	569	615	206	750	1560	597	210	827	286
V/C Ratio(X)	0.03	0.06	0.01	0.65	0.11	0.31	0.00	0.16	0.67	0.31	0.30	0.02
Avail Cap(c_a), veh/h	1485	3525	935	2057	2350	935	914	2560	1021	914	2560	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	21.6	6.2	23.5	21.4	12.9	18.4	10.9	15.5	27.1	19.5	20.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.1	1.2	0.0	0.1	2.5	0.3	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.2	0.0	2.5	0.4	0.9	0.0	1.0	4.6	0.4	1.4	0.1
Lane Grp Delay (d), s/veh	23.3	21.7	6.2	24.0	21.5	14.2	18.4	11.0	18.0	27.4	19.9	20.3
Lane Grp LOS	C	C	A	C	C	B	B	B	B	C	B	C
Approach Vol, veh/h		61			502			648			319	
Approach Delay, s/veh		21.5			22.4			15.3			21.5	
Approach LOS		C			C			B			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	12.4	12.4		13.0	12.9		18.5	28.2		6.7	16.4	
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0		6.4	6.4		4.0	6.4	
Max Green Setting (Gmax), s	25.0	35.0		35.0	35.0		15.0	38.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	2.2	2.4		8.1	3.6		2.0	14.6		3.1	5.3	
Green Ext Time (p_c), s	0.2	0.3		0.9	0.8		4.3	5.7		0.1	2.2	

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	216	262	393	100	79	126	490	403	112	687	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Cap, veh/h	103	1009	429	558	1501	638	247	2062	584	229	1355	576
Arrive On Green	0.03	0.27	0.27	0.16	0.40	0.40	0.07	0.37	0.37	0.07	0.36	0.36
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	5588	1583	3442	3725	1583
Grp Volume(v), veh/h	23	240	291	437	111	88	140	544	448	124	763	11
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.6	4.7	15.2	11.3	1.7	3.3	3.7	6.3	23.1	3.2	15.2	0.4
Cycle Q Clear(g_c), s	0.6	4.7	15.2	11.3	1.7	3.3	3.7	6.3	23.1	3.2	15.2	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	1009	429	558	1501	638	247	2062	584	229	1355	576
V/C Ratio(X)	0.22	0.24	0.68	0.78	0.07	0.14	0.57	0.26	0.77	0.54	0.56	0.02
Avail Cap(c_a), veh/h	593	1706	725	816	1787	759	593	2132	604	593	1542	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	26.4	30.2	37.3	17.0	17.5	41.7	20.5	25.8	41.9	23.6	18.9
Incr Delay (d2), s/veh	0.4	0.2	3.2	1.7	0.0	0.1	0.8	0.1	6.7	0.7	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	2.1	6.2	4.9	0.7	1.2	1.6	2.7	9.6	1.4	6.6	0.2
Lane Grp Delay (d), s/veh	44.3	26.6	33.4	39.0	17.1	17.7	42.4	20.6	32.4	42.7	24.3	18.9
Lane Grp LOS	D	C	C	D	B	B	D	C	C	D	C	B
Approach Vol, veh/h		554			636			1132			898	
Approach Delay, s/veh		30.9			32.2			28.0			26.8	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.8	28.3		18.0	40.6		9.7	37.2		9.2	36.7	
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7		4.0	6.4		4.0	6.4	
Max Green Setting (Gmax), s	15.0	40.0		21.0	42.0		15.0	32.0		15.0	35.0	
Max Q Clear Time (g_c+I1), s	2.6	17.2		13.3	5.3		5.7	25.1		5.2	17.2	
Green Ext Time (p_c), s	0.0	5.4		0.7	6.0		0.2	5.7		0.2	12.8	

Intersection Summary			
HCM 2010 Ctrl Delay		29.0	
HCM 2010 LOS		C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	278	63	0	178	314	127	15	543	130	146	593	649
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Cap, veh/h	294	804	0	233	676	287	20	1196	508	196	1565	665
Arrive On Green	0.17	0.22	0.00	0.13	0.18	0.18	0.01	0.32	0.32	0.11	0.42	0.42
Sat Flow, veh/h	1774	3725	0	1774	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	309	70	0	198	349	141	17	603	144	162	659	721
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	15.0	1.4	0.0	9.9	7.7	7.2	0.9	11.9	6.1	8.1	11.3	38.0
Cycle Q Clear(g_c), s	15.0	1.4	0.0	9.9	7.7	7.2	0.9	11.9	6.1	8.1	11.3	38.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	294	804	0	233	676	287	20	1196	508	196	1565	665
V/C Ratio(X)	1.05	0.09	0.00	0.85	0.52	0.49	0.83	0.50	0.28	0.83	0.42	1.08
Avail Cap(c_a), veh/h	294	1401	0	294	1977	840	294	1196	508	294	1565	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	28.3	0.0	38.4	33.4	33.3	44.6	24.9	22.9	39.4	18.5	26.2
Incr Delay (d2), s/veh	66.2	0.1	0.0	14.4	1.2	2.5	25.9	0.6	0.6	6.9	0.4	59.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	12.1	0.6	0.0	5.4	3.7	3.0	0.5	5.6	2.4	4.0	5.1	25.4
Lane Grp Delay (d), s/veh	104.0	28.4	0.0	52.8	34.6	35.8	70.5	25.5	23.5	46.3	18.8	86.0
Lane Grp LOS	F	C		D	C	D	E	C	C	D	B	F
Approach Vol, veh/h		379			688			764			1542	
Approach Delay, s/veh		90.0			40.1			26.1			53.1	
Approach LOS		F			D			C			D	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	19.0	25.5		15.9	22.4		5.0	35.0		14.0	44.0	
Change Period (Y+Rc), s	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Max Green Setting (Gmax), s	15.0	34.0		15.0	48.0		15.0	29.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	17.0	3.4		11.9	9.7		2.9	13.9		10.1	40.0	
Green Ext Time (p_c), s	0.0	6.4		0.1	6.7		0.0	13.5		0.1	0.0	

Intersection Summary		
HCM 2010 Ctrl Delay	48.5	
HCM 2010 LOS	D	

Notes

Intersection	
Intersection Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	4	3	12	9	3	0	0	19	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	7	6	4	18	13	4	0	0	28	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	13	0	0	60	65	10	58	61	24
Stage 1	-	-	-	-	-	-	25	25	-	33	33	-
Stage 2	-	-	-	-	-	-	35	40	-	25	28	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1582	-	-	1606	-	-	936	826	1071	939	830	1052
Stage 1	-	-	-	-	-	-	993	874	-	983	868	-
Stage 2	-	-	-	-	-	-	981	862	-	993	872	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1582	-	-	1606	-	-	927	820	1071	934	824	1052
Mov Capacity-2 Maneuver	-	-	-	-	-	-	927	820	-	934	824	-
Stage 1	-	-	-	-	-	-	989	871	-	979	865	-
Stage 2	-	-	-	-	-	-	974	859	-	989	869	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	1	9	9

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	927	1582	-	-	1606	-	-	949
HCM Lane V/C Ratio	0.005	0.005	-	-	0.003	-	-	0.034
HCM Control Delay (s)	8.9	7.286	0	-	7.248	0	-	8.9
HCM Lane LOS	A	A	A		A	A		A
HCM 95th %tile Q(veh)	0.014	0.014	-	-	0.008	-	-	0.106

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	40	15	4	25	53	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	19	5	32	68	9

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	166	21	0	0	37	0
Stage 1	21	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Follow-up Headway	4	3	-	-	2	-
Pot Capacity-1 Maneuver	824	1056	-	-	1574	-
Stage 1	1002	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	789	1056	-	-	1574	-
Mov Capacity-2 Maneuver	789	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	844	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	6

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	847	1574	-
HCM Lane V/C Ratio	-	-	0.083	0.043	-
HCM Control Delay (s)	-	-	9.6	7.39	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	0.272	0.135	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

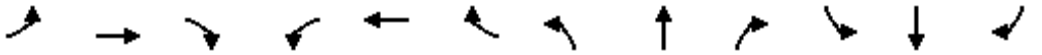
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	11	190	91	101	178	5
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	216	103	115	202	6
Number of Lanes	1	2	2	1	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	8.3	7.6	11.7
HCM LOS	A	A	B

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	95	95	46	46	101	178	5
LT Vol	0	95	95	46	46	0	0	0
Through Vol	0	0	0	0	0	101	0	5
RT Vol	11	0	0	0	0	0	178	0
Lane Flow Rate	12	108	108	52	52	115	202	6
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.021	0.168	0.116	0.082	0.082	0.103	0.337	0.008
Departure Headway (Hd)	6.118	5.613	3.863	5.675	5.675	3.218	5.99	4.793
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	582	636	918	628	628	1100	595	738
Service Time	3.885	3.38	1.63	3.437	3.437	0.978	3.779	2.582
HCM Lane V/C Ratio	0.021	0.17	0.118	0.083	0.083	0.105	0.339	0.008
HCM Control Delay	9	9.5	7.1	8.9	8.9	6.4	11.8	7.6
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	0.1	0.6	0.4	0.3	0.3	0.3	1.5	0

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	358	10	309	174	30	15	2	695	81	1	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	2	1	1	0	1	1	0	1	1
Cap, veh/h	3	654	278	549	779	662	113	7	658	119	1	658
Arrive On Green	0.00	0.18	0.18	0.16	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1774	3725	1583	3442	1863	1583	0	18	1583	0	2	1583
Grp Volume(v), veh/h	0	398	11	343	193	33	19	0	772	91	0	3
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	18	0	1583	2	0	1583
Q Serve(g_s), s	0.0	5.9	0.3	5.6	4.0	0.7	0.0	0.0	25.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.0	5.9	0.3	5.6	4.0	0.7	25.0	0.0	25.0	25.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	0.89		1.00	0.99		1.00
Lane Grp Cap(c), veh/h	3	654	278	549	779	662	121	0	658	120	0	658
V/C Ratio(X)	0.00	0.61	0.04	0.62	0.25	0.05	0.16	0.00	1.17	0.76	0.00	0.00
Avail Cap(c_a), veh/h	590	1858	790	1144	929	790	121	0	658	120	0	658
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.9	20.6	23.6	11.4	10.4	20.5	0.0	17.6	29.9	0.0	10.3
Incr Delay (d2), s/veh	0.0	0.9	0.1	1.2	0.2	0.0	0.6	0.0	93.5	24.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	2.7	0.1	2.4	1.7	0.3	0.3	0.0	25.9	2.1	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	23.8	20.6	24.8	11.5	10.4	21.1	0.0	111.0	54.2	0.0	10.3
Lane Grp LOS		C	C	C	B	B	C		F	D		B
Approach Vol, veh/h		409			569			791			94	
Approach Delay, s/veh		23.7			19.4			108.9			52.8	
Approach LOS		C			B			F			D	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	0.0	15.6		14.6	30.2			30.0			30.0	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	20.0	30.0		20.0	30.0			25.0			25.0	
Max Q Clear Time (g_c+I1), s	0.0	7.9		7.6	6.0			27.0			27.0	
Green Ext Time (p_c), s	0.0	2.6		2.0	2.5			0.0			0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			60.0									
HCM 2010 LOS			E									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	39	255	61	34	129	16	222	208	71	53	189	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Cap, veh/h	141	716	304	127	701	298	511	886	377	90	523	222
Arrive On Green	0.04	0.19	0.19	0.04	0.19	0.19	0.15	0.24	0.24	0.05	0.14	0.14
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	48	315	75	42	159	20	274	257	88	65	233	22
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.6	3.1	0.9	0.5	1.5	0.4	3.1	2.3	1.9	1.5	2.4	0.3
Cycle Q Clear(g_c), s	0.6	3.1	0.9	0.5	1.5	0.4	3.1	2.3	1.9	1.5	2.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	716	304	127	701	298	511	886	377	90	523	222
V/C Ratio(X)	0.34	0.44	0.25	0.33	0.23	0.07	0.54	0.29	0.23	0.72	0.45	0.10
Avail Cap(c_a), veh/h	829	1796	763	829	1796	763	829	2245	954	428	2245	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	14.8	3.8	19.5	14.3	13.8	16.3	12.9	12.8	19.4	16.4	7.0
Incr Delay (d2), s/veh	1.4	0.4	0.4	1.5	0.2	0.1	0.9	0.2	0.3	10.3	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	1.3	0.6	0.2	0.6	0.2	1.2	1.0	0.6	0.9	1.0	0.2
Lane Grp Delay (d), s/veh	20.8	15.2	4.2	21.0	14.4	13.9	17.2	13.1	13.1	29.7	16.9	7.2
Lane Grp LOS	C	B	A	C	B	B	B	B	B	C	B	A
Approach Vol, veh/h		438			221			619			320	
Approach Delay, s/veh		13.9			15.6			14.9			18.9	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.7	13.0		6.5	12.8		11.2	14.9		7.1	10.8	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	10.0	20.0		10.0	20.0		10.0	25.0		10.0	25.0	
Max Q Clear Time (g_c+I1), s	2.6	5.1		2.5	3.5		5.1	4.3		3.5	4.4	
Green Ext Time (p_c), s	0.0	3.0		0.0	3.1		1.4	2.9		0.1	1.4	

Intersection Summary			
HCM 2010 Ctrl Delay		15.5	
HCM 2010 LOS		B	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	69	63	232	148	113	34	128	304	99	36	377	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Cap, veh/h	419	394	335	236	202	171	207	562	181	282	672	221
Arrive On Green	0.24	0.21	0.21	0.13	0.11	0.11	0.12	0.21	0.21	0.16	0.25	0.25
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2703	869	1774	2686	884
Grp Volume(v), veh/h	88	81	297	190	145	44	164	267	250	46	334	309
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1709	1774	1863	1707
Q Serve(g_s), s	2.8	2.5	12.6	7.2	5.2	1.8	6.2	9.2	9.4	1.6	11.4	11.5
Cycle Q Clear(g_c), s	2.8	2.5	12.6	7.2	5.2	1.8	6.2	9.2	9.4	1.6	11.4	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		0.52
Lane Grp Cap(c), veh/h	419	394	335	236	202	171	207	388	356	282	466	427
V/C Ratio(X)	0.21	0.21	0.89	0.81	0.72	0.26	0.79	0.69	0.70	0.16	0.72	0.72
Avail Cap(c_a), veh/h	419	403	342	384	403	342	384	806	739	384	806	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	22.5	26.5	29.2	29.9	28.4	29.8	25.4	25.5	25.2	23.8	23.8
Incr Delay (d2), s/veh	0.2	0.3	22.9	6.4	4.7	0.8	6.6	2.2	2.5	0.3	2.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	1.2	7.0	3.6	2.6	0.7	3.1	4.4	4.1	0.7	5.5	5.1
Lane Grp Delay (d), s/veh	21.5	22.8	49.4	35.6	34.6	29.1	36.4	27.6	28.0	25.4	25.8	26.1
Lane Grp LOS	C	C	D	D	C	C	D	C	C	C	C	C
Approach Vol, veh/h		466			379			681			689	
Approach Delay, s/veh		39.5			34.5			29.9			25.9	
Approach LOS		D			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	21.4	19.7		14.2	12.5		13.1	19.4		16.0	22.4	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	15.0	15.0		15.0	15.0		15.0	30.0		15.0	30.0	
Max Q Clear Time (g_c+I1), s	4.8	14.6		9.2	7.2		8.2	11.4		3.6	13.5	
Green Ext Time (p_c), s	1.3	0.1		0.2	0.5		0.2	3.0		3.2	3.9	

Intersection Summary												
HCM 2010 Ctrl Delay			31.5									
HCM 2010 LOS			C									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	54	107	52	237	43	32	45	429	94	76	479	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1	1	2	1	1	2	1
Cap, veh/h	86	199	169	452	706	300	74	885	376	121	983	418
Arrive On Green	0.05	0.11	0.11	0.13	0.19	0.19	0.04	0.24	0.24	0.07	0.26	0.26
Sat Flow, veh/h	1774	1863	1583	3442	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	57	113	55	249	45	34	47	452	99	80	504	58
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.1	2.0	0.8	2.4	0.3	0.4	0.9	3.7	1.8	1.5	4.0	1.0
Cycle Q Clear(g_c), s	1.1	2.0	0.8	2.4	0.3	0.4	0.9	3.7	1.8	1.5	4.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	86	199	169	452	706	300	74	885	376	121	983	418
V/C Ratio(X)	0.66	0.57	0.33	0.55	0.06	0.11	0.63	0.51	0.26	0.66	0.51	0.14
Avail Cap(c_a), veh/h	304	1116	948	1080	2762	1174	304	2231	948	304	2231	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	14.9	7.1	14.3	11.7	4.7	16.5	11.6	10.9	15.9	11.0	9.9
Incr Delay (d2), s/veh	8.3	2.6	1.1	1.0	0.0	0.2	8.6	0.5	0.4	6.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.9	0.4	0.9	0.1	0.2	0.5	1.3	0.5	0.8	1.4	0.3
Lane Grp Delay (d), s/veh	24.7	17.5	8.2	15.3	11.7	4.9	25.1	12.1	11.2	22.0	11.4	10.0
Lane Grp LOS	C	B	A	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		225			328			598			642	
Approach Delay, s/veh		17.0			13.7			12.9			12.6	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.7	7.7		8.6	10.6		5.5	12.3		6.4	13.3	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	6.0	21.0		11.0	26.0		6.0	21.0		6.0	21.0	
Max Q Clear Time (g_c+I1), s	3.1	4.0		4.4	2.4		2.9	5.7		3.5	6.0	
Green Ext Time (p_c), s	0.0	0.6		0.7	1.2		0.0	2.6		0.9	3.0	

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	53	200	30	57	6	154	443	44	7	485	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	392	79	299	183	381	43	164	656	558	246	681	52
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.09	0.35	0.35	0.14	0.40	0.40
Sat Flow, veh/h	1314	341	1293	1059	1645	185	1774	1863	1583	1774	1710	130
Grp Volume(v), veh/h	61	0	316	38	0	79	192	554	55	9	0	652
Grp Sat Flow(s),veh/h/ln	1314	0	1635	1059	0	1830	1774	1863	1583	1774	0	1840
Q Serve(g_s), s	2.1	0.0	9.9	1.9	0.0	1.9	5.0	14.8	1.3	0.2	0.0	17.8
Cycle Q Clear(g_c), s	4.0	0.0	9.9	11.9	0.0	1.9	5.0	14.8	1.3	0.2	0.0	17.8
Prop In Lane	1.00		0.79	1.00		0.10	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	392	0	378	183	0	424	164	656	558	246	0	733
V/C Ratio(X)	0.16	0.00	0.84	0.21	0.00	0.19	1.17	0.84	0.10	0.04	0.00	0.89
Avail Cap(c_a), veh/h	429	0	424	213	0	474	164	828	704	246	0	818
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	19.8	25.4	0.0	16.7	24.5	16.1	11.7	20.1	0.0	15.1
Incr Delay (d2), s/veh	0.2	0.0	12.4	0.6	0.0	0.2	122.9	6.6	0.1	0.1	0.0	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	5.1	0.5	0.0	0.8	7.7	7.2	0.5	0.1	0.0	9.5
Lane Grp Delay (d), s/veh	18.5	0.0	32.2	26.0	0.0	16.9	147.4	22.7	11.8	20.2	0.0	26.2
Lane Grp LOS	B		C	C		B	F	C	B	C		C
Approach Vol, veh/h		377			117			801			661	
Approach Delay, s/veh		30.0			19.8			51.8			26.1	
Approach LOS		C			B			D			C	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		17.5			17.5		10.0	24.0		12.5	26.5	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		14.0			14.0		5.0	24.0		5.0	24.0	
Max Q Clear Time (g_c+I1), s		11.9			13.9		7.0	16.8		2.2	19.8	
Green Ext Time (p_c), s		0.6			0.0		0.0	2.2		1.2	1.7	

Intersection Summary												
HCM 2010 Ctrl Delay			37.0									
HCM 2010 LOS			D									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1	1	121	0	77	0	376	142	123	407	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Cap, veh/h	0	132	132	348	0	243	3	557	210	243	1232	0
Arrive On Green	0.00	0.15	0.15	0.15	0.00	0.15	0.00	0.43	0.43	0.14	0.66	0.00
Sat Flow, veh/h	0	856	856	1400	0	1583	1774	1290	487	1774	1863	0
Grp Volume(v), veh/h	0	0	2	155	0	99	0	0	664	158	522	0
Grp Sat Flow(s),veh/h/ln	0	0	1712	1400	0	1583	1774	0	1777	1774	1863	0
Q Serve(g_s), s	0.0	0.0	0.1	5.7	0.0	3.1	0.0	0.0	18.3	4.6	7.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	5.7	0.0	3.1	0.0	0.0	18.3	4.6	7.1	0.0
Prop In Lane	0.00		0.50	1.00		1.00	1.00		0.27	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	263	348	0	243	3	0	768	243	1232	0
V/C Ratio(X)	0.00	0.00	0.01	0.44	0.00	0.41	0.00	0.00	0.86	0.65	0.42	0.00
Avail Cap(c_a), veh/h	0	0	538	575	0	498	131	0	953	361	1241	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.4	21.8	0.0	20.6	0.0	0.0	13.9	22.1	4.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.9	0.0	1.1	0.0	0.0	7.1	2.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.9	0.0	1.2	0.0	0.0	8.5	2.1	2.4	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	19.4	22.7	0.0	21.7	0.0	0.0	21.0	25.1	4.5	0.0
Lane Grp LOS			B	C		C			C	C	A	
Approach Vol, veh/h		2			254			664			680	
Approach Delay, s/veh		19.4			22.3			21.0			9.3	
Approach LOS		B			C			C			A	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		13.3			13.3		0.0	28.4		12.4	40.7	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		17.0			17.0		4.0	29.0		11.0	36.0	
Max Q Clear Time (g_c+I1), s		2.1			7.7		0.0	20.3		6.6	9.1	
Green Ext Time (p_c), s		1.0			0.8		0.0	3.0		1.6	4.1	

Intersection Summary												
HCM 2010 Ctrl Delay			16.2									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	155	131	38	184	42	59	146	52	24	270	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Cap, veh/h	388	280	237	289	559	475	96	266	95	268	448	94
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.05	0.20	0.20	0.15	0.30	0.30
Sat Flow, veh/h	1096	932	791	1024	1863	1583	1774	1313	467	1774	1493	314
Grp Volume(v), veh/h	30	0	353	47	227	52	73	0	244	30	0	403
Grp Sat Flow(s),veh/h/ln	1096	0	1723	1024	1863	1583	1774	0	1780	1774	0	1807
Q Serve(g_s), s	1.0	0.0	7.8	1.8	4.2	1.0	1.8	0.0	5.5	0.6	0.0	8.7
Cycle Q Clear(g_c), s	5.2	0.0	7.8	9.7	4.2	1.0	1.8	0.0	5.5	0.6	0.0	8.7
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.26	1.00		0.17
Lane Grp Cap(c), veh/h	388	0	517	289	559	475	96	0	361	268	0	542
V/C Ratio(X)	0.08	0.00	0.68	0.16	0.41	0.11	0.76	0.00	0.68	0.11	0.00	0.74
Avail Cap(c_a), veh/h	464	0	636	359	687	584	286	0	1067	286	0	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	13.4	17.6	12.1	11.0	20.2	0.0	16.0	15.9	0.0	13.7
Incr Delay (d2), s/veh	0.1	0.0	2.2	0.3	0.5	0.1	11.8	0.0	2.2	0.2	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	3.3	0.5	1.8	0.3	1.0	0.0	2.4	0.3	0.0	3.7
Lane Grp Delay (d), s/veh	14.2	0.0	15.6	17.9	12.6	11.1	32.0	0.0	18.2	16.1	0.0	15.7
Lane Grp LOS	B		B	B	B	B	C		B	B		B
Approach Vol, veh/h		383			326			317			433	
Approach Delay, s/veh		15.5			13.1			21.4			15.7	
Approach LOS		B			B			C			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		18.0			18.0		7.3	13.8		11.6	18.0	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		16.0			16.0		7.0	26.0		7.0	26.0	
Max Q Clear Time (g_c+I1), s		9.8			11.7		3.8	7.5		2.6	10.7	
Green Ext Time (p_c), s		2.1			1.6		0.0	1.3		1.0	2.3	

Intersection Summary												
HCM 2010 Ctrl Delay			16.3									
HCM 2010 LOS			B									

Notes

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	37	193	0	43	287	0	10	20	66	166	15	76
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	264	0	59	393	0	14	27	90	227	21	104
Number of Lanes	1	2	0	1	2	0	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	11.4	12.2	12.6	14.2
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	21%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	69%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	37	97	97	43	144	144	166	15	76
LT Vol	20	0	97	97	0	144	144	0	15	0
Through Vol	66	0	0	0	0	0	0	0	0	76
RT Vol	10	37	0	0	43	0	0	166	0	0
Lane Flow Rate	132	51	132	132	59	197	197	227	21	104
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.264	0.112	0.272	0.207	0.125	0.39	0.293	0.465	0.039	0.178
Departure Headway (Hd)	7.235	7.925	7.414	5.645	7.649	7.139	5.373	7.361	6.857	6.152
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	496	453	485	635	469	505	668	491	523	583
Service Time	4.981	5.669	5.158	3.388	5.387	4.877	3.11	5.097	4.593	3.888
HCM Lane V/C Ratio	0.266	0.113	0.272	0.208	0.126	0.39	0.295	0.462	0.04	0.178
HCM Control Delay	12.6	11.7	12.9	9.9	11.5	14.4	10.3	16.4	9.9	10.2
HCM Lane LOS	B	B	B	A	B	B	B	C	A	B
HCM 95th-tile Q	1.1	0.4	1.1	0.8	0.4	1.8	1.2	2.4	0.1	0.6

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	48	143	0	14	305	0	38	6	12	76	0	77
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	174	0	17	372	0	46	7	15	93	0	94
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	8.7	9	10	11.2
HCM LOS	A	A	A	B

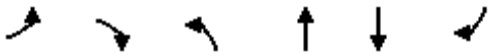
Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	68%	100%	0%	0%	100%	0%	0%	50%
Vol Thru, %	11%	0%	100%	100%	0%	100%	100%	0%
Vol Right, %	21%	0%	0%	0%	0%	0%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	48	72	72	14	153	153	153
LT Vol	6	0	72	72	0	153	153	0
Through Vol	12	0	0	0	0	0	0	77
RT Vol	38	48	0	0	14	0	0	76
Lane Flow Rate	68	59	87	87	17	186	186	187
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.121	0.101	0.138	0.095	0.029	0.286	0.196	0.305
Departure Headway (Hd)	6.381	6.299	5.792	4.033	6.152	5.645	3.79	5.888
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	565	572	623	894	585	640	928	614
Service Time	4.087	3.999	3.492	1.733	3.852	3.345	1.589	3.591
HCM Lane V/C Ratio	0.12	0.103	0.14	0.097	0.029	0.291	0.2	0.305
HCM Control Delay	10	9.7	9.4	7.2	9	10.6	7.5	11.2
HCM Lane LOS	A	A	A	A	A	B	A	B
HCM 95th-tile Q	0.4	0.3	0.5	0.3	0.1	1.2	0.7	1.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	110	12	649	87	29	936
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	5085	1583	3433	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	5085	1583	3433	3539
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	126	14	746	100	33	1076
RTOR Reduction (vph)	0	12	0	55	0	0
Lane Group Flow (vph)	126	2	746	45	33	1076
Turn Type	NA	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	7.4	7.4	20.5	20.5	3.0	27.5
Effective Green, g (s)	7.4	7.4	20.5	20.5	3.0	27.5
Actuated g/C Ratio	0.16	0.16	0.45	0.45	0.07	0.60
Clearance Time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Vehicle Extension (s)	5.0	5.0	2.0	2.0	5.0	2.0
Lane Grp Cap (vph)	558	257	2291	713	226	2138
v/s Ratio Prot	c0.04		0.15		0.01	c0.30
v/s Ratio Perm		0.00		0.03		
v/c Ratio	0.23	0.01	0.33	0.06	0.15	0.50
Uniform Delay, d1	16.6	16.0	8.0	7.1	20.0	5.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	0.0	0.0	0.6	0.1
Delay (s)	17.0	16.0	8.1	7.1	20.7	5.2
Level of Service	B	B	A	A	C	A
Approach Delay (s)	16.9		8.0			5.6
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	45.5	Sum of lost time (s)	14.6
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	149	93	187	65	116	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	3433	1863	1863	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	3433	1863	1863	1583
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	151	94	189	66	117	204
RTOR Reduction (vph)	0	73	0	0	0	150
Lane Group Flow (vph)	151	21	189	66	117	54
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	11.0	11.0	8.9	26.4	13.0	13.0
Effective Green, g (s)	11.0	11.0	8.9	26.4	13.0	13.0
Actuated g/C Ratio	0.22	0.22	0.18	0.53	0.26	0.26
Clearance Time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	5.0	5.0	5.0
Lane Grp Cap (vph)	394	352	618	995	490	416
v/s Ratio Prot	c0.09		c0.06	0.04	c0.06	
v/s Ratio Perm		0.01				0.03
v/c Ratio	0.38	0.06	0.31	0.07	0.24	0.13
Uniform Delay, d1	16.3	15.1	17.6	5.6	14.3	13.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1	0.3	0.1	0.5	0.3
Delay (s)	16.9	15.2	17.9	5.6	14.8	14.2
Level of Service	B	B	B	A	B	B
Approach Delay (s)	16.3			14.7	14.4	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	49.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	30.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	183	11	91	123	36	136
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	193	12	96	129	38	143
Number of Lanes	1	1	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	11.5	10	9.5
HCM LOS	B	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	43%	0%	0%	0%	100%
Vol Right, %	57%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	214	183	11	36	136
LT Vol	91	0	0	0	136
Through Vol	123	0	11	0	0
RT Vol	0	183	0	36	0
Lane Flow Rate	225	193	12	38	143
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.303	0.322	0.015	0.062	0.214
Departure Headway (Hd)	4.845	6.02	4.812	5.874	5.37
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	739	593	738	608	666
Service Time	2.897	3.79	2.582	3.63	3.126
HCM Lane V/C Ratio	0.304	0.325	0.016	0.063	0.215
HCM Control Delay	10	11.7	7.7	9	9.6
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	1.3	1.4	0	0.2	0.8

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	12	6	22	13	296	9	562	44	218	828	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Cap, veh/h	330	393	333	399	393	577	41	1217	516	531	1706	723
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.02	0.33	0.33	0.15	0.46	0.46
Sat Flow, veh/h	1055	1863	1579	1388	1863	1579	1774	3725	1580	3442	3725	1580
Grp Volume(v), veh/h	11	12	4	23	13	305	9	579	34	225	854	3
Grp Sat Flow(s),veh/h/ln	1055	1863	1579	1388	1863	1579	1774	1863	1580	1721	1863	1580
Q Serve(g_s), s	0.5	0.3	0.1	0.9	0.4	9.7	0.3	7.9	0.9	3.8	10.3	0.1
Cycle Q Clear(g_c), s	0.9	0.3	0.1	1.2	0.4	9.7	0.3	7.9	0.9	3.8	10.3	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	393	333	399	393	577	41	1217	516	531	1706	723
V/C Ratio(X)	0.03	0.03	0.01	0.06	0.03	0.53	0.22	0.48	0.07	0.42	0.50	0.00
Avail Cap(c_a), veh/h	837	1289	1092	1066	1289	1337	279	5272	2236	1082	5272	2236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	19.9	19.9	20.4	19.9	15.9	30.5	17.1	14.7	24.3	12.1	9.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	1.0	0.2	0.0	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.1	0.0	0.3	0.2	3.3	0.1	3.0	0.3	1.5	3.7	0.0
Lane Grp Delay (d), s/veh	20.3	19.9	19.9	20.4	20.0	16.2	31.5	17.3	14.8	24.5	12.3	9.4
Lane Grp LOS	C	B	B	C	B	B	C	B	B	C	B	A
Approach Vol, veh/h		27			341			622			1082	
Approach Delay, s/veh		20.1			16.6			17.4			14.8	
Approach LOS		C			B			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		19.2			19.2		7.3	28.8		15.6	37.1	
Change Period (Y+Rc), s		5.8			5.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		10.0	90.0		20.0	90.0	
Max Q Clear Time (g_c+I1), s		2.9			11.7		2.3	9.9		5.8	12.3	
Green Ext Time (p_c), s		0.6			0.6		0.0	8.9		0.3	8.9	

Intersection Summary		
HCM 2010 Ctrl Delay		15.9
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	14	8	7	9	12	12	603	7	11	829	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Cap, veh/h	325	248	249	321	248	255	44	1558	661	50	1572	667
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.02	0.42	0.42	0.03	0.42	0.42
Sat Flow, veh/h	1379	1863	1579	1378	1863	1579	1774	3725	1580	1774	3725	1580
Grp Volume(v), veh/h	8	14	8	7	9	12	12	622	5	11	855	3
Grp Sat Flow(s),veh/h/ln	1379	1863	1579	1378	1863	1579	1774	1863	1580	1774	1863	1580
Q Serve(g_s), s	0.2	0.3	0.2	0.2	0.2	0.3	0.3	5.7	0.1	0.3	8.4	0.1
Cycle Q Clear(g_c), s	0.5	0.3	0.2	0.5	0.2	0.3	0.3	5.7	0.1	0.3	8.4	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	248	249	321	248	255	44	1558	661	50	1572	667
V/C Ratio(X)	0.02	0.06	0.03	0.02	0.04	0.05	0.27	0.40	0.01	0.22	0.54	0.00
Avail Cap(c_a), veh/h	1380	1673	1457	1375	1673	1463	290	4562	1934	362	4562	1934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	18.6	17.5	18.8	18.5	17.4	23.5	10.0	8.3	23.3	10.6	8.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.1	1.2	0.1	0.0	0.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.8	0.0	0.1	2.8	0.0
Lane Grp Delay (d), s/veh	18.7	18.6	17.5	18.8	18.6	17.4	24.7	10.1	8.3	24.1	10.8	8.2
Lane Grp LOS	B	B	B	B	B	B	C	B	A	C	B	A
Approach Vol, veh/h		30			28			639			869	
Approach Delay, s/veh		18.4			18.1			10.3			11.0	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		13.3			13.3		7.0	28.5		7.2	28.7	
Change Period (Y+Rc), s		6.8			6.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		8.0	60.0		10.0	60.0	
Max Q Clear Time (g_c+I1), s		2.5			2.5		2.3	7.7		2.3	10.4	
Green Ext Time (p_c), s		0.2			0.2		0.0	9.1		0.0	9.1	

Intersection Summary												
HCM 2010 Ctrl Delay			11.0									
HCM 2010 LOS			B									

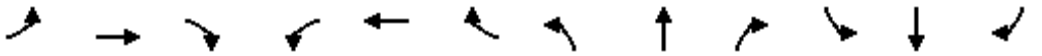
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	782	29	4	581	303	11	42	9	223	25	24
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	1	1	2	1	1
Cap, veh/h	281	1390	590	37	1126	690	94	259	219	461	458	388
Arrive On Green	0.08	0.37	0.37	0.01	0.30	0.30	0.03	0.14	0.14	0.13	0.25	0.25
Sat Flow, veh/h	3442	3725	1581	3442	3725	1580	3442	1863	1577	3442	1863	1579
Grp Volume(v), veh/h	45	806	25	4	599	221	11	43	7	230	26	18
Grp Sat Flow(s),veh/h/ln	1721	1863	1581	1721	1863	1580	1721	1863	1577	1721	1863	1579
Q Serve(g_s), s	0.9	12.8	0.7	0.1	9.9	6.8	0.2	1.5	0.3	4.6	0.8	0.6
Cycle Q Clear(g_c), s	0.9	12.8	0.7	0.1	9.9	6.8	0.2	1.5	0.3	4.6	0.8	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	1390	590	37	1126	690	94	259	219	461	458	388
V/C Ratio(X)	0.16	0.58	0.04	0.11	0.53	0.32	0.12	0.17	0.03	0.50	0.06	0.05
Avail Cap(c_a), veh/h	930	4532	1923	930	4532	2134	465	1108	938	930	1032	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	18.6	14.8	36.3	21.5	13.7	35.1	28.1	27.5	29.7	21.3	21.3
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.5	0.3	0.2	0.2	0.2	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	5.1	0.3	0.0	4.0	2.5	0.1	0.7	0.1	2.0	0.4	0.2
Lane Grp Delay (d), s/veh	31.7	18.8	14.8	36.7	21.8	13.9	35.3	28.3	27.6	30.0	21.4	21.3
Lane Grp LOS	C	B	B	D	C	B	D	C	C	C	C	C
Approach Vol, veh/h		876			824			61			274	
Approach Delay, s/veh		19.4			19.7			29.5			28.7	
Approach LOS		B			B			C			C	

Timer												
Assigned Phs	1	6		5	2		7	4		3	8	
Phs Duration (G+Y+Rc), s	11.8	35.6		6.6	30.4		7.8	16.1		15.7	24.0	
Change Period (Y+Rc), s	5.8	8.0		5.8	8.0		5.8	5.8		5.8	5.8	
Max Green Setting (Gmax), s	20.0	90.0		20.0	90.0		10.0	44.0		20.0	41.0	
Max Q Clear Time (g_c+I1), s	2.9	14.8		2.1	11.9		2.2	3.5		6.6	2.8	
Green Ext Time (p_c), s	0.0	9.6		0.0	9.6		0.0	0.3		0.3	0.3	

Intersection Summary												
HCM 2010 Ctrl Delay			21.1									
HCM 2010 LOS			C									

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	369	164	0	782	250	0	0	0	97	0	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.0					4.2	4.2
Lane Util. Factor		0.95			0.91	1.00					1.00	1.00
Frpb, ped/bikes		1.00			1.00	0.99					1.00	0.98
Flpb, ped/bikes		1.00			1.00	1.00					1.00	1.00
Frt		0.95			1.00	0.85					1.00	0.85
Flt Protected		1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)		3362			5085	1563					1764	1559
Flt Permitted		1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)		3362			5085	1563					1764	1559
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	384	171	0	815	260	0	0	0	101	0	49
RTOR Reduction (vph)	0	56	0	0	0	0	0	0	0	0	0	40
Lane Group Flow (vph)	0	499	0	0	815	260	0	0	0	0	101	9
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2
Turn Type		NA			NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases						Free				4		4
Actuated Green, G (s)		20.8			20.8	36.5					6.6	6.6
Effective Green, g (s)		20.8			20.8	36.5					6.6	6.6
Actuated g/C Ratio		0.57			0.57	1.00					0.18	0.18
Clearance Time (s)		4.9			4.9						4.2	4.2
Vehicle Extension (s)		3.6			3.6						2.0	2.0
Lane Grp Cap (vph)		1915			2897	1563					318	281
v/s Ratio Prot		0.15			c0.16							
v/s Ratio Perm						0.17					0.06	0.01
v/c Ratio		0.26			0.28	0.17					0.32	0.03
Uniform Delay, d1		4.0			4.0	0.0					13.0	12.3
Progression Factor		1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2		0.1			0.1	0.2					0.2	0.0
Delay (s)		4.1			4.1	0.2					13.2	12.3
Level of Service		A			A	A					B	B
Approach Delay (s)		4.1			3.2			0.0			12.9	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	4.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	36.5	Sum of lost time (s)	9.1
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	456	0	0	637	76	395	0	670	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	0.88			
Frpb, ped/bikes	1.00	1.00			1.00	0.99	1.00	1.00	0.99			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1770	3539			5085	1562	1679	1679	2750			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1770	3539			5085	1562	1679	1679	2750			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	480	0	0	671	80	416	0	705	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	54	0	0	477	0	0	0
Lane Group Flow (vph)	11	480	0	0	671	26	208	208	228	0	0	0
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	1.2	19.0			13.6	13.6	13.8	13.8	13.8			
Effective Green, g (s)	1.2	19.0			13.6	13.6	13.8	13.8	13.8			
Actuated g/C Ratio	0.03	0.45			0.32	0.32	0.32	0.32	0.32			
Clearance Time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Vehicle Extension (s)	2.0	3.6			3.6	3.6	3.0	3.0	3.0			
Lane Grp Cap (vph)	49	1578			1623	498	543	543	890			
v/s Ratio Prot	0.01	c0.14			c0.13							
v/s Ratio Perm						0.02	c0.12	0.12	0.08			
v/c Ratio	0.22	0.30			0.41	0.05	0.38	0.38	0.26			
Uniform Delay, d1	20.2	7.6			11.4	10.0	11.1	11.1	10.6			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.8	0.1			0.2	0.1	0.5	0.5	0.2			
Delay (s)	21.1	7.7			11.6	10.1	11.6	11.6	10.8			
Level of Service	C	A			B	B	B	B	B			
Approach Delay (s)		8.0			11.4			11.1			0.0	
Approach LOS		A			B			B			A	

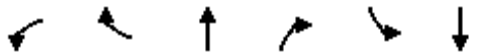
Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	42.6	Sum of lost time (s)	14.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (vph)	193	5	696	210	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3		4.2	5.3		
Lane Util. Factor	0.95		0.97	1.00		
Frpb, ped/bikes	1.00		1.00	1.00		
Flpb, ped/bikes	1.00		1.00	1.00		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3525		3433	1863		
Flt Permitted	1.00		0.95	1.00		
Satd. Flow (perm)	3525		3433	1863		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	205	5	740	223	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	208	0	740	223	0	0
Confl. Peds. (#/hr)		2	2		2	2
Turn Type	NA		Prot	NA		
Protected Phases	2		1	6		
Permitted Phases						
Actuated Green, G (s)	9.7		10.7	29.9		
Effective Green, g (s)	9.7		10.7	29.9		
Actuated g/C Ratio	0.32		0.36	1.00		
Clearance Time (s)	5.3		4.2	5.3		
Vehicle Extension (s)	2.0		2.0	2.0		
Lane Grp Cap (vph)	1143		1228	1863		
v/s Ratio Prot	0.06		c0.22	c0.12		
v/s Ratio Perm						
v/c Ratio	0.18		0.60	0.12		
Uniform Delay, d1	7.3		7.9	0.0		
Progression Factor	1.00		1.00	1.00		
Incremental Delay, d2	0.0		0.6	0.0		
Delay (s)	7.3		8.4	0.0		
Level of Service	A		A	A		
Approach Delay (s)	7.3			6.5	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	29.9	Sum of lost time (s)	9.5
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		

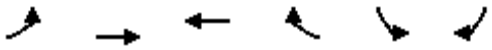
c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	2	967	193	0	0	904
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	5.3			5.3
Lane Util. Factor	1.00	0.88	0.95			0.95
Frpb, ped/bikes	1.00	0.99	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	2752	3539			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	2752	3539			3539
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	2	1029	205	0	0	962
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	2	1029	205	0	0	962
Confl. Peds. (#/hr)	2	2		2	2	
Turn Type	NA	Free	NA			NA
Protected Phases	8		2			6
Permitted Phases		Free				
Actuated Green, G (s)	1.1	36.4	25.8			25.8
Effective Green, g (s)	1.1	36.4	25.8			25.8
Actuated g/C Ratio	0.03	1.00	0.71			0.71
Clearance Time (s)	4.2		5.3			5.3
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	53	2752	2508			2508
v/s Ratio Prot	0.00		0.06			0.27
v/s Ratio Perm		c0.37				
v/c Ratio	0.04	0.37	0.08			0.38
Uniform Delay, d1	17.1	0.0	1.6			2.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.1	0.4	0.0			0.0
Delay (s)	17.2	0.4	1.6			2.2
Level of Service	B	A	A			A
Approach Delay (s)	0.4		1.6			2.2
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay	1.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	36.4	Sum of lost time (s)	9.5
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		

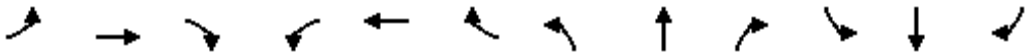
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	41	231	113	396	185	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1561	1770	1546
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1561	1770	1546
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	43	241	118	412	193	104
RTOR Reduction (vph)	0	0	0	304	0	76
Lane Group Flow (vph)	43	241	118	108	193	28
Confl. Peds. (#/hr)	2			2	2	2
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	2.0	13.8	8.3	8.3	8.6	8.6
Effective Green, g (s)	2.0	13.8	8.3	8.3	8.6	8.6
Actuated g/C Ratio	0.06	0.43	0.26	0.26	0.27	0.27
Clearance Time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	111	808	486	407	478	418
v/s Ratio Prot	0.02	c0.13	0.06		c0.11	
v/s Ratio Perm				0.07		0.02
v/c Ratio	0.39	0.30	0.24	0.26	0.40	0.07
Uniform Delay, d1	14.3	5.9	9.3	9.3	9.5	8.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1	0.1	0.1	0.2	0.0
Delay (s)	15.1	5.9	9.4	9.5	9.7	8.6
Level of Service	B	A	A	A	A	A
Approach Delay (s)		7.3	9.4		9.3	
Approach LOS		A	A		A	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	31.8	Sum of lost time (s)	12.9
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	324	0	0	462	239	47	0	479	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00		0.99			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1546	1765		1560			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1546	1765		1560			
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	103	364	0	0	519	269	53	0	538	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	189	0	0	364	0	0	0
Lane Group Flow (vph)	103	364	0	0	519	80	53	0	174	0	0	0
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2
Turn Type	Prot	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	5.9	21.2			11.8	11.8	8.9		8.9			
Effective Green, g (s)	5.9	21.2			11.8	11.8	8.9		8.9			
Actuated g/C Ratio	0.15	0.54			0.30	0.30	0.23		0.23			
Clearance Time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Vehicle Extension (s)	2.0	2.0			2.0	2.0	2.0		2.0			
Lane Grp Cap (vph)	264	1899			1057	461	397		351			
v/s Ratio Prot	c0.06	0.10			c0.15							
v/s Ratio Perm						0.05	0.03		c0.11			
v/c Ratio	0.39	0.19			0.49	0.17	0.13		0.50			
Uniform Delay, d1	15.2	4.7			11.4	10.2	12.2		13.3			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.3	0.0			0.1	0.1	0.1		0.4			
Delay (s)	15.5	4.7			11.5	10.3	12.3		13.7			
Level of Service	B	A			B	B	B		B			
Approach Delay (s)		7.1			11.1			13.6			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	39.5	Sum of lost time (s)	12.9
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	21	93	32	122	63	20	32	126	238	57	126	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	106	36	139	72	23	36	143	270	65	143	8
Number of Lanes	1	2	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	11.3	12.7	25.8	11.4
HCM LOS	B	B	D	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	8%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	32%	0%	100%	49%	0%	100%	0%	0%	100%	0%
Vol Right, %	60%	0%	0%	51%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	396	21	62	63	122	63	20	57	126	7
LT Vol	126	0	62	31	0	63	0	0	126	0
Through Vol	238	0	0	32	0	0	20	0	0	7
RT Vol	32	21	0	0	122	0	0	57	0	0
Lane Flow Rate	450	24	70	72	139	72	23	65	143	8
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.76	0.054	0.148	0.143	0.302	0.146	0.042	0.129	0.265	0.013
Departure Headway (Hd)	6.187	8.074	7.561	7.197	7.851	7.34	6.624	7.173	6.666	5.957
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	590	445	476	500	460	490	542	501	540	602
Service Time	3.887	5.794	5.282	4.917	5.568	5.057	4.342	4.895	4.388	3.678
HCM Lane V/C Ratio	0.763	0.054	0.147	0.144	0.302	0.147	0.042	0.13	0.265	0.013
HCM Control Delay	25.8	11.3	11.6	11.1	13.9	11.3	9.6	11	11.8	8.8
HCM Lane LOS	D	B	B	B	B	B	A	B	B	A
HCM 95th-tile Q	6.8	0.2	0.5	0.5	1.3	0.5	0.1	0.4	1.1	0

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	121	111	5	14	0
Conflicting Peds, #/hr	2	0	0	2	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	139	128	6	16	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	135	0	-	0	271	134
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	139	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1449	-	-	-	718	915
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	888	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1447	-	-	-	716	912
Mov Capacity-2 Maneuver	-	-	-	-	716	-
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	887	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1447	-	-	-	716
HCM Lane V/C Ratio	-	-	-	-	0.022
HCM Control Delay (s)	0	-	-	-	10.1
HCM Lane LOS	A				B
HCM 95th %tile Q(veh)	0	-	-	-	0.069

Notes

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	157	155	36	211	85	155	173	46	50	129	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Cap, veh/h	41	907	384	64	955	405	395	829	351	395	829	351
Arrive On Green	0.02	0.24	0.24	0.04	0.26	0.26	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3725	1579	1774	3725	1580	1774	3725	1579	1774	3725	1579
Grp Volume(v), veh/h	23	164	161	38	220	89	114	246	48	52	134	16
Grp Sat Flow(s),veh/h/ln	1774	1863	1579	1774	1863	1580	1774	1863	1579	1774	1863	1579
Q Serve(g_s), s	0.4	1.0	2.6	0.6	1.4	1.3	1.6	1.7	0.7	0.7	0.9	0.2
Cycle Q Clear(g_c), s	0.4	1.0	2.6	0.6	1.4	1.3	1.6	1.7	0.7	0.7	0.9	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	41	907	384	64	955	405	395	829	351	395	829	351
V/C Ratio(X)	0.56	0.18	0.42	0.59	0.23	0.22	0.29	0.30	0.14	0.13	0.16	0.05
Avail Cap(c_a), veh/h	589	3091	1311	589	3091	1311	1472	3091	1310	1472	3091	1310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.6	9.0	9.6	14.3	8.9	8.8	9.7	9.7	9.4	9.4	9.4	9.2
Incr Delay (d2), s/veh	11.3	0.1	0.7	8.4	0.1	0.3	0.4	0.2	0.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.3	0.7	0.4	0.4	0.4	0.6	0.6	0.2	0.2	0.3	0.1
Lane Grp Delay (d), s/veh	25.8	9.1	10.3	22.7	9.0	9.1	10.1	9.9	9.6	9.5	9.5	9.3
Lane Grp LOS	C	A	B	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h		348			347			408			202	
Approach Delay, s/veh		10.8			10.5			10.0			9.5	
Approach LOS		B			B			A			A	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.7	12.3		6.1	12.7			11.7			11.7	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	10.0	25.0		10.0	25.0			25.0			25.0	
Max Q Clear Time (g_c+I1), s	2.4	4.6		2.6	3.4			3.7			2.9	
Green Ext Time (p_c), s	0.0	3.1		0.0	3.2			2.9			2.9	

Intersection Summary		
HCM 2010 Ctrl Delay	10.3	
HCM 2010 LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	129	4	7	72	14	5	11	5	6	4	8
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	140	4	8	78	15	5	12	5	7	4	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	95	0	0	147	0	0	276	277	146	278	271	90
Stage 1	-	-	-	-	-	-	166	166	-	103	103	-
Stage 2	-	-	-	-	-	-	110	111	-	175	168	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1499	-	-	1435	-	-	676	631	901	674	636	968
Stage 1	-	-	-	-	-	-	836	761	-	903	810	-
Stage 2	-	-	-	-	-	-	895	804	-	827	759	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1497	-	-	1433	-	-	657	620	898	651	625	965
Mov Capacity-2 Maneuver	-	-	-	-	-	-	657	620	-	651	625	-
Stage 1	-	-	-	-	-	-	828	754	-	894	804	-
Stage 2	-	-	-	-	-	-	875	798	-	801	752	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	10	10

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	679	1497	-	-	1433	-	-	753
HCM Lane V/C Ratio	0.034	0.007	-	-	0.005	-	-	0.026
HCM Control Delay (s)	10.5	7.422	0	-	7.526	0	-	9.9
HCM Lane LOS	B	A	A		A	A		A
HCM 95th %tile Q(veh)	0.104	0.022	-	-	0.016	-	-	0.08

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	56	72	35	5	5	45
Conflicting Peds, #/hr	2	0	0	2	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	83	40	6	6	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	48	0	-	0	256	47
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	211	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1559	-	-	-	733	1022
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	824	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1556	-	-	-	699	1019
Mov Capacity-2 Maneuver	-	-	-	-	699	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	SB
HCM Control Delay, s	3	0	9

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1556	-	-	-	974
HCM Lane V/C Ratio	0.041	-	-	-	0.059
HCM Control Delay (s)	7.413	0	-	-	8.9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.129	-	-	-	0.188

Notes

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Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	22	11	76	4	15	106
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	13	90	5	18	126
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.3	8	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	12%	0%	95%
Vol Thru, %	0%	67%	5%
Vol Right, %	88%	33%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	121	33	80
LT Vol	0	22	4
Through Vol	106	11	0
RT Vol	15	0	76
Lane Flow Rate	144	39	95
Geometry Grp	1	1	1
Degree of Util (X)	0.147	0.044	0.117
Departure Headway (Hd)	3.665	4.061	4.408
Convergence, Y/N	Yes	Yes	Yes
Cap	964	873	810
Service Time	1.743	2.128	2.454
HCM Lane V/C Ratio	0.149	0.045	0.117
HCM Control Delay	7.4	7.3	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.1	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	247	16	121	292	27	87
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	284	18	139	336	31	100
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	13.3	14.3	9.9
HCM LOS	B	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	94%	24%
Vol Thru, %	29%	0%	76%
Vol Right, %	71%	6%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	413	263	114
LT Vol	121	0	87
Through Vol	292	16	0
RT Vol	0	247	27
Lane Flow Rate	475	302	131
Geometry Grp	1	1	1
Degree of Util (X)	0.598	0.467	0.2
Departure Headway (Hd)	4.534	5.558	5.498
Convergence, Y/N	Yes	Yes	Yes
Cap	783	653	654
Service Time	2.633	3.564	3.521
HCM Lane V/C Ratio	0.607	0.462	0.2
HCM Control Delay	14.3	13.3	9.9
HCM Lane LOS	B	B	A
HCM 95th-tile Q	4	2.5	0.7

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	2	8	23	114	106	2
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	9	26	131	122	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	309	127	126	0	-	0
Stage 1	125	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	683	923	1460	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	668	920	1458	-	-	-
Mov Capacity-2 Maneuver	668	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	831	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	1	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1458	-	855	-	-
HCM Lane V/C Ratio	0.018	-	0.013	-	-
HCM Control Delay (s)	7.515	0	9.3	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.055	-	0.041	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	142	58	45	247	216	67
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	160	65	51	278	243	75

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	661	284	320	0	-	0
Stage 1	282	-	-	-	-	-
Stage 2	379	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	427	755	1240	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	405	752	1238	-	-	-
Mov Capacity-2 Maneuver	405	-	-	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20	1	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1238	-	468	-	-
HCM Lane V/C Ratio	0.041	-	0.48	-	-
HCM Control Delay (s)	8.032	0	19.6	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.128	-	2.556	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	44	4	374	86	88	2	278	342	66	259	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	469	940	206	640	675	227	480	1337	496	232	905	313
Arrive On Green	0.14	0.17	0.13	0.19	0.18	0.14	0.14	0.36	0.32	0.07	0.24	0.20
Sat Flow, veh/h	3442	5588	1565	3442	3725	1567	3442	3725	1576	3442	3725	1571
Grp Volume(v), veh/h	9	49	3	416	96	72	2	309	277	73	288	7
Grp Sat Flow(s),veh/h/ln	1721	1863	1565	1721	1863	1567	1721	1863	1576	1721	1863	1571
Q Serve(g_s), s	0.1	0.4	0.1	6.1	1.2	1.6	0.0	3.2	8.0	1.1	3.5	0.2
Cycle Q Clear(g_c), s	0.1	0.4	0.1	6.1	1.2	1.6	0.0	3.2	8.0	1.1	3.5	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	469	940	206	640	675	227	480	1337	496	232	905	313
V/C Ratio(X)	0.02	0.05	0.01	0.65	0.14	0.32	0.00	0.23	0.56	0.32	0.32	0.02
Avail Cap(c_a), veh/h	1663	3886	1031	2267	2590	1032	1008	2822	1125	1008	2822	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	19.1	6.9	20.6	18.8	10.5	20.2	12.2	15.6	24.3	17.0	17.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.1	1.2	0.0	0.1	1.6	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	2.3	0.5	0.8	0.0	1.3	2.7	0.4	1.4	0.1
Lane Grp Delay (d), s/veh	20.4	19.1	6.9	21.0	18.9	11.7	20.3	12.4	17.1	24.6	17.3	17.7
Lane Grp LOS	C	B	A	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		61			584			588			368	
Approach Delay, s/veh		18.7			19.5			14.6			18.7	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	12.5	12.2		13.2	12.9		13.0	22.6		6.7	16.3	
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0		6.4	6.4		4.0	6.4	
Max Green Setting (Gmax), s	25.4	35.0		35.0	35.0		15.0	38.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	2.1	2.4		8.1	3.6		2.0	10.0		3.1	5.5	
Green Ext Time (p_c), s	0.2	0.3		1.0	1.0		3.3	4.5		0.1	2.1	

Intersection Summary		
HCM 2010 Ctrl Delay		17.5
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	162	112	477	334	136	269	638	417	104	568	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Cap, veh/h	94	770	325	655	1377	583	418	2239	632	223	1282	543
Arrive On Green	0.03	0.21	0.21	0.19	0.37	0.37	0.12	0.40	0.40	0.06	0.34	0.34
Sat Flow, veh/h	3442	3725	1572	3442	3725	1577	3442	5588	1577	3442	3725	1576
Grp Volume(v), veh/h	18	180	90	530	371	110	299	709	338	116	631	22
Grp Sat Flow(s),veh/h/ln	1721	1863	1572	1721	1863	1577	1721	1863	1577	1721	1863	1576
Q Serve(g_s), s	0.5	3.6	4.3	13.1	6.2	4.2	7.4	7.7	14.5	2.9	11.9	0.8
Cycle Q Clear(g_c), s	0.5	3.6	4.3	13.1	6.2	4.2	7.4	7.7	14.5	2.9	11.9	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	94	770	325	655	1377	583	418	2239	632	223	1282	543
V/C Ratio(X)	0.19	0.23	0.28	0.81	0.27	0.19	0.72	0.32	0.53	0.52	0.49	0.04
Avail Cap(c_a), veh/h	621	1784	753	853	1868	791	621	2239	632	621	1612	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	29.3	29.6	34.4	19.6	19.0	37.5	18.2	20.3	40.2	23.0	19.4
Incr Delay (d2), s/veh	0.4	0.3	0.8	3.4	0.2	0.3	0.9	0.1	1.3	0.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	1.7	1.6	5.8	2.7	1.5	3.1	3.2	5.5	1.2	5.1	0.3
Lane Grp Delay (d), s/veh	42.5	29.6	30.4	37.8	19.8	19.2	38.4	18.4	21.5	40.9	23.4	19.4
Lane Grp LOS	D	C	C	D	B	B	D	B	C	D	C	B
Approach Vol, veh/h		288			1011			1346			769	
Approach Delay, s/veh		30.7			29.2			23.6			25.9	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.4	21.5		19.9	36.0		13.8	38.6		8.7	33.5	
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7		4.0	6.4		4.0	6.4	
Max Green Setting (Gmax), s	15.0	40.0		21.0	42.0		15.0	32.0		15.0	35.0	
Max Q Clear Time (g_c+I1), s	2.5	6.3		15.1	8.2		9.4	16.5		4.9	13.9	
Green Ext Time (p_c), s	0.0	6.3		0.8	6.3		0.4	10.1		0.1	12.3	

Intersection Summary			
HCM 2010 Ctrl Delay		26.4	
HCM 2010 LOS		C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	601	267	4	179	99	193	13	541	196	118	640	306
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Cap, veh/h	282	1017	14	233	928	392	17	1073	454	162	1377	583
Arrive On Green	0.16	0.28	0.28	0.13	0.25	0.25	0.01	0.29	0.29	0.09	0.37	0.37
Sat Flow, veh/h	1774	3667	49	1774	3725	1574	1774	3725	1575	1774	3725	1577
Grp Volume(v), veh/h	668	151	150	199	110	214	14	601	218	131	711	340
Grp Sat Flow(s),veh/h/ln	1774	1863	1854	1774	1863	1574	1774	1863	1575	1774	1863	1577
Q Serve(g_s), s	15.0	6.0	6.0	10.3	2.2	11.1	0.7	12.9	10.8	6.8	14.0	16.3
Cycle Q Clear(g_c), s	15.0	6.0	6.0	10.3	2.2	11.1	0.7	12.9	10.8	6.8	14.0	16.3
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	516	514	233	928	392	17	1073	454	162	1377	583
V/C Ratio(X)	2.37	0.29	0.29	0.86	0.12	0.55	0.81	0.56	0.48	0.81	0.52	0.58
Avail Cap(c_a), veh/h	282	672	669	282	1898	802	282	1146	485	282	1502	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	26.8	26.8	40.1	27.4	30.7	46.6	28.5	27.7	42.0	23.1	23.9
Incr Delay (d2), s/veh	625.4	0.6	0.6	16.7	0.1	2.3	26.8	1.0	1.5	3.6	0.6	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	55.8	2.9	2.9	5.7	1.0	4.6	0.5	6.2	4.4	3.3	6.5	6.6
Lane Grp Delay (d), s/veh	665.0	27.4	27.4	56.7	27.5	33.0	73.3	29.4	29.3	45.6	23.7	25.8
Lane Grp LOS	F	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		969			523			833			1182	
Approach Delay, s/veh		466.9			40.9			30.1			26.8	
Approach LOS		F			D			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	19.0	32.1		16.4	29.5		4.9	33.1		12.6	40.8	
Change Period (Y+Rc), s	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Max Green Setting (Gmax), s	15.0	34.0		15.0	48.0		15.0	29.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	17.0	8.0		12.3	13.1		2.7	14.9		8.8	18.3	
Green Ext Time (p_c), s	0.0	6.3		0.1	6.8		0.0	12.0		0.1	16.0	

Intersection Summary			
HCM 2010 Ctrl Delay		151.3	
HCM 2010 LOS		F	

Notes

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	21	0	2	14	14	1	1	2	10	1	4
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	26	0	2	17	17	1	1	2	12	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	36	0	0	28	0	0	66	71	30	64	62	30
Stage 1	-	-	-	-	-	-	30	30	-	32	32	-
Stage 2	-	-	-	-	-	-	36	41	-	32	30	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1575	-	-	1585	-	-	927	819	1044	930	829	1044
Stage 1	-	-	-	-	-	-	987	870	-	984	868	-
Stage 2	-	-	-	-	-	-	980	861	-	984	870	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1572	-	-	1582	-	-	917	815	1041	922	825	1041
Mov Capacity-2 Maneuver	-	-	-	-	-	-	917	815	-	922	825	-
Stage 1	-	-	-	-	-	-	984	868	-	981	866	-
Stage 2	-	-	-	-	-	-	971	859	-	978	868	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9	9

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	944	1572	-	-	1582	-	-	943
HCM Lane V/C Ratio	0.005	0.001	-	-	0.002	-	-	0.019
HCM Control Delay (s)	8.8	7.292	0	-	7.279	0	-	8.9
HCM Lane LOS	A	A	A		A	A		A
HCM 95th %tile Q(veh)	0.016	0.002	-	-	0.005	-	-	0.059

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	40	76	13	56	39	5
Conflicting Peds, #/hr	2	2	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	85	15	63	44	6

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	141	50	0	0	80	0
Stage 1	48	-	-	-	-	-
Stage 2	93	-	-	-	-	-
Follow-up Headway	4	3	-	-	2	-
Pot Capacity-1 Maneuver	852	1018	-	-	1518	-
Stage 1	974	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	825	1015	-	-	1515	-
Mov Capacity-2 Maneuver	825	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	7

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	940	1515	-
HCM Lane V/C Ratio	-	-	0.139	0.029	-
HCM Control Delay (s)	-	-	9.4	7.447	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	0.481	0.089	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	6	82	135	139	125	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	89	147	151	136	4
Number of Lanes	1	2	2	1	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	7.7	7.1	10.1
HCM LOS	A	A	B

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	41	41	68	68	139	125	4
LT Vol	0	41	41	68	68	0	0	0
Through Vol	0	0	0	0	0	139	0	4
RT Vol	6	0	0	0	0	0	125	0
Lane Flow Rate	7	45	45	73	73	151	136	4
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.068	0.046	0.106	0.106	0.115	0.22	0.006
Departure Headway (Hd)	5.961	5.458	3.713	5.192	5.192	2.744	5.816	4.62
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	600	656	960	691	691	1302	615	771
Service Time	3.702	3.198	1.453	2.917	2.917	0.469	3.565	2.368
HCM Lane V/C Ratio	0.012	0.069	0.047	0.106	0.106	0.116	0.221	0.005
HCM Control Delay	8.8	8.6	6.6	8.5	8.5	5.8	10.2	7.4
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	0	0.2	0.1	0.4	0.4	0.4	0.8	0

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	178	25	484	263	82	8	2	321	34	3	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	2	1	1	0	1	1	0	1	1
Cap, veh/h	8	483	203	825	680	574	295	57	423	295	19	423
Arrive On Green	0.00	0.13	0.13	0.24	0.37	0.37	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1774	3725	1565	3442	1863	1572	517	213	1574	479	70	1574
Grp Volume(v), veh/h	4	184	26	499	271	85	10	0	331	38	0	3
Grp Sat Flow(s),veh/h/ln	1774	1863	1565	1721	1863	1572	730	0	1574	549	0	1574
Q Serve(g_s), s	0.1	1.9	0.6	5.3	4.5	1.5	0.0	0.0	8.1	1.0	0.0	0.1
Cycle Q Clear(g_c), s	0.1	1.9	0.6	5.3	4.5	1.5	6.3	0.0	8.1	6.8	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	0.80		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	8	483	203	825	680	574	352	0	423	314	0	423
V/C Ratio(X)	0.52	0.38	0.13	0.60	0.40	0.15	0.03	0.00	0.78	0.12	0.00	0.01
Avail Cap(c_a), veh/h	471	2697	1133	1329	1574	1328	668	0	760	545	0	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	16.5	16.0	14.0	9.8	8.8	11.5	0.0	14.0	14.9	0.0	11.1
Incr Delay (d2), s/veh	45.1	0.5	0.3	0.7	0.4	0.1	0.0	0.0	3.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.8	0.2	2.1	1.8	0.5	0.1	0.0	3.0	0.3	0.0	0.0
Lane Grp Delay (d), s/veh	65.7	17.0	16.2	14.7	10.1	8.9	11.6	0.0	17.3	15.1	0.0	11.1
Lane Grp LOS	E	B	B	B	B	A	B		B	B		B
Approach Vol, veh/h		214			855			341			41	
Approach Delay, s/veh		17.8			12.7			17.1			14.8	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.2	10.4		14.9	20.1			16.1			16.1	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	11.0	30.0		16.0	35.0			20.0			20.0	
Max Q Clear Time (g_c+I1), s	2.1	3.9		7.3	6.5			10.1			8.8	
Green Ext Time (p_c), s	0.0	1.2		2.6	4.0			1.1			1.1	
Intersection Summary												
HCM 2010 Ctrl Delay			14.5									
HCM 2010 LOS			B									
Notes												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	31	181	62	87	172	20	264	264	112	43	251	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Cap, veh/h	102	550	231	212	669	282	510	1022	432	68	613	258
Arrive On Green	0.03	0.15	0.15	0.06	0.18	0.18	0.15	0.27	0.27	0.04	0.16	0.16
Sat Flow, veh/h	3442	3725	1567	3442	3725	1570	3442	3725	1575	1774	3725	1569
Grp Volume(v), veh/h	32	185	63	89	176	20	269	269	114	44	256	83
Grp Sat Flow(s),veh/h/ln	1721	1863	1567	1721	1863	1570	1721	1863	1575	1774	1863	1569
Q Serve(g_s), s	0.4	1.9	0.8	1.0	1.7	0.4	3.0	2.4	2.4	1.0	2.6	1.3
Cycle Q Clear(g_c), s	0.4	1.9	0.8	1.0	1.7	0.4	3.0	2.4	2.4	1.0	2.6	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	550	231	212	669	282	510	1022	432	68	613	258
V/C Ratio(X)	0.31	0.34	0.27	0.42	0.26	0.07	0.53	0.26	0.26	0.65	0.42	0.32
Avail Cap(c_a), veh/h	823	1781	749	823	1781	751	823	2227	941	424	2227	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	16.0	4.7	18.9	14.8	14.3	16.5	11.9	11.9	19.8	15.7	7.1
Incr Delay (d2), s/veh	1.7	0.4	0.6	1.3	0.2	0.1	0.9	0.1	0.3	9.9	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.8	0.5	0.4	0.7	0.2	1.2	1.0	0.8	0.6	1.1	0.7
Lane Grp Delay (d), s/veh	21.6	16.3	5.3	20.2	15.0	14.4	17.3	12.0	12.2	29.8	16.1	7.8
Lane Grp LOS	C	B	A	C	B	B	B	B	B	C	B	A
Approach Vol, veh/h		280			285			652			383	
Approach Delay, s/veh		14.5			16.6			14.2			15.9	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.2	11.2		7.6	12.5		11.2	16.5		6.6	11.9	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	10.0	20.0		10.0	20.0		10.0	25.0		10.0	25.0	
Max Q Clear Time (g_c+I1), s	2.4	3.9		3.0	3.7		5.0	4.4		3.0	4.6	
Green Ext Time (p_c), s	0.0	2.3		0.1	2.3		1.5	3.0		0.0	1.8	

Intersection Summary		
HCM 2010 Ctrl Delay		15.1
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	34	26	90	107	42	39	131	494	96	38	312	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Cap, veh/h	190	175	147	146	129	108	180	901	174	74	775	92
Arrive On Green	0.11	0.09	0.09	0.08	0.07	0.07	0.10	0.30	0.30	0.04	0.24	0.24
Sat Flow, veh/h	1774	1863	1559	1774	1863	1559	1774	3031	586	1774	3264	388
Grp Volume(v), veh/h	35	27	94	111	44	41	136	316	299	40	184	180
Grp Sat Flow(s),veh/h/ln	1774	1863	1559	1774	1863	1559	1774	1863	1754	1774	1863	1789
Q Serve(g_s), s	0.7	0.5	2.4	2.5	0.9	1.0	3.1	5.9	6.0	0.9	3.5	3.5
Cycle Q Clear(g_c), s	0.7	0.5	2.4	2.5	0.9	1.0	3.1	5.9	6.0	0.9	3.5	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.22
Lane Grp Cap(c), veh/h	190	175	147	146	129	108	180	554	521	74	442	425
V/C Ratio(X)	0.18	0.15	0.64	0.76	0.34	0.38	0.76	0.57	0.57	0.54	0.42	0.42
Avail Cap(c_a), veh/h	645	678	567	645	678	567	645	1355	1276	645	1355	1302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	17.2	18.0	18.5	18.3	18.3	18.0	12.3	12.3	19.4	13.3	13.3
Incr Delay (d2), s/veh	0.5	0.4	4.6	8.0	1.6	2.2	6.3	0.9	1.0	6.1	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.3	1.0	1.3	0.4	0.4	1.6	2.4	2.3	0.5	1.5	1.4
Lane Grp Delay (d), s/veh	17.2	17.6	22.6	26.5	19.9	20.5	24.3	13.2	13.3	25.5	13.9	14.0
Lane Grp LOS	B	B	C	C	B	C	C	B	B	C	B	B
Approach Vol, veh/h		156			196			751			404	
Approach Delay, s/veh		20.5			23.8			15.2			15.1	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	9.4	8.9		8.4	7.8		9.2	17.3		6.7	14.8	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	15.0	15.0		15.0	15.0		15.0	30.0		15.0	30.0	
Max Q Clear Time (g_c+I1), s	2.7	4.4		4.5	3.0		5.1	8.0		2.9	5.5	
Green Ext Time (p_c), s	0.4	0.3		0.2	0.2		0.2	3.9		1.8	2.3	

Intersection Summary												
HCM 2010 Ctrl Delay			16.9									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	138	173	45	150	120	56	177	836	303	111	491	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1	1	2	1	1	2	1
Cap, veh/h	184	282	238	309	513	215	352	1261	532	161	860	363
Arrive On Green	0.10	0.15	0.15	0.09	0.14	0.14	0.20	0.34	0.34	0.09	0.23	0.23
Sat Flow, veh/h	1774	1863	1568	3442	3725	1566	1774	3725	1572	1774	3725	1573
Grp Volume(v), veh/h	145	182	47	158	126	59	186	880	319	117	517	133
Grp Sat Flow(s),veh/h/ln	1774	1863	1568	1721	1863	1566	1774	1863	1572	1774	1863	1573
Q Serve(g_s), s	3.9	4.5	1.3	2.1	1.5	1.2	4.6	9.9	8.2	3.1	6.0	2.2
Cycle Q Clear(g_c), s	3.9	4.5	1.3	2.1	1.5	1.2	4.6	9.9	8.2	3.1	6.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	282	238	309	513	215	352	1261	532	161	860	363
V/C Ratio(X)	0.79	0.64	0.20	0.51	0.25	0.27	0.53	0.70	0.60	0.73	0.60	0.37
Avail Cap(c_a), veh/h	219	805	677	779	1993	838	402	1610	679	402	1610	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	19.4	18.0	21.1	18.7	9.3	17.4	13.9	13.3	21.5	16.7	6.7
Incr Delay (d2), s/veh	14.7	2.5	0.4	1.3	0.2	0.7	1.2	0.9	1.1	6.1	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.3	2.0	0.5	0.9	0.6	0.6	1.8	4.0	2.7	1.5	2.5	1.1
Lane Grp Delay (d), s/veh	35.9	21.8	18.4	22.4	19.0	10.0	18.7	14.9	14.4	27.6	17.4	7.3
Lane Grp LOS	D	C	B	C	B	A	B	B	B	C	B	A
Approach Vol, veh/h		374			343			1385			767	
Approach Delay, s/veh		26.9			19.0			15.3			17.2	
Approach LOS		C			B			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	9.1	11.4		8.4	10.7		13.6	20.5		8.4	15.2	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	6.0	21.0		11.0	26.0		11.0	21.0		11.0	21.0	
Max Q Clear Time (g_c+I1), s	5.9	6.5		4.1	3.5		6.6	11.9		5.1	8.0	
Green Ext Time (p_c), s	0.0	0.9		0.8	1.4		0.4	4.4		0.4	2.9	

Intersection Summary												
HCM 2010 Ctrl Delay			17.7									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	59	5	51	76	142	143	622	115	7	407	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	249	332	27	387	113	211	187	798	674	44	547	85
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.11	0.43	0.43	0.02	0.35	0.35
Sat Flow, veh/h	1145	1697	139	1316	577	1079	1774	1863	1574	1774	1574	244
Grp Volume(v), veh/h	51	0	66	53	0	224	147	641	119	7	0	485
Grp Sat Flow(s),veh/h/ln	1145	0	1836	1316	0	1656	1774	1863	1574	1774	0	1818
Q Serve(g_s), s	1.9	0.0	1.3	1.5	0.0	5.4	3.5	12.8	2.0	0.2	0.0	10.1
Cycle Q Clear(g_c), s	7.2	0.0	1.3	2.8	0.0	5.4	3.5	12.8	2.0	0.2	0.0	10.1
Prop In Lane	1.00		0.08	1.00		0.65	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	249	0	360	387	0	324	187	798	674	44	0	632
V/C Ratio(X)	0.20	0.00	0.18	0.14	0.00	0.69	0.79	0.80	0.18	0.16	0.00	0.77
Avail Cap(c_a), veh/h	426	0	645	591	0	581	208	1090	921	208	0	1064
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	14.3	15.5	0.0	16.0	18.6	10.6	7.6	20.4	0.0	12.4
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.2	0.0	2.6	16.4	8.4	0.6	1.7	0.0	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.6	0.5	0.0	2.2	2.2	6.7	0.7	0.1	0.0	5.3
Lane Grp Delay (d), s/veh	19.7	0.0	14.6	15.6	0.0	18.6	35.1	19.1	8.1	22.1	0.0	21.1
Lane Grp LOS	B		B	B		B	D	B	A	C		C
Approach Vol, veh/h		117			277			907			492	
Approach Delay, s/veh		16.8			18.0			20.2			21.1	
Approach LOS		B			B			C			C	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		13.4			13.4		9.5	23.3		6.1	19.9	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		15.0			15.0		5.0	25.0		5.0	25.0	
Max Q Clear Time (g_c+I1), s		9.2			7.4		5.5	14.8		2.2	12.1	
Green Ext Time (p_c), s		1.0			1.2		0.0	3.5		0.9	2.6	

Intersection Summary												
HCM 2010 Ctrl Delay			19.9									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	7	14	175	5	112	5	483	103	84	274	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Cap, veh/h	71	69	65	274	6	488	9	563	120	137	840	0
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.01	0.38	0.38	0.08	0.45	0.00
Sat Flow, veh/h	0	223	208	527	20	1571	1774	1488	317	1774	1863	0
Grp Volume(v), veh/h	29	0	0	184	0	114	5	0	598	86	280	0
Grp Sat Flow(s),veh/h/ln	431	0	0	547	0	1571	1774	0	1804	1774	1863	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	3.5	0.2	0.0	19.8	3.0	6.3	0.0
Cycle Q Clear(g_c), s	20.0	0.0	0.0	20.0	0.0	3.5	0.2	0.0	19.8	3.0	6.3	0.0
Prop In Lane	0.28		0.48	0.97		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	205	0	0	281	0	488	9	0	683	137	840	0
V/C Ratio(X)	0.14	0.00	0.00	0.66	0.00	0.23	0.53	0.00	0.88	0.63	0.33	0.00
Avail Cap(c_a), veh/h	205	0	0	281	0	488	138	0	841	414	1158	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.3	0.0	0.0	22.9	0.0	16.5	31.9	0.0	18.6	28.8	11.4	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	5.4	0.0	0.2	39.3	0.0	14.7	4.6	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.0	3.3	0.0	1.3	0.2	0.0	10.9	1.5	2.9	0.0
Lane Grp Delay (d), s/veh	17.6	0.0	0.0	28.3	0.0	16.7	71.2	0.0	33.2	33.4	12.5	0.0
Lane Grp LOS	B			C		B	E		C	C	B	
Approach Vol, veh/h		29			298			603			366	
Approach Delay, s/veh		17.6			23.9			33.6			17.4	
Approach LOS		B			C			C			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		25.0			25.0		5.3	29.4		10.0	34.0	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		20.0			20.0		5.0	30.0		15.0	40.0	
Max Q Clear Time (g_c+I1), s		22.0			22.0		2.2	21.8		5.0	8.3	
Green Ext Time (p_c), s		0.0			0.0		0.0	2.5		1.3	2.0	

Intersection Summary		
HCM 2010 Ctrl Delay	26.4	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	118	88	34	128	110	63	260	54	33	214	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Cap, veh/h	419	244	183	369	461	388	96	427	89	59	416	65
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.29	0.29	0.03	0.26	0.26
Sat Flow, veh/h	1117	985	739	1153	1863	1567	1774	1494	311	1774	1572	245
Grp Volume(v), veh/h	26	0	217	36	135	116	66	0	331	35	0	260
Grp Sat Flow(s),veh/h/ln	1117	0	1724	1153	1863	1567	1774	0	1805	1774	0	1817
Q Serve(g_s), s	0.7	0.0	3.7	1.0	2.0	2.1	1.3	0.0	5.6	0.7	0.0	4.2
Cycle Q Clear(g_c), s	2.7	0.0	3.7	4.7	2.0	2.1	1.3	0.0	5.6	0.7	0.0	4.2
Prop In Lane	1.00		0.43	1.00		1.00	1.00		0.17	1.00		0.13
Lane Grp Cap(c), veh/h	419	0	427	369	461	388	96	0	516	59	0	481
V/C Ratio(X)	0.06	0.00	0.51	0.10	0.29	0.30	0.69	0.00	0.64	0.60	0.00	0.54
Avail Cap(c_a), veh/h	788	0	996	750	1077	906	513	0	1565	513	0	1575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	11.2	13.2	10.6	10.6	16.1	0.0	10.8	16.5	0.0	10.9
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.1	0.3	0.4	8.3	0.0	6.0	9.4	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	1.4	0.2	0.8	0.7	0.7	0.0	2.9	0.4	0.0	2.2
Lane Grp Delay (d), s/veh	11.7	0.0	12.1	13.3	10.9	11.0	24.4	0.0	16.8	25.9	0.0	15.2
Lane Grp LOS	B		B	B	B	B	C		B	C		B
Approach Vol, veh/h		243			287			397			295	
Approach Delay, s/veh		12.1			11.2			18.1			16.5	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		13.6			13.6		6.9	14.9		6.1	14.2	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		20.0			20.0		10.0	30.0		10.0	30.0	
Max Q Clear Time (g_c+I1), s		5.7			6.7		3.3	7.6		2.7	6.2	
Green Ext Time (p_c), s		2.3			2.2		0.1	2.0		0.9	1.6	

Intersection Summary												
HCM 2010 Ctrl Delay			14.9									
HCM 2010 LOS			B									

Notes

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	95	210	0	44	202	0	3	12	30	105	7	35
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	101	223	0	47	215	0	3	13	32	112	7	37
Number of Lanes	1	2	0	1	2	0	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	9.1	8.8	9.2	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	7%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	27%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	67%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	95	105	105	44	101	101	105	7	35
LT Vol	12	0	105	105	0	101	101	0	7	0
Through Vol	30	0	0	0	0	0	0	0	0	35
RT Vol	3	95	0	0	44	0	0	105	0	0
Lane Flow Rate	48	101	112	112	47	107	107	112	7	37
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.079	0.173	0.176	0.122	0.082	0.173	0.121	0.2	0.012	0.054
Departure Headway (Hd)	5.946	6.276	5.773	4.028	6.4	5.897	4.151	6.437	5.937	5.237
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	606	575	626	896	563	612	869	561	606	688
Service Time	3.653	3.976	3.473	1.728	4.1	3.597	1.851	4.14	3.64	2.94
HCM Lane V/C Ratio	0.079	0.176	0.179	0.125	0.083	0.175	0.123	0.2	0.012	0.054
HCM Control Delay	9.2	10.3	9.7	7.3	9.7	9.8	7.4	10.7	8.7	8.2
HCM Lane LOS	A	B	A	A	A	A	A	B	A	A
HCM 95th-tile Q	0.3	0.6	0.6	0.4	0.3	0.6	0.4	0.7	0	0.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	108	245	0	15	144	0	23	2	5	65	1	38
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	127	288	0	18	169	0	27	2	6	76	1	45
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	8.6	7.9	9.3	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	77%	100%	0%	0%	100%	0%	0%	62%
Vol Thru, %	7%	0%	100%	100%	0%	100%	100%	1%
Vol Right, %	17%	0%	0%	0%	0%	0%	0%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	108	123	123	15	72	72	104
LT Vol	2	0	123	123	0	72	72	1
Through Vol	5	0	0	0	0	0	0	38
RT Vol	23	108	0	0	15	0	0	65
Lane Flow Rate	35	127	144	144	18	85	85	122
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.06	0.2	0.207	0.137	0.029	0.127	0.086	0.198
Departure Headway (Hd)	6.162	5.68	5.177	3.43	5.897	5.393	3.644	5.82
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	577	631	692	1039	605	662	975	613
Service Time	3.942	3.423	2.919	1.172	3.65	3.145	1.396	3.587
HCM Lane V/C Ratio	0.061	0.201	0.208	0.139	0.03	0.128	0.087	0.199
HCM Control Delay	9.3	9.8	9.3	6.7	8.8	8.9	6.7	10
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.7	0.8	0.5	0.1	0.4	0.3	0.7

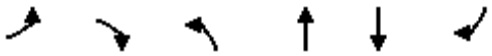
Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	161	22	1105	106	28	743
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frpb, ped/bikes	1.00	0.99	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1560	5085	1562	3433	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1560	5085	1562	3433	3539
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	173	24	1188	114	30	799
RTOR Reduction (vph)	0	19	0	65	0	0
Lane Group Flow (vph)	173	5	1188	49	30	799
Confl. Peds. (#/hr)	2	2		2	2	
Turn Type	NA	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	10.4	10.4	20.9	20.9	2.8	27.7
Effective Green, g (s)	10.4	10.4	20.9	20.9	2.8	27.7
Actuated g/C Ratio	0.21	0.21	0.43	0.43	0.06	0.57
Clearance Time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Vehicle Extension (s)	5.0	5.0	2.0	2.0	5.0	2.0
Lane Grp Cap (vph)	733	333	2182	670	197	2012
v/s Ratio Prot	c0.05		c0.23		0.01	c0.23
v/s Ratio Perm		0.00		0.03		
v/c Ratio	0.24	0.02	0.54	0.07	0.15	0.40
Uniform Delay, d1	15.9	15.1	10.4	8.2	21.8	5.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.0	0.1	0.0	0.8	0.0
Delay (s)	16.2	15.1	10.5	8.2	22.6	5.9
Level of Service	B	B	B	A	C	A
Approach Delay (s)	16.1		10.3			6.5
Approach LOS	B		B			A

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	14.6
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	299	268	243	132	88	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1538	3433	1863	1863	1559
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1538	3433	1863	1863	1559
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	325	291	264	143	96	299
RTOR Reduction (vph)	0	206	0	0	0	228
Lane Group Flow (vph)	325	85	264	143	96	71
Confl. Peds. (#/hr)	5	5	5			5
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	16.8	16.8	10.5	28.6	13.6	13.6
Effective Green, g (s)	16.8	16.8	10.5	28.6	13.6	13.6
Actuated g/C Ratio	0.29	0.29	0.18	0.50	0.24	0.24
Clearance Time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	5.0	5.0	5.0
Lane Grp Cap (vph)	518	450	627	928	441	369
v/s Ratio Prot	c0.18		c0.08	0.08	c0.05	
v/s Ratio Perm		0.06				0.05
v/c Ratio	0.63	0.19	0.42	0.15	0.22	0.19
Uniform Delay, d1	17.6	15.2	20.8	7.8	17.6	17.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.2	0.5	0.2	0.5	0.5
Delay (s)	20.0	15.4	21.2	8.0	18.1	18.0
Level of Service	B	B	C	A	B	B
Approach Delay (s)	17.8			16.6	18.1	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	210	3	188	243	29	153
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	219	3	196	253	30	159
Number of Lanes	1	1	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	13.8	16.2	10.4
HCM LOS	B	C	B

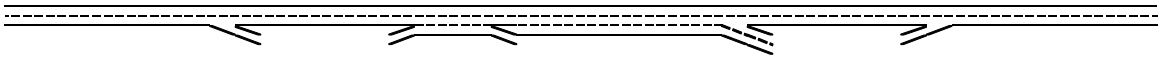
Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	44%	0%	0%	0%	100%
Vol Right, %	56%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	431	210	3	29	153
LT Vol	188	0	0	0	153
Through Vol	243	0	3	0	0
RT Vol	0	210	0	29	0
Lane Flow Rate	449	219	3	30	159
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.623	0.407	0.005	0.053	0.259
Departure Headway (Hd)	5.102	6.703	5.489	6.354	5.847
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	714	540	655	565	617
Service Time	3.102	4.412	3.197	4.073	3.566
HCM Lane V/C Ratio	0.629	0.406	0.005	0.053	0.258
HCM Control Delay	16.2	13.9	8.2	9.4	10.6
HCM Lane LOS	C	B	A	A	B
HCM 95th-tile Q	4.4	2	0	0.2	1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Appendix E-3:
Technical Calculations
Existing Conditions –
Freeway & Highway Level of Service

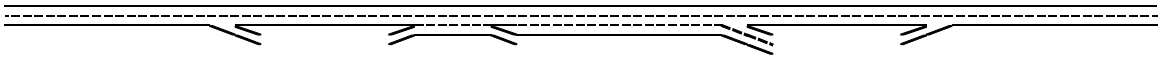
Location	15	16	17	18	19	20	21	22	23



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment									
Type	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	5,960	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length								600	
Decel Length		175							
Mainline Volume	1,698	1,698	1,346	1,346	1,131	1,131	719	719	834
On Ramp Volume				412				115	
Off Ramp Volume		352		627		412			
Express Lane Volume									
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in General Purpose Lanes (GP)									
GP Volume (vph)	1,698	1,698	1,346	1,758	1,131	1,131	719	834	834
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
GP Lanes	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	2,038	2,038	1,615	2,110	1,357	1,357	863	1,001	1,001
GP Flow (pcphpl)	1,019	1,019	808	703	452	452	431	500	500
Calculate Speed in General Purpose Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes									
v/c ratio	0.43	0.43	0.34	0.30	0.19	0.19	0.18	0.21	0.21
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	15.7	15.7	12.4	10.8	7.0	7.0	6.6	7.7	7.7
LOS	B	B	B	A	A	A	A	A	A
Calculate Operations for Entering GP Lanes									
GP_{IN} Vol (pcph)		2,038		1,654				870	
GP_{IN} Cap (pcph)		4,700		4,700				4,700	
GP_{IN} v/c ratio		0.43		0.35				0.19	
Calculate Operations for Exiting GP Lanes									
GP_{OUT} Vol (pcph)		1,658		1,337		880		1,001	
GP_{OUT} Cap (pcph)		4,700		4,700		4,700		4,700	
GP_{OUT} v/c ratio		0.35		0.28		0.19		0.21	
Calculate Flow Rate in Express Lanes (EL)									
Calculate Speed in Express Lanes									
Calculate Operations in Express Lanes									
Calculate On Ramp Flow Rate									
On Volume (vph)				412				115	
PHF				0.936				0.9	
Total Lanes				1				1	
Terrain				Level				Level	
Grade %				0.0%				0.0%	
Grade Length (mi)				0.00				0.00	
Truck & Bus %				7.0%				4.0%	
RV %				0.0%				0.0%	
E_T				1.5				1.5	
E_R				1.2				1.2	
f_{HV}				0.966				0.980	
f_P				1.00				1.00	
On Flow (pcph)				456				130	
On Flow (pcphpl)				456				130	
Calculate On Ramp Roadway Operations									
On Ramp Type				Right				Right	
On Ramp Speed (mph)				45				45	
On Ramp Cap (pcph)				2,100				2,100	
On Ramp v/c ratio				0.22				0.06	

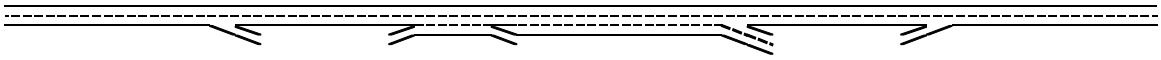
Location	15	16	17	18	19	20	21	22	23



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Off Ramp Flow Rate									
Off Volume (vph)		352		627		412			
PHF		0.936		0.824		0.88			
Total Lanes		1		1		2			
Terrain		Level		Level		Level			
Grade %		0.0%		0.0%		0.0%			
Grade Length (mi)		0.00		0.00		0.00			
Truck & Bus %		2.0%		3.0%		4.0%			
RV %		0.0%		0.0%		0.0%			
E_T		1.5		1.5		1.5			
E_R		1.2		1.2		1.2			
f_{HV}		0.990		0.985		0.980			
f_P		1.00		1.00		1.00			
Off Flow (pcph)		380		772		478			
Off Flow (pcphpl)		380		772		239			
Calculate Off Ramp Roadway Operations									
Off Ramp Type		Right		Right		Right			
Off Ramp Speed		45		45		45			
Off Ramp Cap (pcph)		2,100		2,100		4,200			
Off Ramp v/c ratio		0.18		0.37		0.11			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)								870	
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)								0.594	
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}								1.000	
v_{12} (pcph)								870	
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)								870	
v_{R12a} (pcph)								1,001	
Merge Speed Index								0.28	
Merge Area Speed								58.6	
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed								58.6	
Merge v/c ratio								0.22	
Merge Density								9.5	
Merge LOS								A	
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)		2,038							
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)		0.692							
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}		1.000							
v_{12} (pcph)		2,038							
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)		2,038							
Diverge Speed Index		0.33							
Diverge Area Speed		57.4							
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed		57.4							
Diverge v/c ratio		0.46							
Diverge Density		20.2							
Diverge LOS		C							

Location	15	16	17	18	19	20	21	22	23



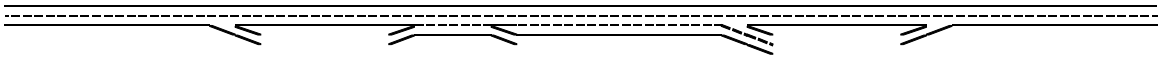
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)				41					
PHF				0.8					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				7.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.966					
f_P				1.00					
On to Off Flow (pcph)				53					
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)				371					
PHF				0.83					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_P				1.00					
On to ML Flow (pcph)				453					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)				586					
PHF				0.825					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_P				1.00					
ML to Off Flow (pcph)				721					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)				760					
PHF				0.825					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_P				1.00					
GP to GP Flow (pcph)				935					

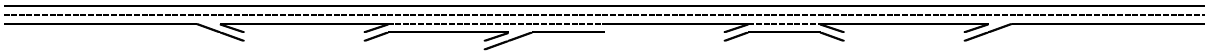
Location	15	16	17	18	19	20	21	22	23



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations									
Weave Type				One-sided					
Weave Length				1,680					
Segment Lanes				3					
Weave Lanes				3					
Weave Flow (pcph)				1,174					
Non-Weave Flow				989					
Segment Flow				2,163					
Max Weave Length				6,766					
Length Check				OK					
Ideal Weave Capacity				1,961					
f_{HV}				0.985					
f_P				0.997					
Capacity Condition 1				5,775					
Capacity Condition 2				6,329					
Weave v/c ratio				0.37					
Interchange Density				0.666666667					
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate				0					
Weave LC Rate				564					
Non-Weave LC Rate 1				536					
Non-Weave LC Rate 2				1,909					
Non-Weave LC Rate 3				-1,976					
Segment LC Rate				1,100					
Weave Intensity Factor				0.162					
Weave Speed				58.0					
Non-Weave Speed				61.5					
Segment Speed				59.6					
Weave Density				12.1					
Weave LOS				B					
Summarize Segment Operations									
Segment v/c ratio	0.43	0.46	0.34	0.37	0.19	0.19	0.18	0.22	0.21
Segment Density	15.7	20.2	12.4	12.1	7.0	7.0	6.6	9.5	7.7
Segment LOS	B	C	B	B	A	A	A	A	A
Over Capacity									

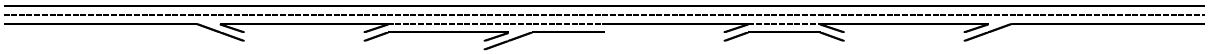
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
Define Freeway Segment										
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	7,650
Accel Length					720				450	
Decel Length		150								
Mainline Volume	870	870	788	788	1,494	2,038	2,038	2,407	2,407	2,984
On Ramp Volume				706	544		880		577	
Off Ramp Volume		82					511			
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in General Purpose Lanes (GP)										
GP Volume (vph)	870	870	788	1,494	2,038	2,038	2,918	2,407	2,984	2,984
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
GP Lanes	2	2	2	3	3	2	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_p	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	976	976	884	1,677	2,287	2,287	3,275	2,701	3,349	3,349
GP Flow (pcphpl)	488	488	442	559	762	1,144	1,092	1,351	1,674	1,674
Calculate Speed in General Purpose Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes										
Calculate Flow Rate in Express Lanes (EL)										
Calculate Speed in Express Lanes										
Calculate Operations in Express Lanes										
EL_{IN} v/c ratio										
Calculate On Ramp Flow Rate										
On Volume (vph)				706	544		880		577	
PHF				0.878	0.774		0.893		0.706	
Total Lanes				1	1		1		1	
Terrain				Level	Level		Level		Level	
Grade %				0.0%	0.0%		0.0%		0.0%	
Grade Length (mi)				0.00	0.00		0.00		0.00	
Truck & Bus %				2.0%	2.0%		2.0%		2.0%	
RV %				0.0%	0.0%		0.0%		0.0%	
E_T				1.5	1.5		1.5		1.5	
E_R				1.2	1.2		1.2		1.2	
f_{HV}				0.990	0.990		0.990		0.990	
f_p				1.00	1.00		1.00		1.00	
On Flow (pcph)				812	710		995		825	
On Flow (pcphpl)				812	710		995		825	
Calculate On Ramp Roadway Operations										
On Ramp Type				Right	Right		Right		Right	
On Ramp Speed (mph)				25	45		45		25	
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900	
On Ramp v/c ratio				0.43	0.34		0.47		0.43	
Calculate Off Ramp Flow Rate										
Off Volume (vph)		82					511			
PHF		0.774					0.706			
Total Lanes		1					1			
Terrain		Level					Level			
Grade %		0.0%					0.0%			
Grade Length (mi)		0.00					0.00			
Truck & Bus %		2.0%					4.0%			
RV %		0.0%					0.0%			
E_T		1.5					1.5			
E_R		1.2					1.2			
f_{HV}		0.990					0.980			
f_p		1.00					1.00			
Off Flow (pcph)		107					738			
Off Flow (pcphpl)		107					738			

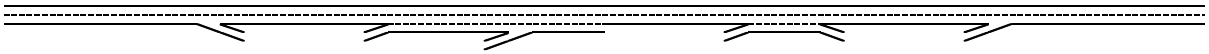
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
Calculate Off Ramp Roadway Operations										
Off Ramp Type		Right					Right			
Off Ramp Speed		45					45			
Off Ramp Cap (pcph)		2,100					2,100			
Off Ramp v/c ratio		0.05					0.35			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type					On					
Up Distance					1,000					
Up Flow (pcph)					812					
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_P (pcph)					1,577				2,523	
Up Ramp L_{EQ}					761					
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)					0.598				0.590	
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}					0.598				1.000	
v_{12} (pcph)					943				2,523	
v_3 (pcph)					635					
v_{34} (pcph)										
v_{12a} (pcph)					943				2,523	
v_{R12a} (pcph)					1,653				3,349	
Merge Speed Index					0.28				0.41	
Merge Area Speed					58.6				55.6	
Outer Lanes Volume					635					
Outer Lanes Speed					64.5					
Segment Speed					60.2				55.6	
Merge v/c ratio					0.36				0.73	
Merge Density					13.5				28.4	
Merge LOS					B				D	
Calculate Diverge Influence Area Operations										
Effective v_P (pcph)		976								
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)		0.731								
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}		1.000								
v_{12} (pcph)		976								
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)		976								
Diverge Speed Index		0.31								
Diverge Area Speed		57.9								
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed		57.9								
Diverge v/c ratio		0.22								
Diverge Density		11.3								
Diverge LOS		B								
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)							88			
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_P							1.00			
On to Off Flow (pcph)							94			
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)							792			
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_P							1.00			
On to ML Flow (pcph)							846			

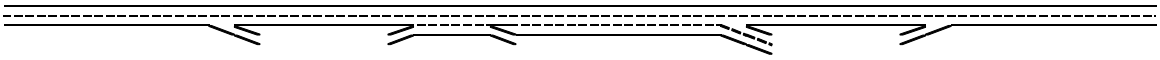
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)							423			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
ML to Off Flow (pcph)							503			
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)							1,615			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
GP to GP Flow (pcph)							1,919			
Calculate Weave Segment Operations										
Weave Type							One-sided			
Weave Length							2,050			
Segment Lanes							3			
Weave Lanes							2			
Weave Flow (pcph)							1,349			
Non-Weave Flow							2,013			
Segment Flow							3,362			
Max Weave Length							6,695			
Length Check							OK			
Ideal Weave Capacity							1,995			
f_{HV}							0.989			
f_p							0.996			
Capacity Condition 1							5,895			
Capacity Condition 2							5,892			
Weave v/c ratio							0.56			
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Weave Density										
Weave LOS										
Summarize Segment Operations										
Segment v/c ratio	0.21	0.22	0.19	0.24	0.36	0.49	0.56	0.57	0.73	0.71
Segment Density	7.5	11.3	6.8	8.6	13.5	17.6		20.8	28.4	26.2
Segment LOS	A	B	A	A	B	B		C	D	D
Over Capacity										

Location	15	16	17	18	19	20	21	22	23



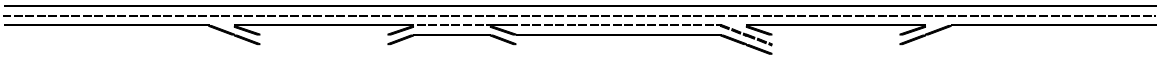
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment									
Type	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	5,960	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length								600	
Decel Length		175							
Mainline Volume	3,030	3,030	2,504	2,504	1,866	1,866	801	801	888
On Ramp Volume				331				87	
Off Ramp Volume		526		969		1,065			
Express Lane Volume									
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in General Purpose Lanes (GP)									
GP Volume (vph)	3,030	3,030	2,504	2,835	1,866	1,866	801	888	888
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,253	3,253	2,689	3,044	2,003	2,003	860	953	953
GP Flow (pcphpl)	1,627	1,627	1,344	1,015	668	668	430	477	477
Calculate Speed in General Purpose Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes									
Calculate Flow Rate in Express Lanes (EL)									
EL Volume (vph)									
PHF									
Express Lanes	0	0	0	0	0	0	0	0	0
Terrain									
Grade %									
Grade Length (mi)									
Truck & Bus %									
RV %									
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P									
EL Flow (pcph)									
EL Flow (pcphpl)									
Calculate Speed in Express Lanes									
Calculate Operations in Express Lanes									
Calculate On Ramp Flow Rate									
On Volume (vph)				331				87	
PHF				0.926				0.87	
Total Lanes				1				1	
Terrain				Level				Level	
Grade %				0.0%				0.0%	
Grade Length (mi)				0.00				0.00	
Truck & Bus %				3.0%				4.0%	
RV %				0.0%				0.0%	
E_T				1.5				1.5	
E_R				1.2				1.2	
f_{HV}				0.985				0.980	
f_P				1.00				1.00	
On Flow (pcph)				363				102	
On Flow (pcphpl)				363				102	
Calculate On Ramp Roadway Operations									
On Ramp Type				Right				Right	
On Ramp Speed (mph)				45				45	
On Ramp Cap (pcph)				2,100				2,100	
On Ramp v/c ratio				0.17				0.05	

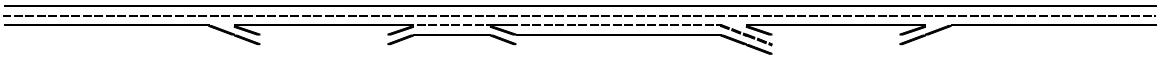
Location	15	16	17	18	19	20	21	22	23



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Off Ramp Flow Rate									
Off Volume (vph)		526		969		1,065			
PHF		0.926		0.954		0.87			
Total Lanes		1		1		2			
Terrain		Level		Level		Level			
Grade %		0.0%		0.0%		0.0%			
Grade Length (mi)		0.00		0.00		0.00			
Truck & Bus %		2.0%		3.0%		4.0%			
RV %		0.0%		0.0%		0.0%			
E_T		1.5		1.5		1.5			
E_R		1.2		1.2		1.2			
f_{HV}		0.990		0.985		0.980			
f_P		1.00		1.00		1.00			
Off Flow (pcph)		574		1,031		1,249			
Off Flow (pcphpl)		574		1,031		624			
Calculate Off Ramp Roadway Operations									
Off Ramp Type		Right		Right		Right			
Off Ramp Speed		45		45		45			
Off Ramp Cap (pcph)		2,100		2,100		4,200			
Off Ramp v/c ratio		0.27		0.49		0.30			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_P (pcph)								851	
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)								0.594	
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}								1.000	
v_{12} (pcph)								851	
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)								851	
v_{R12a} (pcph)								953	
Merge Speed Index								0.28	
Merge Area Speed								58.6	
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed								58.6	
Merge v/c ratio								0.21	
Merge Density								9.1	
Merge LOS								A	
Calculate Diverge Influence Area Operations									
Effective v_P (pcph)		3,253							
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)		0.652							
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}		1.000							
v_{12} (pcph)		3,253							
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)		3,253							
Diverge Speed Index		0.35							
Diverge Area Speed		57.0							
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed		57.0							
Diverge v/c ratio		0.74							
Diverge Density		30.7							
Diverge LOS		D							

Location	15	16	17	18	19	20	21	22	23



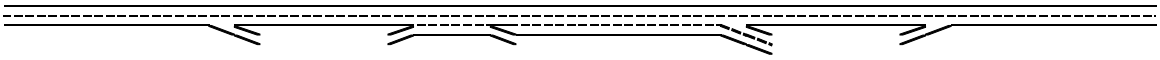
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)				33					
PHF				0.8					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_P				1.00					
On to Off Flow (pcph)				42					
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)				298					
PHF				0.8					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				7.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.966					
f_P				1.00					
On to ML Flow (pcph)				385					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)				936					
PHF				0.83					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_P				1.00					
ML to Off Flow (pcph)				1,145					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)				1,568					
PHF				0.825					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_P				1.00					
GP to GP Flow (pcph)				1,929					

Location	15	16	17	18	19	20	21	22	23



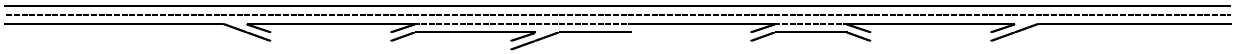
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations									
Weave Type				One-sided					
Weave Length				1,680					
Segment Lanes				3					
Weave Lanes				3					
Weave Flow (pcph)				1,530					
Non-Weave Flow				1,971					
Segment Flow				3,501					
Max Weave Length				5,533					
Length Check				OK					
Ideal Weave Capacity				2,055					
f_{HV}				0.983					
f_P				0.996					
Capacity Condition 1				6,039					
Capacity Condition 2				7,845					
Weave v/c ratio				0.57					
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Weave Density									
Weave LOS									
Summarize Segment Operations									
Segment v/c ratio	0.69	0.74	0.57	0.57	0.28	0.28	0.18	0.21	0.20
Segment Density	25.3	30.7	20.7		10.3	10.3	6.6	9.1	7.3
Segment LOS	C	D	C		A	A	A	A	A
Over Capacity									

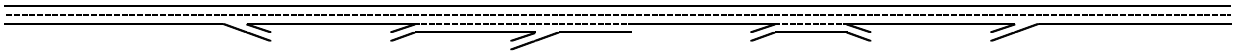
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
Define Freeway Segment										
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	7,650
Accel Length					720				450	
Decel Length		150								
Mainline Volume	1,014	1,014	870	870	1,120	1,284	1,284	1,700	1,700	2,137
On Ramp Volume				250	164		701		437	
Off Ramp Volume		144					285			
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in General Purpose Lanes (GP)										
GP Volume (vph)	1,014	1,014	870	1,120	1,284	1,284	1,985	1,700	2,137	2,137
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
GP Lanes	2	2	2	3	3	2	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_p	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	1,138	1,138	976	1,257	1,441	1,441	2,228	1,908	2,398	2,398
GP Flow (pcphpl)	569	569	488	419	480	720	743	954	1,199	1,199
Calculate Speed in General Purpose Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes										
v/c ratio	0.24	0.24	0.21	0.18	0.20	0.31	0.32	0.41	0.51	0.51
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	8.8	8.8	7.5	6.4	7.4	11.1	11.4	14.7	18.4	18.4
LOS	A	A	A	A	A	B	B	B	C	C
Calculate Operations for Entering GP Lanes										
GP_{IN} Vol (pcph)		1,138		973	1,257		1,432		1,909	
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		4,700	
GP_{IN} v/c ratio		0.24		0.21	0.18		0.30		0.41	
Calculate Operations for Exiting GP Lanes										
GP_{OUT} Vol (pcph)		976			1,441		1,908		2,398	
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		4,700	
GP_{OUT} v/c ratio		0.21			0.20		0.41		0.51	
Calculate Flow Rate in Express Lanes (EL)										
Calculate Speed in Express Lanes										
Calculate Operations in Express Lanes										
Calculate On Ramp Flow Rate										
On Volume (vph)				250	164		701		437	
PHF				0.881	0.9		0.894		0.906	
Total Lanes				1	1		1		1	
Terrain				Level	Level		Level		Level	
Grade %				0.0%	0.0%		0.0%		0.0%	
Grade Length (mi)				0.00	0.00		0.00		0.00	
Truck & Bus %				0.3%	1.6%		3.0%		3.0%	
RV %				0.0%	0.0%		0.0%		0.0%	
E_T				1.5	1.5		1.5		1.5	
E_R				1.2	1.2		1.2		1.2	
f_{HV}				0.999	0.992		0.985		0.985	
f_p				1.00	1.00		1.00		1.00	
On Flow (pcph)				284	184		796		490	
On Flow (pcphpl)				284	184		796		490	
Calculate On Ramp Roadway Operations										
On Ramp Type				Right	Right		Right		Right	
On Ramp Speed (mph)				25	45		45		25	
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900	
On Ramp v/c ratio				0.15	0.09		0.38		0.26	
Calculate Off Ramp Flow Rate										
Off Volume (vph)		144					285			
PHF		0.9					0.906			
Total Lanes		1					1			
Terrain		Level					Level			
Grade %		0.0%					0.0%			
Grade Length (mi)		0.00					0.00			
Truck & Bus %		3.0%					3.0%			
RV %		0.0%					0.0%			
E_T		1.5					1.5			
E_R		1.2					1.2			
f_{HV}		0.985					0.985			
f_p		1.00					1.00			

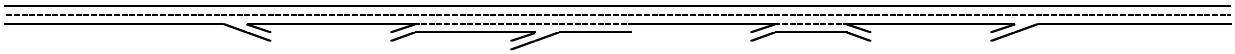
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
Off Flow (pcph)		162					319			
Off Flow (pcphpl)		162					319			
Calculate Off Ramp Roadway Operations										
Off Ramp Type		Right					Right			
Off Ramp Speed		45					45			
Off Ramp Cap (pcph)		2,100					2,100			
Off Ramp v/c ratio		0.08					0.15			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type					On					
Up Distance					1,000					
Up Flow (pcph)					284					
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_p (pcph)					1,257				1,909	
Up Ramp L_{EQ}					579					
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)					0.598				0.590	
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}					0.598				1.000	
v_{12} (pcph)					751				1,909	
v_3 (pcph)					506					
v_{34} (pcph)										
v_{12a} (pcph)					751				1,909	
v_{R12a} (pcph)					935				2,398	
Merge Speed Index					0.27				0.34	
Merge Area Speed					58.9				57.1	
Outer Lanes Volume					506					
Outer Lanes Speed					65.0					
Segment Speed					60.9				57.1	
Merge v/c ratio					0.20				0.52	
Merge Density					8.2				21.1	
Merge LOS					A				C	
Calculate Diverge Influence Area Operations										
Effective v_p (pcph)		1,138								
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)		0.724								
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}		1.000								
v_{12} (pcph)		1,138								
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)		1,138								
Diverge Speed Index		0.31								
Diverge Area Speed		57.8								
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed		57.8								
Diverge v/c ratio		0.26								
Diverge Density		12.7								
Diverge LOS		B								
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)							70			
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_p							1.00			
On to Off Flow (pcph)							75			
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)							631			
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_p							1.00			
On to ML Flow (pcph)							674			

Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

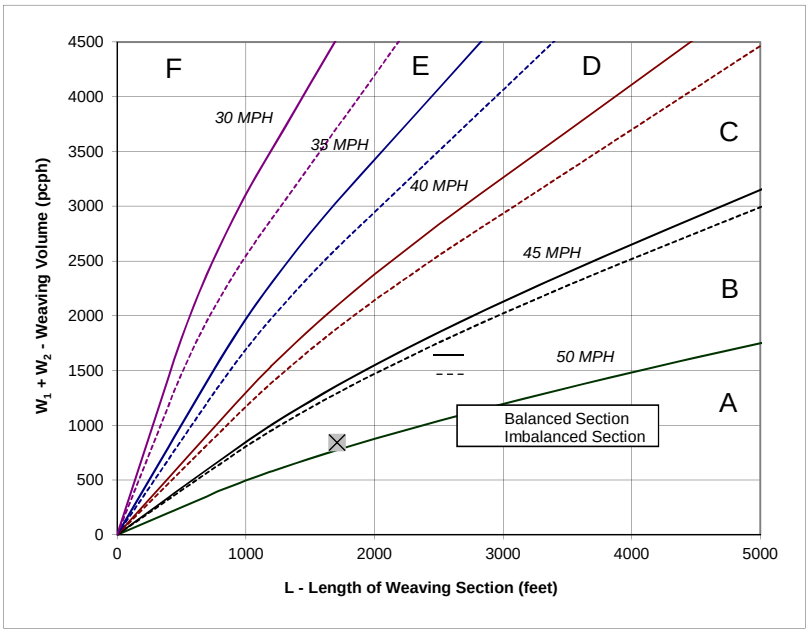
Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)							215			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
ML to Off Flow (pcph)							255			
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)							1,069			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
GP to GP Flow (pcph)							1,270			
Calculate Weave Segment Operations										
Weave Type							One-sided			
Weave Length							2,050			
Segment Lanes							3			
Weave Lanes							2			
Weave Flow (pcph)							929			
Non-Weave Flow							1,345			
Segment Flow							2,275			
Max Weave Length							6,778			
Length Check							OK			
Ideal Weave Capacity							1,988			
f_{HV}							0.988			
f_p							0.996			
Capacity Condition 1							5,870			
Capacity Condition 2							5,781			
Weave v/c ratio							0.39			
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Weave Density										
Weave LOS										
Summarize Segment Operations										
Segment v/c ratio	0.24	0.26	0.21	0.18	0.20	0.31	0.39	0.41	0.52	0.51
Segment Density	8.8	12.7	7.5	6.4	8.2	11.1		14.7	21.1	18.4
Segment LOS	A	B	A	A	A	B		B	C	C
Over Capacity										

Leisch Method for Weaving Analysis

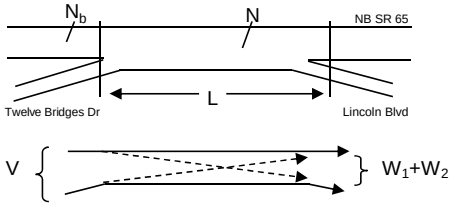
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information	
Project	Village 5 SP EIR
Scenario	Existing AM
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	1,758	Volume (vph)*	309	Volume (vph)*	524
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	1,776	Volume (pcph)	312	Volume (pcph)	529



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **49.3**
4. Weaving Intensity Factor (k) **1.30**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **623**
6. Level of Service (LOS) **A**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

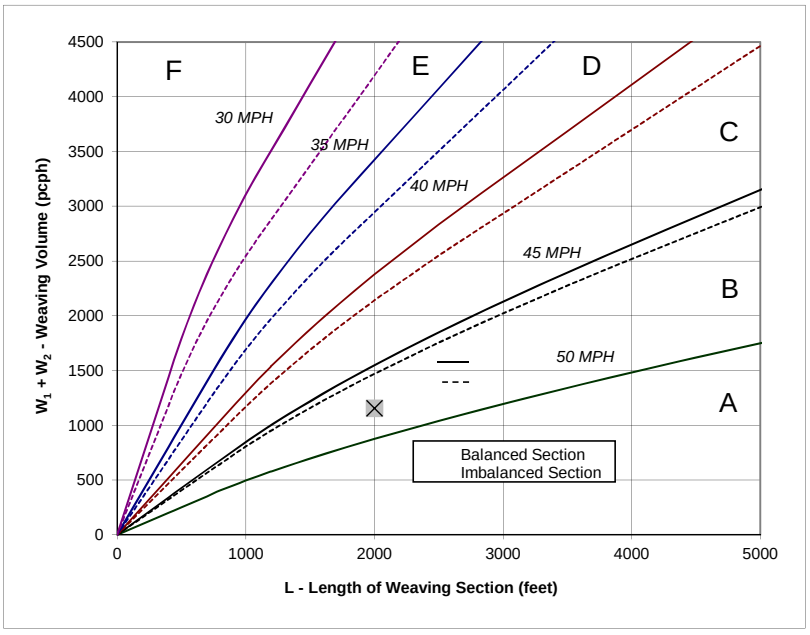
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

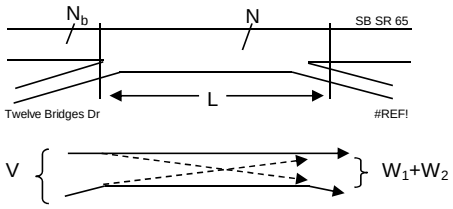
Project Information

Project	Village 5 SP EIR
Scenario	Existing AM
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	2,918	Volume (vph)*	757	Volume (vph)*	388
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	2,947	Volume (pcph)	764	Volume (pcph)	392



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? N
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) 47.6
4. Weaving Intensity Factor (k) 1.58
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ 1,059
6. Level of Service (LOS) C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

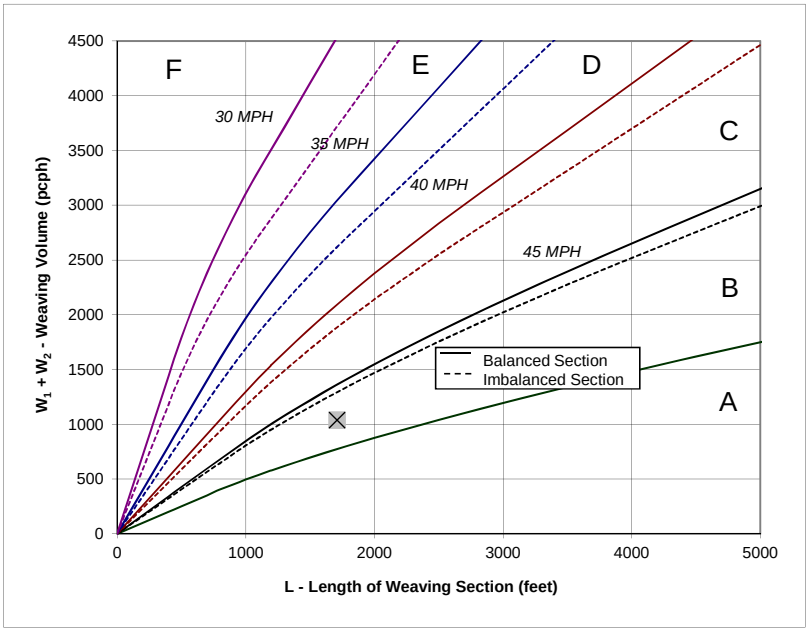
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

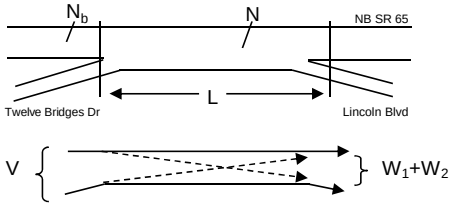
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information	
Project	Village 5 SP EIR
Scenario	Existing PM
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	2,835	Volume (vph)*	195	Volume (vph)*	833
Truck Percentage	4%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	2,892	Volume (pcph)	197	Volume (pcph)	842



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? N
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) 47.4
4. Weaving Intensity Factor (k) 2.00
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] 1,029
6. Level of Service (LOS) C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

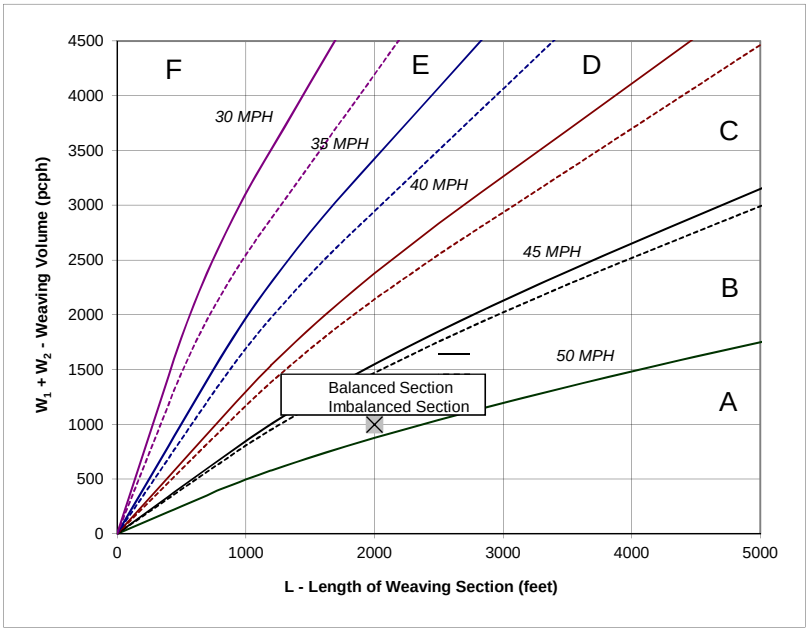
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

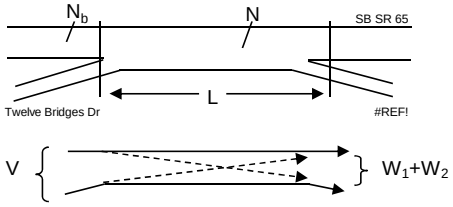
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Village 5 SP EIR
Scenario	Existing PM
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	1,985	Volume (vph)*	701	Volume (vph)*	285
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	2,005	Volume (pcph)	708	Volume (pcph)	288



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? N
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) 49.0
4. Weaving Intensity Factor (k) 1.35
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ 702
6. Level of Service (LOS) A

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

HCS 2010: Two-Lane Highways Release 6.60

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/6/2014
Analysis Time Period	AM
Highway	65
From/To	north of Riosa
Jurisdiction	Placer County
Analysis Year	2014
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.91	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd 956 veh/h
Opposing direction volume, Vo 776 veh/h

Average Travel Speed

Direction	Analysis(d)		Opposing (o)	
PCE for trucks, ET	1.0		1.0	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adj. factor,(note-5) fHV	1.000		1.000	
Grade adj. factor,(note-1) fg	1.00		1.00	
Directional flow rate,(note-2) vi	1051	pc/h	853	pc/h

Free-Flow Speed from Field Measurement:

Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h

Estimated Free-Flow Speed:

Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	1.3	mi/h
Average travel speed, ATSd	38.7	mi/h
Percent Free Flow Speed, PFFS	70.6	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1051 pc/h	853 pc/h
Base percent time-spent-following,(note-4) BPTSFd	77.7 %	
Adjustment for no-passing zones, fnp	19.6	
Percent time-spent-following, PTSFd	88.5 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.62	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	38.7	mi/h
Percent time-spent-following, PTSFd (from above)	88.5	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	1050.5
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.32
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/7/2014
Analysis Period:	AM
Highway:	65
From/To:	Riosa Road to Wise Road
Jurisdiction:	Placer County
Analysis Year:	2014
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	803	vph	597	vph
Peak-hour factor, PHF	0.90		0.93	
Peak 15-minute volume, v15	223		160	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	472	pcphpl	340	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	472	pcphpl	340	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	7.9	pc/mi/ln	5.7	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	446.1	321.0
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.17	6.00
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	AM
Highway:	65
From/To:	Wise Rd to Nelson Ln
Jurisdiction:	Placer County
Analysis Year:	2014
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	763	vph	579	vph
Peak-hour factor, PHF	0.87		0.83	
Peak 15-minute volume, v15	219		174	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	464	pcphpl	369	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	464	pcphpl	369	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	7.7	pc/mi/ln	6.2	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	438.5	348.8
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.16	6.04
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/7/2014
Analysis Time Period	PM
Highway	65
From/To	Riosa north
Jurisdiction	Placer County
Analysis Year	2014
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.98	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd	869	veh/h
Opposing direction volume, Vo	1050	veh/h

Average Travel Speed

Direction	Analysis(d)		Opposing (o)	
PCE for trucks, ET	1.0		1.0	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adj. factor,(note-5) fHV	1.000		1.000	
Grade adj. factor,(note-1) fg	1.00		1.00	
Directional flow rate,(note-2) vi	887	pc/h	1071	pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	1.1	mi/h
Average travel speed, ATSd	38.5	mi/h
Percent Free Flow Speed, PFFS	70.3	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	887 pc/h	1071 pc/h
Base percent time-spent-following,(note-4) BPTSFd	75.5 %	
Adjustment for no-passing zones, fnp	18.8	
Percent time-spent-following, PTSFd	84.0 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.52	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	38.5	mi/h
Percent time-spent-following, PTSFd (from above)	84.0	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	886.7
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.27
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Riosa Road to Wise Road
Jurisdiction:	Placer County
Analysis Year:	2014
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	844	vph	623	vph
Peak-hour factor, PHF	0.94		0.92	
Peak 15-minute volume, v15	224		169	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	475	pcphpl	358	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	475	pcphpl	358	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	7.9	pc/mi/ln	6.0	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp		65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	448.9	338.6
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.17	6.03
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Wise to Nelson
Jurisdiction:	Placer County
Analysis Year:	2014
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	855	vph	616	vph
Peak-hour factor, PHF	0.93		0.94	
Peak 15-minute volume, v15	230		164	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	487	pcphpl	347	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	487	pcphpl	347	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	8.1	pc/mi/ln	5.8	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	60	60
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	459.7	327.7
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.94	4.94
Bicycle LOS Score, BLOS	6.05	5.88
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Appendix E-4:
Technical Calculations
Existing Plus Project Conditions –
Intersection Level of Service

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	80	30	200	10	960	40	200	810	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Cap, veh/h	249	278	237	298	278	451	49	1665	708	465	2067	878
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.03	0.45	0.45	0.14	0.55	0.55
Sat Flow, veh/h	1125	1863	1583	1384	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	11	11	11	87	33	217	11	1043	43	217	880	11
Grp Sat Flow(s),veh/h/ln	1125	1863	1583	1384	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.6	0.4	0.4	4.2	1.1	8.3	0.4	15.7	1.1	4.3	10.1	0.2
Cycle Q Clear(g_c), s	1.7	0.4	0.4	4.6	1.1	8.3	0.4	15.7	1.1	4.3	10.1	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	278	237	298	278	451	49	1665	708	465	2067	878
V/C Ratio(X)	0.04	0.04	0.05	0.29	0.12	0.48	0.23	0.63	0.06	0.47	0.43	0.01
Avail Cap(c_a), veh/h	759	1122	954	925	1122	1168	243	4591	1951	942	4591	1951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	26.6	26.6	28.5	26.9	21.7	34.8	15.5	11.5	29.1	9.5	7.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.1	0.3	0.9	0.3	0.0	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.2	0.2	1.4	0.5	3.0	0.2	6.0	0.4	1.7	3.5	0.1
Lane Grp Delay (d), s/veh	27.7	26.6	26.6	28.7	27.0	22.0	35.6	15.8	11.5	29.4	9.6	7.3
Lane Grp LOS	C	C	C	C	C	C	D	B	B	C	A	A
Approach Vol, veh/h		33			337			1097			1108	
Approach Delay, s/veh		27.0			24.2			15.8			13.4	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		16.7			16.7		7.8	40.6		15.7	48.5	
Change Period (Y+Rc), s		5.8			5.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		10.0	90.0		20.0	90.0	
Max Q Clear Time (g_c+I1), s		3.7			10.3		2.4	17.7		6.3	12.1	
Green Ext Time (p_c), s		0.6			0.6		0.0	14.9		0.3	15.0	

Intersection Summary		
HCM 2010 Ctrl Delay		16.0
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	30	10	10	30	10	10	860	10	10	790	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Cap, veh/h	336	317	305	336	317	314	40	1656	704	50	1677	713
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.44	0.44	0.03	0.45	0.45
Sat Flow, veh/h	1357	1863	1583	1357	1863	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	152	33	11	11	33	11	11	935	11	11	859	109
Grp Sat Flow(s),veh/h/ln	1357	1863	1583	1357	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.1	0.9	0.3	0.4	0.9	0.3	0.4	10.7	0.2	0.3	9.5	2.3
Cycle Q Clear(g_c), s	7.0	0.9	0.3	1.3	0.9	0.3	0.4	10.7	0.2	0.3	9.5	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	317	305	336	317	314	40	1656	704	50	1677	713
V/C Ratio(X)	0.45	0.10	0.04	0.03	0.10	0.04	0.28	0.56	0.02	0.22	0.51	0.15
Avail Cap(c_a), veh/h	1140	1421	1243	1140	1421	1252	246	3876	1647	308	3876	1647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	20.2	18.9	20.7	20.2	18.7	27.7	11.9	9.0	27.4	11.3	9.4
Incr Delay (d2), s/veh	0.7	0.1	0.0	0.0	0.1	0.0	1.4	0.2	0.0	0.8	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.1	0.4	0.1	0.1	0.4	0.1	0.2	3.8	0.1	0.2	3.3	0.7
Lane Grp Delay (d), s/veh	23.9	20.3	19.0	20.8	20.3	18.7	29.1	12.1	9.0	28.2	11.5	9.4
Lane Grp LOS	C	C	B	C	C	B	C	B	A	C	B	A
Approach Vol, veh/h		196			55			957			979	
Approach Delay, s/veh		23.0			20.1			12.3			11.5	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		16.6			16.6		7.1	33.6		7.4	34.0	
Change Period (Y+Rc), s		6.8			6.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		8.0	60.0		10.0	60.0	
Max Q Clear Time (g_c+I1), s		9.0			3.3		2.4	12.7		2.3	11.5	
Green Ext Time (p_c), s		0.7			0.7		0.0	12.9		0.0	13.0	

Intersection Summary												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									

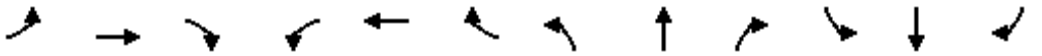
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	540	240	1100	700	550	130	420	980	450	400	50
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	1	1	2	1	1
Cap, veh/h	166	1091	464	445	1393	797	222	530	450	445	651	553
Arrive On Green	0.05	0.29	0.29	0.13	0.37	0.37	0.06	0.28	0.28	0.13	0.35	0.35
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	1863	1583	3442	1863	1583
Grp Volume(v), veh/h	32	568	253	1158	737	579	137	442	1032	474	421	53
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.4	19.7	20.8	20.0	23.9	44.3	6.0	34.4	44.0	20.0	29.4	3.5
Cycle Q Clear(g_c), s	1.4	19.7	20.8	20.0	23.9	44.3	6.0	34.4	44.0	20.0	29.4	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	1091	464	445	1393	797	222	530	450	445	651	553
V/C Ratio(X)	0.19	0.52	0.55	2.60	0.53	0.73	0.62	0.83	2.29	1.07	0.65	0.10
Avail Cap(c_a), veh/h	445	2167	921	445	2167	1126	222	530	450	445	651	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.7	45.6	46.0	67.4	37.8	30.1	70.5	51.9	55.4	67.4	42.3	33.9
Incr Delay (d2), s/veh	0.2	0.3	0.7	727.7	0.2	1.1	3.8	10.8	588.3	61.1	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	9.2	8.6	53.7	11.0	17.9	2.8	17.9	91.7	12.8	14.5	1.4
Lane Grp Delay (d), s/veh	70.9	45.9	46.8	795.1	38.0	31.2	74.3	62.7	643.6	128.5	44.4	33.9
Lane Grp LOS	E	D	D	F	D	C	E	E	F	F	D	C
Approach Vol, veh/h		853			2474			1611			948	
Approach Delay, s/veh		47.1			390.8			435.8			85.8	
Approach LOS		D			F			F			F	

Timer												
Assigned Phs	1	6		5	2		7	4		3	8	
Phs Duration (G+Y+Rc), s	13.3	53.3		25.8	65.8		15.8	49.8		25.8	59.8	
Change Period (Y+Rc), s	5.8	8.0		5.8	8.0		5.8	5.8		5.8	5.8	
Max Green Setting (Gmax), s	20.0	90.0		20.0	90.0		10.0	44.0		20.0	41.0	
Max Q Clear Time (g_c+I1), s	3.4	22.8		22.0	46.3		8.0	46.0		22.0	31.4	
Green Ext Time (p_c), s	0.0	12.0		0.0	11.5		0.0	0.0		0.0	5.7	

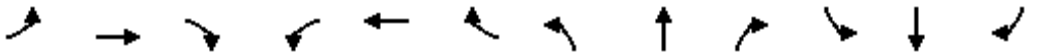
Intersection Summary			
HCM 2010 Ctrl Delay		304.2	
HCM 2010 LOS		F	

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	640	520	0	480	660	0	0	0	220	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.0					4.2	4.2
Lane Util. Factor		0.95			0.91	1.00					1.00	1.00
Frt		0.93			1.00	0.85					1.00	0.85
Flt Protected		1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)		3301			5085	1583					1770	1583
Flt Permitted		1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)		3301			5085	1583					1770	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	753	612	0	565	776	0	0	0	259	0	59
RTOR Reduction (vph)	0	171	0	0	0	0	0	0	0	0	0	43
Lane Group Flow (vph)	0	1194	0	0	565	776	0	0	0	0	259	16
Turn Type		NA			NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases						Free				4		4
Actuated Green, G (s)		26.0			26.0	47.7					12.6	12.6
Effective Green, g (s)		26.0			26.0	47.7					12.6	12.6
Actuated g/C Ratio		0.55			0.55	1.00					0.26	0.26
Clearance Time (s)		4.9			4.9						4.2	4.2
Vehicle Extension (s)		3.6			3.6						2.0	2.0
Lane Grp Cap (vph)		1799			2771	1583					467	418
v/s Ratio Prot		c0.36			0.11							
v/s Ratio Perm						c0.49					0.15	0.01
v/c Ratio		0.66			0.20	0.49					0.55	0.04
Uniform Delay, d1		7.7			5.6	0.0					15.1	13.0
Progression Factor		1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2		1.0			0.0	1.1					0.8	0.0
Delay (s)		8.7			5.6	1.1					15.9	13.1
Level of Service		A			A	A					B	B
Approach Delay (s)		8.7			3.0			0.0			15.4	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	6.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	47.7	Sum of lost time (s)	9.1
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	750	0	0	970	360	170	0	250	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	0.88			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1770	3539			5085	1583	1681	1681	2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1770	3539			5085	1583	1681	1681	2787			
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	126	862	0	0	1115	414	195	0	287	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	198	0	0	241	0	0	0
Lane Group Flow (vph)	126	862	0	0	1115	216	97	98	46	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	8.6	45.8			33.0	33.0	10.6	10.6	10.6			
Effective Green, g (s)	8.6	45.8			33.0	33.0	10.6	10.6	10.6			
Actuated g/C Ratio	0.13	0.69			0.50	0.50	0.16	0.16	0.16			
Clearance Time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Vehicle Extension (s)	2.0	3.6			3.6	3.6	2.0	2.0	2.0			
Lane Grp Cap (vph)	229	2448			2534	789	269	269	446			
v/s Ratio Prot	c0.07	0.24			c0.22							
v/s Ratio Perm						0.14	0.06	0.06	0.02			
v/c Ratio	0.55	0.35			0.44	0.27	0.36	0.36	0.10			
Uniform Delay, d1	27.0	4.2			10.7	9.6	24.8	24.8	23.7			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.6	0.1			0.1	0.2	0.3	0.3	0.0			
Delay (s)	28.6	4.3			10.8	9.9	25.1	25.1	23.8			
Level of Service	C	A			B	A	C	C	C			
Approach Delay (s)		7.4			10.6			24.3			0.0	
Approach LOS		A			B			C			A	

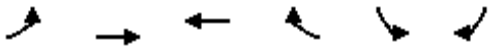
Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	14.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (vph)	80	5	880	180	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3		4.2	5.3		
Lane Util. Factor	0.95		0.97	1.00		
Frt	0.99		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3506		3433	1863		
Flt Permitted	1.00		0.95	1.00		
Satd. Flow (perm)	3506		3433	1863		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	90	6	989	202	0	0
RTOR Reduction (vph)	4	0	0	0	0	0
Lane Group Flow (vph)	92	0	989	202	0	0
Turn Type	NA		Prot	NA		
Protected Phases	2		1	6		
Permitted Phases						
Actuated Green, G (s)	9.7		13.9	33.1		
Effective Green, g (s)	9.7		13.9	33.1		
Actuated g/C Ratio	0.29		0.42	1.00		
Clearance Time (s)	5.3		4.2	5.3		
Vehicle Extension (s)	2.0		2.0	2.0		
Lane Grp Cap (vph)	1027		1441	1863		
v/s Ratio Prot	0.03		c0.29	c0.11		
v/s Ratio Perm						
v/c Ratio	0.09		0.69	0.11		
Uniform Delay, d1	8.5		7.8	0.0		
Progression Factor	1.00		1.00	1.00		
Incremental Delay, d2	0.0		1.1	0.0		
Delay (s)	8.5		8.9	0.0		
Level of Service	A		A	A		
Approach Delay (s)	8.5			7.4	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	33.1	Sum of lost time (s)	9.5
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

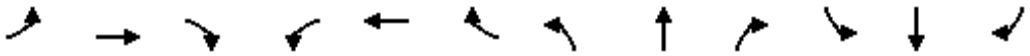
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	620	80	0	0	1050
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	5.3			5.3
Lane Util. Factor	1.00	0.88	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	2787	3539			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	2787	3539			3539
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	11	705	91	0	0	1193
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	11	705	91	0	0	1193
Turn Type	NA	Free	NA			NA
Protected Phases	8		2			6
Permitted Phases		Free				
Actuated Green, G (s)	1.0	38.5	28.0			28.0
Effective Green, g (s)	1.0	38.5	28.0			28.0
Actuated g/C Ratio	0.03	1.00	0.73			0.73
Clearance Time (s)	4.2		5.3			5.3
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	45	2787	2573			2573
v/s Ratio Prot	0.01		0.03			c0.34
v/s Ratio Perm		c0.25				
v/c Ratio	0.24	0.25	0.04			0.46
Uniform Delay, d1	18.4	0.0	1.5			2.2
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	1.0	0.2	0.0			0.0
Delay (s)	19.4	0.2	1.5			2.2
Level of Service	B	A	A			A
Approach Delay (s)	0.5		1.5			2.2
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay	1.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	38.5	Sum of lost time (s)	9.5
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	20	150	140	560	480	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	24	181	169	675	578	84
RTOR Reduction (vph)	0	0	0	519	0	44
Lane Group Flow (vph)	24	181	169	156	578	40
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	1.9	17.2	11.8	11.8	24.5	24.5
Effective Green, g (s)	1.9	17.2	11.8	11.8	24.5	24.5
Actuated g/C Ratio	0.04	0.34	0.23	0.23	0.48	0.48
Clearance Time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	65	627	430	365	848	758
v/s Ratio Prot	0.01	c0.10	0.09		c0.33	
v/s Ratio Perm				c0.10		0.03
v/c Ratio	0.37	0.29	0.39	0.43	0.68	0.05
Uniform Delay, d1	24.0	12.5	16.6	16.8	10.3	7.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	0.2	0.3	1.8	0.0
Delay (s)	25.3	12.5	16.8	17.1	12.1	7.1
Level of Service	C	B	B	B	B	A
Approach Delay (s)		14.0	17.0		11.5	
Approach LOS		B	B		B	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	51.1	Sum of lost time (s)	12.9
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	570	0	0	680	460	20	0	340	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	1770		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	1770		1583			
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	72	687	0	0	819	554	24	0	410	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	326	0	0	163	0	0	0
Lane Group Flow (vph)	72	687	0	0	819	228	24	0	247	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	4.2	29.5			21.8	21.8	14.0		14.0			
Effective Green, g (s)	4.2	29.5			21.8	21.8	14.0		14.0			
Actuated g/C Ratio	0.08	0.56			0.41	0.41	0.26		0.26			
Clearance Time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Vehicle Extension (s)	2.0	2.0			2.0	2.0	2.0		2.0			
Lane Grp Cap (vph)	140	1973			1458	652	468		418			
v/s Ratio Prot	c0.04	0.19			c0.23							
v/s Ratio Perm						0.14	0.01		c0.16			
v/c Ratio	0.51	0.35			0.56	0.35	0.05		0.59			
Uniform Delay, d1	23.4	6.4			11.9	10.7	14.5		17.0			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	1.3	0.0			0.3	0.1	0.0		1.5			
Delay (s)	24.7	6.5			12.2	10.8	14.5		18.5			
Level of Service	C	A			B	B	B		B			
Approach Delay (s)		8.2			11.6			18.2			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	52.9	Sum of lost time (s)	12.9
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	69.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	220	360	400	330	60	410	150	140	40	160	40
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	272	444	494	407	74	506	185	173	49	198	49
Number of Lanes	1	2	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	61	76.5	85.5	21.7
HCM LOS	F	F	F	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	59%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	21%	0%	100%	17%	0%	100%	0%	0%	100%	0%
Vol Right, %	20%	0%	0%	83%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	700	60	147	433	400	330	60	40	160	40
LT Vol	150	0	147	73	0	330	0	0	160	0
Through Vol	140	0	0	360	0	0	60	0	0	40
RT Vol	410	60	0	0	400	0	0	40	0	0
Lane Flow Rate	864	74	181	535	494	407	74	49	198	49
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	1	0.226	0.528	1	1	1	0.193	0.147	0.561	0.131
Departure Headway (Hd)	11.266	10.987	10.488	9.908	10.576	10.079	9.383	10.715	10.217	9.518
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	328	327	344	369	346	363	382	336	354	378
Service Time	9.039	8.722	8.224	7.644	8.332	7.835	7.139	8.448	7.949	7.25
HCM Lane V/C Ratio	2.634	0.226	0.526	1.45	1.428	1.121	0.194	0.146	0.559	0.13
HCM Control Delay	85.5	16.9	24.4	79.5	82.5	80.4	14.4	15.3	25.3	13.7
HCM Lane LOS	F	C	C	F	F	F	B	C	D	B
HCM 95th-tile Q	10.9	0.9	2.9	11.7	11.3	11.5	0.7	0.5	3.3	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5351.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	370	360	540	240	20	140	5	260	10	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	407	396	593	264	22	154	5	286	11	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	286	0	0	802	0	0	2082	2088	604	2223	2275	275
Stage 1	-	-	-	-	-	-	615	615	-	1462	1462	-
Stage 2	-	-	-	-	-	-	1467	1473	-	761	813	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1276	-	-	822	-	-	# 39	53	498	31	40	764
Stage 1	-	-	-	-	-	-	479	482	-	160	193	-
Stage 2	-	-	-	-	-	-	159	191	-	398	392	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1276	-	-	822	-	-	# 3	7	498	# 1	6	764
Mov Capacity-2 Maneuver	-	-	-	-	-	-	# 3	7	-	# 1	6	-
Stage 1	-	-	-	-	-	-	475	478	-	159	27	-
Stage 2	-	-	-	-	-	-	# 18	27	-	166	389	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13	$ 25489	$ 7788

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	8	1276	-	-	822	-	-	2
HCM Lane V/C Ratio	55.632	0.004	-	-	0.722	-	-	10.989
HCM Control Delay (s)	$ 25489.3	7.834	0	-	19.869	0	-	$ 7787.8
HCM Lane LOS	F	A	A		C	A		F
HCM 95th %tile Q(veh)	57.533	0.013	-	-	6.368	-	-	4.379

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	320	240	50	320	120	280	110	120	140	150	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Cap, veh/h	49	1389	590	95	1486	631	918	482	410	459	964	410
Arrive On Green	0.03	0.37	0.37	0.05	0.40	0.40	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	3548	1863	1583	1774	3725	1583
Grp Volume(v), veh/h	30	478	358	75	478	179	418	164	179	144	315	75
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.8	4.4	8.7	2.0	4.2	3.6	4.7	3.4	4.5	3.1	3.3	1.8
Cycle Q Clear(g_c), s	0.8	4.4	8.7	2.0	4.2	3.6	4.7	3.4	4.5	3.1	3.3	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1389	590	95	1486	631	918	482	410	459	964	410
V/C Ratio(X)	0.61	0.34	0.61	0.79	0.32	0.28	0.46	0.34	0.44	0.31	0.33	0.18
Avail Cap(c_a), veh/h	373	1956	831	373	1956	831	1863	978	831	931	1956	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	10.7	12.1	22.3	9.9	9.7	14.8	14.3	14.8	14.2	14.3	13.7
Incr Delay (d2), s/veh	11.9	0.1	1.0	13.5	0.1	0.2	0.4	0.4	0.7	0.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.6	2.9	1.1	1.5	1.1	1.8	1.4	0.1	1.2	1.3	0.6
Lane Grp Delay (d), s/veh	34.8	10.9	13.1	35.7	10.0	9.9	15.2	14.8	15.5	14.6	14.5	13.9
Lane Grp LOS	C	B	B	D	A	A	B	B	B	B	B	B
Approach Vol, veh/h		866			732			761			534	
Approach Delay, s/veh		12.6			12.6			15.2			14.4	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	6.3	22.8		7.5	24.0			17.3			17.3	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	10.0	25.0		10.0	25.0			25.0			25.0	
Max Q Clear Time (g_c+I1), s	2.8	10.7		4.0	6.2			6.7			5.3	
Green Ext Time (p_c), s	0.0	7.0		0.1	8.1			5.6			5.8	

Intersection Summary		
HCM 2010 Ctrl Delay	13.6	
HCM 2010 LOS	B	

Notes
User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	581.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	220	100	220	140	30	80	130	460	60	70	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	250	114	250	159	34	91	148	523	68	80	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	364	0	0	1052	1023	307	1341	1062	176
Stage 1	-	-	-	-	-	-	330	330	-	676	676	-
Stage 2	-	-	-	-	-	-	722	693	-	665	386	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1380	-	-	1195	-	-	204	236	733	129	223	867
Stage 1	-	-	-	-	-	-	683	646	-	443	453	-
Stage 2	-	-	-	-	-	-	418	445	-	449	610	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1380	-	-	1195	-	-	105	179	733	# 10	169	867
Mov Capacity-2 Maneuver	-	-	-	-	-	-	105	179	-	# 10	169	-
Stage 1	-	-	-	-	-	-	676	640	-	439	347	-
Stage 2	-	-	-	-	-	-	243	340	-	98	604	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5	$ 666	$ 3151

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	317	1380	-	-	1195	-	-	22
HCM Lane V/C Ratio	2.402	0.008	-	-	0.209	-	-	7.231
HCM Control Delay (s)	$ 666	7.63	0	-	8.808	0	-	$ 3151.3
HCM Lane LOS	F	A	A		A	A		F
HCM 95th %tile Q(veh)	60.282	0.025	-	-	0.788	-	-	20.104

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	40	70	10	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	45	80	11	11	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	91	0	-	0	153	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	68	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1504	-	-	-	839	974
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	955	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1504	-	-	-	832	974
Mov Capacity-2 Maneuver	-	-	-	-	832	-
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	947	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	9

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1504	-	-	-	934
HCM Lane V/C Ratio	0.008	-	-	-	0.049
HCM Control Delay (s)	7.412	0	-	-	9.1
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.023	-	-	-	0.153

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	20.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	140	20	80	50	40	10	20	330	20	10	170	60
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	177	25	101	63	51	13	25	418	25	13	215	76
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	17.3	12.7	27.6	16.1
HCM LOS	C	B	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	58%	50%	4%
Vol Thru, %	89%	8%	40%	71%
Vol Right, %	5%	33%	10%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	240	100	240
LT Vol	330	20	40	170
Through Vol	20	80	10	60
RT Vol	20	140	50	10
Lane Flow Rate	468	304	127	304
Geometry Grp	1	1	1	1
Degree of Util (X)	0.784	0.55	0.252	0.526
Departure Headway (Hd)	6.024	6.52	7.165	6.231
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	599	550	499	577
Service Time	4.081	4.586	5.249	4.297
HCM Lane V/C Ratio	0.781	0.553	0.255	0.527
HCM Control Delay	27.6	17.3	12.7	16.1
HCM Lane LOS	D	C	B	C
HCM 95th-tile Q	7.4	3.3	1	3.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	45.1
Intersection LOS	E

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	170	60	370	210	190	300
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	191	67	416	236	213	337
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	16.6	59	41.9
HCM LOS	C	F	E

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	74%	39%
Vol Thru, %	64%	0%	61%
Vol Right, %	36%	26%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	580	230	490
LT Vol	370	0	300
Through Vol	210	60	0
RT Vol	0	170	190
Lane Flow Rate	652	258	551
Geometry Grp	1	1	1
Degree of Util (X)	1	0.497	0.909
Departure Headway (Hd)	5.55	6.929	5.945
Convergence, Y/N	Yes	Yes	Yes
Cap	645	525	611
Service Time	3.643	4.916	3.957
HCM Lane V/C Ratio	1.011	0.491	0.902
HCM Control Delay	59	16.6	41.9
HCM Lane LOS	F	C	E
HCM 95th-tile Q	15.5	2.7	11.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	5	190	70	360	300	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	216	80	409	341	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	912	344	347	0	-	0
Stage 1	344	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	304	699	1212	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	278	699	1212	-	-	-
Mov Capacity-2 Maneuver	278	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	1	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1212	-	673	-	-
HCM Lane V/C Ratio	0.066	-	0.329	-	-
HCM Control Delay (s)	8.179	0	13	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.21	-	1.436	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	50	40	60	490	370	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	47	71	576	435	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1212	494	553	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	201	575	1017	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	180	575	1017	-	-	-
Mov Capacity-2 Maneuver	180	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28	1	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1017	-	259	-	-
HCM Lane V/C Ratio	0.069	-	0.409	-	-
HCM Control Delay (s)	8.804	0	28.2	-	-
HCM Lane LOS	A	A	D		
HCM 95th %tile Q(veh)	0.223	-	1.888	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	50	10	340	70	60	10	420	360	60	370	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	382	677	134	589	544	173	666	1616	618	218	974	345
Arrive On Green	0.11	0.12	0.09	0.17	0.15	0.11	0.19	0.43	0.39	0.06	0.26	0.22
Sat Flow, veh/h	3442	5588	1556	3442	3725	1562	3442	3725	1577	3442	3725	1573
Grp Volume(v), veh/h	11	56	11	378	78	67	11	467	400	67	411	11
Grp Sat Flow(s),veh/h/ln	1721	1863	1556	1721	1863	1562	1721	1863	1577	1721	1863	1573
Q Serve(g_s), s	0.2	0.5	0.2	5.8	1.0	1.7	0.1	4.6	11.8	1.1	5.2	0.3
Cycle Q Clear(g_c), s	0.2	0.5	0.2	5.8	1.0	1.7	0.1	4.6	11.8	1.1	5.2	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	382	677	134	589	544	173	666	1616	618	218	974	345
V/C Ratio(X)	0.03	0.08	0.08	0.64	0.14	0.39	0.02	0.29	0.65	0.31	0.42	0.03
Avail Cap(c_a), veh/h	1572	3729	984	2176	2486	988	967	2709	1080	967	2709	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	22.2	7.2	22.0	21.2	12.6	18.6	10.4	14.1	25.5	17.5	17.5
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.4	0.2	2.1	0.0	0.2	1.8	0.3	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.2	0.1	2.3	0.4	0.9	0.1	1.8	4.1	0.4	2.2	0.1
Lane Grp Delay (d), s/veh	22.6	22.3	7.6	22.4	21.4	14.6	18.6	10.6	15.9	25.8	17.9	17.5
Lane Grp LOS	C	C	A	C	C	B	B	B	B	C	B	B
Approach Vol, veh/h		78			523			878			489	
Approach Delay, s/veh		20.3			21.3			13.1			19.0	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	11.3	9.9		12.7	11.3		16.4	27.7		6.6	17.9	
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0		6.4	6.4		4.0	6.4	
Max Green Setting (Gmax), s	25.0	35.0		35.0	35.0		15.0	38.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	2.2	2.5		7.8	3.7		2.1	13.8		3.1	7.2	
Green Ext Time (p_c), s	0.3	0.4		0.9	0.9		5.1	6.8		0.1	3.2	

Intersection Summary		
HCM 2010 Ctrl Delay		17.0
HCM 2010 LOS		B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	220	270	400	100	80	130	670	410	120	800	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Cap, veh/h	119	1022	434	559	1498	637	248	2058	583	236	1359	577
Arrive On Green	0.03	0.27	0.27	0.16	0.40	0.40	0.07	0.37	0.37	0.07	0.36	0.36
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	5588	1583	3442	3725	1583
Grp Volume(v), veh/h	33	244	300	444	111	89	144	744	456	133	889	11
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.9	4.9	16.4	12.0	1.8	3.4	3.9	9.4	24.7	3.6	19.2	0.4
Cycle Q Clear(g_c), s	0.9	4.9	16.4	12.0	1.8	3.4	3.9	9.4	24.7	3.6	19.2	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	1022	434	559	1498	637	248	2058	583	236	1359	577
V/C Ratio(X)	0.28	0.24	0.69	0.79	0.07	0.14	0.58	0.36	0.78	0.56	0.65	0.02
Avail Cap(c_a), veh/h	570	1639	697	784	1716	729	570	2058	583	570	1481	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	27.2	31.4	38.9	17.8	18.3	43.4	22.2	27.1	43.6	25.6	19.6
Incr Delay (d2), s/veh	0.5	0.2	3.3	2.4	0.0	0.2	0.8	0.2	7.3	0.8	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	2.3	6.7	5.2	0.8	1.3	1.7	4.0	10.4	1.5	8.4	0.2
Lane Grp Delay (d), s/veh	45.9	27.4	34.7	41.3	17.8	18.5	44.2	22.4	34.4	44.4	26.8	19.6
Lane Grp LOS	D	C	C	D	B	B	D	C	C	D	C	B
Approach Vol, veh/h		577			644			1344			1033	
Approach Delay, s/veh		32.3			34.1			28.8			29.0	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.3	29.7		18.7	42.0		10.0	38.6		9.6	38.2	
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7		4.0	6.4		4.0	6.4	
Max Green Setting (Gmax), s	15.0	40.0		21.0	42.0		15.0	32.0		15.0	35.0	
Max Q Clear Time (g_c+I1), s	2.9	18.4		14.0	5.4		5.9	26.7		5.6	21.2	
Green Ext Time (p_c), s	0.0	5.6		0.7	6.4		0.2	4.6		0.2	10.6	

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	280	70	10	180	320	140	20	600	130	150	650	650
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Cap, veh/h	290	706	98	234	703	299	26	1177	500	201	1545	657
Arrive On Green	0.16	0.22	0.22	0.13	0.19	0.19	0.01	0.32	0.32	0.11	0.41	0.41
Sat Flow, veh/h	1774	3205	443	1774	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	311	45	44	200	356	156	22	667	144	167	722	722
Grp Sat Flow(s),veh/h/ln	1774	1863	1785	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	15.0	1.8	1.8	10.1	7.9	8.1	1.1	13.7	6.3	8.4	12.9	38.0
Cycle Q Clear(g_c), s	15.0	1.8	1.8	10.1	7.9	8.1	1.1	13.7	6.3	8.4	12.9	38.0
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	410	393	234	703	299	26	1177	500	201	1545	657
V/C Ratio(X)	1.07	0.11	0.11	0.85	0.51	0.52	0.84	0.57	0.29	0.83	0.47	1.10
Avail Cap(c_a), veh/h	290	691	662	290	1951	829	290	1179	501	290	1545	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	28.5	28.6	38.9	33.3	33.5	45.0	26.1	23.6	39.8	19.5	26.8
Incr Delay (d2), s/veh	72.9	0.2	0.2	15.4	1.1	2.7	22.6	1.0	0.6	8.6	0.4	65.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	12.6	0.8	0.8	5.6	3.8	3.4	0.7	6.5	2.5	4.3	5.9	26.5
Lane Grp Delay (d), s/veh	111.2	28.8	28.8	54.3	34.4	36.2	67.6	27.1	24.2	48.4	19.9	92.4
Lane Grp LOS	F	C	C	D	C	D	E	C	C	D	B	F
Approach Vol, veh/h		400			712			833			1611	
Approach Delay, s/veh		92.9			40.4			27.7			55.3	
Approach LOS		F			D			C			E	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	19.0	26.2		16.1	23.3		5.3	35.0		14.4	44.0	
Change Period (Y+Rc), s	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Max Green Setting (Gmax), s	15.0	34.0		15.0	48.0		15.0	29.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	17.0	3.8		12.1	10.1		3.1	15.7		10.4	40.0	
Green Ext Time (p_c), s	0.0	6.8		0.1	7.2		0.0	12.2		0.1	0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			50.1									
HCM 2010 LOS			D									

Notes

Intersection	
Intersection Delay, s/veh	21.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	30	20	10	20	50	10	60	10	80	210	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	44	29	15	29	74	15	88	15	118	309	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	74	0	0	463	308	59	324	287	66
Stage 1	-	-	-	-	-	-	176	176	-	96	96	-
Stage 2	-	-	-	-	-	-	287	132	-	228	191	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1489	-	-	1526	-	-	509	606	1007	629	623	998
Stage 1	-	-	-	-	-	-	826	753	-	911	815	-
Stage 2	-	-	-	-	-	-	720	787	-	775	742	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1489	-	-	1526	-	-	267	575	1007	526	591	998
Mov Capacity-2 Maneuver	-	-	-	-	-	-	267	575	-	526	591	-
Stage 1	-	-	-	-	-	-	792	722	-	874	806	-
Stage 2	-	-	-	-	-	-	407	778	-	643	712	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	1	14	32

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	527	1489	-	-	1526	-	-	610
HCM Lane V/C Ratio	0.223	0.04	-	-	0.01	-	-	0.82
HCM Control Delay (s)	13.8	7.517	0	-	7.382	0	-	32.2
HCM Lane LOS	B	A	A		A	A		D
HCM 95th %tile Q(veh)	0.848	0.123	-	-	0.029	-	-	8.447

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	60	20	10	40	60	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	26	13	51	77	13

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	205	38	0	0	64	0
Stage 1	38	-	-	-	-	-
Stage 2	167	-	-	-	-	-
Follow-up Headway	4	3	-	-	2	-
Pot Capacity-1 Maneuver	783	1034	-	-	1538	-
Stage 1	984	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	744	1034	-	-	1538	-
Mov Capacity-2 Maneuver	744	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	820	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	6

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	800	1538	-
HCM Lane V/C Ratio	-	-	0.128	0.05	-
HCM Control Delay (s)	-	-	10.2	7.464	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	0.439	0.158	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	20	190	95	120	195	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	216	108	136	222	11
Number of Lanes	1	2	2	1	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	8.6	7.7	12.4
HCM LOS	A	A	B

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	95	95	48	48	120	195	10
LT Vol	0	95	95	48	48	0	0	0
Through Vol	0	0	0	0	0	120	0	10
RT Vol	20	0	0	0	0	0	195	0
Lane Flow Rate	23	108	108	54	54	136	222	11
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.039	0.172	0.12	0.087	0.087	0.126	0.38	0.016
Departure Headway (Hd)	6.245	5.74	3.988	5.793	5.793	3.333	6.175	4.978
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	568	619	884	613	613	1055	587	723
Service Time	4.041	3.535	1.781	3.58	3.58	1.118	3.875	2.678
HCM Lane V/C Ratio	0.04	0.174	0.122	0.088	0.088	0.129	0.378	0.015
HCM Control Delay	9.3	9.7	7.3	9.1	9.1	6.6	12.6	7.8
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	0.1	0.6	0.4	0.3	0.3	0.4	1.8	0

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	370	10	310	190	30	20	5	700	90	5	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	2	1	1	0	1	1	0	1	1
Cap, veh/h	11	669	284	553	622	529	106	17	653	115	4	653
Arrive On Green	0.01	0.18	0.18	0.16	0.33	0.33	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1774	3725	1583	3442	1863	1583	0	41	1583	0	9	1583
Grp Volume(v), veh/h	6	411	11	344	211	33	28	0	778	106	0	6
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	41	0	1583	9	0	1583
Q Serve(g_s), s	0.2	6.2	0.3	5.7	5.2	0.9	0.0	0.0	25.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.2	6.2	0.3	5.7	5.2	0.9	25.0	0.0	25.0	25.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	0.79		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	11	669	284	553	622	529	123	0	653	119	0	653
V/C Ratio(X)	0.53	0.61	0.04	0.62	0.34	0.06	0.23	0.00	1.19	0.89	0.00	0.01
Avail Cap(c_a), veh/h	585	1843	783	1135	922	783	123	0	653	119	0	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	22.9	20.6	23.7	15.2	13.7	15.6	0.0	17.8	29.5	0.0	10.5
Incr Delay (d2), s/veh	34.0	0.9	0.1	1.1	0.3	0.0	0.9	0.0	101.0	50.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	2.8	0.1	2.4	2.3	0.3	0.3	0.0	27.1	3.2	0.0	0.0
Lane Grp Delay (d), s/veh	64.0	23.9	20.6	24.9	15.5	13.8	16.5	0.0	118.8	79.8	0.0	10.5
Lane Grp LOS	E	C	C	C	B	B	B		F	E		B
Approach Vol, veh/h		428			588			806			112	
Approach Delay, s/veh		24.3			20.9			115.2			76.1	
Approach LOS		C			C			F			E	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.4	15.9		14.8	25.3			30.0			30.0	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	20.0	30.0		20.0	30.0			25.0			25.0	
Max Q Clear Time (g_c+I1), s	2.2	8.2		7.7	7.2			27.0			27.0	
Green Ext Time (p_c), s	0.0	2.7		2.1	2.6			0.0			0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			64.2									
HCM 2010 LOS			E									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	380	100	40	380	30	240	220	80	60	190	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Cap, veh/h	138	986	419	138	986	419	504	836	355	94	488	207
Arrive On Green	0.04	0.26	0.26	0.04	0.26	0.26	0.15	0.22	0.22	0.05	0.13	0.13
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	49	469	123	49	469	37	296	272	99	74	235	25
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.7	5.1	1.5	0.7	5.1	0.8	3.8	2.9	2.5	2.0	2.8	0.5
Cycle Q Clear(g_c), s	0.7	5.1	1.5	0.7	5.1	0.8	3.8	2.9	2.5	2.0	2.8	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	138	986	419	138	986	419	504	836	355	94	488	207
V/C Ratio(X)	0.36	0.48	0.29	0.36	0.48	0.09	0.59	0.33	0.28	0.79	0.48	0.12
Avail Cap(c_a), veh/h	720	1558	662	720	1558	662	720	1947	828	371	1947	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	14.8	3.7	22.4	14.8	13.2	19.1	15.5	15.3	22.4	19.3	9.3
Incr Delay (d2), s/veh	1.6	0.4	0.4	1.6	0.4	0.1	1.1	0.2	0.4	13.7	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	2.2	1.0	0.3	2.2	0.3	1.6	1.3	0.0	1.2	1.3	0.3
Lane Grp Delay (d), s/veh	23.9	15.2	4.1	23.9	15.2	13.3	20.2	15.7	15.8	36.1	20.0	9.6
Lane Grp LOS	C	B	A	C	B	B	C	B	B	D	C	A
Approach Vol, veh/h		641			555			667			334	
Approach Delay, s/veh		13.7			15.8			17.7			22.8	
Approach LOS		B			B			B			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.9	17.7		6.9	17.7		12.0	15.7		7.5	11.3	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	10.0	20.0		10.0	20.0		10.0	25.0		10.0	25.0	
Max Q Clear Time (g_c+I1), s	2.7	7.1		2.7	7.1		5.8	4.9		4.0	4.8	
Green Ext Time (p_c), s	0.0	5.6		0.0	5.6		1.3	3.1		0.1	1.5	
Intersection Summary												
HCM 2010 Ctrl Delay			16.8									
HCM 2010 LOS			B									
Notes												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	70	240	150	120	60	130	320	100	50	380	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Cap, veh/h	409	395	336	237	214	182	210	583	180	280	672	229
Arrive On Green	0.23	0.21	0.21	0.13	0.12	0.12	0.12	0.21	0.21	0.16	0.25	0.25
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2733	844	1774	2659	906
Grp Volume(v), veh/h	90	90	308	192	154	77	167	278	260	64	340	314
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1714	1774	1863	1703
Q Serve(g_s), s	2.9	2.8	13.5	7.4	5.6	3.2	6.5	9.8	9.9	2.2	11.8	11.9
Cycle Q Clear(g_c), s	2.9	2.8	13.5	7.4	5.6	3.2	6.5	9.8	9.9	2.2	11.8	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.49	1.00		0.53
Lane Grp Cap(c), veh/h	409	395	336	237	214	182	210	397	366	280	471	431
V/C Ratio(X)	0.22	0.23	0.92	0.81	0.72	0.42	0.79	0.70	0.71	0.23	0.72	0.73
Avail Cap(c_a), veh/h	409	395	336	376	395	336	376	790	727	376	790	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	23.1	27.2	29.8	30.2	29.1	30.3	25.7	25.8	26.0	24.1	24.2
Incr Delay (d2), s/veh	0.3	0.3	29.0	6.9	4.5	1.6	6.7	2.2	2.6	0.4	2.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	1.3	7.8	3.7	2.9	1.3	3.2	4.6	4.4	1.0	5.6	5.2
Lane Grp Delay (d), s/veh	22.3	23.3	56.2	36.7	34.6	30.6	37.0	28.0	28.4	26.4	26.3	26.6
Lane Grp LOS	C	C	E	D	C	C	D	C	C	C	C	C
Approach Vol, veh/h		488			423			705			718	
Approach Delay, s/veh		43.9			34.8			30.3			26.4	
Approach LOS		D			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	21.3	20.0		14.5	13.1		13.4	20.1		16.2	22.9	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	15.0	15.0		15.0	15.0		15.0	30.0		15.0	30.0	
Max Q Clear Time (g_c+I1), s	4.9	15.5		9.4	7.6		8.5	11.9		4.2	13.9	
Green Ext Time (p_c), s	1.4	0.0		0.2	0.6		0.2	3.1		3.2	3.9	

Intersection Summary												
HCM 2010 Ctrl Delay			32.8									
HCM 2010 LOS			C									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	160	60	240	240	40	50	430	100	80	480	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1	1	2	1	1	2	1
Cap, veh/h	133	272	232	502	809	344	80	842	358	126	939	399
Arrive On Green	0.07	0.15	0.15	0.15	0.22	0.22	0.04	0.23	0.23	0.07	0.25	0.25
Sat Flow, veh/h	1774	1863	1583	3442	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	105	168	63	253	253	42	53	453	105	84	505	84
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.3	3.3	1.0	2.6	2.2	0.5	1.1	4.2	2.1	1.8	4.6	1.6
Cycle Q Clear(g_c), s	2.3	3.3	1.0	2.6	2.2	0.5	1.1	4.2	2.1	1.8	4.6	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	272	232	502	809	344	80	842	358	126	939	399
V/C Ratio(X)	0.79	0.62	0.27	0.50	0.31	0.12	0.67	0.54	0.29	0.67	0.54	0.21
Avail Cap(c_a), veh/h	273	1005	854	972	2488	1057	273	2010	854	273	2010	854
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	15.6	7.4	15.3	12.8	5.1	18.3	13.3	12.5	17.6	12.6	11.5
Incr Delay (d2), s/veh	9.9	2.3	0.6	0.8	0.2	0.2	9.2	0.5	0.5	6.0	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	1.4	0.5	1.0	0.8	0.3	0.6	1.6	0.7	0.9	1.7	0.5
Lane Grp Delay (d), s/veh	27.6	17.9	8.0	16.1	13.0	5.3	27.5	13.8	12.9	23.7	13.1	11.8
Lane Grp LOS	C	B	A	B	B	A	C	B	B	C	B	B
Approach Vol, veh/h		336			548			611			673	
Approach Delay, s/veh		19.1			13.9			14.8			14.2	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.9	9.7		9.7	12.5		5.7	12.8		6.8	13.8	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	6.0	21.0		11.0	26.0		6.0	21.0		6.0	21.0	
Max Q Clear Time (g_c+I1), s	4.3	5.3		4.6	4.2		3.1	6.2		3.8	6.6	
Green Ext Time (p_c), s	0.0	0.9		1.4	2.5		0.0	2.6		0.8	3.1	

Intersection Summary												
HCM 2010 Ctrl Delay			15.1									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	60	200	30	60	10	160	470	50	10	500	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	385	88	295	177	366	59	160	681	579	229	689	55
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.09	0.37	0.37	0.13	0.40	0.40
Sat Flow, veh/h	1305	378	1262	1051	1568	251	1774	1863	1583	1774	1703	136
Grp Volume(v), veh/h	62	0	325	38	0	87	200	588	62	12	0	675
Grp Sat Flow(s),veh/h/ln	1305	0	1640	1051	0	1818	1774	1863	1583	1774	0	1839
Q Serve(g_s), s	2.2	0.0	10.5	2.0	0.0	2.1	5.0	16.2	1.4	0.3	0.0	19.1
Cycle Q Clear(g_c), s	4.3	0.0	10.5	12.5	0.0	2.1	5.0	16.2	1.4	0.3	0.0	19.1
Prop In Lane	1.00		0.77	1.00		0.14	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	385	0	383	177	0	425	160	681	579	229	0	744
V/C Ratio(X)	0.16	0.00	0.85	0.22	0.00	0.20	1.25	0.86	0.11	0.05	0.00	0.91
Avail Cap(c_a), veh/h	411	0	415	197	0	461	160	809	688	229	0	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	20.2	26.2	0.0	17.0	25.1	16.2	11.6	21.1	0.0	15.5
Incr Delay (d2), s/veh	0.2	0.0	14.3	0.6	0.0	0.2	152.1	8.4	0.1	0.1	0.0	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	5.5	0.5	0.0	0.9	8.9	8.4	0.5	0.1	0.0	10.5
Lane Grp Delay (d), s/veh	19.0	0.0	34.6	26.8	0.0	17.3	177.3	24.6	11.7	21.2	0.0	29.0
Lane Grp LOS	B		C	C		B	F	C	B	C		C
Approach Vol, veh/h		387			125			850			687	
Approach Delay, s/veh		32.1			20.2			59.6			28.9	
Approach LOS		C			C			E			C	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		17.9			17.9		10.0	25.2		12.1	27.4	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		14.0			14.0		5.0	24.0		5.0	24.0	
Max Q Clear Time (g_c+I1), s		12.5			14.5		7.0	18.2		2.3	21.1	
Green Ext Time (p_c), s		0.5			0.0		0.0	2.0		1.2	1.3	

Intersection Summary		
HCM 2010 Ctrl Delay	41.7	
HCM 2010 LOS	D	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	5	5	130	5	100	5	380	150	130	410	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Cap, veh/h	70	66	33	260	8	393	11	520	205	221	968	11
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.01	0.41	0.41	0.12	0.53	0.53
Sat Flow, veh/h	0	267	134	631	31	1583	1774	1273	502	1774	1838	21
Grp Volume(v), veh/h	18	0	0	173	0	128	6	0	679	167	0	532
Grp Sat Flow(s),veh/h/ln	401	0	0	662	0	1583	1774	0	1774	1774	0	1859
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.5	0.2	0.0	25.1	6.2	0.0	13.0
Cycle Q Clear(g_c), s	17.0	0.0	0.0	17.0	0.0	4.5	0.2	0.0	25.1	6.2	0.0	13.0
Prop In Lane	0.33		0.33	0.97		1.00	1.00		0.28	1.00		0.01
Lane Grp Cap(c), veh/h	169	0	0	267	0	393	11	0	725	221	0	979
V/C Ratio(X)	0.11	0.00	0.00	0.65	0.00	0.33	0.54	0.00	0.94	0.76	0.00	0.54
Avail Cap(c_a), veh/h	169	0	0	267	0	393	104	0	751	285	0	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	0.0	26.2	0.0	21.1	34.0	0.0	19.4	29.0	0.0	10.7
Incr Delay (d2), s/veh	0.3	0.0	0.0	5.3	0.0	0.5	34.6	0.0	18.8	8.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	0.0	3.3	0.0	1.7	0.2	0.0	14.2	3.2	0.0	5.5
Lane Grp Delay (d), s/veh	21.1	0.0	0.0	31.5	0.0	21.6	68.6	0.0	38.2	37.2	0.0	11.4
Lane Grp LOS	C			C		C	E		D	D		B
Approach Vol, veh/h		18			301			685			699	
Approach Delay, s/veh		21.1			27.3			38.5			17.5	
Approach LOS		C			C			D			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		22.0			22.0		5.4	33.0		13.5	41.1	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		17.0			17.0		4.0	29.0		11.0	36.0	
Max Q Clear Time (g_c+I1), s		19.0			19.0		2.2	27.1		8.2	15.0	
Green Ext Time (p_c), s		0.0			0.0		0.0	0.9		0.7	4.0	

Intersection Summary		
HCM 2010 Ctrl Delay	27.7	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	170	140	40	240	50	100	150	60	30	270	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Cap, veh/h	315	285	234	244	560	476	158	257	103	351	417	139
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.09	0.20	0.20	0.20	0.31	0.31
Sat Flow, veh/h	1019	946	779	996	1863	1583	1774	1267	507	1774	1338	446
Grp Volume(v), veh/h	49	0	383	49	296	62	123	0	259	37	0	444
Grp Sat Flow(s),veh/h/ln	1019	0	1725	996	1863	1583	1774	0	1773	1774	0	1784
Q Serve(g_s), s	2.1	0.0	10.0	2.3	6.6	1.4	3.4	0.0	6.9	0.9	0.0	11.5
Cycle Q Clear(g_c), s	8.8	0.0	10.0	12.4	6.6	1.4	3.4	0.0	6.9	0.9	0.0	11.5
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.29	1.00		0.25
Lane Grp Cap(c), veh/h	315	0	519	244	560	476	158	0	360	351	0	556
V/C Ratio(X)	0.16	0.00	0.74	0.20	0.53	0.13	0.78	0.00	0.72	0.11	0.00	0.80
Avail Cap(c_a), veh/h	333	0	549	261	593	504	247	0	917	351	0	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	15.8	21.4	14.6	12.8	22.4	0.0	18.7	16.5	0.0	15.9
Incr Delay (d2), s/veh	0.2	0.0	4.9	0.4	0.8	0.1	8.0	0.0	2.7	0.1	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	4.6	0.6	2.9	0.5	1.8	0.0	3.1	0.4	0.0	5.0
Lane Grp Delay (d), s/veh	18.5	0.0	20.7	21.8	15.4	12.9	30.5	0.0	21.4	16.7	0.0	18.5
Lane Grp LOS	B		C	C	B	B	C		C	B		B
Approach Vol, veh/h		432			407			382			481	
Approach Delay, s/veh		20.5			15.8			24.3			18.4	
Approach LOS		C			B			C			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		20.1			20.1		9.5	15.2		14.9	20.7	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		16.0			16.0		7.0	26.0		7.0	26.0	
Max Q Clear Time (g_c+I1), s		12.0			14.4		5.4	8.9		2.9	13.5	
Green Ext Time (p_c), s		1.8			0.8		0.0	1.4		1.1	2.2	

Intersection Summary												
HCM 2010 Ctrl Delay			19.6									
HCM 2010 LOS			B									

Notes

Intersection	
Intersection Delay, s/veh	33.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	330	0	40	610	0	10	20	70	170	20	110
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	452	0	55	836	0	14	27	96	233	27	151
Number of Lanes	1	2	0	1	2	0	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	19.7	50.5	18.2	19.9
HCM LOS	C	F	C	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	10%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	20%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	70%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	60	165	165	40	305	305	170	20	110
LT Vol	20	0	165	165	0	305	305	0	20	0
Through Vol	70	0	0	0	0	0	0	0	0	110
RT Vol	10	60	0	0	40	0	0	170	0	0
Lane Flow Rate	137	82	226	226	55	418	418	233	27	151
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.371	0.223	0.587	0.475	0.14	1	0.799	0.592	0.067	0.336
Departure Headway (Hd)	9.745	9.763	9.252	7.558	9.193	8.677	6.886	9.151	8.74	8.022
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	370	371	393	481	390	418	526	396	416	455
Service Time	7.502	7.453	6.952	5.216	6.941	6.425	4.633	6.85	6.353	5.658
HCM Lane V/C Ratio	0.37	0.221	0.575	0.47	0.141	1	0.795	0.588	0.065	0.332
HCM Control Delay	18.2	15.2	24.3	16.8	13.4	74.1	31.8	24.3	12	14.6
HCM Lane LOS	C	C	C	C	B	F	D	C	B	B
HCM 95th-tile Q	1.7	0.8	3.6	2.5	0.5	12.4	7.6	3.7	0.2	1.5

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	80	300	0	20	650	0	40	10	20	80	5	100
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	98	366	0	24	793	0	49	12	24	98	6	122
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	11.6	17.6	12.6	16.2
HCM LOS	B	C	B	C

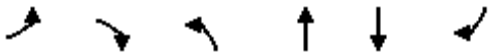
Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	57%	100%	0%	0%	100%	0%	0%	43%
Vol Thru, %	14%	0%	100%	100%	0%	100%	100%	3%
Vol Right, %	29%	0%	0%	0%	0%	0%	0%	54%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	80	150	150	20	325	325	185
LT Vol	10	0	150	150	0	325	325	5
Through Vol	20	0	0	0	0	0	0	100
RT Vol	40	80	0	0	20	0	0	80
Lane Flow Rate	85	98	183	183	24	396	396	226
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.19	0.201	0.35	0.26	0.047	0.705	0.51	0.461
Departure Headway (Hd)	8.026	7.406	6.893	5.114	7.048	6.536	4.762	7.351
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	486	523	704	511	555	761	492
Service Time	5.753	5.129	4.616	2.836	4.748	4.236	2.462	5.07
HCM Lane V/C Ratio	0.19	0.202	0.35	0.26	0.047	0.714	0.52	0.459
HCM Control Delay	12.6	12	13.3	9.6	10.1	23.4	12.3	16.2
HCM Lane LOS	B	B	B	A	B	C	B	C
HCM 95th-tile Q	0.7	0.7	1.6	1	0.1	5.6	2.9	2.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	110	20	650	90	30	940
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	5085	1583	3433	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	5085	1583	3433	3539
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	126	23	747	103	34	1080
RTOR Reduction (vph)	0	19	0	57	0	0
Lane Group Flow (vph)	126	4	747	46	34	1080
Turn Type	NA	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	7.4	7.4	20.4	20.4	3.0	27.4
Effective Green, g (s)	7.4	7.4	20.4	20.4	3.0	27.4
Actuated g/C Ratio	0.16	0.16	0.45	0.45	0.07	0.60
Clearance Time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Vehicle Extension (s)	5.0	5.0	2.0	2.0	5.0	2.0
Lane Grp Cap (vph)	559	258	2284	711	226	2135
v/s Ratio Prot	c0.04		0.15		0.01	c0.31
v/s Ratio Perm		0.00		0.03		
v/c Ratio	0.23	0.01	0.33	0.07	0.15	0.51
Uniform Delay, d1	16.5	15.9	8.1	7.1	20.0	5.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	0.0	0.0	0.6	0.1
Delay (s)	16.9	16.0	8.1	7.1	20.6	5.2
Level of Service	B	B	A	A	C	A
Approach Delay (s)	16.8		8.0			5.7
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	45.4	Sum of lost time (s)	14.6
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	150	120	190	70	120	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	3433	1863	1863	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	3433	1863	1863	1583
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	152	121	192	71	121	212
RTOR Reduction (vph)	0	94	0	0	0	156
Lane Group Flow (vph)	152	27	192	71	121	56
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	11.1	11.1	8.7	26.3	13.1	13.1
Effective Green, g (s)	11.1	11.1	8.7	26.3	13.1	13.1
Actuated g/C Ratio	0.22	0.22	0.18	0.53	0.27	0.27
Clearance Time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	5.0	5.0	5.0
Lane Grp Cap (vph)	397	355	604	991	494	419
v/s Ratio Prot	c0.09		c0.06	0.04	c0.06	
v/s Ratio Perm		0.02				0.04
v/c Ratio	0.38	0.08	0.32	0.07	0.24	0.13
Uniform Delay, d1	16.2	15.1	17.8	5.6	14.3	13.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1	0.3	0.1	0.5	0.3
Delay (s)	16.9	15.2	18.1	5.7	14.8	14.1
Level of Service	B	B	B	A	B	B
Approach Delay (s)	16.1			14.7	14.4	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	49.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	190	20	90	130	40	140
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	200	21	95	137	42	147
Number of Lanes	1	1	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	11.5	10.2	9.6
HCM LOS	B	B	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	41%	0%	0%	0%	100%
Vol Right, %	59%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	220	190	20	40	140
LT Vol	90	0	0	0	140
Through Vol	130	0	20	0	0
RT Vol	0	190	0	40	0
Lane Flow Rate	232	200	21	42	147
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.315	0.337	0.028	0.069	0.222
Departure Headway (Hd)	4.893	6.06	4.852	5.932	5.428
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	732	590	731	601	657
Service Time	2.949	3.835	2.626	3.694	3.19
HCM Lane V/C Ratio	0.317	0.339	0.029	0.07	0.224
HCM Control Delay	10.2	11.9	7.8	9.1	9.7
HCM Lane LOS	B	B	A	A	A
HCM 95th-tile Q	1.4	1.5	0.1	0.2	0.8

Notes

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	30	10	50	10	310	10	350	130	420	200	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Cap, veh/h	34	301	100	69	455	387	19	556	203	509	1721	87
Arrive On Green	0.02	0.22	0.22	0.04	0.24	0.24	0.01	0.21	0.21	0.29	0.49	0.49
Sat Flow, veh/h	1774	1338	446	1774	1863	1583	1774	2604	953	1774	3517	177
Grp Volume(v), veh/h	22	0	44	54	11	337	11	270	251	457	114	114
Grp Sat Flow(s),veh/h/ln	1774	0	1784	1774	1863	1583	1774	1863	1695	1774	1863	1831
Q Serve(g_s), s	1.0	0.0	1.6	2.4	0.4	16.4	0.5	10.7	11.0	19.9	2.7	2.7
Cycle Q Clear(g_c), s	1.0	0.0	1.6	2.4	0.4	16.4	0.5	10.7	11.0	19.9	2.7	2.7
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.56	1.00		0.10
Lane Grp Cap(c), veh/h	34	0	401	69	455	387	19	397	362	509	911	896
V/C Ratio(X)	0.64	0.00	0.11	0.78	0.02	0.87	0.57	0.68	0.69	0.90	0.13	0.13
Avail Cap(c_a), veh/h	188	0	688	199	718	610	188	672	611	717	1228	1207
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	24.8	38.3	23.1	29.2	39.6	29.1	29.2	27.6	11.2	11.2
Incr Delay (d2), s/veh	18.3	0.0	0.1	17.4	0.0	8.2	24.1	2.0	2.4	10.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	0.7	1.4	0.2	7.2	0.3	5.2	4.8	10.2	1.2	1.2
Lane Grp Delay (d), s/veh	57.4	0.0	24.9	55.7	23.1	37.4	63.6	31.2	31.6	38.5	11.2	11.2
Lane Grp LOS	E		C	E	C	D	E	C	C	D	B	B
Approach Vol, veh/h		66			402			532			685	
Approach Delay, s/veh		35.7			39.4			32.0			29.4	
Approach LOS		D			D			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.1	23.1		7.6	24.7		5.4	22.2		27.6	44.3	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	8.5	31.0		9.0	31.0		8.5	29.0		32.5	53.0	
Max Q Clear Time (g_c+I1), s	3.0	3.6		4.4	18.4		2.5	13.0		21.9	4.7	
Green Ext Time (p_c), s	0.0	1.5		0.0	1.2		0.0	4.2		1.2	5.3	

Intersection Summary			
HCM 2010 Ctrl Delay		32.9	
HCM 2010 LOS		C	

Notes

Intersection	
Intersection Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	810	10	50	440	10	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	880	11	54	478	11	109

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	891	0	1234	446
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	348	-
Follow-up Headway	-	-	2	-	4	3
Pot Capacity-1 Maneuver	-	-	757	-	169	560
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	686	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	757	-	157	560
Mov Capacity-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	637	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	16

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	454	-	-	757	-
HCM Lane V/C Ratio	0.263	-	-	0.072	-
HCM Control Delay (s)	15.7	-	-	10.123	-
HCM Lane LOS	C			B	
HCM 95th %tile Q(veh)	1.046	-	-	0.231	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	1010	10	20	480	50	10	20	20	50	20	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	1	1	1	0	1	1	0
Cap, veh/h	73	1668	17	37	1612	685	105	124	124	73	149	74
Arrive On Green	0.04	0.45	0.45	0.02	0.43	0.43	0.06	0.15	0.15	0.04	0.13	0.13
Sat Flow, veh/h	1774	3682	37	1774	3725	1583	1774	856	856	1774	1173	586
Grp Volume(v), veh/h	54	555	554	22	522	54	11	0	44	54	0	33
Grp Sat Flow(s),veh/h/ln	1774	1863	1856	1774	1863	1583	1774	0	1712	1774	0	1759
Q Serve(g_s), s	1.6	12.6	12.6	0.7	5.0	1.1	0.3	0.0	1.2	1.6	0.0	0.9
Cycle Q Clear(g_c), s	1.6	12.6	12.6	0.7	5.0	1.1	0.3	0.0	1.2	1.6	0.0	0.9
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.50	1.00		0.33
Lane Grp Cap(c), veh/h	73	844	841	37	1612	685	105	0	248	73	0	223
V/C Ratio(X)	0.74	0.66	0.66	0.60	0.32	0.08	0.10	0.00	0.18	0.74	0.00	0.15
Avail Cap(c_a), veh/h	326	1061	1058	196	1849	786	245	0	1164	245	0	1197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	11.6	11.6	26.4	10.2	9.1	24.2	0.0	20.4	25.8	0.0	21.1
Incr Delay (d2), s/veh	13.8	1.0	1.0	14.4	0.1	0.0	0.4	0.0	0.3	13.8	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	5.2	5.2	0.4	2.0	0.4	0.2	0.0	0.5	1.0	0.0	0.4
Lane Grp Delay (d), s/veh	39.6	12.6	12.6	40.8	10.3	9.1	24.6	0.0	20.7	39.6	0.0	21.4
Lane Grp LOS	D	B	B	D	B	A	C		C	D		C
Approach Vol, veh/h		1163			598			55			87	
Approach Delay, s/veh		13.9			11.3			21.5			32.7	
Approach LOS		B			B			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.7	29.6		5.6	28.5		7.7	12.4		6.7	11.4	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	4.5		4.5	4.5	
Max Green Setting (Gmax), s	10.0	31.0		6.0	27.0		7.5	37.0		7.5	37.0	
Max Q Clear Time (g_c+I1), s	3.6	14.6		2.7	7.0		2.3	3.2		3.6	2.9	
Green Ext Time (p_c), s	0.0	10.0		0.0	11.4		0.0	0.4		0.0	0.4	

Intersection Summary			
HCM 2010 Ctrl Delay		14.2	
HCM 2010 LOS		B	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	810	230	60	40	90	190	150	530	220	710	280	750
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Cap, veh/h	754	1249	531	87	526	558	222	1517	430	726	2336	1009
Arrive On Green	0.22	0.34	0.34	0.03	0.14	0.14	0.06	0.27	0.27	0.21	0.42	0.42
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	5588	1583	3442	5588	1583
Grp Volume(v), veh/h	880	250	65	43	98	207	163	576	239	772	304	815
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	26.5	5.8	3.4	1.5	2.8	11.8	5.6	10.1	15.7	25.5	4.0	46.5
Cycle Q Clear(g_c), s	26.5	5.8	3.4	1.5	2.8	11.8	5.6	10.1	15.7	25.5	4.0	46.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	754	1249	531	87	526	558	222	1517	430	726	2336	1009
V/C Ratio(X)	1.17	0.20	0.12	0.49	0.19	0.37	0.74	0.38	0.56	1.06	0.13	0.81
Avail Cap(c_a), veh/h	754	1833	779	228	1263	871	356	1756	498	726	2357	1015
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	28.6	27.9	58.2	45.8	29.2	55.5	35.8	37.8	47.7	21.7	16.4
Incr Delay (d2), s/veh	89.0	0.1	0.1	4.3	0.2	0.4	4.7	0.2	1.1	51.6	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	21.1	2.8	1.4	0.7	1.4	4.7	2.6	4.8	6.4	16.5	1.9	18.6
Lane Grp Delay (d), s/veh	136.2	28.7	28.0	62.4	45.9	29.6	60.2	35.9	38.9	99.3	21.7	21.3
Lane Grp LOS	F	C	C	E	D	C	E	D	D	F	C	C
Approach Vol, veh/h		1195			348			978			1891	
Approach Delay, s/veh		107.8			38.3			40.7			53.2	
Approach LOS		F			D			D			D	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	31.0	45.5		7.6	22.1		12.3	37.8		30.0	55.5	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	26.5	59.5		8.0	41.0		12.5	38.0		25.5	51.0	
Max Q Clear Time (g_c+I1), s	28.5	7.8		3.5	13.8		7.6	17.7		27.5	48.5	
Green Ext Time (p_c), s	0.0	3.5		0.0	3.3		0.2	10.9		0.0	2.0	

Intersection Summary	
HCM 2010 Ctrl Delay	64.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	10	10	30	10	360	10	10	220	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.96		0.95	1.00		0.91	1.00		0.91
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Cap, veh/h	248	242	199	157	164	359	20	1221	34	20	1195	55
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.01	0.34	0.34	0.01	0.34	0.34
Sat Flow, veh/h	408	634	521	196	429	938	1774	3595	101	1774	3518	161
Grp Volume(v), veh/h	33	0	0	55	0	0	11	202	200	11	126	124
Grp Sat Flow(s),veh/h/ln	1563	0	0	1563	0	0	1774	1863	1833	1774	1863	1816
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.2	4.2	0.3	2.5	2.5
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.1	0.0	0.0	0.3	4.2	4.2	0.3	2.5	2.5
Prop In Lane	0.33		0.33	0.20		0.60	1.00		0.06	1.00		0.09
Lane Grp Cap(c), veh/h	689	0	0	680	0	0	20	633	623	20	633	617
V/C Ratio(X)	0.05	0.00	0.00	0.08	0.00	0.00	0.55	0.32	0.32	0.55	0.20	0.20
Avail Cap(c_a), veh/h	1006	0	0	997	0	0	338	1242	1222	338	1242	1211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	10.4	0.0	0.0	25.8	12.8	12.8	25.8	12.3	12.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	21.4	0.3	0.3	21.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	0.0	0.4	0.0	0.0	0.3	1.8	1.8	0.3	1.1	1.1
Lane Grp Delay (d), s/veh	10.2	0.0	0.0	10.4	0.0	0.0	47.2	13.1	13.1	47.2	12.4	12.4
Lane Grp LOS	B			B			D	B	B	D	B	B
Approach Vol, veh/h		33			55			413			261	
Approach Delay, s/veh		10.2			10.4			14.0			13.9	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		25.1			25.1		4.6	22.8		4.6	22.8	
Change Period (Y+Rc), s		5.0			5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s		31.0			31.0		10.0	35.0		10.0	35.0	
Max Q Clear Time (g_c+I1), s		2.6			3.1		2.3	6.2		2.3	4.5	
Green Ext Time (p_c), s		0.5			0.5		0.0	4.1		0.0	4.2	

Intersection Summary												
HCM 2010 Ctrl Delay			13.6									
HCM 2010 LOS			B									

Notes

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	10	10	10	10	10	30	50	10	30	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	22	11	11	11	11	11	33	54	11	33	11
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	7.8	7.7	7.3	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	11%	100%	0%	100%	0%	20%
Vol Thru, %	33%	0%	67%	0%	50%	60%
Vol Right, %	56%	0%	33%	0%	50%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	10	30	10	20	50
LT Vol	30	0	20	0	10	30
Through Vol	50	0	10	0	10	10
RT Vol	10	10	0	10	0	10
Lane Flow Rate	98	11	33	11	22	54
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.103	0.016	0.042	0.016	0.027	0.061
Departure Headway (Hd)	3.792	5.319	4.583	5.325	4.473	4.057
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	932	669	775	668	793	872
Service Time	1.866	3.085	2.349	3.095	2.242	2.134
HCM Lane V/C Ratio	0.105	0.016	0.043	0.016	0.028	0.062
HCM Control Delay	7.3	8.2	7.6	8.2	7.4	7.4
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0	0.1	0	0.1	0.2

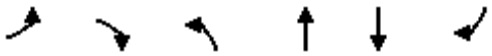
Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	370	109	87	44
Demand Flow Rate, veh/h	377	111	88	44
Vehicles Circulating, veh/h	67	44	388	111
Vehicles Exiting, veh/h	88	432	56	44
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.2	4.3	6.0	4.0
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	377	111	88	44
Cap Entry Lane, veh/h	1057	1081	767	1011
Entry HV Adj Factor	0.982	0.979	0.986	0.995
Flow Entry, veh/h	370	109	87	44
Cap Entry, veh/h	1038	1059	756	1006
V/C Ratio	0.357	0.103	0.115	0.044
Control Delay, s/veh	7.2	4.3	6.0	4.0
LOS	A	A	A	A
95th %tile Queue, veh	2	0	0	0



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	330	50	20	570	230	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	5085	5085	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1770	5085	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	54	22	620	250	76
RTOR Reduction (vph)	0	34	0	0	0	53
Lane Group Flow (vph)	359	20	22	620	250	23
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	16.0	16.0	0.8	18.5	13.2	13.2
Effective Green, g (s)	16.0	16.0	0.8	18.5	13.2	13.2
Actuated g/C Ratio	0.36	0.36	0.02	0.42	0.30	0.30
Clearance Time (s)	4.5	4.5	4.5	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	643	575	32	2138	1525	474
v/s Ratio Prot	c0.20		0.01	c0.12	0.05	
v/s Ratio Perm		0.01				0.01
v/c Ratio	0.56	0.03	0.69	0.29	0.16	0.05
Uniform Delay, d1	11.2	9.0	21.5	8.4	11.3	10.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.0	47.1	0.1	0.1	0.0
Delay (s)	12.2	9.0	68.6	8.5	11.4	11.0
Level of Service	B	A	E	A	B	B
Approach Delay (s)	11.8			10.5	11.3	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	44.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	10	10	40	10	140	10	20	210	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	11	11	11	11	43	11	152	11	22	228	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	118	89	227	58	175	705	1243	89	749	1276	61
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	370	713	542	190	355	1065	1136	3350	240	1218	3438	165
Grp Volume(v), veh/h	33	0	0	65	0	0	11	80	83	22	117	122
Grp Sat Flow(s),veh/h/ln	1625	0	0	1609	0	0	1136	1770	1820	1218	1770	1834
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.6	0.3	1.0	1.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.7	0.0	0.0	1.1	0.6	0.6	0.9	1.0	1.0
Prop In Lane	0.33		0.33	0.17		0.66	1.00		0.13	1.00		0.09
Lane Grp Cap(c), veh/h	490	0	0	460	0	0	705	657	676	749	657	681
V/C Ratio(X)	0.07	0.00	0.00	0.14	0.00	0.00	0.02	0.12	0.12	0.03	0.18	0.18
Avail Cap(c_a), veh/h	2489	0	0	2479	0	0	1812	2381	2450	1936	2381	2467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	0.0	0.0	7.8	0.0	0.0	4.9	4.5	4.5	4.8	4.6	4.6
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.1	0.5	0.5
LnGrp Delay(d),s/veh	7.7	0.0	0.0	8.0	0.0	0.0	4.9	4.5	4.5	4.8	4.7	4.7
LnGrp LOS	A			A			A	A	A	A	A	A
Approach Vol, veh/h		33			65			174			261	
Approach Delay, s/veh		7.7			8.0			4.6			4.7	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		13.0		8.6		13.0		8.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		29.0		31.0		29.0		31.0
Max Q Clear Time (g_c+I1), s		3.1		2.3		3.0		2.7
Green Ext Time (p_c), s		2.5		0.5		2.5		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	5.2
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	30	30	20	30	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	33	33	22	33	11
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.9	7.5	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	60%	25%	0%
Vol Thru, %	40%	0%	75%
Vol Right, %	0%	75%	25%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	50	40	40
LT Vol	20	0	30
Through Vol	0	30	10
RT Vol	30	10	0
Lane Flow Rate	54	43	43
Geometry Grp	1	1	1
Degree of Util (X)	0.063	0.045	0.047
Departure Headway (Hd)	4.164	3.702	3.902
Convergence, Y/N	Yes	Yes	Yes
Cap	861	962	918
Service Time	2.183	1.746	1.926
HCM Lane V/C Ratio	0.063	0.045	0.047
HCM Control Delay	7.5	6.9	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	80	50	30	110	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	87	54	33	120	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	87	0	-	0	180	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	109	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1509	-	-	-	810	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	916	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1509	-	-	-	804	991
Mov Capacity-2 Maneuver	-	-	-	-	804	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	909	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	10

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	817
HCM Lane V/C Ratio	0.007	-	-	-	0.16
HCM Control Delay (s)	7.403	0	-	-	10.2
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.022	-	-	-	0.566

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	20	10	70	20	300	10	980	100	220	1150	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Cap, veh/h	282	370	314	344	370	498	44	1703	724	399	2043	868
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.46	0.46	0.12	0.55	0.55
Sat Flow, veh/h	1046	1863	1583	1373	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	21	21	10	72	21	309	10	1010	103	227	1186	10
Grp Sat Flow(s),veh/h/ln	1046	1863	1583	1373	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.4	0.8	0.4	3.9	0.8	14.3	0.5	17.3	3.2	5.4	18.1	0.2
Cycle Q Clear(g_c), s	2.2	0.8	0.4	4.6	0.8	14.3	0.5	17.3	3.2	5.4	18.1	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	370	314	344	370	498	44	1703	724	399	2043	868
V/C Ratio(X)	0.07	0.06	0.03	0.21	0.06	0.62	0.23	0.59	0.14	0.57	0.58	0.01
Avail Cap(c_a), veh/h	610	955	812	775	955	995	211	3907	1660	802	3907	1660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	27.9	27.7	29.8	27.9	25.1	41.1	17.4	13.5	35.9	12.8	8.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.5	1.0	0.2	0.1	0.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.4	0.2	1.3	0.4	5.4	0.2	6.9	1.1	2.2	6.8	0.1
Lane Grp Delay (d), s/veh	28.8	27.9	27.8	29.9	27.9	25.5	42.0	17.6	13.6	36.4	13.0	8.8
Lane Grp LOS	C	C	C	C	C	C	D	B	B	D	B	A
Approach Vol, veh/h		52			402			1123			1423	
Approach Delay, s/veh		28.2			26.4			17.5			16.7	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		22.8			22.8		7.9	47.2		15.8	55.1	
Change Period (Y+Rc), s		5.8			5.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		10.2	90.0		20.0	90.0	
Max Q Clear Time (g_c+I1), s		4.2			16.3		2.5	19.3		7.4	20.1	
Green Ext Time (p_c), s		0.8			0.8		0.0	19.9		0.3	19.9	

Intersection Summary			
HCM 2010 Ctrl Delay		18.5	
HCM 2010 LOS		B	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	30	10	10	40	20	20	960	20	20	1010	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Cap, veh/h	291	285	304	301	285	320	69	1777	755	86	1813	771
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.04	0.48	0.48	0.05	0.49	0.49
Sat Flow, veh/h	1335	1863	1583	1360	1863	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	113	31	10	10	41	21	21	990	21	21	1041	206
Grp Sat Flow(s),veh/h/ln	1335	1863	1583	1360	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.1	0.9	0.3	0.4	1.2	0.7	0.7	12.1	0.5	0.7	12.8	4.9
Cycle Q Clear(g_c), s	6.4	0.9	0.3	1.3	1.2	0.7	0.7	12.1	0.5	0.7	12.8	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	291	285	304	301	285	320	69	1777	755	86	1813	771
V/C Ratio(X)	0.39	0.11	0.03	0.03	0.14	0.07	0.30	0.56	0.03	0.24	0.57	0.27
Avail Cap(c_a), veh/h	1003	1278	1148	1026	1278	1163	221	3486	1481	277	3486	1481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	23.4	21.1	24.0	23.5	20.7	30.0	11.9	8.9	29.4	11.7	9.7
Incr Delay (d2), s/veh	0.6	0.1	0.0	0.0	0.2	0.1	0.9	0.2	0.0	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	0.4	0.1	0.1	0.6	0.3	0.3	4.3	0.1	0.3	4.4	1.5
Lane Grp Delay (d), s/veh	26.9	23.5	21.1	24.0	23.7	20.8	30.9	12.2	8.9	29.9	11.9	9.8
Lane Grp LOS	C	C	C	C	C	C	C	B	A	C	B	A
Approach Vol, veh/h		154			72			1032			1268	
Approach Delay, s/veh		25.8			22.9			12.5			11.9	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		16.6			16.6		8.3	38.6		8.9	39.2	
Change Period (Y+Rc), s		6.8			6.8		5.8	8.0		5.8	8.0	
Max Green Setting (Gmax), s		44.0			44.0		8.0	60.0		10.0	60.0	
Max Q Clear Time (g_c+I1), s		8.4			3.3		2.7	14.1		2.7	14.8	
Green Ext Time (p_c), s		0.7			0.7		0.0	16.4		0.0	16.4	

Intersection Summary												
HCM 2010 Ctrl Delay			13.3									
HCM 2010 LOS			B									

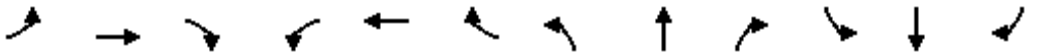
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	790	190	1150	590	470	280	510	1290	740	500	130
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	1	1	2	1	1
Cap, veh/h	199	1082	460	446	1350	779	223	532	452	446	652	555
Arrive On Green	0.06	0.29	0.29	0.13	0.36	0.36	0.06	0.29	0.29	0.13	0.35	0.35
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	1863	1583	3442	1863	1583
Grp Volume(v), veh/h	52	814	196	1186	608	485	289	526	1330	763	515	134
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	2.2	30.6	15.5	20.0	19.2	34.6	10.0	43.4	44.0	20.0	38.3	9.3
Cycle Q Clear(g_c), s	2.2	30.6	15.5	20.0	19.2	34.6	10.0	43.4	44.0	20.0	38.3	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	1082	460	446	1350	779	223	532	452	446	652	555
V/C Ratio(X)	0.26	0.75	0.43	2.66	0.45	0.62	1.29	0.99	2.94	1.71	0.79	0.24
Avail Cap(c_a), veh/h	446	2175	924	446	2175	1130	223	532	452	446	652	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.5	49.7	44.3	67.1	37.5	28.7	72.1	54.9	55.1	67.1	45.0	35.6
Incr Delay (d2), s/veh	0.3	0.8	0.5	751.8	0.2	0.6	161.6	36.2	880.5	328.5	6.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	14.4	6.4	55.4	8.9	13.9	9.5	26.1	128.6	29.4	19.6	3.8
Lane Grp Delay (d), s/veh	69.7	50.5	44.8	818.9	37.6	29.3	233.7	91.0	935.6	395.6	51.2	35.7
Lane Grp LOS	E	D	D	F	D	C	F	F	F	F	D	D
Approach Vol, veh/h		1062			2279			2145			1412	
Approach Delay, s/veh		50.4			442.4			633.9			235.8	
Approach LOS		D			F			F			F	

Timer												
Assigned Phs	1	6		5	2		7	4		3	8	
Phs Duration (G+Y+Rc), s	14.7	52.8		25.8	63.9		15.8	49.8		25.8	59.8	
Change Period (Y+Rc), s	5.8	8.0		5.8	8.0		5.8	5.8		5.8	5.8	
Max Green Setting (Gmax), s	20.0	90.0		20.0	90.0		10.0	44.0		20.0	41.0	
Max Q Clear Time (g_c+I1), s	4.2	32.6		22.0	36.6		12.0	46.0		22.0	40.3	
Green Ext Time (p_c), s	0.0	12.2		0.0	12.1		0.0	0.0		0.0	0.7	

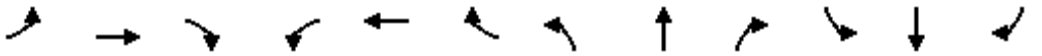
Intersection Summary												
HCM 2010 Ctrl Delay			399.3									
HCM 2010 LOS			F									

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	390	170	0	750	250	0	0	0	510	0	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			4.9	4.0					4.2	4.2
Lane Util. Factor		0.95			0.91	1.00					1.00	1.00
Frt		0.95			1.00	0.85					1.00	0.85
Flt Protected		1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)		3378			5085	1583					1770	1583
Flt Permitted		1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)		3378			5085	1583					1770	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	406	177	0	781	260	0	0	0	531	0	115
RTOR Reduction (vph)	0	80	0	0	0	0	0	0	0	0	0	63
Lane Group Flow (vph)	0	503	0	0	781	260	0	0	0	0	531	52
Turn Type		NA			NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases						Free				4		4
Actuated Green, G (s)		16.6			16.6	46.6					20.9	20.9
Effective Green, g (s)		16.6			16.6	46.6					20.9	20.9
Actuated g/C Ratio		0.36			0.36	1.00					0.45	0.45
Clearance Time (s)		4.9			4.9						4.2	4.2
Vehicle Extension (s)		3.6			3.6						2.0	2.0
Lane Grp Cap (vph)		1203			1811	1583					793	709
v/s Ratio Prot		0.15			c0.15							
v/s Ratio Perm						0.16					0.30	0.03
v/c Ratio		0.42			0.43	0.16					0.67	0.07
Uniform Delay, d1		11.3			11.4	0.0					10.1	7.3
Progression Factor		1.00			1.00	1.00					1.00	1.00
Incremental Delay, d2		0.3			0.2	0.2					1.7	0.0
Delay (s)		11.6			11.6	0.2					11.8	7.3
Level of Service		B			B	A					B	A
Approach Delay (s)		11.6			8.8			0.0			11.0	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	46.6	Sum of lost time (s)	9.1
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	870	0	0	630	360	370	0	610	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Lane Util. Factor	1.00	0.95			0.91	1.00	0.95	0.95	0.88			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1770	3539			5085	1583	1681	1681	2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	1770	3539			5085	1583	1681	1681	2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	916	0	0	663	379	389	0	642	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	237	0	0	239	0	0	0
Lane Group Flow (vph)	32	916	0	0	663	142	194	195	403	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	3.0	25.3			18.1	18.1	13.1	13.1	13.1			
Effective Green, g (s)	3.0	25.3			18.1	18.1	13.1	13.1	13.1			
Actuated g/C Ratio	0.06	0.52			0.38	0.38	0.27	0.27	0.27			
Clearance Time (s)	4.2	4.9			4.9	4.9	4.9	4.9	4.9			
Vehicle Extension (s)	2.0	3.6			3.6	3.6	2.0	2.0	2.0			
Lane Grp Cap (vph)	110	1857			1909	594	456	456	757			
v/s Ratio Prot	0.02	c0.26			0.13							
v/s Ratio Perm						0.09	0.12	0.12	c0.14			
v/c Ratio	0.29	0.49			0.35	0.24	0.43	0.43	0.53			
Uniform Delay, d1	21.6	7.3			10.8	10.3	14.5	14.5	14.9			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.5	0.3			0.1	0.3	0.2	0.2	0.4			
Delay (s)	22.1	7.6			10.9	10.6	14.7	14.7	15.3			
Level of Service	C	A			B	B	B	B	B			
Approach Delay (s)		8.1			10.8			15.1			0.0	
Approach LOS		A			B			B			A	

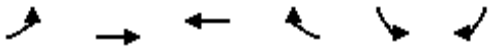
Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	48.2	Sum of lost time (s)	14.0
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (vph)	200	5	700	220	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3		4.2	5.3		
Lane Util. Factor	0.95		0.97	1.00		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3527		3433	1863		
Flt Permitted	1.00		0.95	1.00		
Satd. Flow (perm)	3527		3433	1863		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	213	5	745	234	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	216	0	745	234	0	0
Turn Type	NA		Prot	NA		
Protected Phases	2		1	6		
Permitted Phases						
Actuated Green, G (s)	9.7		10.8	30.0		
Effective Green, g (s)	9.7		10.8	30.0		
Actuated g/C Ratio	0.32		0.36	1.00		
Clearance Time (s)	5.3		4.2	5.3		
Vehicle Extension (s)	2.0		2.0	2.0		
Lane Grp Cap (vph)	1140		1235	1863		
v/s Ratio Prot	0.06		c0.22	c0.13		
v/s Ratio Perm						
v/c Ratio	0.19		0.60	0.13		
Uniform Delay, d1	7.3		7.8	0.0		
Progression Factor	1.00		1.00	1.00		
Incremental Delay, d2	0.0		0.6	0.0		
Delay (s)	7.3		8.4	0.0		
Level of Service	A		A	A		
Approach Delay (s)	7.3			6.4	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	30.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

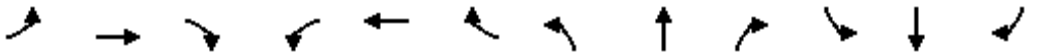
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	970	200	0	0	910
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	4.0	5.3			5.3
Lane Util. Factor	1.00	0.88	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	2787	3539			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	2787	3539			3539
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	11	1032	213	0	0	968
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	11	1032	213	0	0	968
Turn Type	NA	Free	NA			NA
Protected Phases	8		2			6
Permitted Phases		Free				
Actuated Green, G (s)	1.1	36.4	25.8			25.8
Effective Green, g (s)	1.1	36.4	25.8			25.8
Actuated g/C Ratio	0.03	1.00	0.71			0.71
Clearance Time (s)	4.2		5.3			5.3
Vehicle Extension (s)	2.0		2.0			2.0
Lane Grp Cap (vph)	53	2787	2508			2508
v/s Ratio Prot	0.01		0.06			0.27
v/s Ratio Perm		c0.37				
v/c Ratio	0.21	0.37	0.08			0.39
Uniform Delay, d1	17.2	0.0	1.6			2.1
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.7	0.4	0.0			0.0
Delay (s)	17.9	0.4	1.6			2.2
Level of Service	B	A	A			A
Approach Delay (s)	0.6		1.6			2.2
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay	1.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	36.4	Sum of lost time (s)	9.5
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	240	120	400	290	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	42	250	125	417	302	104
RTOR Reduction (vph)	0	0	0	309	0	71
Lane Group Flow (vph)	42	250	125	108	302	33
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)	2.1	14.8	9.2	9.2	11.4	11.4
Effective Green, g (s)	2.1	14.8	9.2	9.2	11.4	11.4
Actuated g/C Ratio	0.06	0.42	0.26	0.26	0.32	0.32
Clearance Time (s)	3.5	5.3	5.3	5.3	4.1	4.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	104	774	481	409	566	506
v/s Ratio Prot	0.02	c0.13	0.07		c0.17	
v/s Ratio Perm				0.07		0.02
v/c Ratio	0.40	0.32	0.26	0.26	0.53	0.07
Uniform Delay, d1	16.1	7.0	10.5	10.5	9.9	8.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.1	0.1	0.1	0.5	0.0
Delay (s)	17.1	7.1	10.6	10.6	10.4	8.4
Level of Service	B	A	B	B	B	A
Approach Delay (s)		8.5	10.6		9.9	
Approach LOS		A	B		A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	35.6	Sum of lost time (s)	12.9
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	430	0	0	470	340	50	0	480	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	1770		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	1770		1583			
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	112	483	0	0	528	382	56	0	539	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	269	0	0	259	0	0	0
Lane Group Flow (vph)	112	483	0	0	528	113	56	0	280	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	6.6	23.7			13.6	13.6	12.8		12.8			
Effective Green, g (s)	6.6	23.7			13.6	13.6	12.8		12.8			
Actuated g/C Ratio	0.14	0.52			0.30	0.30	0.28		0.28			
Clearance Time (s)	3.5	5.3			5.3	5.3	4.1		4.1			
Vehicle Extension (s)	2.0	2.0			2.0	2.0	2.0		2.0			
Lane Grp Cap (vph)	254	1827			1048	469	493		441			
v/s Ratio Prot	c0.06	0.14			c0.15							
v/s Ratio Perm						0.07	0.03		c0.18			
v/c Ratio	0.44	0.26			0.50	0.24	0.11		0.64			
Uniform Delay, d1	18.0	6.2			13.4	12.2	12.3		14.5			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	0.4	0.0			0.1	0.1	0.0		2.2			
Delay (s)	18.4	6.2			13.5	12.3	12.4		16.7			
Level of Service	B	A			B	B	B		B			
Approach Delay (s)		8.5			13.0			16.3			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	12.9
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	63.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	420	590	180	290	20	460	150	360	60	130	40
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	477	670	205	330	23	523	170	409	68	148	45
Number of Lanes	1	2	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	65.4	48.1	81.1	17.3
HCM LOS	F	E	F	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	47%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	15%	0%	100%	19%	0%	100%	0%	0%	100%	0%
Vol Right, %	37%	0%	0%	81%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	970	60	280	730	180	290	20	60	130	40
LT Vol	150	0	280	140	0	290	0	0	130	0
Through Vol	360	0	0	590	0	0	20	0	0	40
RT Vol	460	60	0	0	180	0	0	60	0	0
Lane Flow Rate	1102	68	318	830	205	330	23	68	148	45
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	1	0.192	0.852	1	0.602	0.924	0.059	0.197	0.406	0.116
Departure Headway (Hd)	10.301	10.139	9.643	9.082	10.587	10.09	9.393	10.397	9.901	9.206
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	364	353	375	406	342	359	381	346	363	390
Service Time	8.001	7.913	7.417	6.857	8.343	7.846	7.15	8.153	7.657	6.962
HCM Lane V/C Ratio	3.027	0.193	0.848	2.044	0.599	0.919	0.06	0.197	0.408	0.115
HCM Control Delay	81.1	15.3	48.6	76	28.2	62.9	12.7	15.7	19.3	13.2
HCM Lane LOS	F	C	E	F	D	F	B	C	C	B
HCM 95th-tile Q	11.4	0.7	8	12.1	3.7	9.5	0.2	0.7	1.9	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4634.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	250	260	440	350	10	370	5	770	20	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	287	299	506	402	11	425	6	885	23	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	414	0	0	586	0	0	1873	1873	437	2314	2018	408
Stage 1	-	-	-	-	-	-	448	448	-	1420	1420	-
Stage 2	-	-	-	-	-	-	1425	1425	-	894	598	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1145	-	-	989	-	-	# 55	72	# 620	27	58	643
Stage 1	-	-	-	-	-	-	590	573	-	169	202	-
Stage 2	-	-	-	-	-	-	# 168	201	-	336	491	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1145	-	-	989	-	-	# 20	24	# 620	-	19	643
Mov Capacity-2 Maneuver	-	-	-	-	-	-	# 20	24	-	-	19	-
Stage 1	-	-	-	-	-	-	585	568	-	168	68	-
Stage 2	-	-	-	-	-	-	# 51	67	-	-	487	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7	$ 10074	Error

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	57	1145	-	-	989	-	-	Error
HCM Lane V/C Ratio	23.089	0.005	-	-	0.511	-	-	Error
HCM Control Delay (s)	$ 10073.9	8.16	0	-	12.386	0	-	Error
HCM Lane LOS	F	A	A		B	A		Error
HCM 95th %tile Q(veh)	160.462	0.015	-	-	2.991	-	-	Error

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	310	330	40	310	90	260	180	50	50	130	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Cap, veh/h	66	1347	572	66	1347	572	774	406	345	387	812	345
Arrive On Green	0.04	0.36	0.36	0.04	0.36	0.36	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	3548	1863	1583	1774	3725	1583
Grp Volume(v), veh/h	42	323	344	42	323	94	271	188	52	52	135	31
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.9	2.4	6.9	0.9	2.4	1.6	2.5	3.4	1.0	0.9	1.2	0.6
Cycle Q Clear(g_c), s	0.9	2.4	6.9	0.9	2.4	1.6	2.5	3.4	1.0	0.9	1.2	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1347	572	66	1347	572	774	406	345	387	812	345
V/C Ratio(X)	0.63	0.24	0.60	0.63	0.24	0.16	0.35	0.46	0.15	0.13	0.17	0.09
Avail Cap(c_a), veh/h	453	2378	1011	453	2378	1011	2265	1189	1011	1132	2378	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	8.7	10.2	18.6	8.7	8.5	13.0	13.3	12.4	12.3	12.4	12.2
Incr Delay (d2), s/veh	9.5	0.1	1.0	9.5	0.1	0.1	0.3	0.8	0.2	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.8	2.2	0.5	0.8	0.5	0.9	1.3	0.3	0.3	0.4	0.2
Lane Grp Delay (d), s/veh	28.1	8.8	11.2	28.1	8.8	8.6	13.2	14.1	12.6	12.5	12.5	12.3
Lane Grp LOS	C	A	B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		709			459			511			218	
Approach Delay, s/veh		11.1			10.6			13.5			12.5	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	6.5	19.2		6.5	19.2			13.5			13.5	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	10.0	25.0		10.0	25.0			25.0			25.0	
Max Q Clear Time (g_c+I1), s	2.9	8.9		2.9	4.4			5.4			3.2	
Green Ext Time (p_c), s	0.0	5.2		0.0	5.8			3.1			3.2	

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	130	80	530	110	70	160	100	330	80	160	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	141	87	576	120	76	174	109	359	87	174	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	196	0	0	228	0	0	1609	1555	185	1750	1560	158
Stage 1	-	-	-	-	-	-	207	207	-	1310	1310	-
Stage 2	-	-	-	-	-	-	1402	1348	-	440	250	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1377	-	-	1340	-	-	# 84	113	857	# 67	# 112	887
Stage 1	-	-	-	-	-	-	795	731	-	196	229	-
Stage 2	-	-	-	-	-	-	# 173	219	-	596	700	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1377	-	-	1340	-	-	-	# 57	857	-	# 57	887
Mov Capacity-2 Maneuver	-	-	-	-	-	-	-	# 57	-	-	# 57	-
Stage 1	-	-	-	-	-	-	788	724	-	194	# 117	-
Stage 2	-	-	-	-	-	-	-	112	-	292	694	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7	Error	Error

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	Error	1377	-	-	1340	-	-	Error
HCM Lane V/C Ratio	Error	0.008	-	-	0.43	-	-	Error
HCM Control Delay (s)	Error	7.635	0	-	9.697	0	-	Error
HCM Lane LOS	Error	A	A		A	A		Error
HCM 95th %tile Q(veh)	Error	0.024	-	-	2.211	-	-	Error

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	20	90	50	10	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	103	57	11	11	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	69	0	-	0	212	63
Stage 1	-	-	-	-	63	-
Stage 2	-	-	-	-	149	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1532	-	-	-	776	1002
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	879	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1532	-	-	-	764	1002
Mov Capacity-2 Maneuver	-	-	-	-	764	-
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	865	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1532	-	-	-	867
HCM Lane V/C Ratio	0.015	-	-	-	0.027
HCM Control Delay (s)	7.386	0	-	-	9.3
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.046	-	-	-	0.082

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	41.2
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	40	40	30	20	10	90	290	60	10	380	150
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	48	48	36	24	12	107	345	71	12	452	179
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.8	12.2	33.5	57.9
HCM LOS	B	B	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	43%	50%	2%
Vol Thru, %	66%	29%	33%	70%
Vol Right, %	14%	29%	17%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	440	140	60	540
LT Vol	290	40	20	380
Through Vol	60	40	10	150
RT Vol	90	60	30	10
Lane Flow Rate	524	167	71	643
Geometry Grp	1	1	1	1
Degree of Util (X)	0.851	0.333	0.153	0.996
Departure Headway (Hd)	5.852	7.195	7.709	5.575
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	618	498	464	649
Service Time	3.9	5.257	5.786	3.617
HCM Lane V/C Ratio	0.848	0.335	0.153	0.991
HCM Control Delay	33.5	13.8	12.2	57.9
HCM Lane LOS	D	B	B	F
HCM 95th-tile Q	9.4	1.4	0.5	15.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	65.5
Intersection LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	250	290	430	300	110	470
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	287	333	494	345	126	540
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	65.1	65	66.5
HCM LOS	F	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	46%	19%
Vol Thru, %	59%	0%	81%
Vol Right, %	41%	54%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	730	540	580
LT Vol	430	0	470
Through Vol	300	290	0
RT Vol	0	250	110
Lane Flow Rate	839	621	667
Geometry Grp	1	1	1
Degree of Util (X)	1	1	1
Departure Headway (Hd)	6.785	6.802	7.069
Convergence, Y/N	Yes	Yes	Yes
Cap	545	540	520
Service Time	4.785	4.802	5.069
HCM Lane V/C Ratio	1.539	1.15	1.283
HCM Control Delay	65	65.1	66.5
HCM Lane LOS	F	F	F
HCM 95th-tile Q	14.1	14.1	13.8

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	5	110	280	440	470	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	126	322	506	540	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1692	543	546	0	-	0
Stage 1	543	-	-	-	-	-
Stage 2	1149	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	102	540	1023	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	57	540	1023	-	-	-
Mov Capacity-2 Maneuver	57	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	170	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	4	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1023	-	395	-	-
HCM Lane V/C Ratio	0.315	-	0.335	-	-
HCM Control Delay (s)	10.126	0	18.6	-	-
HCM Lane LOS	B	A	C		
HCM 95th %tile Q(veh)	1.356	-	1.445	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	57.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	180	60	50	520	590	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	202	67	56	584	663	90

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1405	708	753	0	-	0
Stage 1	708	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Follow-up Headway	4	3	2	-	-	-
Pot Capacity-1 Maneuver	# 154	435	857	-	-	-
Stage 1	488	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 139	435	857	-	-	-
Mov Capacity-2 Maneuver	# 139	-	-	-	-	-
Stage 1	488	-	-	-	-	-
Stage 2	446	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 351	1	0

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	857	-	167	-	-
HCM Lane V/C Ratio	0.066	-	1.615	-	-
HCM Control Delay (s)	9.495	0	$ 351.4	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.21	-	18.345	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	50	10	380	90	90	10	410	350	70	490	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	407	852	189	616	676	235	465	1547	595	217	1137	421
Arrive On Green	0.12	0.15	0.12	0.18	0.18	0.15	0.14	0.42	0.38	0.06	0.31	0.27
Sat Flow, veh/h	3442	5588	1564	3442	3725	1567	3442	3725	1577	3442	3725	1574
Grp Volume(v), veh/h	11	56	11	422	100	100	11	456	389	78	544	11
Grp Sat Flow(s),veh/h/ln	1721	1863	1564	1721	1863	1567	1721	1863	1577	1721	1863	1574
Q Serve(g_s), s	0.2	0.5	0.2	7.2	1.4	2.7	0.2	5.1	12.9	1.4	7.5	0.3
Cycle Q Clear(g_c), s	0.2	0.5	0.2	7.2	1.4	2.7	0.2	5.1	12.9	1.4	7.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	407	852	189	616	676	235	465	1547	595	217	1137	421
V/C Ratio(X)	0.03	0.07	0.06	0.69	0.15	0.43	0.02	0.29	0.65	0.36	0.48	0.03
Avail Cap(c_a), veh/h	1440	3365	892	1963	2243	894	873	2444	975	873	2444	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	22.9	9.5	24.2	21.7	13.3	23.7	12.3	16.2	28.3	17.8	17.1
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.5	0.1	1.8	0.0	0.2	1.9	0.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.2	0.2	2.9	0.6	1.4	0.1	2.0	4.6	0.6	3.1	0.1
Lane Grp Delay (d), s/veh	24.6	22.9	9.7	24.8	21.9	15.1	23.7	12.5	18.2	28.7	18.3	17.1
Lane Grp LOS	C	C	A	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		78			622			856			633	
Approach Delay, s/veh		21.3			22.7			15.2			19.6	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	12.5	12.6		14.3	14.5		13.9	29.2		7.0	22.3	
Change Period (Y+Rc), s	6.0	6.0		4.0	6.0		6.4	6.4		4.0	6.4	
Max Green Setting (Gmax), s	25.4	35.0		35.0	35.0		15.0	38.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	2.2	2.5		9.2	4.7		2.2	14.9		3.4	9.5	
Green Ext Time (p_c), s	0.3	0.4		1.1	1.3		4.9	6.5		0.1	4.3	

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	170	120	480	340	140	270	740	420	110	760	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Cap, veh/h	102	753	320	653	1349	573	415	2281	646	228	1318	560
Arrive On Green	0.03	0.20	0.20	0.19	0.36	0.36	0.12	0.41	0.41	0.07	0.35	0.35
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	5588	1583	3442	3725	1583
Grp Volume(v), veh/h	22	189	133	533	378	156	300	822	467	122	844	33
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.6	3.9	6.7	13.5	6.6	6.4	7.7	9.3	22.6	3.1	17.3	1.3
Cycle Q Clear(g_c), s	0.6	3.9	6.7	13.5	6.6	6.4	7.7	9.3	22.6	3.1	17.3	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	753	320	653	1349	573	415	2281	646	228	1318	560
V/C Ratio(X)	0.22	0.25	0.42	0.82	0.28	0.27	0.72	0.36	0.72	0.54	0.64	0.06
Avail Cap(c_a), veh/h	604	1735	738	830	1817	772	604	2281	646	604	1568	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	30.6	31.7	35.4	20.7	20.6	38.6	18.7	22.7	41.2	24.6	19.5
Incr Delay (d2), s/veh	0.4	0.3	1.5	4.0	0.2	0.4	0.9	0.2	4.4	0.7	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	1.8	2.7	6.0	2.9	2.4	3.2	3.8	9.0	1.3	7.4	0.5
Lane Grp Delay (d), s/veh	43.6	30.9	33.2	39.4	20.9	21.0	39.5	18.9	27.1	42.0	25.6	19.5
Lane Grp LOS	D	C	C	D	C	C	D	B	C	D	C	B
Approach Vol, veh/h		344			1067			1589			999	
Approach Delay, s/veh		32.6			30.2			25.2			27.4	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.7	21.6		20.3	36.2		14.0	40.2		9.0	35.3	
Change Period (Y+Rc), s	4.0	5.7		4.0	5.7		4.0	6.4		4.0	6.4	
Max Green Setting (Gmax), s	15.0	40.0		21.0	42.0		15.0	32.0		15.0	35.0	
Max Q Clear Time (g_c+I1), s	2.6	8.7		15.5	8.6		9.7	24.6		5.1	19.3	
Green Ext Time (p_c), s	0.0	7.3		0.8	7.4		0.3	6.4		0.2	9.6	

Intersection Summary			
HCM 2010 Ctrl Delay		27.7	
HCM 2010 LOS		C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	610	270	10	180	100	200	20	580	200	130	710	330
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Cap, veh/h	288	910	33	234	836	355	26	1107	470	177	1423	605
Arrive On Green	0.16	0.25	0.25	0.13	0.22	0.22	0.01	0.30	0.30	0.10	0.38	0.38
Sat Flow, veh/h	1774	3572	131	1774	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	678	156	155	200	111	222	22	644	222	144	789	367
Grp Sat Flow(s),veh/h/ln	1774	1863	1840	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	15.0	6.3	6.3	10.2	2.2	11.7	1.1	13.6	10.6	7.3	15.3	17.2
Cycle Q Clear(g_c), s	15.0	6.3	6.3	10.2	2.2	11.7	1.1	13.6	10.6	7.3	15.3	17.2
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	475	469	234	836	355	26	1107	470	177	1423	605
V/C Ratio(X)	2.35	0.33	0.33	0.85	0.13	0.62	0.84	0.58	0.47	0.82	0.55	0.61
Avail Cap(c_a), veh/h	288	686	677	288	1936	823	288	1170	497	288	1533	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	28.0	28.0	39.2	28.6	32.3	45.4	27.6	26.5	40.8	22.4	23.0
Incr Delay (d2), s/veh	619.8	0.8	0.8	15.8	0.1	3.5	22.5	1.1	1.4	3.5	0.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	56.3	3.0	3.0	5.6	1.0	4.9	0.7	6.4	4.3	3.5	7.1	7.0
Lane Grp Delay (d), s/veh	658.5	28.8	28.8	55.1	28.8	35.8	67.9	28.7	28.0	44.2	23.1	25.2
Lane Grp LOS	F	C	C	E	C	D	E	C	C	D	C	C
Approach Vol, veh/h		989			533			888			1300	
Approach Delay, s/veh		460.5			41.6			29.5			26.0	
Approach LOS		F			D			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	19.0	29.5		16.2	26.7		5.4	33.4		13.2	41.3	
Change Period (Y+Rc), s	4.0	6.0		4.0	6.0		4.0	6.0		4.0	6.0	
Max Green Setting (Gmax), s	15.0	34.0		15.0	48.0		15.0	29.0		15.0	38.0	
Max Q Clear Time (g_c+I1), s	17.0	8.3		12.2	13.7		3.1	15.6		9.3	19.2	
Green Ext Time (p_c), s	0.0	6.5		0.1	7.1		0.0	11.9		0.1	16.0	

Intersection Summary		
HCM 2010 Ctrl Delay		144.9
HCM 2010 LOS		F

Notes

Intersection	
Intersection Delay, s/veh	16.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	50	40	10	10	40	70	20	280	10	50	100	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	49	12	12	49	85	24	341	12	61	122	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	134	0	0	61	0	0	378	336	55	470	299	91
Stage 1	-	-	-	-	-	-	177	177	-	116	116	-
Stage 2	-	-	-	-	-	-	201	159	-	354	183	-
Follow-up Headway	2	-	-	2	-	-	4	4	3	4	4	3
Pot Capacity-1 Maneuver	1451	-	-	1542	-	-	580	585	1012	504	613	967
Stage 1	-	-	-	-	-	-	825	753	-	889	800	-
Stage 2	-	-	-	-	-	-	801	766	-	663	748	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1451	-	-	1542	-	-	444	555	1012	245	581	967
Mov Capacity-2 Maneuver	-	-	-	-	-	-	444	555	-	245	581	-
Stage 1	-	-	-	-	-	-	789	720	-	850	794	-
Stage 2	-	-	-	-	-	-	639	760	-	329	715	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	1	24	21

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	554	1451	-	-	1542	-	-	455
HCM Lane V/C Ratio	0.682	0.042	-	-	0.008	-	-	0.509
HCM Control Delay (s)	24.3	7.59	0	-	7.353	0	-	20.8
HCM Lane LOS	C	A	A		A	A		C
HCM 95th %tile Q(veh)	5.211	0.132	-	-	0.024	-	-	2.827

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	50	80	20	80	40	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	90	22	90	45	11

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	168	67	0	0	112	0
Stage 1	67	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Follow-up Headway	4	3	-	-	2	-
Pot Capacity-1 Maneuver	822	997	-	-	1478	-
Stage 1	956	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	797	997	-	-	1478	-
Mov Capacity-2 Maneuver	797	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	6

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	909	1478	-
HCM Lane V/C Ratio	-	-	0.161	0.03	-
HCM Control Delay (s)	-	-	9.7	7.512	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	0.571	0.094	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	85	140	155	150	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	92	152	168	163	11
Number of Lanes	1	2	2	1	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	7.9	7.3	10.6
HCM LOS	A	A	B

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	43	43	70	70	155	150	10
LT Vol	0	43	43	70	70	0	0	0
Through Vol	0	0	0	0	0	155	0	10
RT Vol	10	0	0	0	0	0	150	0
Lane Flow Rate	11	46	46	76	76	168	163	11
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.018	0.072	0.05	0.113	0.113	0.135	0.266	0.014
Departure Headway (Hd)	6.113	5.609	3.861	5.327	5.327	2.876	5.882	4.685
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	584	637	921	673	673	1243	608	758
Service Time	3.865	3.361	1.613	3.055	3.055	0.603	3.648	2.451
HCM Lane V/C Ratio	0.019	0.072	0.05	0.113	0.113	0.135	0.268	0.015
HCM Control Delay	9	8.8	6.8	8.7	8.7	6.1	10.8	7.5
HCM Lane LOS	A	A	A	A	A	A	B	A
HCM 95th-tile Q	0.1	0.2	0.2	0.4	0.4	0.5	1.1	0

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	200	30	490	280	90	10	5	320	40	5	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	2	1	1	0	1	1	0	1	1
Cap, veh/h	10	464	197	840	676	575	249	97	425	278	25	425
Arrive On Green	0.01	0.12	0.12	0.24	0.36	0.36	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1774	3725	1583	3442	1863	1583	388	362	1583	420	92	1583
Grp Volume(v), veh/h	5	206	31	505	289	93	15	0	330	46	0	5
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	750	0	1583	512	0	1583
Q Serve(g_s), s	0.1	2.1	0.7	5.4	4.8	1.6	0.1	0.0	8.0	1.2	0.0	0.1
Cycle Q Clear(g_c), s	0.1	2.1	0.7	5.4	4.8	1.6	6.9	0.0	8.0	7.5	0.0	0.1
Prop In Lane	1.00		1.00	1.00		1.00	0.67		1.00	0.89		1.00
Lane Grp Cap(c), veh/h	10	464	197	840	676	575	346	0	425	302	0	425
V/C Ratio(X)	0.52	0.44	0.16	0.60	0.43	0.16	0.04	0.00	0.78	0.15	0.00	0.01
Avail Cap(c_a), veh/h	473	2707	1151	1334	1579	1342	676	0	767	539	0	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.5	16.7	16.1	13.8	9.9	8.9	11.6	0.0	14.0	15.0	0.0	11.1
Incr Delay (d2), s/veh	37.7	0.7	0.4	0.7	0.4	0.1	0.1	0.0	3.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.9	0.3	2.1	1.9	0.6	0.1	0.0	3.0	0.4	0.0	0.0
Lane Grp Delay (d), s/veh	58.2	17.4	16.5	14.5	10.3	9.0	11.6	0.0	17.1	15.3	0.0	11.1
Lane Grp LOS	E	B	B	B	B	A	B		B	B		B
Approach Vol, veh/h		242			887			345			51	
Approach Delay, s/veh		18.1			12.6			16.8			14.9	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.2	10.1		15.1	20.0			16.1			16.1	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0			5.0			5.0	
Max Green Setting (Gmax), s	11.0	30.0		16.0	35.0			20.0			20.0	
Max Q Clear Time (g_c+I1), s	2.1	4.1		7.4	6.8			10.0			9.5	
Green Ext Time (p_c), s	0.0	1.4		2.7	4.2			1.1			1.1	
Intersection Summary												
HCM 2010 Ctrl Delay			14.5									
HCM 2010 LOS			B									
Notes												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	440	110	90	370	20	300	270	120	60	280	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Cap, veh/h	96	901	383	199	1012	430	506	941	400	81	564	240
Arrive On Green	0.03	0.24	0.24	0.06	0.27	0.27	0.15	0.25	0.25	0.05	0.15	0.15
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	31	449	112	92	378	20	306	276	122	61	286	92
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.4	5.2	1.6	1.3	4.1	0.5	4.1	3.0	3.1	1.7	3.5	1.9
Cycle Q Clear(g_c), s	0.4	5.2	1.6	1.3	4.1	0.5	4.1	3.0	3.1	1.7	3.5	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	901	383	199	1012	430	506	941	400	81	564	240
V/C Ratio(X)	0.32	0.50	0.29	0.46	0.37	0.05	0.60	0.29	0.30	0.75	0.51	0.38
Avail Cap(c_a), veh/h	691	1497	636	691	1497	636	691	1871	795	356	1871	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	16.3	4.5	22.7	14.7	13.4	19.9	15.0	15.1	23.5	19.4	10.1
Incr Delay (d2), s/veh	1.9	0.4	0.4	1.7	0.2	0.0	1.2	0.2	0.4	12.9	0.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	2.2	0.9	0.6	1.8	0.2	1.7	1.3	1.1	1.0	1.6	1.0
Lane Grp Delay (d), s/veh	25.6	16.7	4.9	24.4	14.9	13.4	21.0	15.2	15.5	36.4	20.1	11.2
Lane Grp LOS	C	B	A	C	B	B	C	B	B	D	C	B
Approach Vol, veh/h		592			490			704			439	
Approach Delay, s/veh		14.9			16.6			17.8			20.5	
Approach LOS		B			B			B			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.4	17.0		7.9	18.5		12.3	17.6		7.3	12.5	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	10.0	20.0		10.0	20.0		10.0	25.0		10.0	25.0	
Max Q Clear Time (g_c+I1), s	2.4	7.2		3.3	6.1		6.1	5.1		3.7	5.5	
Green Ext Time (p_c), s	0.0	4.9		0.1	5.1		1.3	3.2		0.0	2.0	

Intersection Summary			
HCM 2010 Ctrl Delay		17.3	
HCM 2010 LOS		B	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	30	90	110	50	60	140	500	100	60	370	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Cap, veh/h	183	163	138	151	130	110	193	872	173	120	817	89
Arrive On Green	0.10	0.09	0.09	0.09	0.07	0.07	0.11	0.29	0.29	0.07	0.25	0.25
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	3020	600	1774	3304	358
Grp Volume(v), veh/h	42	31	94	115	52	62	146	321	304	62	216	211
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1757	1774	1863	1800
Q Serve(g_s), s	0.9	0.7	2.4	2.7	1.1	1.6	3.4	6.3	6.3	1.4	4.2	4.2
Cycle Q Clear(g_c), s	0.9	0.7	2.4	2.7	1.1	1.6	3.4	6.3	6.3	1.4	4.2	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		0.20
Lane Grp Cap(c), veh/h	183	163	138	151	130	110	193	538	507	120	461	445
V/C Ratio(X)	0.23	0.19	0.68	0.76	0.40	0.56	0.76	0.60	0.60	0.52	0.47	0.47
Avail Cap(c_a), veh/h	627	658	559	627	658	559	627	1316	1241	627	1316	1271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	18.0	18.8	19.0	18.9	19.1	18.4	13.0	13.0	19.1	13.6	13.6
Incr Delay (d2), s/veh	0.6	0.6	5.7	7.6	2.0	4.4	5.9	1.1	1.1	3.4	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.3	1.1	1.4	0.5	0.7	1.7	2.7	2.6	0.7	1.8	1.7
Lane Grp Delay (d), s/veh	18.1	18.5	24.5	26.6	20.9	23.6	24.3	14.0	14.1	22.6	14.3	14.4
Lane Grp LOS	B	B	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		167			229			771			489	
Approach Delay, s/veh		21.8			24.5			16.0			15.4	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	9.4	8.7		8.6	8.0		9.6	17.3		7.9	15.5	
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s	15.0	15.0		15.0	15.0		15.0	30.0		15.0	30.0	
Max Q Clear Time (g_c+I1), s	2.9	4.4		4.7	3.6		5.4	8.3		3.4	6.2	
Green Ext Time (p_c), s	0.4	0.4		0.2	0.3		0.2	3.9		2.1	2.7	

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	200	370	50	150	230	60	180	840	310	120	500	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1	1	2	1	1	2	1
Cap, veh/h	175	471	400	309	909	387	327	1127	479	163	782	333
Arrive On Green	0.10	0.25	0.25	0.09	0.24	0.24	0.18	0.30	0.30	0.09	0.21	0.21
Sat Flow, veh/h	1774	1863	1583	3442	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	211	389	53	158	242	63	189	884	326	126	526	179
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.0	12.0	1.6	2.7	3.2	1.3	5.9	13.2	11.0	4.2	7.9	4.3
Cycle Q Clear(g_c), s	6.0	12.0	1.6	2.7	3.2	1.3	5.9	13.2	11.0	4.2	7.9	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	471	400	309	909	387	327	1127	479	163	782	333
V/C Ratio(X)	1.21	0.83	0.13	0.51	0.27	0.16	0.58	0.78	0.68	0.77	0.67	0.54
Avail Cap(c_a), veh/h	175	643	546	622	1591	676	327	1285	546	321	1285	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	21.5	17.6	26.4	18.6	9.0	22.7	19.4	18.6	27.0	22.1	10.8
Incr Delay (d2), s/veh	134.5	6.4	0.1	1.3	0.2	0.2	2.5	2.9	2.9	7.5	1.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	9.0	5.8	0.6	1.1	1.4	0.7	2.6	5.9	4.2	2.1	3.5	0.1
Lane Grp Delay (d), s/veh	161.9	27.9	17.7	27.7	18.8	9.2	25.2	22.3	21.5	34.6	23.1	12.1
Lane Grp LOS	F	C	B	C	B	A	C	C	C	C	C	B
Approach Vol, veh/h		653			463			1399			831	
Approach Delay, s/veh		70.4			20.5			22.5			22.5	
Approach LOS		E			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	10.0	19.4		9.5	18.9		15.2	22.4		9.6	16.8	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	6.0	21.0		11.0	26.0		11.0	21.0		11.0	21.0	
Max Q Clear Time (g_c+I1), s	8.0	14.0		4.7	5.2		7.9	15.2		6.2	9.9	
Green Ext Time (p_c), s	0.0	1.4		1.2	2.2		0.3	3.2		0.2	2.9	

Intersection Summary												
HCM 2010 Ctrl Delay			31.6									
HCM 2010 LOS			C									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	60	10	70	80	150	150	660	120	10	420	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	240	315	51	384	116	220	197	821	698	40	549	91
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.11	0.44	0.44	0.02	0.35	0.35
Sat Flow, veh/h	1139	1566	253	1323	578	1092	1774	1863	1583	1774	1558	259
Grp Volume(v), veh/h	52	0	72	72	0	237	155	680	124	10	0	505
Grp Sat Flow(s),veh/h/ln	1139	0	1818	1323	0	1670	1774	1863	1583	1774	0	1817
Q Serve(g_s), s	2.0	0.0	1.5	2.1	0.0	5.9	3.8	14.4	2.1	0.2	0.0	11.1
Cycle Q Clear(g_c), s	7.9	0.0	1.5	3.6	0.0	5.9	3.8	14.4	2.1	0.2	0.0	11.1
Prop In Lane	1.00		0.14	1.00		0.65	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	240	0	366	384	0	336	197	821	698	40	0	640
V/C Ratio(X)	0.22	0.00	0.20	0.19	0.00	0.70	0.79	0.83	0.18	0.25	0.00	0.79
Avail Cap(c_a), veh/h	392	0	610	561	0	560	198	1041	885	198	0	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	14.9	16.4	0.0	16.6	19.4	11.0	7.6	21.5	0.0	13.0
Incr Delay (d2), s/veh	0.4	0.0	0.3	0.2	0.0	2.7	18.7	9.4	0.6	3.2	0.0	9.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.6	0.7	0.0	2.4	2.6	7.6	0.8	0.1	0.0	5.9
Lane Grp Delay (d), s/veh	20.7	0.0	15.1	16.6	0.0	19.3	38.0	20.5	8.1	24.7	0.0	22.5
Lane Grp LOS	C		B	B		B	D	C	A	C		C
Approach Vol, veh/h		124			309			959			515	
Approach Delay, s/veh		17.5			18.7			21.7			22.6	
Approach LOS		B			B			C			C	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		14.0			14.0		10.0	24.7		6.0	20.8	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		15.0			15.0		5.0	25.0		5.0	25.0	
Max Q Clear Time (g_c+I1), s		9.9			7.9		5.8	16.4		2.2	13.1	
Green Ext Time (p_c), s		1.0			1.3		0.0	3.3		0.9	2.6	

Intersection Summary		
HCM 2010 Ctrl Delay		21.2
HCM 2010 LOS		C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	20	180	5	130	5	500	110	100	280	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Cap, veh/h	67	73	73	253	5	474	9	572	126	160	859	15
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.01	0.39	0.39	0.09	0.47	0.47
Sat Flow, veh/h	0	242	242	489	18	1583	1774	1480	325	1774	1825	32
Grp Volume(v), veh/h	40	0	0	189	0	133	5	0	622	102	0	291
Grp Sat Flow(s),veh/h/ln	485	0	0	507	0	1583	1774	0	1805	1774	0	1857
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.3	0.2	0.0	21.6	3.7	0.0	6.6
Cycle Q Clear(g_c), s	20.0	0.0	0.0	20.0	0.0	4.3	0.2	0.0	21.6	3.7	0.0	6.6
Prop In Lane	0.25		0.50	0.97		1.00	1.00		0.18	1.00		0.02
Lane Grp Cap(c), veh/h	212	0	0	258	0	474	9	0	697	160	0	874
V/C Ratio(X)	0.19	0.00	0.00	0.73	0.00	0.28	0.53	0.00	0.89	0.64	0.00	0.33
Avail Cap(c_a), veh/h	212	0	0	258	0	474	133	0	811	398	0	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	0.0	25.3	0.0	17.9	33.1	0.0	19.2	29.4	0.0	11.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	10.2	0.0	0.3	39.4	0.0	16.0	4.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.0	3.8	0.0	1.6	0.2	0.0	12.3	1.8	0.0	3.0
Lane Grp Delay (d), s/veh	18.8	0.0	0.0	35.5	0.0	18.2	72.6	0.0	35.2	33.6	0.0	12.1
Lane Grp LOS	B			D		B	E		D	C		B
Approach Vol, veh/h		40			322			627			393	
Approach Delay, s/veh		18.8			28.4			35.5			17.7	
Approach LOS		B			C			D			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		25.0			25.0		5.4	30.8		11.0	36.5	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		20.0			20.0		5.0	30.0		15.0	40.0	
Max Q Clear Time (g_c+I1), s		22.0			22.0		2.2	23.6		5.7	8.6	
Green Ext Time (p_c), s		0.0			0.0		0.0	2.3		1.4	2.1	

Intersection Summary		
HCM 2010 Ctrl Delay	28.3	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	180	120	40	160	110	80	260	60	40	220	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Cap, veh/h	442	317	211	344	565	480	109	398	92	67	364	83
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.06	0.27	0.27	0.04	0.25	0.25
Sat Flow, veh/h	1091	1044	696	1060	1863	1583	1774	1466	337	1774	1468	335
Grp Volume(v), veh/h	63	0	315	42	168	116	84	0	337	42	0	285
Grp Sat Flow(s),veh/h/ln	1091	0	1740	1060	1863	1583	1774	0	1803	1774	0	1804
Q Serve(g_s), s	1.8	0.0	6.0	1.4	2.7	2.1	1.8	0.0	6.5	0.9	0.0	5.5
Cycle Q Clear(g_c), s	4.5	0.0	6.0	7.3	2.7	2.1	1.8	0.0	6.5	0.9	0.0	5.5
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.19	1.00		0.19
Lane Grp Cap(c), veh/h	442	0	528	344	565	480	109	0	490	67	0	447
V/C Ratio(X)	0.14	0.00	0.60	0.12	0.30	0.24	0.77	0.00	0.69	0.63	0.00	0.64
Avail Cap(c_a), veh/h	674	0	899	571	962	818	458	0	1398	458	0	1398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	11.5	14.6	10.3	10.1	17.9	0.0	12.6	18.4	0.0	13.0
Incr Delay (d2), s/veh	0.1	0.0	1.1	0.2	0.3	0.3	10.8	0.0	7.7	9.4	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	2.3	0.3	1.0	0.7	1.0	0.0	3.6	0.5	0.0	3.0
Lane Grp Delay (d), s/veh	12.2	0.0	12.6	14.7	10.6	10.4	28.7	0.0	20.3	27.8	0.0	19.8
Lane Grp LOS	B		B	B	B	B	C		C	C		B
Approach Vol, veh/h		378			326			421			327	
Approach Delay, s/veh		12.5			11.1			22.0			20.9	
Approach LOS		B			B			C			C	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		16.7			16.7		7.4	15.5		6.5	14.6	
Change Period (Y+Rc), s		5.0			5.0		5.0	5.0		5.0	5.0	
Max Green Setting (Gmax), s		20.0			20.0		10.0	30.0		10.0	30.0	
Max Q Clear Time (g_c+I1), s		8.0			9.3		3.8	8.5		2.9	7.5	
Green Ext Time (p_c), s		3.0			2.8		0.1	2.0		1.0	1.8	

Intersection Summary		
HCM 2010 Ctrl Delay	16.8	
HCM 2010 LOS	B	

Notes

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	150	610	0	50	430	0	10	20	30	110	10	70
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	160	649	0	53	457	0	11	21	32	117	11	74
Number of Lanes	1	2	0	1	2	0	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	3
HCM Control Delay	15.7	13.7	12.3	12.5
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	17%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	33%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	50%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	150	305	305	50	215	215	110	10	70
LT Vol	20	0	305	305	0	215	215	0	10	0
Through Vol	30	0	0	0	0	0	0	0	0	70
RT Vol	10	150	0	0	50	0	0	110	0	0
Lane Flow Rate	64	160	324	324	53	229	229	117	11	74
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.145	0.328	0.62	0.462	0.116	0.468	0.356	0.265	0.023	0.143
Departure Headway (Hd)	8.201	7.389	6.883	5.125	7.87	7.362	5.602	8.15	7.644	6.936
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	437	487	526	704	456	489	640	441	469	518
Service Time	5.955	5.125	4.618	2.86	5.61	5.102	3.342	5.888	5.382	4.673
HCM Lane V/C Ratio	0.146	0.329	0.616	0.46	0.116	0.468	0.358	0.265	0.023	0.143
HCM Control Delay	12.3	13.7	20.2	12.2	11.6	16.4	11.4	13.8	10.6	10.8
HCM Lane LOS	B	B	C	B	B	C	B	B	B	B
HCM 95th-tile Q	0.5	1.4	4.2	2.4	0.4	2.5	1.6	1.1	0.1	0.5

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	110	690	0	20	400	0	40	10	10	70	5	50
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	129	812	0	24	471	0	47	12	12	82	6	59
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	15.2	11.7	12.2	13.5
HCM LOS	C	B	B	B

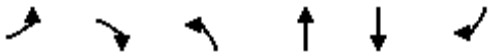
Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	67%	100%	0%	0%	100%	0%	0%	56%
Vol Thru, %	17%	0%	100%	100%	0%	100%	100%	4%
Vol Right, %	17%	0%	0%	0%	0%	0%	0%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	110	345	345	20	200	200	125
LT Vol	10	0	345	345	0	200	200	5
Through Vol	10	0	0	0	0	0	0	50
RT Vol	40	110	0	0	20	0	0	70
Lane Flow Rate	71	129	406	406	24	235	235	147
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.155	0.235	0.679	0.48	0.046	0.424	0.309	0.305
Departure Headway (Hd)	7.911	6.53	6.022	4.26	6.998	6.489	4.724	7.462
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	451	547	597	840	509	553	753	479
Service Time	5.706	4.295	3.787	2.024	4.773	4.264	2.497	5.246
HCM Lane V/C Ratio	0.157	0.236	0.68	0.483	0.047	0.425	0.312	0.307
HCM Control Delay	12.2	11.3	20.7	10.9	10.1	14	9.6	13.5
HCM Lane LOS	B	B	C	B	B	B	A	B
HCM 95th-tile Q	0.5	0.9	5.2	2.6	0.1	2.1	1.3	1.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	160	30	1110	110	30	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Lane Util. Factor	0.97	1.00	0.91	1.00	0.97	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	5085	1583	3433	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	5085	1583	3433	3539
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	172	32	1194	118	32	806
RTOR Reduction (vph)	0	25	0	68	0	0
Lane Group Flow (vph)	172	7	1194	50	32	806
Turn Type	NA	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Actuated Green, G (s)	10.4	10.4	20.7	20.7	2.8	27.5
Effective Green, g (s)	10.4	10.4	20.7	20.7	2.8	27.5
Actuated g/C Ratio	0.21	0.21	0.43	0.43	0.06	0.57
Clearance Time (s)	4.6	4.6	6.0	6.0	4.0	6.0
Vehicle Extension (s)	5.0	5.0	2.0	2.0	5.0	2.0
Lane Grp Cap (vph)	736	339	2170	675	198	2006
v/s Ratio Prot	c0.05		c0.23		0.01	c0.23
v/s Ratio Perm		0.00		0.03		
v/c Ratio	0.23	0.02	0.55	0.07	0.16	0.40
Uniform Delay, d1	15.8	15.0	10.4	8.2	21.7	5.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.1	0.2	0.0	0.8	0.0
Delay (s)	16.1	15.1	10.6	8.2	22.5	5.9
Level of Service	B	B	B	A	C	A
Approach Delay (s)	15.9		10.4			6.6
Approach LOS	B		B			A

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	48.5	Sum of lost time (s)	14.6
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	300	280	330	140	90	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	0.97	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	3433	1863	1863	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	3433	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	304	359	152	98	304
RTOR Reduction (vph)	0	216	0	0	0	234
Lane Group Flow (vph)	326	88	359	152	98	70
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	17.3	17.3	12.2	30.5	13.8	13.8
Effective Green, g (s)	17.3	17.3	12.2	30.5	13.8	13.8
Actuated g/C Ratio	0.29	0.29	0.20	0.51	0.23	0.23
Clearance Time (s)	6.0	6.0	4.5	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	5.0	5.0	5.0
Lane Grp Cap (vph)	512	457	700	950	429	365
v/s Ratio Prot	c0.18		c0.10	0.08	c0.05	
v/s Ratio Perm		0.06				0.04
v/c Ratio	0.64	0.19	0.51	0.16	0.23	0.19
Uniform Delay, d1	18.5	16.0	21.2	7.8	18.7	18.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2	0.6	0.2	0.6	0.5
Delay (s)	21.1	16.2	21.8	8.0	19.2	19.1
Level of Service	C	B	C	A	B	B
Approach Delay (s)	18.7			17.7	19.1	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	59.8	Sum of lost time (s)	16.5
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	210	10	190	250	30	160
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	219	10	198	260	31	167
Number of Lanes	1	1	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	13.8	16.8	10.6
HCM LOS	B	C	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	43%	0%	0%	0%	100%
Vol Right, %	57%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	440	210	10	30	160
LT Vol	190	0	0	0	160
Through Vol	250	0	10	0	0
RT Vol	0	210	0	30	0
Lane Flow Rate	458	219	10	31	167
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.639	0.41	0.016	0.055	0.272
Departure Headway (Hd)	5.133	6.753	5.538	6.39	5.883
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	710	536	649	562	612
Service Time	3.133	4.462	3.246	4.112	3.605
HCM Lane V/C Ratio	0.645	0.409	0.015	0.055	0.273
HCM Control Delay	16.8	14.1	8.3	9.5	10.8
HCM Lane LOS	C	B	A	A	B
HCM 95th-tile Q	4.6	2	0	0.2	1.1

Notes

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	100	30	460	10	300	60	330	390	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Cap, veh/h	19	233	233	140	634	539	19	560	110	409	1421	74
Arrive On Green	0.01	0.27	0.27	0.08	0.34	0.34	0.01	0.18	0.18	0.23	0.40	0.40
Sat Flow, veh/h	1774	856	856	1774	1863	1583	1774	3025	596	1774	3512	182
Grp Volume(v), veh/h	11	0	22	109	33	500	11	199	192	359	224	222
Grp Sat Flow(s),veh/h/ln	1774	0	1712	1774	1863	1583	1774	1863	1758	1774	1863	1831
Q Serve(g_s), s	0.5	0.0	0.8	4.9	1.0	24.8	0.5	8.0	8.1	15.9	6.6	6.7
Cycle Q Clear(g_c), s	0.5	0.0	0.8	4.9	1.0	24.8	0.5	8.0	8.1	15.9	6.6	6.7
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.34	1.00		0.10
Lane Grp Cap(c), veh/h	19	0	467	140	634	539	19	345	325	409	754	741
V/C Ratio(X)	0.57	0.00	0.05	0.78	0.05	0.93	0.57	0.58	0.59	0.88	0.30	0.30
Avail Cap(c_a), veh/h	250	0	651	261	709	602	185	663	625	642	1143	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	0.0	21.8	36.8	18.0	25.9	40.1	30.3	30.4	30.3	16.4	16.4
Incr Delay (d2), s/veh	24.2	0.0	0.0	9.1	0.0	19.6	24.2	1.5	1.7	8.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	0.3	2.6	0.4	12.3	0.4	3.9	3.7	7.9	3.0	2.9
Lane Grp Delay (d), s/veh	64.3	0.0	21.9	45.9	18.1	45.4	64.3	31.8	32.1	38.7	16.6	16.7
Lane Grp LOS	E		C	D	B	D	E	C	C	D	B	B
Approach Vol, veh/h		33			642			402			805	
Approach Delay, s/veh		36.0			44.1			32.8			26.5	
Approach LOS		D			D			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.4	27.2		10.9	32.8		5.4	20.1		23.3	38.0	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	11.5	31.0		12.0	31.0		8.5	29.0		29.5	50.0	
Max Q Clear Time (g_c+I1), s	2.5	2.8		6.9	26.8		2.5	10.1		17.9	8.7	
Green Ext Time (p_c), s	0.0	2.3		0.1	0.9		0.0	4.9		0.9	5.9	

Intersection Summary												
HCM 2010 Ctrl Delay			34.0									
HCM 2010 LOS			C									

Notes

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	500	10	90	840	10	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	543	11	98	913	11	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	554	0	1201	277
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	652	-
Follow-up Headway	-	-	2	-	4	3
Pot Capacity-1 Maneuver	-	-	1012	-	177	720
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	480	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1012	-	160	720
Mov Capacity-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	434	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	14

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	455	-	-	1012	-
HCM Lane V/C Ratio	0.143	-	-	0.097	-
HCM Control Delay (s)	14.2	-	-	8.938	-
HCM Lane LOS	B			A	
HCM 95th %tile Q(veh)	0.497	-	-	0.32	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	530	10	20	1040	100	10	30	20	100	30	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	1	1	1	0	1	1	0
Cap, veh/h	72	1626	31	37	1589	675	118	130	87	142	53	174
Arrive On Green	0.04	0.45	0.45	0.02	0.43	0.43	0.07	0.12	0.12	0.08	0.14	0.14
Sat Flow, veh/h	1774	3644	70	1774	3725	1583	1774	1044	696	1774	381	1259
Grp Volume(v), veh/h	54	294	293	22	1130	109	11	0	55	109	0	142
Grp Sat Flow(s),veh/h/ln	1774	1863	1850	1774	1863	1583	1774	0	1740	1774	0	1641
Q Serve(g_s), s	1.7	5.8	5.9	0.7	14.1	2.4	0.3	0.0	1.6	3.4	0.0	4.6
Cycle Q Clear(g_c), s	1.7	5.8	5.9	0.7	14.1	2.4	0.3	0.0	1.6	3.4	0.0	4.6
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.40	1.00		0.77
Lane Grp Cap(c), veh/h	72	831	826	37	1589	675	118	0	217	142	0	226
V/C Ratio(X)	0.75	0.35	0.35	0.60	0.71	0.16	0.09	0.00	0.25	0.77	0.00	0.63
Avail Cap(c_a), veh/h	221	894	888	221	1787	760	331	0	1144	331	0	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	10.2	10.2	27.3	13.3	9.9	24.7	0.0	22.3	25.4	0.0	22.9
Incr Delay (d2), s/veh	14.5	0.3	0.3	14.7	1.2	0.1	0.3	0.0	0.6	8.5	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	2.4	2.4	0.4	6.1	0.8	0.2	0.0	0.7	1.8	0.0	2.0
Lane Grp Delay (d), s/veh	41.2	10.5	10.5	42.0	14.5	10.1	25.0	0.0	22.9	33.9	0.0	25.8
Lane Grp LOS	D	B	B	D	B	B	C		C	C		C
Approach Vol, veh/h		641			1261			66			251	
Approach Delay, s/veh		13.1			14.6			23.2			29.3	
Approach LOS		B			B			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.8	30.1		5.7	29.0		8.2	11.5		9.0	12.3	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	4.5		4.5	4.5	
Max Green Setting (Gmax), s	7.0	27.0		7.0	27.0		10.5	37.0		10.5	37.0	
Max Q Clear Time (g_c+I1), s	3.7	7.9		2.7	16.1		2.3	3.6		5.4	6.6	
Green Ext Time (p_c), s	0.0	12.0		0.0	8.0		0.0	1.3		0.1	1.2	

Intersection Summary												
HCM 2010 Ctrl Delay			16.1									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1050	180	200	260	290	830	140	200	110	350	570	920
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Cap, veh/h	855	1600	680	336	1039	609	199	1331	377	363	1597	846
Arrive On Green	0.25	0.43	0.43	0.10	0.28	0.28	0.06	0.24	0.24	0.11	0.29	0.29
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	5588	1583	3442	5588	1583
Grp Volume(v), veh/h	1141	196	217	283	315	902	152	217	120	380	620	1000
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	36.5	4.7	13.3	11.9	9.8	41.0	6.4	4.5	9.2	15.5	13.1	42.0
Cycle Q Clear(g_c), s	36.5	4.7	13.3	11.9	9.8	41.0	6.4	4.5	9.2	15.5	13.1	42.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	855	1600	680	336	1039	609	199	1331	377	363	1597	846
V/C Ratio(X)	1.34	0.12	0.32	0.84	0.30	1.48	0.76	0.16	0.32	1.05	0.39	1.18
Avail Cap(c_a), veh/h	855	1600	680	457	1039	609	269	1445	409	363	1597	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	25.3	27.7	65.2	41.7	45.3	68.3	44.4	46.2	65.8	42.2	34.3
Incr Delay (d2), s/veh	158.8	0.0	0.3	10.1	0.2	225.7	8.6	0.1	0.5	60.1	0.2	94.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	35.2	2.2	5.4	5.9	4.8	61.1	3.1	2.2	3.8	10.0	6.4	53.0
Lane Grp Delay (d), s/veh	214.1	25.3	28.0	75.3	41.9	271.0	76.8	44.4	46.6	125.9	42.3	128.5
Lane Grp LOS	F	C	C	E	D	F	E	D	D	F	D	F
Approach Vol, veh/h		1554			1500			489			2000	
Approach Delay, s/veh		164.3			186.0			55.1			101.3	
Approach LOS		F			F			E			F	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	41.0	68.1		18.9	46.0		13.0	40.0		20.0	47.0	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	36.5	58.0		19.5	41.0		11.5	38.0		15.5	42.0	
Max Q Clear Time (g_c+I1), s	38.5	15.3		13.9	43.0		8.4	11.2		17.5	44.0	
Green Ext Time (p_c), s	0.0	11.2		0.5	0.0		0.1	13.5		0.0	0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			137.8									
HCM 2010 LOS			F									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	10	10	20	10	310	10	30	370	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.95		0.95	1.00		0.91	1.00		0.92
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Cap, veh/h	243	238	196	187	191	294	20	1200	39	51	1271	35
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.01	0.34	0.34	0.03	0.35	0.35
Sat Flow, veh/h	410	634	522	275	508	783	1774	3575	116	1774	3599	98
Grp Volume(v), veh/h	33	0	0	44	0	0	11	175	173	33	208	205
Grp Sat Flow(s),veh/h/ln	1566	0	0	1566	0	0	1774	1863	1829	1774	1863	1835
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.7	3.7	1.0	4.4	4.4
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.9	0.0	0.0	0.3	3.7	3.7	1.0	4.4	4.4
Prop In Lane	0.33		0.33	0.25		0.50	1.00		0.06	1.00		0.05
Lane Grp Cap(c), veh/h	677	0	0	672	0	0	20	625	614	51	658	648
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.55	0.28	0.28	0.64	0.32	0.32
Avail Cap(c_a), veh/h	983	0	0	977	0	0	329	1210	1188	329	1210	1192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	0.0	0.0	10.8	0.0	0.0	26.5	13.1	13.1	25.9	12.7	12.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	21.5	0.2	0.2	12.6	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.0	0.3	0.0	0.0	0.3	1.6	1.6	0.6	1.8	1.8
Lane Grp Delay (d), s/veh	10.7	0.0	0.0	10.8	0.0	0.0	48.0	13.4	13.4	38.5	13.0	13.0
Lane Grp LOS	B			B			D	B	B	D	B	B
Approach Vol, veh/h		33			44			359			446	
Approach Delay, s/veh		10.7			10.8			14.4			14.9	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		25.2			25.2		4.6	23.1		5.6	24.0	
Change Period (Y+Rc), s		5.0			5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s		31.0			31.0		10.0	35.0		10.0	35.0	
Max Q Clear Time (g_c+I1), s		2.7			2.9		2.3	5.7		3.0	6.4	
Green Ext Time (p_c), s		0.4			0.4		0.0	5.0		0.0	4.9	

Intersection Summary		
HCM 2010 Ctrl Delay		14.3
HCM 2010 LOS		B

Notes

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	50	10	10	10	30	10	10	30	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	11	54	11	11	11	33	11	11	33	11
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	7.6	8.2	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	20%	100%	0%	100%	0%	20%
Vol Thru, %	60%	0%	50%	0%	50%	60%
Vol Right, %	20%	0%	50%	0%	50%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	10	20	50	20	50
LT Vol	30	0	10	0	10	30
Through Vol	10	0	10	0	10	10
RT Vol	10	10	0	50	0	10
Lane Flow Rate	54	11	22	54	22	54
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.063	0.016	0.027	0.079	0.027	0.063
Departure Headway (Hd)	4.187	5.265	4.413	5.241	4.39	4.187
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	860	673	801	679	808	860
Service Time	2.188	3.05	2.197	3.01	2.157	2.188
HCM Lane V/C Ratio	0.063	0.016	0.027	0.08	0.027	0.063
HCM Control Delay	7.5	8.1	7.3	8.5	7.3	7.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0	0.1	0.3	0.1	0.2

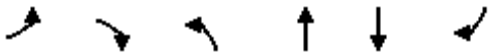
Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	109	446	87	33
Demand Flow Rate, veh/h	111	455	88	33
Vehicles Circulating, veh/h	122	33	111	444
Vehicles Exiting, veh/h	355	166	122	44
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.7	7.8	4.4	5.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	111	455	88	33
Cap Entry Lane, veh/h	1000	1093	1011	725
Entry HV Adj Factor	0.984	0.981	0.986	0.993
Flow Entry, veh/h	109	446	87	33
Cap Entry, veh/h	984	1073	997	720
V/C Ratio	0.111	0.416	0.087	0.046
Control Delay, s/veh	4.7	7.8	4.4	5.5
LOS	A	A	A	A
95th %tile Queue, veh	0	2	0	0



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	120	30	70	330	620	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1770	5085	5085	1583
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1770	5085	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	33	76	359	674	348
RTOR Reduction (vph)	0	26	0	0	0	196
Lane Group Flow (vph)	130	7	76	359	674	152
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	10.4	10.4	4.6	31.5	22.4	22.4
Effective Green, g (s)	10.4	10.4	4.6	31.5	22.4	22.4
Actuated g/C Ratio	0.20	0.20	0.09	0.61	0.44	0.44
Clearance Time (s)	4.5	4.5	4.5	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	320	158	3116	2216	689
v/s Ratio Prot	c0.07		c0.04	0.07	c0.13	
v/s Ratio Perm		0.00				0.10
v/c Ratio	0.36	0.02	0.48	0.12	0.30	0.22
Uniform Delay, d1	17.6	16.4	22.3	4.1	9.4	9.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	2.3	0.0	0.1	0.2
Delay (s)	18.3	16.4	24.6	4.2	9.5	9.2
Level of Service	B	B	C	A	A	A
Approach Delay (s)	17.9			7.7	9.4	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	51.4	Sum of lost time (s)	14.0
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	10	10	20	20	280	10	30	180	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	11	11	11	11	22	22	304	11	33	196	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	304	39	39	277	29	58	795	1318	48	734	1290	72
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	555	555	555	412	412	823	1170	3484	126	1060	3409	190
Grp Volume(v), veh/h	33	0	0	44	0	0	22	154	161	33	101	106
Grp Sat Flow(s),veh/h/ln	1665	0	0	1647	0	0	1170	1770	1841	1060	1770	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.2	1.1	1.1	0.4	0.7	0.7
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.4	0.0	0.0	0.9	1.1	1.1	1.5	0.7	0.7
Prop In Lane	0.33		0.33	0.25		0.50	1.00		0.07	1.00		0.10
Lane Grp Cap(c), veh/h	382	0	0	365	0	0	795	670	696	734	670	692
V/C Ratio(X)	0.09	0.00	0.00	0.12	0.00	0.00	0.03	0.23	0.23	0.04	0.15	0.15
Avail Cap(c_a), veh/h	2969	0	0	2959	0	0	2221	2826	2940	2027	2826	2922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	0.0	0.0	8.0	0.0	0.0	4.0	3.8	3.8	4.3	3.7	3.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	0.0	0.2	0.0	0.0	0.1	0.5	0.6	0.1	0.3	0.3
LnGrp Delay(d),s/veh	8.1	0.0	0.0	8.2	0.0	0.0	4.0	4.0	4.0	4.4	3.8	3.8
LnGrp LOS	A			A			A	A	A	A	A	A
Approach Vol, veh/h		33			44			337			240	
Approach Delay, s/veh		8.1			8.2			4.0			3.9	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		11.9		6.3		11.9		6.3
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		29.0		31.0		29.0		31.0
Max Q Clear Time (g_c+I1), s		3.1		2.3		3.5		2.4
Green Ext Time (p_c), s		3.4		0.4		3.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	4.5
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	20	20	30	10	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	22	22	33	11	11
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.9	7.4	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	33%	0%
Vol Thru, %	60%	0%	50%
Vol Right, %	0%	67%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	50	30	20
LT Vol	30	0	10
Through Vol	0	20	10
RT Vol	20	10	0
Lane Flow Rate	54	33	22
Geometry Grp	1	1	1
Degree of Util (X)	0.062	0.034	0.023
Departure Headway (Hd)	4.087	3.731	3.731
Convergence, Y/N	Yes	Yes	Yes
Cap	879	957	960
Service Time	2.101	1.765	1.753
HCM Lane V/C Ratio	0.061	0.034	0.023
HCM Control Delay	7.4	6.9	6.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	50	80	110	40	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	54	87	120	43	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	207	0	-	0	223	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	76	-
Follow-up Headway	2	-	-	-	4	3
Pot Capacity-1 Maneuver	1364	-	-	-	765	900
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	947	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1364	-	-	-	759	900
Mov Capacity-2 Maneuver	-	-	-	-	759	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	939	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	10

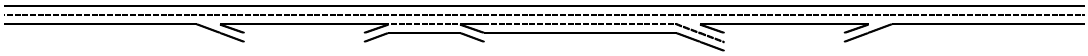
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1364	-	-	-	784
HCM Lane V/C Ratio	0.008	-	-	-	0.069
HCM Control Delay (s)	7.66	0	-	-	9.9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.024	-	-	-	0.223

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Appendix E-5:
Technical Calculations
Existing Plus Project Conditions –
Freeway & Highway Level of Service

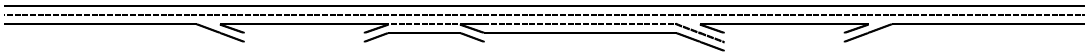
Location	15	16	17	18	19	20	21	22	23



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment									
Type	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	5,960	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length								600	
Decel Length		175							
Mainline Volume	2,770	2,770	2,410	2,410	2,300	2,300	1,880	1,880	2,350
On Ramp Volume				520				470	
Off Ramp Volume		360		630		420			
Express Lane Volume									
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in General Purpose Lanes (GP)									
GP Volume (vph)	2,770	2,770	2,410	2,930	2,300	2,300	1,880	2,350	2,350
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
GP Lanes	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980
f_p	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,324	3,324	2,892	3,516	2,760	2,760	2,256	2,820	2,820
GP Flow (pcphpl)	1,662	1,662	1,446	1,172	920	920	1,128	1,410	1,410
Calculate Speed in General Purpose Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes									
v/c ratio	0.71	0.71	0.62	0.50	0.39	0.39	0.48	0.60	0.60
Speed (mph)	64.0	64.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	26.0	26.0	22.3	18.0	14.2	14.2	17.4	21.7	21.7
LOS	C	C	C	C	B	B	B	C	C
Calculate Operations for Entering GP Lanes									
GP_{IN} Vol (pcph)		3,324		2,835				2,172	
GP_{IN} Cap (pcph)		4,700		4,700				4,700	
GP_{IN} v/c ratio		0.71		0.60				0.46	
Calculate Operations for Exiting GP Lanes									
GP_{OUT} Vol (pcph)		2,937		2,736		2,273		2,820	
GP_{OUT} Cap (pcph)		4,700		4,700		4,700		4,700	
GP_{OUT} v/c ratio		0.62		0.58		0.48		0.60	
Calculate Flow Rate in Express Lanes (EL)									
Calculate Speed in Express Lanes									
Calculate Operations in Express Lanes									
Calculate On Ramp Flow Rate									
On Volume (vph)				520				470	
PHF				0.79				0.74	
Total Lanes				1				1	
Terrain				Level				Level	
Grade %				0.0%				0.0%	
Grade Length (mi)				0.00				0.00	
Truck & Bus %				7.0%				4.0%	
RV %				0.0%				0.0%	
E_T				1.5				1.5	
E_R				1.2				1.2	
f_{HV}				0.966				0.980	
f_p				1.00				1.00	
On Flow (pcph)				681				648	
On Flow (pcphpl)				681				648	
Calculate On Ramp Roadway Operations									
On Ramp Type				Right				Right	
On Ramp Speed (mph)				45				45	
On Ramp Cap (pcph)				2,100				2,100	
On Ramp v/c ratio				0.32				0.31	
Calculate Off Ramp Flow Rate									
Off Volume (vph)		360		630		420			
PHF		0.94		0.82		0.88			
Total Lanes		1		1		2			
Terrain		Level		Level		Level			
Grade %		0.0%		0.0%		0.0%			
Grade Length (mi)		0.00		0.00		0.00			
Truck & Bus %		2.0%		3.0%		4.0%			
RV %		0.0%		0.0%		0.0%			
E_T		1.5		1.5		1.5			
E_R		1.2		1.2		1.2			

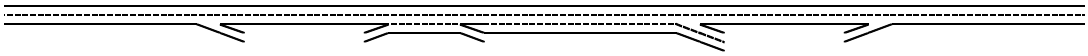
Location	15	16	17	18	19	20	21	22	23



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
f_{HV}		0.990		0.985		0.980			
f_p		1.00		1.00		1.00			
Off Flow (pcph)		387		780		487			
Off Flow (pcphpl)		387		780		243			
Calculate Off Ramp Roadway Operations									
Off Ramp Type		Right		Right		Right			
Off Ramp Speed		45		45		45			
Off Ramp Cap (pcph)		2,100		2,100		4,200			
Off Ramp v/c ratio		0.18		0.37		0.12			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_p (pcph)								2,172	
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)								0.594	
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}								1.000	
v_{12} (pcph)								2,172	
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)								2,172	
v_{6123a} (pcph)								2,820	
Merge Speed Index								0.33	
Merge Area Speed								57.4	
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed								57.4	
Merge v/c ratio								0.61	
Merge Density								23.4	
Merge LOS								C	
Calculate Diverge Influence Area Operations									
Effective v_p (pcph)		3,324							
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)		0.659							
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}		1.000							
v_{12} (pcph)		3,324							
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)		3,324							
Diverge Speed Index		0.33							
Diverge Area Speed		57.3							
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed		57.3							
Diverge v/c ratio		0.76							
Diverge Density		31.3							
Diverge LOS		D							
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)				52					
PHF				0.8					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				7.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.966					
f_p				1.00					
On to Off Flow (pcph)				67					
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)				468					
PHF				0.8					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_p				1.00					

Location	15	16	17	18	19	20	21	22	23



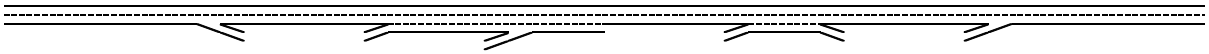
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
On to ML Flow (pcph)				594					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)				578					
PHF				0.83					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_p				1.00					
ML to Off Flow (pcph)				707					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)				1,832					
PHF				0.825					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_p				1.00					
GP to GP Flow (pcph)				2,254					
Calculate Weave Segment Operations									
Weave Type				One-sided					
Weave Length				1,680					
Segment Lanes				3					
Weave Lanes				3					
Weave Flow (pcph)				1,301					
Non-Weave Flow				2,321					
Segment Flow				3,622					
Max Weave Length				4,661					
Length Check				OK					
Ideal Weave Capacity				2,122					
f_{HV}				0.985					
f_p				0.998					
Capacity Condition 1				6,254					
Capacity Condition 2				9,576					
Weave v/c ratio				0.57					
Interchange Density				0.666666667					
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate				0					
Weave LC Rate				564					
Non-Weave LC Rate 1				811					
Non-Weave LC Rate 2				2,207					
Non-Weave LC Rate 3				-1,422					
Segment LC Rate				1,375					
Weave Intensity Factor				0.193					
Weave Speed				56.9					
Non-Weave Speed				59.2					
Segment Speed				58.4					
Weave Density				20.7					
Weave LOS				C					
Summarize Segment Operations									
Segment v/c ratio	0.71	0.76	0.62	0.57	0.39	0.39	0.48	0.61	0.60
Segment Density	26.0	31.3	22.3	20.7	14.2	14.2	17.4	23.4	21.7
Segment LOS	C	D	C	C	B	B	B	C	C
Over Capacity									

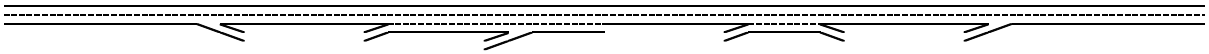
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
Define Freeway Segment										
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	7,650
Accel Length					720				450	
Decel Length		150								
Mainline Volume	1,970	1,970	1,700	1,700	2,360	2,880	2,880	3,215	3,215	3,795
On Ramp Volume				660	520		885		580	
Off Ramp Volume		270					550			
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in General Purpose Lanes (GP)										
GP Volume (vph)	1,970	1,970	1,700	2,360	2,880	2,880	3,765	3,215	3,795	3,795
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
GP Lanes	2	2	2	3	3	2	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_p	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	2,211	2,211	1,908	2,648	3,232	3,232	4,225	3,608	4,259	4,259
GP Flow (pcphpl)	1,105	1,105	954	883	1,077	1,616	1,408	1,804	2,129	2,129
Calculate Speed in General Purpose Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes										
v/c ratio	0.47	0.47	0.41	0.38	0.46	0.69	0.60	0.77	0.91	0.91
Speed (mph)	65.0	65.0	65.0	65.0	65.0	64.3	65.0	62.7	57.5	57.5
Density (pcphpl)	17.0	17.0	14.7	13.6	16.6	25.1	21.7	28.8	37.1	37.1
LOS	B	B	B	B	B	C	C	D	E	E
Calculate Operations for Entering GP Lanes										
GP_{IN} Vol (pcph)		2,211		1,899	2,522		3,221		3,636	
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		4,700	
GP_{IN} v/c ratio		0.47		0.40	0.36		0.69		0.77	
Calculate Operations for Exiting GP Lanes										
GP_{OUT} Vol (pcph)		1,857			3,232		3,435		4,259	
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		4,700	
GP_{OUT} v/c ratio		0.40			0.46		0.73		0.91	
Calculate Flow Rate in Express Lanes (EL)										
Calculate Speed in Express Lanes										
Calculate Operations in Express Lanes										
Calculate On Ramp Flow Rate										
On Volume (vph)				660	520		885		580	
PHF				0.89	0.74		0.89		0.94	
Total Lanes				1	1		1		1	
Terrain				Level	Level		Level		Level	
Grade %				0.0%	0.0%		0.0%		0.0%	
Grade Length (mi)				0.00	0.00		0.00		0.00	
Truck & Bus %				2.0%	2.0%		2.0%		2.0%	
RV %				0.0%	0.0%		0.0%		0.0%	
E_T				1.5	1.5		1.5		1.5	
E_R				1.2	1.2		1.2		1.2	
f_{HV}				0.990	0.990		0.990		0.990	
f_p				1.00	1.00		1.00		1.00	
On Flow (pcph)				749	710		1,004		623	
On Flow (pcphpl)				749	710		1,004		623	
Calculate On Ramp Roadway Operations										
On Ramp Type				Right	Right		Right		Right	
On Ramp Speed (mph)				25	45		45		25	
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900	
On Ramp v/c ratio				0.39	0.34		0.48		0.33	
Calculate Off Ramp Flow Rate										
Off Volume (vph)		270					550			
PHF		0.77					0.71			
Total Lanes		1					1			
Terrain		Level					Level			
Grade %		0.0%					0.0%			
Grade Length (mi)		0.00					0.00			
Truck & Bus %		2.0%					4.0%			
RV %		0.0%					0.0%			

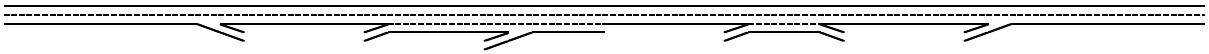
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
E_T		1.5					1.5			
E_R		1.2					1.2			
f_{HV}		0.990					0.980			
f_p		1.00					1.00			
Off Flow (pcph)		354					790			
Off Flow (pcphpl)		354					790			
Calculate Off Ramp Roadway Operations										
Off Ramp Type		Right					Right			
Off Ramp Speed		45					45			
Off Ramp Cap (pcph)		2,100					2,100			
Off Ramp v/c ratio		0.17					0.38			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type					On					
Up Distance					1,000					
Up Flow (pcph)					749					
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_p (pcph)					2,522				3,636	
Up Ramp L_{EQ}					963					
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)					0.598				0.590	
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}					0.598				1.000	
v_{12} (pcph)					1,507				3,636	
v_3 (pcph)					1,015					
v_{34} (pcph)										
v_{12a} (pcph)					1,507				3,636	
v_{R12a} (pcph)					2,217				4,259	
Merge Speed Index					0.29				0.57	
Merge Area Speed					58.3				51.8	
Outer Lanes Volume					1,015					
Outer Lanes Speed					63.1					
Segment Speed					59.7				51.8	
Merge v/c ratio					0.48				0.93	
Merge Density					17.9				35.6	
Merge LOS					B				E	
Calculate Diverge Influence Area Operations										
Effective v_p (pcph)		2,211								
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)		0.688								
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}		1.000								
v_{12} (pcph)		2,211								
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)		2,211								
Diverge Speed Index		0.33								
Diverge Area Speed		57.4								
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed		57.4								
Diverge v/c ratio		0.50								
Diverge Density		21.9								
Diverge LOS		C								
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)							89			
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_p							1.00			
On to Off Flow (pcph)							95			
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)							797			
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_p							1.00			

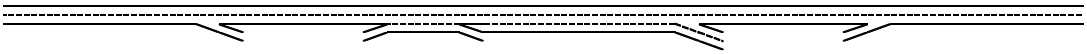
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Susnet Blvd
On to ML Flow (pcph)							851			
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)							462			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
ML to Off Flow (pcph)							548			
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)							2,419			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
GP to GP Flow (pcph)							2,874			
Calculate Weave Segment Operations										
Weave Type							One-sided			
Weave Length							2,050			
Segment Lanes							3			
Weave Lanes							2			
Weave Flow (pcph)							1,399			
Non-Weave Flow							2,968			
Segment Flow							4,368			
Max Weave Length							5,804			
Length Check							OK			
Ideal Weave Capacity							2,063			
f_{HV}							0.989			
f_p							0.997			
Capacity Condition 1							6,103			
Capacity Condition 2							7,387			
Weave v/c ratio							0.71			
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Weave Density										
Weave LOS										
Summarize Segment Operations										
Segment v/c ratio	0.47	0.50	0.41	0.38	0.48	0.69	0.71	0.77	0.93	0.91
Segment Density	17.0	21.9	14.7	13.6	17.9	25.1		28.8	35.6	37.1
Segment LOS	B	C	B	B	B	C		D	E	E
Over Capacity										

Location	15	16	17	18	19	20	21	22	23



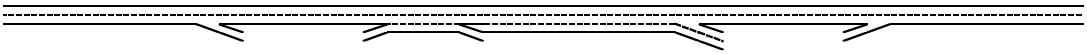
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment									
Type	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	5,960	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length								600	
Decel Length		175							
Mainline Volume	3,870	3,870	3,340	3,340	2,800	2,800	1,820	1,820	2,210
On Ramp Volume				440				390	
Off Ramp Volume		530		980		980			
Express Lane Volume									
EL On Ramp Volume									
EL Off Ramp Volume									
Calculate Flow Rate in General Purpose Lanes (GP)									
GP Volume (vph)	3,870	3,870	3,340	3,780	2,800	2,800	1,820	2,210	2,210
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980	0.980
f_p	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	4,155	4,155	3,586	4,059	3,006	3,006	1,954	2,373	2,373
GP Flow (pcphpl)	2,078	2,078	1,793	1,353	1,002	1,002	977	1,186	1,186
Calculate Speed in General Purpose Lanes									
Lane Width (ft)									
Shoulder Width									
TRD									
f_{LW}									
f_{LC}									
Calculated FFS									
Measured FFS									
FFS Curve	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes									
v/c ratio	0.88	0.88	0.76	0.58	0.43	0.43	0.42	0.50	0.50
Speed (mph)	58.5	58.5	62.8	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	35.5	35.5	28.5	20.8	15.4	15.4	15.0	18.3	18.3
LOS	E	E	D	C	B	B	B	C	C
Calculate Operations for Entering GP Lanes									
GP_{IN} Vol (pcph)		4,155		3,576				1,916	
GP_{IN} Cap (pcph)		4,700		4,700				4,700	
GP_{IN} v/c ratio		0.88		0.76				0.41	
Calculate Operations for Exiting GP Lanes									
GP_{OUT} Vol (pcph)		3,580		3,011		1,857		2,373	
GP_{OUT} Cap (pcph)		4,700		4,700		4,700		4,700	
GP_{OUT} v/c ratio		0.76		0.64		0.40		0.50	
Calculate Flow Rate in Express Lanes (EL)									
Calculate Speed in Express Lanes									
Calculate Operations in Express Lanes									
EL_{IN} v/c ratio									
Calculate On Ramp Flow Rate									
On Volume (vph)				440				390	
PHF				0.926				0.87	
Total Lanes				1				1	
Terrain				Level				Level	
Grade %				0.0%				0.0%	
Grade Length (mi)				0.00				0.00	
Truck & Bus %				3.0%				4.0%	
RV %				0.0%				0.0%	
E_T				1.5				1.5	
E_R				1.2				1.2	
f_{HV}				0.985				0.980	
f_p				1.00				1.00	
On Flow (pcph)				482				457	
On Flow (pcphpl)				482				457	
Calculate On Ramp Roadway Operations									
On Ramp Type				Right				Right	
On Ramp Speed (mph)				45				45	
On Ramp Cap (pcph)				2,100				2,100	
On Ramp v/c ratio				0.23				0.22	
Calculate Off Ramp Flow Rate									
Off Volume (vph)		530		980		980			
PHF		0.93		0.95		0.87			
Total Lanes		1		1		2			
Terrain		Level		Level		Level			
Grade %		0.0%		0.0%		0.0%			
Grade Length (mi)		0.00		0.00		0.00			
Truck & Bus %		2.0%		3.0%		4.0%			
RV %		0.0%		0.0%		0.0%			
E_T		1.5		1.5		1.5			
E_R		1.2		1.2		1.2			

Location	15	16	17	18	19	20	21	22	23



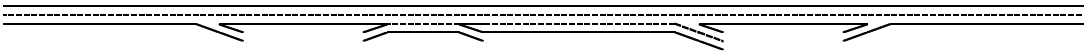
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
f_{HV}		0.990		0.985		0.980			
f_p		1.00		1.00		1.00			
Off Flow (pcph)		576		1,047		1,149			
Off Flow (pcphpl)		576		1,047		574			
Calculate Off Ramp Roadway Operations									
Off Ramp Type		Right		Right		Right			
Off Ramp Speed		45		45		45			
Off Ramp Cap (pcph)		2,100		2,100		4,200			
Off Ramp v/c ratio		0.27		0.50		0.27			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps									
Up Type									
Up Distance									
Up Flow (pcph)									
Down Type									
Down Distance									
Down Flow (pcph)									
Calculate Merge Influence Area Operations									
Effective v_p (pcph)								1,916	
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FM} (Eqn 13-3)								0.594	
P_{FM} (Eqn 13-4)									
P_{FM} (Eqn 13-5)									
P_{FM}								1.000	
v_{12} (pcph)								1,916	
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)								1,916	
v_{b12a} (pcph)								2,373	
Merge Speed Index								0.31	
Merge Area Speed								57.9	
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed								57.9	
Merge v/c ratio								0.52	
Merge Density								20.0	
Merge LOS								C	
Calculate Diverge Influence Area Operations									
Effective v_p (pcph)		4,155							
Up Ramp L_{EQ}									
Down Ramp L_{EQ}									
P_{FD} (Eqn 13-9)		0.630							
P_{FD} (Eqn 13-10)									
P_{FD} (Eqn 13-11)									
P_{FD}		1.000							
v_{12} (pcph)		4,155							
v_3 (pcph)									
v_{34} (pcph)									
v_{12a} (pcph)		4,155							
Diverge Speed Index		0.35							
Diverge Area Speed		57.0							
Outer Lanes Volume									
Outer Lanes Speed									
Segment Speed		57.0							
Diverge v/c ratio		0.94							
Diverge Density		38.4							
Diverge LOS		E							

Location	15	16	17	18	19	20	21	22	23



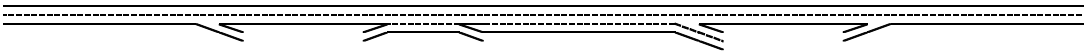
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments									
On to Off Volume (vph)				44					
PHF				0.8					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_p				1.00					
On to Off Flow (pcph)				56					
Calculate On Ramp to Mainline Flow Rate for Weave Segments									
On to ML Volume (vph)				396					
PHF				0.8					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				7.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.966					
f_p				1.00					
On to ML Flow (pcph)				512					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments									
ML to Off Volume (vph)				936					
PHF				0.83					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_p				1.00					
ML to Off Flow (pcph)				1,145					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments									
GP to GP Volume (vph)				2,404					
PHF				0.825					
Terrain				Level					
Grade %				0.0%					
Grade Length (mi)				0.00					
Truck & Bus %				3.0%					
RV %				0.0%					
E_T				1.5					
E_R				1.2					
f_{HV}				0.985					
f_p				1.00					
GP to GP Flow (pcph)				2,958					

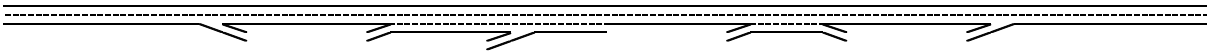
Location	15	16	17	18	19	20	21	22	23



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations									
Weave Type				One-sided					
Weave Length				1,680					
Segment Lanes				3					
Weave Lanes				3					
Weave Flow (pcph)				1,657					
Non-Weave Flow				3,013					
Segment Flow				4,670					
Max Weave Length				4,613					
Length Check				OK					
Ideal Weave Capacity				2,126					
f_{HV}				0.983					
f_p				0.996					
Capacity Condition 1				6,246					
Capacity Condition 2				9,663					
Weave v/c ratio				0.73					
Interchange Density									
Lane Changes On to ML									
Lane Changes ML to Off									
Lane Changes On to Off									
Min Lane Change Rate									
Weave LC Rate									
Non-Weave LC Rate 1									
Non-Weave LC Rate 2									
Non-Weave LC Rate 3									
Segment LC Rate									
Weave Intensity Factor									
Weave Speed									
Non-Weave Speed									
Segment Speed									
Weave Density									
Weave LOS									
Summarize Segment Operations									
Segment v/c ratio	0.88	0.94	0.76	0.73	0.43	0.43	0.42	0.52	0.50
Segment Density	35.5	38.4	28.5		15.4	15.4	15.0	20.0	18.3
Segment LOS	E	E	D		B	B	B	C	C
Over Capacity									

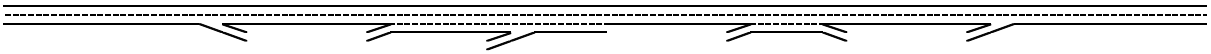
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Sunset Blvd
Define Freeway Segment										
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	7,650
Accel Length					720				450	
Decel Length		150								
Mainline Volume	2,820	2,820	2,200	2,200	2,450	2,620	2,620	2,935	2,935	3,375
On Ramp Volume				250	170		705		440	
Off Ramp Volume		620					390			
Express Lane Volume										
EL On Ramp Volume										
EL Off Ramp Volume										
Calculate Flow Rate in General Purpose Lanes (GP)										
GP Volume (vph)	2,820	2,820	2,200	2,450	2,620	2,620	3,325	2,935	3,375	3,375
PHF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
GP Lanes	2	2	2	3	3	2	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,165	3,165	2,469	2,749	2,940	2,940	3,731	3,294	3,788	3,788
GP Flow (pcphpl)	1,582	1,582	1,234	916	980	1,470	1,244	1,647	1,894	1,894
Calculate Speed in General Purpose Lanes										
Lane Width (ft)										
Shoulder Width										
TRD										
f_{LW}										
f_{LC}										
Calculated FFS										
Measured FFS										
FFS Curve	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes										
v/c ratio	0.67	0.67	0.53	0.39	0.42	0.63	0.53	0.70	0.81	0.81
Speed (mph)	64.5	64.5	65.0	65.0	65.0	64.9	65.0	64.1	61.5	61.5
Density (pcphpl)	24.5	24.5	19.0	14.1	15.1	22.6	19.1	25.7	30.8	30.8
LOS	C	C	C	B	B	C	C	C	D	D
Calculate Operations for Entering GP Lanes										
GP_{IN} Vol (pcph)		3,165		2,420	2,760		2,927		3,236	
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		4,700	
GP_{IN} v/c ratio		0.67		0.51	0.39		0.62		0.69	
Calculate Operations for Exiting GP Lanes										
GP_{OUT} Vol (pcph)		2,465			2,940		3,296		3,788	
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		4,700	
GP_{OUT} v/c ratio		0.52			0.42		0.70		0.81	
Calculate Flow Rate in Express Lanes (EL)										
Calculate Speed in Express Lanes										
Calculate Operations in Express Lanes										
EL_{IN} v/c ratio										
Calculate On Ramp Flow Rate										
On Volume (vph)				250	170		705		440	
PHF				0.76	0.95		0.89		0.81	
Total Lanes				1	1		1		1	
Terrain				Level	Level		Level		Level	
Grade %				0.0%	0.0%		0.0%		0.0%	
Grade Length (mi)				0.00	0.00		0.00		0.00	
Truck & Bus %				0.3%	1.6%		3.0%		3.0%	
RV %				0.0%	0.0%		0.0%		0.0%	
E_T				1.5	1.5		1.5		1.5	
E_R				1.2	1.2		1.2		1.2	
f_{HV}				0.999	0.992		0.985		0.985	
f_P				1.00	1.00		1.00		1.00	
On Flow (pcph)				329	180		804		551	
On Flow (pcphpl)				329	180		804		551	
Calculate On Ramp Roadway Operations										
On Ramp Type				Right	Right		Right		Right	
On Ramp Speed (mph)				25	45		45		25	
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900	
On Ramp v/c ratio				0.17	0.09		0.38		0.29	

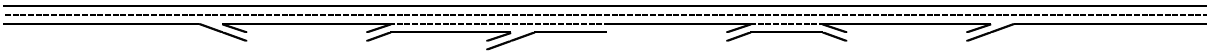
Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Sunset Blvd
Calculate Off Ramp Flow Rate										
Off Volume (vph)		620					390			
PHF		0.9					0.91			
Total Lanes		1					1			
Terrain		Level					Level			
Grade %		0.0%					0.0%			
Grade Length (mi)		0.00					0.00			
Truck & Bus %		3.0%					3.0%			
RV %		0.0%					0.0%			
E_T		1.5					1.5			
E_R		1.2					1.2			
f_{HV}		0.985					0.985			
f_p		1.00					1.00			
Off Flow (pcph)		699					435			
Off Flow (pcphpl)		699					435			
Calculate Off Ramp Roadway Operations										
Off Ramp Type		Right					Right			
Off Ramp Speed		45					45			
Off Ramp Cap (pcph)		2,100					2,100			
Off Ramp v/c ratio		0.33					0.21			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps										
Up Type					On					
Up Distance					1,000					
Up Flow (pcph)					329					
Down Type										
Down Distance										
Down Flow (pcph)										
Calculate Merge Influence Area Operations										
Effective v_p (pcph)					2,760				3,236	
Up Ramp L_{EQ}					900					
Down Ramp L_{EQ}										
P_{FM} (Eqn 13-3)					0.598				0.590	
P_{FM} (Eqn 13-4)										
P_{FM} (Eqn 13-5)										
P_{FM}					0.598				1.000	
v_{12} (pcph)					1,649				3,236	
v_3 (pcph)					1,110					
v_{34} (pcph)										
v_{12a} (pcph)					1,649				3,236	
v_{R12a} (pcph)					1,830				3,788	
Merge Speed Index					0.28				0.47	
Merge Area Speed					58.5				54.2	
Outer Lanes Volume					1,110					
Outer Lanes Speed					62.8					
Segment Speed					60.1				54.2	
Merge v/c ratio					0.40				0.82	
Merge Density					15.2				31.9	
Merge LOS					B				D	
Calculate Diverge Influence Area Operations										
Effective v_p (pcph)		3,165								
Up Ramp L_{EQ}										
Down Ramp L_{EQ}										
P_{FD} (Eqn 13-9)		0.649								
P_{FD} (Eqn 13-10)										
P_{FD} (Eqn 13-11)										
P_{FD}		1.000								
v_{12} (pcph)		3,165								
v_3 (pcph)										
v_{34} (pcph)										
v_{12a} (pcph)		3,165								
Diverge Speed Index		0.36								
Diverge Area Speed		56.7								
Outer Lanes Volume										
Outer Lanes Speed										
Segment Speed		56.7								
Diverge v/c ratio		0.72								
Diverge Density		30.1								
Diverge LOS		D								
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments										
On to Off Volume (vph)							71			
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_p							1.00			
On to Off Flow (pcph)							75			
Calculate On Ramp to Mainline Flow Rate for Weave Segments										
On to ML Volume (vph)							635			

Location	1	2	3	4	5	6	7	8	9	10



Key
<> Express Lane (HOV)
No Trucks

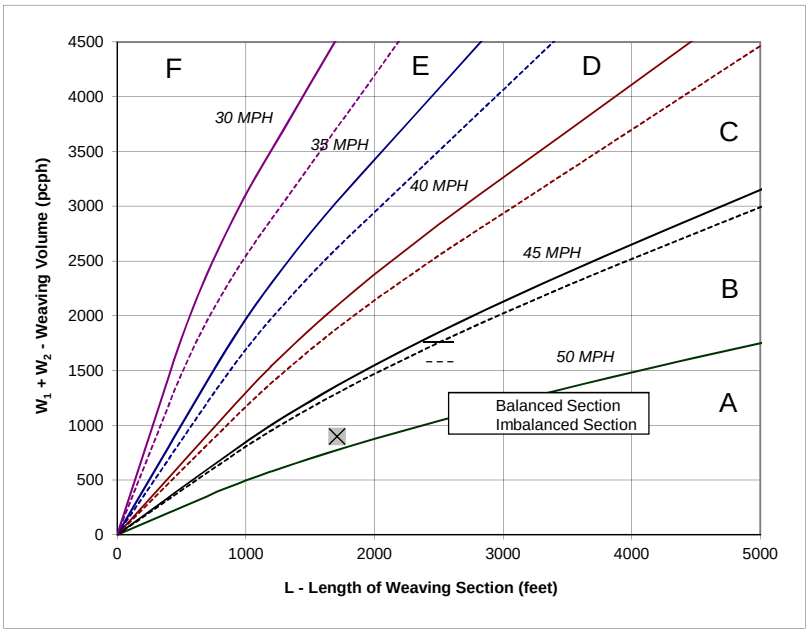
Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Sunset Blvd
PHF							0.95			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							3.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.985			
f_p							1.00			
On to ML Flow (pcph)							678			
Calculate Mainline to Off Ramp Flow Rate for Weave Segments										
ML to Off Volume (vph)							320			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
ML to Off Flow (pcph)							380			
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments										
GP to GP Volume (vph)							2,301			
PHF							0.85			
Terrain							Level			
Grade %							0.0%			
Grade Length (mi)							0.00			
Truck & Bus %							2.0%			
RV %							0.0%			
E_T							1.5			
E_R							1.2			
f_{HV}							0.990			
f_p							1.00			
GP to GP Flow (pcph)							2,734			
Calculate Weave Segment Operations										
Weave Type							One-sided			
Weave Length							2,050			
Segment Lanes							3			
Weave Lanes							2			
Weave Flow (pcph)							1,058			
Non-Weave Flow							2,809			
Segment Flow							3,866			
Max Weave Length							5,302			
Length Check							OK			
Ideal Weave Capacity							2,101			
f_{HV}							0.989			
f_p							0.997			
Capacity Condition 1							6,219			
Capacity Condition 2							8,657			
Weave v/c ratio							0.61			
Interchange Density										
Lane Changes On to ML										
Lane Changes ML to Off										
Lane Changes On to Off										
Min Lane Change Rate										
Weave LC Rate										
Non-Weave LC Rate 1										
Non-Weave LC Rate 2										
Non-Weave LC Rate 3										
Segment LC Rate										
Weave Intensity Factor										
Weave Speed										
Non-Weave Speed										
Segment Speed										
Weave Density										
Weave LOS										
Summarize Segment Operations										
Segment v/c ratio	0.67	0.72	0.53	0.39	0.40	0.63	0.61	0.70	0.82	0.81
Segment Density	24.5	30.1	19.0	14.1	15.2	22.6		25.7	31.9	30.8
Segment LOS	C	D	C	B	B	C		C	D	D
Over Capacity										

Leisch Method for Weaving Analysis

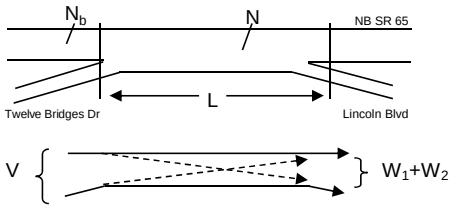
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information	
Project	Village 5 SP EIR
Scenario	Existing + Project AM
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	2,930	Volume (vph)*	390	Volume (vph)*	500
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	2,959	Volume (pcph)	394	Volume (pcph)	505



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **48.8**
4. Weaving Intensity Factor (k) **1.39**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,037**
6. Level of Service (LOS) **C**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

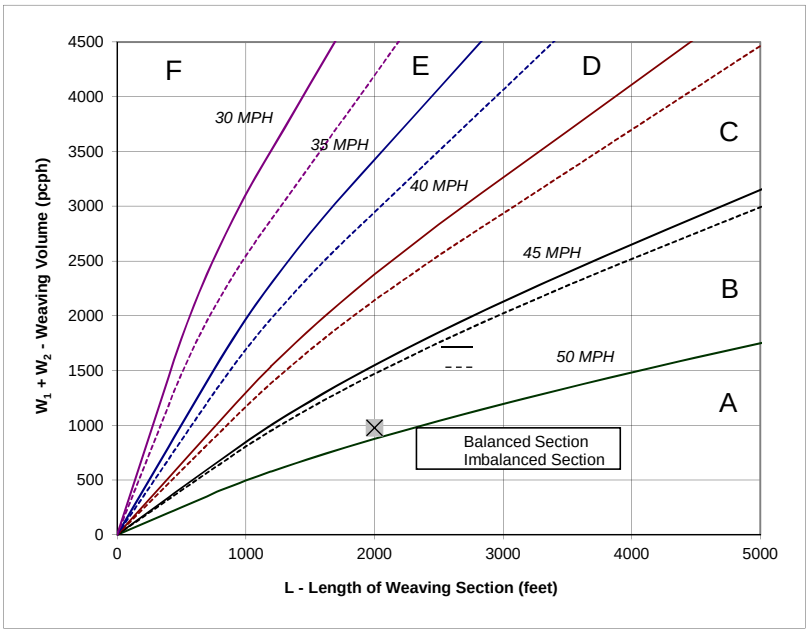
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

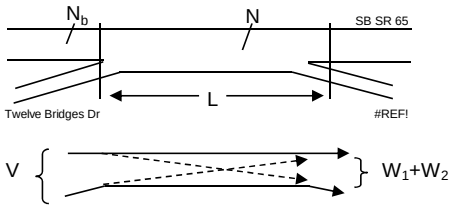
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Village 5 SP EIR
Scenario	Existing + Project AM
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,375	Volume (vph)*	499	Volume (vph)*	469
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,419	Volume (pcph)	504	Volume (pcph)	473



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **49.1**
4. Weaving Intensity Factor (k) **1.34**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,526**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

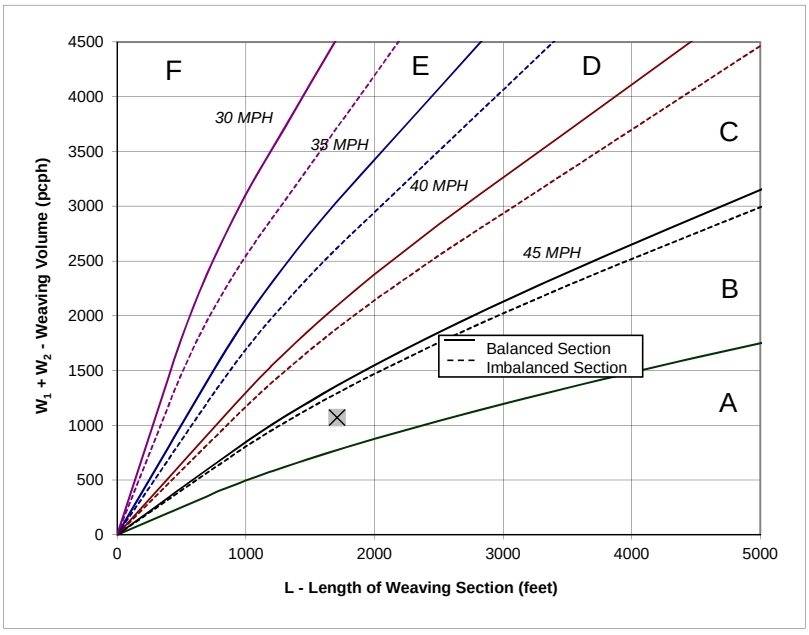
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

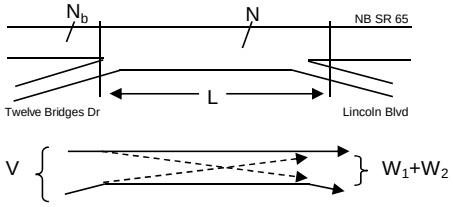
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information	
Project	Village 5 SP EIR
Scenario	Existing + Project PM
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,840	Volume (vph)*	260	Volume (vph)*	800
Truck Percentage	4%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,937	Volume (pcph)	262	Volume (pcph)	808



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **47.1**
4. Weaving Intensity Factor (k) **2.05**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **1,737**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

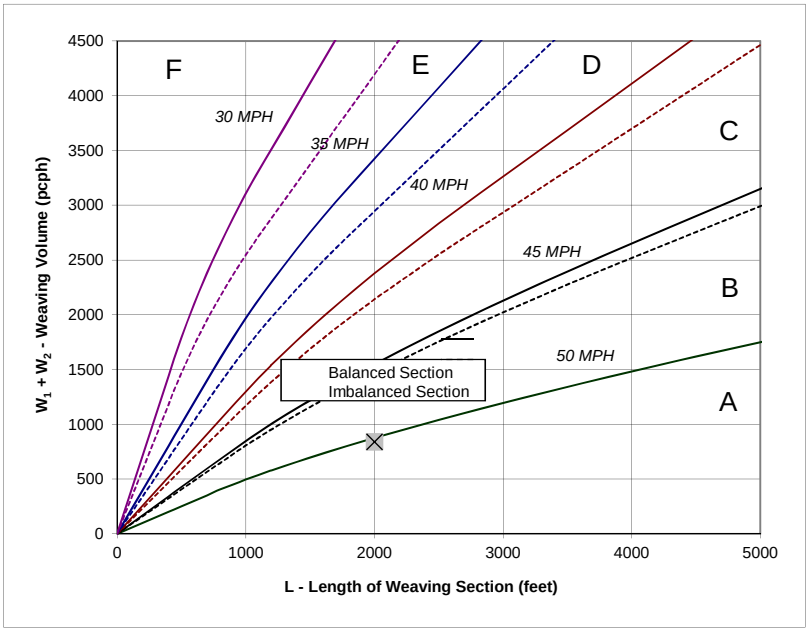
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

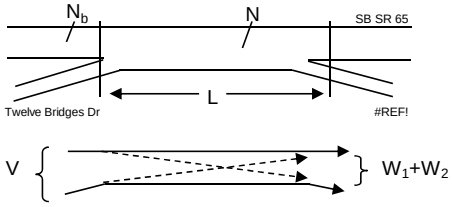
Project Information

Project	Village 5 SP EIR
Scenario	Existing + Project PM
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,815	Volume (vph)*	440	Volume (vph)*	390
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	3,853	Volume (pcph)	444	Volume (pcph)	394



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **50.3**
4. Weaving Intensity Factor (k) **1.00**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **1,284**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

HCS 2010: Two-Lane Highways Release 6.60

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/6/2014
Analysis Time Period	AM
Highway	65
From/To	north of Riosa
Jurisdiction	Placer County
Analysis Year	2014 Existing Plus Project
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.91	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd	1170	veh/h
Opposing direction volume, Vo	1020	veh/h

Average Travel Speed

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adj. factor,(note-5) fHV	1.000	1.000
Grade adj. factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1286 pc/h	1121 pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	1.0	mi/h
Average travel speed, ATSd	35.0	mi/h
Percent Free Flow Speed, PFFS	64.0	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1286 pc/h	1121 pc/h
Base percent time-spent-following,(note-4) BPTSFd	85.6 %	
Adjustment for no-passing zones, fnp	12.8	
Percent time-spent-following, PTSFd	92.4 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.76	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	35.0	mi/h
Percent time-spent-following, PTSFd (from above)	92.4	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	1285.7
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.42
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Allison Crump
Agency/Co: Fehr and Peers
Date: 8/7/2014
Analysis Period: AM
Highway: 65
From/To: Riosa Road to Wise Road
Jurisdiction: Placer County
Analysis Year: 2014 Existing Plus Project
Project ID: Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1010	vph	900	vph
Peak-hour factor, PHF	0.90		0.93	
Peak 15-minute volume, v15	281		242	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	594	pcphpl	512	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	594	pcphpl	512	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	9.9	pc/mi/ln	8.5	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	561.1	483.9
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.29	6.21
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Allison Crump
Agency/Co: Fehr and Peers
Date: 8/6/2014
Analysis Period: AM
Highway: 65
From/To: Wise Rd to Nelson Ln
Jurisdiction: Placer County
Analysis Year: 2014 Existing Plus Project
Project ID: Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	880	vph	810	vph
Peak-hour factor, PHF	0.87		0.83	
Peak 15-minute volume, v15	253		244	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	536	pcphpl	517	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	536	pcphpl	517	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	8.9	pc/mi/ln	8.6	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	505.7	488.0
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.23	6.21
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

HCS 2010: Two-Lane Highways Release 6.60

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/7/2014
Analysis Time Period	PM
Highway	65
From/To	Riosa north
Jurisdiction	Placer County
Analysis Year	2014 Existing Plus Project
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.98	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd	1380	veh/h
Opposing direction volume, Vo	1300	veh/h

Average Travel Speed

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adj. factor,(note-5) fHV	1.000	1.000
Grade adj. factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1408 pc/h	1327 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h

Estimated Free-Flow Speed:

Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	0.9	mi/h
Average travel speed, ATSd	32.6	mi/h
Percent Free Flow Speed, PFFS	59.5	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1408 pc/h	1327 pc/h
Base percent time-spent-following,(note-4) BPTSFd	89.0 %	
Adjustment for no-passing zones, fnp	9.5	
Percent time-spent-following, PTSFd	93.9 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.83	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	32.6	mi/h
Percent time-spent-following, PTSFd (from above)	93.9	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	1408.2
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.47
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Riosa Road to Wise Road
Jurisdiction:	Placer County
Analysis Year:	2014 Existing Plus Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1230	vph	1090	vph
Peak-hour factor, PHF	0.94		0.92	
Peak 15-minute volume, v15	327		296	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	693	pcphpl	627	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	693	pcphpl	627	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.6	pc/mi/ln	10.4	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	654.3	592.4
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.36	6.31
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Wise to Nelson
Jurisdiction:	Placer County
Analysis Year:	2014 Existing Plus Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1030	vph	1000	vph
Peak-hour factor, PHF	0.93		0.94	
Peak 15-minute volume, v15	277		266	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	586	pcphpl	563	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	586	pcphpl	563	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	9.8	pc/mi/ln	9.4	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	553.8	531.9
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.28	6.26
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Appendix E-6:
Technical Calculations
Cumulative No Project Conditions –
Intersection Level of Service

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	270	140	40	50	200	10	840	30	310	860	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	11	293	152	43	54	217	11	913	33	337	935	22
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	322	437	372	175	437	571	48	1411	631	434	1761	788
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.40	0.40	0.13	0.50	0.50
Sat Flow, veh/h	1104	1863	1583	941	1863	1583	1774	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	11	293	152	43	54	217	11	913	33	337	935	22
Grp Sat Flow(s),veh/h/ln	1104	1863	1583	941	1863	1583	1774	1770	1583	1721	1770	1583
Q Serve(g_s), s	0.6	11.6	6.6	3.5	1.9	8.3	0.5	17.0	1.0	7.7	14.7	0.6
Cycle Q Clear(g_c), s	2.5	11.6	6.6	15.2	1.9	8.3	0.5	17.0	1.0	7.7	14.7	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	437	372	175	437	571	48	1411	631	434	1761	788
V/C Ratio(X)	0.03	0.67	0.41	0.25	0.12	0.38	0.23	0.65	0.05	0.78	0.53	0.03
Avail Cap(c_a), veh/h	771	1194	1015	557	1194	1215	244	3112	1392	1277	3938	1762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	28.3	26.4	35.2	24.6	19.3	38.8	19.8	15.0	34.5	14.0	10.4
Incr Delay (d2), s/veh	0.0	0.7	0.3	0.3	0.0	0.2	0.9	0.4	0.0	1.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	6.0	2.9	0.9	1.0	3.6	0.3	8.3	0.5	3.7	7.2	0.3
LnGrp Delay(d),s/veh	25.6	29.0	26.6	35.4	24.6	19.4	39.7	20.2	15.1	35.6	14.2	10.4
LnGrp LOS	C	C	C	D	C	B	D	C	B	D	B	B
Approach Vol, veh/h		456			314			957			1294	
Approach Delay, s/veh		28.1			22.5			20.3			19.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.1	40.5		24.9	8.0	48.5		24.9
Change Period (Y+Rc), s	5.8	8.0		5.8	5.8	8.0		5.8
Max Green Setting (Gmax), s	30.2	71.6		52.2	11.2	90.6		52.2
Max Q Clear Time (g_c+I1), s	9.7	19.0		13.6	2.5	16.7		17.2
Green Ext Time (p_c), s	0.5	13.4		2.0	0.0	13.9		2.0

Intersection Summary		
HCM 2010 Ctrl Delay		21.4
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	120	300	20	110	30	60	800	230	130	750	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	54	130	326	22	120	33	65	870	250	141	815	174
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	439	495	258	439	565	137	1347	603	215	1504	673
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.08	0.38	0.38	0.12	0.42	0.42
Sat Flow, veh/h	1229	1863	1583	931	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	54	130	326	22	120	33	65	870	250	141	815	174
Grp Sat Flow(s),veh/h/ln	1229	1863	1583	931	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.9	4.5	14.0	1.6	4.1	1.1	2.8	15.9	9.1	6.0	13.5	5.6
Cycle Q Clear(g_c), s	7.1	4.5	14.0	6.1	4.1	1.1	2.8	15.9	9.1	6.0	13.5	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	439	495	258	439	565	137	1347	603	215	1504	673
V/C Ratio(X)	0.17	0.30	0.66	0.09	0.27	0.06	0.47	0.65	0.41	0.65	0.54	0.26
Avail Cap(c_a), veh/h	719	1048	1013	574	1072	1104	366	2235	1000	456	2415	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	24.7	23.4	27.2	24.5	16.6	34.7	20.0	17.9	32.9	16.9	14.6
Incr Delay (d2), s/veh	0.2	0.3	1.1	0.1	0.2	0.0	0.9	0.4	0.3	1.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	2.3	6.2	0.4	2.2	0.5	1.4	7.8	4.0	3.0	6.6	2.4
LnGrp Delay(d),s/veh	27.6	24.9	24.5	27.3	24.8	16.6	35.7	20.4	18.2	34.2	17.1	14.7
LnGrp LOS	C	C	C	C	C	B	D	C	B	C	B	B
Approach Vol, veh/h		510			175			1185			1130	
Approach Delay, s/veh		24.9			23.5			20.7			18.9	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.3	37.9		25.3	11.9	41.4		25.3
Change Period (Y+Rc), s	5.8	8.0		6.8	5.8	8.0		* 6.8
Max Green Setting (Gmax), s	20.2	49.6		44.2	16.2	53.6		* 45
Max Q Clear Time (g_c+I1), s	8.0	17.9		16.0	4.8	15.5		8.1
Green Ext Time (p_c), s	0.1	12.0		2.5	0.0	12.7		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	1020	20	10	890	830	150	340	10	630	80	50
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	32	1074	21	11	937	874	158	358	11	663	84	53
Adj No. of Lanes	2	2	1	2	2	1	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	1459	653	82	1383	948	199	390	331	716	669	569
Arrive On Green	0.05	0.41	0.41	0.02	0.39	0.39	0.06	0.21	0.21	0.21	0.36	0.36
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	1863	1583	3442	1863	1583
Grp Volume(v), veh/h	32	1074	21	11	937	874	158	358	11	663	84	53
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.6	44.3	1.4	0.5	38.0	67.6	7.8	32.6	1.0	32.7	5.2	3.8
Cycle Q Clear(g_c), s	1.6	44.3	1.4	0.5	38.0	67.6	7.8	32.6	1.0	32.7	5.2	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	1459	653	82	1383	948	199	390	331	716	669	569
V/C Ratio(X)	0.20	0.74	0.03	0.13	0.68	0.92	0.79	0.92	0.03	0.93	0.13	0.09
Avail Cap(c_a), veh/h	199	1459	653	199	1383	948	302	487	414	1018	874	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	79.6	42.9	30.3	82.7	43.7	31.1	80.5	67.0	54.5	67.2	37.2	36.7
Incr Delay (d2), s/veh	0.2	1.9	0.0	0.3	1.2	14.0	4.1	19.1	0.0	8.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.7	22.0	0.6	0.3	18.8	40.9	3.8	18.9	0.4	16.5	2.7	1.7
LnGrp Delay(d),s/veh	79.8	44.8	30.3	83.0	44.9	45.1	84.6	86.0	54.5	76.2	37.2	36.8
LnGrp LOS	E	D	C	F	D	D	F	F	D	E	D	D
Approach Vol, veh/h		1127			1822			527			800	
Approach Delay, s/veh		45.5			45.2			84.9			69.5	
Approach LOS		D			D			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	75.6	41.8	42.0	9.9	79.3	15.8	68.0
Change Period (Y+Rc), s	5.8	8.0	5.8	5.8	5.8	8.0	5.8	5.8
Max Green Setting (Gmax), s	10.0	67.6	51.2	45.2	10.0	67.6	15.2	81.2
Max Q Clear Time (g_c+I1), s	3.6	69.6	34.7	34.6	2.5	46.3	9.8	7.2
Green Ext Time (p_c), s	0.0	0.0	1.3	1.6	0.0	14.4	0.1	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1080	1490	0	1060	820	0	0	0	130	0	60
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	0	1863	1863				1900	1863	1863
Adj Flow Rate, veh/h	0	1174	1620	0	1152	0				141	0	65
Adj No. of Lanes	0	2	0	0	3	1				0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	1418	1269	0	4075	1269				171	0	153
Arrive On Green	0.00	0.80	0.80	0.00	0.80	0.00				0.10	0.00	0.10
Sat Flow, veh/h	0	1863	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	1174	1620	0	1152	0				141	0	65
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	34.9	71.4	0.0	5.2	0.0				7.0	0.0	3.4
Cycle Q Clear(g_c), s	0.0	34.9	71.4	0.0	5.2	0.0				7.0	0.0	3.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1418	1269	0	4075	1269				171	0	153
V/C Ratio(X)	0.00	0.83	1.28	0.00	0.28	0.00				0.82	0.00	0.43
Avail Cap(c_a), veh/h	0	1418	1269	0	4075	1269				171	0	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.2	8.9	0.0	2.3	0.0				39.5	0.0	37.9
Incr Delay (d2), s/veh	0.0	4.3	130.8	0.0	0.0	0.0				25.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	18.0	76.1	0.0	2.4	0.0				4.6	0.0	1.5
LnGrp Delay(d),s/veh	0.0	9.6	139.6	0.0	2.3	0.0				64.7	0.0	38.6
LnGrp LOS		A	F		A					E		D
Approach Vol, veh/h		2794			1152						206	
Approach Delay, s/veh		85.0			2.3						56.4	
Approach LOS		F			A						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		76.3		12.8		76.3		
Change Period (Y+Rc), s		4.9		* 4.2		4.9		
Max Green Setting (Gmax), s		71.4		* 8.6		71.4		
Max Q Clear Time (g_c+I1), s		73.4		9.0		7.2		
Green Ext Time (p_c), s		0.0		0.0		63.9		

Intersection Summary	
HCM 2010 Ctrl Delay	60.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	1140	0	0	1490	150	390	0	550	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	76	1239	0	0	1620	0	424	0	598			
Adj No. of Lanes	1	2	0	0	3	1	2	0	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	175	2328	0	0	2589	806	802	0	716			
Arrive On Green	0.10	0.66	0.00	0.00	0.51	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	1774	3632	0	0	5253	1583	3548	0	3167			
Grp Volume(v), veh/h	76	1239	0	0	1620	0	424	0	598			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1695	1583	1774	0	1583			
Q Serve(g_s), s	3.4	15.5	0.0	0.0	19.3	0.0	8.8	0.0	15.2			
Cycle Q Clear(g_c), s	3.4	15.5	0.0	0.0	19.3	0.0	8.8	0.0	15.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	175	2328	0	0	2589	806	802	0	716			
V/C Ratio(X)	0.43	0.53	0.00	0.00	0.63	0.00	0.53	0.00	0.84			
Avail Cap(c_a), veh/h	632	2328	0	0	3019	940	1264	0	1128			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.7	7.6	0.0	0.0	14.9	0.0	28.6	0.0	31.1			
Incr Delay (d2), s/veh	0.6	0.3	0.0	0.0	0.4	0.0	0.2	0.0	1.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	1.7	7.5	0.0	0.0	9.1	0.0	4.3	0.0	6.8			
LnGrp Delay(d),s/veh	36.4	7.9	0.0	0.0	15.3	0.0	28.9	0.0	32.8			
LnGrp LOS	D	A			B		C		C			
Approach Vol, veh/h		1315			1620			1022				
Approach Delay, s/veh		9.5			15.3			31.2				
Approach LOS		A			B			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		60.3			12.5	47.8		23.9
Change Period (Y+Rc), s		4.9			* 4.2	4.9		4.9
Max Green Setting (Gmax), s		50.0			* 30	50.0		30.0
Max Q Clear Time (g_c+I1), s		17.5			5.4	21.3		17.2
Green Ext Time (p_c), s		28.8			0.1	21.5		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	80	5	880	1070	0	0
Number	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863		
Adj Flow Rate, veh/h	87	5	957	1163		
Adj No. of Lanes	2	0	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	1086	62	1274	1540		
Arrive On Green	0.32	0.32	0.37	0.83		
Sat Flow, veh/h	3497	194	3442	1863		
Grp Volume(v), veh/h	45	47	957	1163		
Grp Sat Flow(s),veh/h/ln	1770	1828	1721	1863		
Q Serve(g_s), s	0.5	0.6	7.4	8.8		
Cycle Q Clear(g_c), s	0.5	0.6	7.4	8.8		
Prop In Lane		0.11	1.00			
Lane Grp Cap(c), veh/h	565	583	1274	1540		
V/C Ratio(X)	0.08	0.08	0.75	0.76		
Avail Cap(c_a), veh/h	1863	1925	7631	6347		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.3	7.3	8.4	1.2		
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.3	0.3	3.5	4.0		
LnGrp Delay(d),s/veh	7.3	7.3	8.7	1.5		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h	92			2120		
Approach Delay, s/veh	7.3			4.8		
Approach LOS	A			A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	15.5	15.1				30.6		
Change Period (Y+Rc), s	* 4.2	5.3				5.3		
Max Green Setting (Gmax), s	* 68	32.2				104.2		
Max Q Clear Time (g_c+I1), s	9.4	2.6				10.8		
Green Ext Time (p_c), s	1.9	7.2				7.8		

Intersection Summary	
HCM 2010 Ctrl Delay	4.9
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	1050	80	0	0	1930
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	22	0	87	0	0	2098
Adj No. of Lanes	1	2	2	0	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	76	120	2620	0	0	2620
Arrive On Green	0.04	0.00	0.74	0.00	0.00	0.74
Sat Flow, veh/h	1774	2787	3725	0	0	3725
Grp Volume(v), veh/h	22	0	87	0	0	2098
Grp Sat Flow(s),veh/h/ln	1774	1393	1770	0	0	1770
Q Serve(g_s), s	0.5	0.0	0.3	0.0	0.0	16.6
Cycle Q Clear(g_c), s	0.5	0.0	0.3	0.0	0.0	16.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	76	120	2620	0	0	2620
V/C Ratio(X)	0.29	0.00	0.03	0.00	0.00	0.80
Avail Cap(c_a), veh/h	1214	1908	4038	0	0	4038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	1.5	0.0	0.0	3.6
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	0.0	0.1	0.0	0.0	7.7
LnGrp Delay(d),s/veh	21.1	0.0	1.5	0.0	0.0	3.9
LnGrp LOS	C		A			A
Approach Vol, veh/h	22		87			2098
Approach Delay, s/veh	21.1		1.5			3.9
Approach LOS	C		A			A

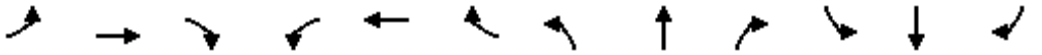
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		37.7				37.7		6.1
Change Period (Y+Rc), s		5.3				5.3		4.2
Max Green Setting (Gmax), s		50.0				50.0		30.0
Max Q Clear Time (g_c+I1), s		2.3				18.6		2.5
Green Ext Time (p_c), s		15.9				13.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	4.0
HCM 2010 LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	120	400	1270	590	520	460
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	130	435	1380	0	565	500
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	160	1972	1527	683	616	549
Arrive On Green	0.09	0.56	0.43	0.00	0.35	0.35
Sat Flow, veh/h	1774	3632	3632	1583	1774	1583
Grp Volume(v), veh/h	130	435	1380	0	565	500
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1583	1774	1583
Q Serve(g_s), s	7.0	6.1	35.6	0.0	29.9	29.5
Cycle Q Clear(g_c), s	7.0	6.1	35.6	0.0	29.9	29.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	160	1972	1527	683	616	549
V/C Ratio(X)	0.81	0.22	0.90	0.00	0.92	0.91
Avail Cap(c_a), veh/h	190	2298	1792	802	723	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	11.0	26.0	0.0	30.6	30.5
Incr Delay (d2), s/veh	17.2	0.0	5.7	0.0	14.1	14.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.2	3.0	18.5	0.0	17.0	24.5
LnGrp Delay(d),s/veh	60.9	11.0	31.6	0.0	44.8	44.9
LnGrp LOS	E	B	C		D	D
Approach Vol, veh/h		565	1380		1065	
Approach Delay, s/veh		22.5	31.6		44.8	
Approach LOS		C	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		59.9		38.1	12.3	47.6		
Change Period (Y+Rc), s		5.3		4.1	3.5	5.3		
Max Green Setting (Gmax), s		63.6		39.9	10.5	49.6		
Max Q Clear Time (g_c+I1), s		8.1		31.9	9.0	37.6		
Green Ext Time (p_c), s		6.2		2.1	0.0	4.7		

Intersection Summary	
HCM 2010 Ctrl Delay	34.6
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	690	0	0	1270	530	590	0	510	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	250	750	0	0	1380	0	641	0	0			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	253	1994	0	0	1379	617	627	658	560			
Arrive On Green	0.14	0.56	0.00	0.00	0.39	0.00	0.35	0.00	0.00			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	1863	1583			
Grp Volume(v), veh/h	250	750	0	0	1380	0	641	0	0			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	1863	1583			
Q Serve(g_s), s	15.9	13.3	0.0	0.0	44.0	0.0	39.9	0.0	0.0			
Cycle Q Clear(g_c), s	15.9	13.3	0.0	0.0	44.0	0.0	39.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	253	1994	0	0	1379	617	627	658	560			
V/C Ratio(X)	0.99	0.38	0.00	0.00	1.00	0.00	1.02	0.00	0.00			
Avail Cap(c_a), veh/h	253	1994	0	0	1379	617	627	658	560			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	48.3	13.7	0.0	0.0	34.5	0.0	36.5	0.0	0.0			
Incr Delay (d2), s/veh	53.0	0.0	0.0	0.0	24.3	0.0	41.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	11.4	6.5	0.0	0.0	25.9	0.0	26.6	0.0	0.0			
LnGrp Delay(d),s/veh	101.3	13.7	0.0	0.0	58.8	0.0	78.2	0.0	0.0			
LnGrp LOS	F	B			F		F					
Approach Vol, veh/h		1000			1380			641				
Approach Delay, s/veh		35.6			58.8			78.2				
Approach LOS		D			E			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		68.9			19.6	49.3		44.0
Change Period (Y+Rc), s		5.3			3.5	5.3		4.1
Max Green Setting (Gmax), s		63.6			16.1	44.0		39.9
Max Q Clear Time (g_c+I1), s		15.3			17.9	46.0		41.9
Green Ext Time (p_c), s		14.8			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.2
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	84.6
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	360	210	310	0	260	330	230	0	320	660	100
Peak Hour Factor	0.81	0.92	0.92	0.92	0.81	0.92	0.92	0.92	0.81	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	391	228	337	0	283	359	250	0	348	717	109
Number of Lanes	0	1	2	0	0	1	1	1	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	83.3	85.3	93.3
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	69%	0%	100%	18%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	31%	0%	0%	82%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	440	320	360	140	380	260	330	230	60	247
LT Vol	320	0	0	360	0	0	260	0	0	60	0
Through Vol	0	440	220	0	140	70	0	330	0	0	247
RT Vol	0	0	100	0	0	310	0	0	230	0	0
Lane Flow Rate	348	478	348	391	152	413	283	359	250	65	268
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1	1	1	1	0.559	1	1	1	0.873	0.25	0.991
Departure Headway (Hd)	13.708	13.212	12.995	13.711	13.215	12.648	13.766	13.268	12.57	13.802	13.303
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	268	277	282	266	274	289	266	276	290	262	273
Service Time	11.408	10.912	10.695	11.478	10.98	10.411	11.478	10.98	10.283	11.518	11.018
HCM Lane V/C Ratio	1.299	1.726	1.234	1.47	0.555	1.429	1.064	1.301	0.862	0.248	0.982
HCM Control Delay	94.9	93	92.2	95.2	31.6	91	95.2	93.3	62.6	21.1	91.1
HCM Lane LOS	F	F	F	F	D	F	F	F	F	C	F
HCM 95th-tile Q	9.9	10.1	10.2	9.9	3.1	10.3	9.9	10.1	7.7	1	9.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	370	80
Peak Hour Factor	0.81	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	65	402	87
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	67.6
HCM LOS	F

Lane	SBLn3

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	110	810	430	310	70	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	0	350	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	120	880	467	337	76	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	1587	467
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	1120	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	119	596
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	312	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	106	596
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	278	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	72
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1094	-	-	-	106	596
HCM Lane V/C Ratio	0.109	-	-	-	0.718	0.055
HCM Control Delay (s)	8.7	-	-	-	97.9	11.4
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.4	-	-	-	3.8	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	370	310	50	450	230	330	170	140	200	230	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	22	402	337	54	489	250	359	185	152	156	336	33
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	1113	498	69	1179	527	602	316	268	274	575	244
Arrive On Green	0.02	0.31	0.31	0.04	0.33	0.33	0.17	0.17	0.17	0.15	0.15	0.15
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3548	1863	1583	1774	3725	1583
Grp Volume(v), veh/h	22	402	337	54	489	250	359	185	152	156	336	33
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.8	5.4	11.5	1.9	6.6	7.7	5.8	5.7	5.5	5.1	5.2	1.1
Cycle Q Clear(g_c), s	0.8	5.4	11.5	1.9	6.6	7.7	5.8	5.7	5.5	5.1	5.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	36	1113	498	69	1179	527	602	316	268	274	575	244
V/C Ratio(X)	0.61	0.36	0.68	0.78	0.41	0.47	0.60	0.59	0.57	0.57	0.58	0.14
Avail Cap(c_a), veh/h	143	1428	639	229	1599	715	1661	872	741	658	1383	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	16.4	18.5	29.5	16.0	16.4	23.8	23.7	23.6	24.3	24.4	22.6
Incr Delay (d2), s/veh	15.5	0.2	1.9	16.9	0.2	0.7	1.0	1.7	1.9	1.9	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.5	2.7	5.2	1.2	3.2	3.4	2.9	3.1	2.5	2.6	2.7	0.5
LnGrp Delay(d),s/veh	45.6	16.6	20.4	46.4	16.2	17.0	24.7	25.5	25.5	26.2	25.3	22.9
LnGrp LOS	D	B	C	D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		761			793			696			525	
Approach Delay, s/veh		19.2			18.5			25.1			25.4	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.5	7.4	24.5		14.6	6.3	25.6
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		29.0	8.0	25.0		23.0	5.0	28.0
Max Q Clear Time (g_c+I1), s		7.8	3.9	13.5		7.2	2.8	9.7
Green Ext Time (p_c), s		2.7	0.0	6.0		2.4	0.0	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	90	690	10	10	190	260	10	120	10	220	120	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	98	750	11	11	207	283	11	130	11	239	130	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	489	0	0	761	0	0	1402	1462	755	1392	1327	348
Stage 1	-	-	-	-	-	-	951	951	-	370	370	-
Stage 2	-	-	-	-	-	-	451	511	-	1022	957	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1074	-	-	851	-	-	117	~ 129	409	~ 119	155	695
Stage 1	-	-	-	-	-	-	312	338	-	650	620	-
Stage 2	-	-	-	-	-	-	588	537	-	285	336	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1074	-	-	851	-	-	-	~ 107	409	-	~ 128	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 107	-	-	~ 128	-
Stage 1	-	-	-	-	-	-	263	285	-	547	608	-
Stage 2	-	-	-	-	-	-	432	527	-	~ 127	283	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1074	-	-	851	-	-	-
HCM Lane V/C Ratio	-	0.091	-	-	0.013	-	-	-
HCM Control Delay (s)	-	8.7	0	-	9.3	0	-	-
HCM Lane LOS	-	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-	0	-	-	-

Notes

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

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	330	120	520	150	10	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	359	130	565	163	11	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	728	0	-	0	1495	647
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	848	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	876	-	-	-	135	471
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	420	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	876	-	-	-	75	471
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	234	-

Approach	EB	WB	SB
HCM Control Delay, s	8.7	0	22.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	876	-	-	-	308
HCM Lane V/C Ratio	0.409	-	-	-	0.353
HCM Control Delay (s)	11.9	0	-	-	22.9
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	2	-	-	-	1.5

Intersection	
Intersection Delay, s/veh	40.5
Intersection LOS	E

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	50	20	0	530	80	0	10	400
Peak Hour Factor	0.95	0.92	0.92	0.95	0.92	0.92	0.95	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	54	22	0	576	87	0	11	435
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10	58.7	18.7
HCM LOS	A	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	2%	0%	87%
Vol Thru, %	0%	71%	13%
Vol Right, %	98%	29%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	410	70	610
LT Vol	10	0	530
Through Vol	0	50	80
RT Vol	400	20	0
Lane Flow Rate	446	76	663
Geometry Grp	1	1	1
Degree of Util (X)	0.672	0.13	1
Departure Headway (Hd)	5.428	6.143	5.536
Convergence, Y/N	Yes	Yes	Yes
Cap	673	590	656
Service Time	3.4	4.113	3.582
HCM Lane V/C Ratio	0.663	0.129	1.011
HCM Control Delay	18.7	10	58.7
HCM Lane LOS	C	A	F
HCM 95th-tile Q	5.2	0.4	15.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	320	70	520	570	430	590
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	348	76	565	620	467	641
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	380	340	652	554	499	1271
Arrive On Green	0.21	0.21	0.35	0.35	0.28	0.68
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863
Grp Volume(v), veh/h	348	76	565	620	467	641
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	18.6	3.8	27.5	34.0	24.9	16.2
Cycle Q Clear(g_c), s	18.6	3.8	27.5	34.0	24.9	16.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	380	340	652	554	499	1271
V/C Ratio(X)	0.91	0.22	0.87	1.12	0.94	0.50
Avail Cap(c_a), veh/h	402	359	652	554	530	1304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	31.5	29.4	31.6	34.1	7.5
Incr Delay (d2), s/veh	24.5	0.3	11.8	75.1	23.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	11.7	1.7	16.3	26.3	15.5	8.3
LnGrp Delay(d),s/veh	61.7	31.8	41.3	106.7	57.8	7.8
LnGrp LOS	E	C	D	F	E	A
Approach Vol, veh/h	424		1185			1108
Approach Delay, s/veh	56.4		75.5			28.9
Approach LOS	E		E			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	32.3	39.0				71.3		25.8
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	29.0	34.0				68.0		22.0
Max Q Clear Time (g_c+I1), s	26.9	36.0				18.2		20.6
Green Ext Time (p_c), s	0.3	0.0				13.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	53.5
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	35.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	510	120	470	510	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	554	130	511	554	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1332	560	565	0	-	0
Stage 1	560	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	170	~ 528	1007	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	139	~ 528	1007	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	374	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	108	1.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1007	-	501	-	-
HCM Lane V/C Ratio	0.13	-	1.128	-	-
HCM Control Delay (s)	9.1	0	108	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.4	-	19.1	-	-

Notes

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	650	360	80	450	590	300
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	707	391	87	489	641	326
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	789	704	112	1469	998	446
Arrive On Green	0.44	0.44	0.06	0.42	0.28	0.28
Sat Flow, veh/h	1774	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	707	391	87	489	641	326
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1770	1770	1583
Q Serve(g_s), s	26.2	13.0	3.4	6.7	11.3	13.3
Cycle Q Clear(g_c), s	26.2	13.0	3.4	6.7	11.3	13.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	789	704	112	1469	998	446
V/C Ratio(X)	0.90	0.56	0.78	0.33	0.64	0.73
Avail Cap(c_a), veh/h	1094	976	174	1785	1190	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	14.6	32.9	14.2	22.5	23.2
Incr Delay (d2), s/veh	7.5	0.7	11.0	0.1	0.9	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	14.4	12.1	2.0	3.3	5.6	6.3
LnGrp Delay(d),s/veh	25.8	15.3	44.0	14.3	23.4	27.3
LnGrp LOS	C	B	D	B	C	C
Approach Vol, veh/h	1098			576	967	
Approach Delay, s/veh	22.1			18.8	24.7	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		34.6		36.7	9.5	25.1		
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		
Max Green Setting (Gmax), s		36.0		44.0	7.0	24.0		
Max Q Clear Time (g_c+I1), s		8.7		28.2	5.4	15.3		
Green Ext Time (p_c), s		8.8		3.5	0.0	4.8		

Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	310	1240	90	370	410	70	40	1380	660	190	780	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	1348	98	402	446	76	43	1500	717	207	848	152
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	731	1488	439	425	673	277	565	1556	667	213	1135	479
Arrive On Green	0.21	0.29	0.28	0.12	0.19	0.18	0.16	0.44	0.42	0.06	0.32	0.30
Sat Flow, veh/h	3442	5085	1575	3442	3539	1570	3442	3539	1578	3442	3539	1576
Grp Volume(v), veh/h	337	1348	98	402	446	76	43	1500	717	207	848	152
Grp Sat Flow(s),veh/h/ln	1721	1695	1575	1721	1770	1570	1721	1770	1578	1721	1770	1576
Q Serve(g_s), s	12.4	37.2	4.6	16.9	17.0	5.1	1.5	60.0	61.6	8.7	31.2	10.8
Cycle Q Clear(g_c), s	12.4	37.2	4.6	16.9	17.0	5.1	1.5	60.0	61.6	8.7	31.2	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	731	1488	439	425	673	277	565	1556	667	213	1135	479
V/C Ratio(X)	0.46	0.91	0.22	0.94	0.66	0.27	0.08	0.96	1.07	0.97	0.75	0.32
Avail Cap(c_a), veh/h	731	1495	441	425	1016	429	565	1556	667	213	1590	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	49.6	17.3	63.3	54.6	36.8	51.5	39.7	42.0	68.2	44.2	39.0
Incr Delay (d2), s/veh	0.2	8.4	0.4	29.7	1.7	0.8	0.0	15.3	56.5	53.6	2.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.0	18.5	2.9	9.8	8.5	2.6	0.7	32.7	37.2	5.7	15.5	4.8
LnGrp Delay(d),s/veh	50.2	58.0	17.7	93.0	56.3	37.5	51.5	55.0	98.5	121.8	46.3	39.7
LnGrp LOS	D	E	B	F	E	D	D	E	F	F	D	D
Approach Vol, veh/h		1783			924			2260			1207	
Approach Delay, s/veh		54.3			70.7			68.7			58.4	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	67.0	21.0	45.6	29.3	49.7	35.9	30.7
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	6.4	6.4	6.0	6.0
Max Green Setting (Gmax), s	8.0	60.6	17.0	39.8	4.2	62.0	16.0	38.8
Max Q Clear Time (g_c+I1), s	10.7	63.6	18.9	39.2	3.5	33.2	14.4	19.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.6	10.1	1.3	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	62.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	1030	880	530	450	90	410	1570	970	120	1210	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	1120	957	576	489	98	446	1707	1054	130	1315	43
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	1147	513	578	1538	688	420	1803	561	208	1037	464
Arrive On Green	0.06	0.32	0.32	0.17	0.43	0.43	0.12	0.35	0.35	0.06	0.29	0.29
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	1583
Grp Volume(v), veh/h	120	1120	957	576	489	98	446	1707	1054	130	1315	43
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1695	1583	1721	1770	1583
Q Serve(g_s), s	4.5	41.0	42.5	21.9	11.9	4.9	16.0	42.8	46.5	4.8	38.4	2.6
Cycle Q Clear(g_c), s	4.5	41.0	42.5	21.9	11.9	4.9	16.0	42.8	46.5	4.8	38.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	1147	513	578	1538	688	420	1803	561	208	1037	464
V/C Ratio(X)	0.61	0.98	1.86	1.00	0.32	0.14	1.06	0.95	1.88	0.63	1.27	0.09
Avail Cap(c_a), veh/h	420	1147	513	578	1538	688	420	1803	561	420	1037	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.3	43.8	44.3	54.5	24.3	22.3	57.6	41.1	42.3	60.1	46.4	33.7
Incr Delay (d2), s/veh	1.1	21.0	396.4	36.7	0.2	0.1	61.3	11.3	401.7	1.2	128.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.2	23.4	75.1	13.3	5.8	2.2	11.2	21.8	82.8	2.3	37.2	1.2
LnGrp Delay(d),s/veh	61.5	64.8	440.7	91.2	24.5	22.5	118.8	52.4	444.0	61.3	174.9	33.9
LnGrp LOS	E	E	F	F	C	C	F	D	F	E	F	C
Approach Vol, veh/h		2197			1163			3207			1488	
Approach Delay, s/veh		228.4			57.4			190.3			160.9	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	49.5	25.0	45.7	19.0	41.4	10.5	60.2
Change Period (Y+Rc), s	4.0	6.4	4.0	5.7	4.0	6.4	4.0	5.7
Max Green Setting (Gmax), s	15.0	32.0	21.0	40.0	15.0	35.0	15.0	42.0
Max Q Clear Time (g_c+I1), s	6.8	48.5	23.9	44.5	18.0	40.4	6.5	13.9
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	0.0	0.1	24.3

Intersection Summary	
HCM 2010 Ctrl Delay	176.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	550	1460	70	180	560	340	160	1200	330	540	1030	650
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	598	1587	76	196	609	370	174	1304	359	587	1120	707
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	1467	70	104	1301	582	104	885	396	209	1093	489
Arrive On Green	0.12	0.43	0.43	0.06	0.37	0.37	0.06	0.25	0.25	0.12	0.31	0.31
Sat Flow, veh/h	1774	3439	164	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	598	813	850	196	609	370	174	1304	359	587	1120	707
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	16.0	58.0	58.0	8.0	17.9	26.2	8.0	34.0	29.9	16.0	42.0	42.0
Cycle Q Clear(g_c), s	16.0	58.0	58.0	8.0	17.9	26.2	8.0	34.0	29.9	16.0	42.0	42.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	755	782	104	1301	582	104	885	396	209	1093	489
V/C Ratio(X)	2.87	1.08	1.09	1.88	0.47	0.64	1.67	1.47	0.91	2.81	1.02	1.45
Avail Cap(c_a), veh/h	209	755	782	104	1301	582	104	885	396	209	1093	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	39.0	39.0	64.0	32.8	35.5	64.0	51.0	49.5	60.0	47.0	47.0
Incr Delay (d2), s/veh	852.4	55.8	58.2	429.2	0.5	3.1	338.5	219.3	24.8	828.8	33.7	212.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	57.2	40.0	42.0	16.4	8.8	11.9	13.7	43.5	15.8	55.9	25.6	47.1
LnGrp Delay(d),s/veh	912.4	94.8	97.2	493.2	33.4	38.5	402.5	270.3	74.3	888.8	80.7	259.0
LnGrp LOS	F	F	F	F	C	D	F	F	E	F	F	F
Approach Vol, veh/h		2261			1175			1837			2414	
Approach Delay, s/veh		311.9			111.7			244.6			329.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	40.0	12.0	64.0	12.0	48.0	20.0	56.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	34.0	8.0	58.0	8.0	42.0	16.0	50.0
Max Q Clear Time (g_c+I1), s	18.0	36.0	10.0	60.0	10.0	44.0	18.0	28.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8

Intersection Summary	
HCM 2010 Ctrl Delay	270.7
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	40	150	30	20	40	10	90	10	30	120	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	43	163	33	22	43	11	98	11	33	130	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	207	0	0	326	277	125	310	337	43
Stage 1	-	-	-	-	-	-	147	147	-	109	109	-
Stage 2	-	-	-	-	-	-	179	130	-	201	228	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1364	-	-	627	631	926	642	584	1027
Stage 1	-	-	-	-	-	-	856	775	-	896	805	-
Stage 2	-	-	-	-	-	-	823	789	-	801	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1364	-	-	498	610	926	543	565	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	498	610	-	543	565	-
Stage 1	-	-	-	-	-	-	849	769	-	889	785	-
Stage 2	-	-	-	-	-	-	662	769	-	685	709	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.6	12.2	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	617	1537	-	-	1364	-	-	577
HCM Lane V/C Ratio	0.194	0.007	-	-	0.024	-	-	0.301
HCM Control Delay (s)	12.2	7.4	0	-	7.7	0	-	13.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	1.3

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	260	120	20	60	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	283	130	22	65	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	152	0	-	0	445	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	304	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1429	-	-	-	571	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1429	-	-	-	566	907
Mov Cap-2 Maneuver	-	-	-	-	566	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	741	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1429	-	-	-	598
HCM Lane V/C Ratio	0.008	-	-	-	0.127
HCM Control Delay (s)	7.5	0	-	-	11.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	30	1290	580	230	550	60
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	33	1402	630	250	598	65
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	47	1765	1441	645	658	588
Arrive On Green	0.03	0.50	0.41	0.41	0.37	0.37
Sat Flow, veh/h	1774	3632	3632	1583	1774	1583
Grp Volume(v), veh/h	33	1402	630	250	598	65
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1583	1774	1583
Q Serve(g_s), s	1.4	25.3	9.9	8.5	24.5	2.1
Cycle Q Clear(g_c), s	1.4	25.3	9.9	8.5	24.5	2.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	47	1765	1441	645	658	588
V/C Ratio(X)	0.71	0.79	0.44	0.39	0.91	0.11
Avail Cap(c_a), veh/h	116	1890	1441	645	901	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	16.0	16.4	16.0	22.9	15.8
Incr Delay (d2), s/veh	17.7	2.3	0.2	0.4	10.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	12.8	4.9	3.7	13.8	2.3
LnGrp Delay(d),s/veh	54.8	18.3	16.6	16.4	33.1	15.9
LnGrp LOS	D	B	B	B	C	B
Approach Vol, veh/h		1435	880		663	
Approach Delay, s/veh		19.1	16.6		31.4	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				43.3		33.5	7.0	36.3
Change Period (Y+Rc), s				5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s				41.0		39.0	5.0	31.0
Max Q Clear Time (g_c+I1), s				27.3		26.5	3.4	11.9
Green Ext Time (p_c), s				11.0		1.9	0.0	14.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	1780	50	340	750	30	50	10	700	90	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	11	1935	54	370	815	33	54	11	761	98	11	11
Adj No. of Lanes	1	2	1	2	2	1	0	1	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	1534	686	421	1928	863	73	8	440	76	5	440
Arrive On Green	0.01	0.43	0.43	0.12	0.54	0.54	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	0	30	1583	0	17	1583
Grp Volume(v), veh/h	11	1935	54	370	815	33	65	0	761	109	0	11
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	30	0	1583	17	0	1583
Q Serve(g_s), s	0.6	39.0	1.8	9.5	12.3	0.9	0.0	0.0	25.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.6	39.0	1.8	9.5	12.3	0.9	25.0	0.0	25.0	25.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	0.83		1.00	0.90		1.00
Lane Grp Cap(c), veh/h	19	1534	686	421	1928	863	82	0	440	81	0	440
V/C Ratio(X)	0.58	1.26	0.08	0.88	0.42	0.04	0.80	0.00	1.73	1.35	0.00	0.03
Avail Cap(c_a), veh/h	217	1534	686	421	1928	863	82	0	440	81	0	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.3	25.5	15.0	38.8	12.1	9.5	41.8	0.0	32.5	43.6	0.0	23.6
Incr Delay (d2), s/veh	25.0	123.2	0.0	18.8	0.1	0.0	40.6	0.0	338.0	220.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	45.2	0.8	5.6	5.9	0.4	2.5	0.0	52.2	6.9	0.0	0.2
LnGrp Delay(d),s/veh	69.4	148.7	15.0	57.7	12.3	9.5	82.3	0.0	370.5	263.8	0.0	23.7
LnGrp LOS	E	F	B	E	B	A	F		F	F		C
Approach Vol, veh/h		2000			1218			826			120	
Approach Delay, s/veh		144.6			26.0			347.9			241.7	
Approach LOS		F			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		30.0	16.0	44.0		30.0	6.0	54.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		25.0	11.0	39.0		25.0	11.0	39.0
Max Q Clear Time (g_c+I1), s		27.0	11.5	41.0		27.0	2.6	14.3
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	153.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	240	440	260	130	450	20	300	270	80	60	510	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	261	478	0	141	489	0	326	293	0	65	554	0
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	939	420	233	798	357	456	1096	490	83	792	354
Arrive On Green	0.11	0.27	0.00	0.07	0.23	0.00	0.13	0.31	0.00	0.05	0.22	0.00
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	261	478	0	141	489	0	326	293	0	65	554	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.7	7.4	0.0	2.6	8.0	0.0	5.8	4.0	0.0	2.3	9.3	0.0
Cycle Q Clear(g_c), s	4.7	7.4	0.0	2.6	8.0	0.0	5.8	4.0	0.0	2.3	9.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	370	939	420	233	798	357	456	1096	490	83	792	354
V/C Ratio(X)	0.70	0.51	0.00	0.60	0.61	0.00	0.71	0.27	0.00	0.78	0.70	0.00
Avail Cap(c_a), veh/h	535	1099	492	535	1099	492	535	1374	615	276	1374	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.7	20.1	0.0	29.2	22.4	0.0	26.8	16.7	0.0	30.4	23.0	0.0
Incr Delay (d2), s/veh	2.5	0.4	0.0	2.5	0.8	0.0	3.7	0.1	0.0	14.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.4	3.6	0.0	1.3	4.0	0.0	3.0	2.0	0.0	1.5	4.7	0.0
LnGrp Delay(d),s/veh	30.2	20.5	0.0	31.7	23.2	0.0	30.5	16.9	0.0	45.1	24.1	0.0
LnGrp LOS	C	C		C	C		C	B		D	C	
Approach Vol, veh/h		739			630			619			619	
Approach Delay, s/veh		23.9			25.1			24.0			26.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	24.9	9.4	22.1	13.5	19.4	11.9	19.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	25.0	10.0	20.0	10.0	25.0	10.0	20.0
Max Q Clear Time (g_c+I1), s	4.3	6.0	4.6	9.4	7.8	11.3	6.7	10.0
Green Ext Time (p_c), s	0.0	3.0	0.2	4.7	0.7	3.1	0.3	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	70	310	180	120	60	150	560	130	40	700	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	76	76	337	196	130	65	163	609	141	43	761	141
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	409	367	312	236	186	158	201	798	184	256	925	171
Arrive On Green	0.23	0.20	0.20	0.13	0.10	0.10	0.11	0.28	0.28	0.14	0.31	0.31
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2856	660	1774	2982	552
Grp Volume(v), veh/h	76	76	337	196	130	65	163	377	373	43	451	451
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1746	1774	1770	1765
Q Serve(g_s), s	2.8	2.8	16.0	8.7	5.5	3.1	7.3	15.8	15.9	1.7	19.2	19.2
Cycle Q Clear(g_c), s	2.8	2.8	16.0	8.7	5.5	3.1	7.3	15.8	15.9	1.7	19.2	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.31
Lane Grp Cap(c), veh/h	409	367	312	236	186	158	201	494	488	256	549	548
V/C Ratio(X)	0.19	0.21	1.08	0.83	0.70	0.41	0.81	0.76	0.76	0.17	0.82	0.82
Avail Cap(c_a), veh/h	409	367	312	328	505	429	284	828	817	256	676	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	27.3	32.6	34.3	35.4	34.3	35.2	26.8	26.8	30.5	25.9	25.9
Incr Delay (d2), s/veh	0.2	0.3	73.9	11.9	4.7	1.7	11.3	2.5	2.5	0.3	6.7	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.4	1.4	13.4	5.1	3.1	1.4	4.2	8.1	8.0	0.9	10.3	10.3
LnGrp Delay(d),s/veh	25.3	27.6	106.5	46.2	40.1	36.0	46.5	29.3	29.3	30.8	32.6	32.7
LnGrp LOS	C	C	F	D	D	D	D	C	C	C	C	C
Approach Vol, veh/h		489			391			913			945	
Approach Delay, s/veh		81.6			42.5			32.4			32.6	
Approach LOS		F			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	27.7	15.8	21.0	14.2	30.2	23.7	13.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	38.0	15.0	16.0	13.0	31.0	9.0	22.0
Max Q Clear Time (g_c+I1), s	3.7	17.9	10.7	18.0	9.3	21.2	4.8	7.5
Green Ext Time (p_c), s	1.3	4.8	0.2	0.0	0.1	4.0	0.8	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	42.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	220	60	620	260	40	50	620	240	80	830	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	105	232	63	653	274	42	53	653	253	84	874	211
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	414	185	836	1002	448	71	929	416	169	1125	503
Arrive On Green	0.08	0.12	0.12	0.24	0.28	0.28	0.04	0.26	0.26	0.10	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	105	232	63	653	274	42	53	653	253	84	874	211
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.3	3.5	1.6	10.0	3.4	0.7	1.7	9.5	7.9	2.5	12.7	5.9
Cycle Q Clear(g_c), s	3.3	3.5	1.6	10.0	3.4	0.7	1.7	9.5	7.9	2.5	12.7	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	414	185	836	1002	448	71	929	416	169	1125	503
V/C Ratio(X)	0.77	0.56	0.34	0.78	0.27	0.09	0.75	0.70	0.61	0.50	0.78	0.42
Avail Cap(c_a), veh/h	313	1062	475	972	1437	643	153	1312	587	169	1318	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	23.6	14.5	20.0	15.8	6.7	26.9	18.9	18.3	24.3	17.5	15.2
Incr Delay (d2), s/veh	8.9	1.2	1.1	3.6	0.1	0.1	14.4	1.0	1.4	2.3	2.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.9	1.8	0.9	5.1	1.7	0.5	1.1	4.8	3.6	1.3	6.6	2.6
LnGrp Delay(d),s/veh	34.5	24.8	15.6	23.6	15.9	6.8	41.4	19.9	19.8	26.6	20.1	15.8
LnGrp LOS	C	C	B	C	B	A	D	B	B	C	C	B
Approach Vol, veh/h		400			969			959			1169	
Approach Delay, s/veh		25.9			20.7			21.0			19.8	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	18.9	17.8	10.6	6.3	22.0	8.3	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	21.0	16.0	17.0	4.9	21.1	10.0	23.0
Max Q Clear Time (g_c+I1), s	4.5	11.5	12.0	5.5	3.7	14.7	5.3	5.4
Green Ext Time (p_c), s	0.3	3.4	1.7	1.2	0.0	3.3	0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	60	200	100	70	10	160	580	70	10	870	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	54	65	217	109	76	11	174	630	76	11	946	43
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	72	239	148	302	44	153	732	622	282	823	37
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.09	0.39	0.39	0.16	0.47	0.47
Sat Flow, veh/h	1305	378	1262	1093	1592	230	1774	1863	1583	1774	1768	80
Grp Volume(v), veh/h	54	0	282	109	0	87	174	630	76	11	0	989
Grp Sat Flow(s),veh/h/ln	1305	0	1640	1093	0	1822	1774	1863	1583	1774	0	1849
Q Serve(g_s), s	2.1	0.0	9.8	1.2	0.0	2.4	5.0	18.0	1.8	0.3	0.0	27.0
Cycle Q Clear(g_c), s	4.5	0.0	9.8	11.0	0.0	2.4	5.0	18.0	1.8	0.3	0.0	27.0
Prop In Lane	1.00		0.77	1.00		0.13	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	319	0	311	148	0	346	153	732	622	282	0	861
V/C Ratio(X)	0.17	0.00	0.91	0.74	0.00	0.25	1.14	0.86	0.12	0.04	0.00	1.15
Avail Cap(c_a), veh/h	319	0	311	148	0	346	153	899	764	282	0	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	23.0	28.9	0.0	20.0	26.5	16.1	11.2	20.7	0.0	15.5
Incr Delay (d2), s/veh	0.2	0.0	28.6	17.7	0.0	0.4	114.6	7.2	0.1	0.1	0.0	80.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	6.9	2.5	0.0	1.2	7.3	10.6	0.8	0.2	0.0	32.9
LnGrp Delay(d),s/veh	22.2	0.0	51.6	46.6	0.0	20.4	141.1	23.4	11.3	20.7	0.0	96.1
LnGrp LOS	C		D	D		C	F	C	B	C		F
Approach Vol, veh/h		336			196			880			1000	
Approach Delay, s/veh		46.8			35.0			45.6			95.3	
Approach LOS		D			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.2	27.8		16.0	10.0	32.0		16.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	4.0	28.0		11.0	5.0	27.0		11.0
Max Q Clear Time (g_c+I1), s	2.3	20.0		11.8	7.0	29.0		13.0
Green Ext Time (p_c), s	1.2	2.8		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		65.5
HCM 2010 LOS		E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	5	5	130	5	130	5	640	150	130	850	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	5	5	5	141	5	141	5	696	163	141	924	5
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	80	49	283	8	291	9	740	173	157	1092	6
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.51	0.51	0.09	0.59	0.59
Sat Flow, veh/h	92	438	265	975	45	1583	1774	1460	342	1774	1851	10
Grp Volume(v), veh/h	15	0	0	146	0	141	5	0	859	141	0	929
Grp Sat Flow(s),veh/h/ln	795	0	0	1020	0	1583	1774	0	1802	1774	0	1861
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	5.4	0.2	0.0	30.5	5.3	0.0	27.8
Cycle Q Clear(g_c), s	10.3	0.0	0.0	10.3	0.0	5.4	0.2	0.0	30.5	5.3	0.0	27.8
Prop In Lane	0.33		0.33	0.97		1.00	1.00		0.19	1.00		0.01
Lane Grp Cap(c), veh/h	217	0	0	292	0	291	9	0	914	157	0	1098
V/C Ratio(X)	0.07	0.00	0.00	0.50	0.00	0.48	0.53	0.00	0.94	0.90	0.00	0.85
Avail Cap(c_a), veh/h	273	0	0	344	0	350	105	0	956	157	0	1098
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	0.0	26.8	0.0	24.8	33.7	0.0	15.8	30.7	0.0	11.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.3	0.0	1.2	39.7	0.0	16.2	43.9	0.0	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	0.0	2.7	0.0	2.5	0.2	0.0	19.2	4.5	0.0	15.8
LnGrp Delay(d),s/veh	23.3	0.0	0.0	28.1	0.0	26.1	73.4	0.0	32.0	74.6	0.0	17.7
LnGrp LOS	C			C		C	E		C	E		B
Approach Vol, veh/h		15			287			864			1070	
Approach Delay, s/veh		23.3			27.1			32.3			25.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	39.4		17.5	5.4	45.1		17.5
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	6.0	36.0		15.0	4.0	38.0		15.0
Max Q Clear Time (g_c+I1), s	7.3	32.5		12.3	2.2	29.8		12.3
Green Ext Time (p_c), s	0.0	2.0		0.4	0.0	4.5		0.4

Intersection Summary		
HCM 2010 Ctrl Delay		28.1
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	190	200	190	280	50	110	150	200	30	430	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	33	207	217	207	304	54	120	163	217	33	467	65
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	337	286	300	239	639	544	145	196	261	250	528	73
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.08	0.27	0.27	0.14	0.33	0.33
Sat Flow, veh/h	1019	834	874	959	1863	1583	1774	726	966	1774	1601	223
Grp Volume(v), veh/h	33	0	424	207	304	54	120	0	380	33	0	532
Grp Sat Flow(s),veh/h/ln	1019	0	1708	959	1863	1583	1774	0	1692	1774	0	1823
Q Serve(g_s), s	1.6	0.0	13.3	7.7	7.8	1.4	4.1	0.0	12.9	1.0	0.0	16.9
Cycle Q Clear(g_c), s	9.4	0.0	13.3	21.0	7.8	1.4	4.1	0.0	12.9	1.0	0.0	16.9
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.57	1.00		0.12
Lane Grp Cap(c), veh/h	337	0	586	239	639	544	145	0	458	250	0	601
V/C Ratio(X)	0.10	0.00	0.72	0.87	0.48	0.10	0.83	0.00	0.83	0.13	0.00	0.88
Avail Cap(c_a), veh/h	337	0	586	239	639	544	145	0	664	250	0	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	0.0	17.5	28.3	15.8	13.7	27.7	0.0	21.0	23.0	0.0	19.4
Incr Delay (d2), s/veh	0.1	0.0	4.4	26.6	0.5	0.1	31.1	0.0	5.9	0.2	0.0	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.5	0.0	7.0	5.2	4.1	0.6	3.3	0.0	6.8	0.5	0.0	10.4
LnGrp Delay(d),s/veh	19.6	0.0	21.9	55.0	16.3	13.7	58.7	0.0	26.9	23.2	0.0	31.5
LnGrp LOS	B		C	D	B	B	E		C	C		C
Approach Vol, veh/h		457			565			500			565	
Approach Delay, s/veh		21.8			30.2			34.5			31.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.6	21.5		26.0	10.0	25.2		26.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	4.0	24.0		21.0	5.0	23.0		21.0
Max Q Clear Time (g_c+I1), s	3.0	14.9		15.3	6.1	18.9		23.0
Green Ext Time (p_c), s	0.4	1.6		2.9	0.0	1.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	24.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	50	340	0	0	70	720	0	0	10	20	120
Peak Hour Factor	0.73	0.92	0.92	0.92	0.73	0.92	0.92	0.92	0.73	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	54	370	0	0	76	783	0	0	11	22	130
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	3	3
HCM Control Delay	16.2	32.2	17.4
HCM LOS	C	D	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	7%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	13%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	80%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	50	170	170	70	360	360	210	20	80
LT Vol	10	50	0	0	70	0	0	210	0	0
Through Vol	20	0	170	170	0	360	360	0	20	0
RT Vol	120	0	0	0	0	0	0	0	0	80
Lane Flow Rate	163	54	185	185	76	391	391	228	22	87
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.401	0.143	0.459	0.367	0.182	0.881	0.676	0.557	0.05	0.183
Departure Headway (Hd)	8.853	9.468	8.951	7.158	8.616	8.102	6.348	8.92	8.409	7.693
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	380	405	504	418	450	571	406	428	470
Service Time	6.584	7.195	6.678	4.885	6.346	5.832	4.048	6.62	6.109	5.393
HCM Lane V/C Ratio	0.4	0.142	0.457	0.367	0.182	0.869	0.685	0.562	0.051	0.185
HCM Control Delay	17.4	13.8	19.1	14	13.3	46.8	21.3	22.3	11.6	12.1
HCM Lane LOS	C	B	C	B	B	E	C	C	B	B
HCM 95th-tile Q	1.9	0.5	2.3	1.7	0.7	9.2	5.1	3.3	0.2	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	210	20	80
Peak Hour Factor	0.73	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	228	22	87
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	19
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	70	280	0	0	20	700	0	0	40	10	20
Peak Hour Factor	0.82	0.92	0.92	0.92	0.82	0.92	0.92	0.92	0.82	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	76	304	0	0	22	761	0	0	43	11	22
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	10.4	15	11.8
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	57%	100%	0%	0%	100%	0%	0%	54%
Vol Thru, %	14%	0%	100%	100%	0%	100%	100%	3%
Vol Right, %	29%	0%	0%	0%	0%	0%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	70	140	140	20	350	350	185
LT Vol	40	70	0	0	20	0	0	100
Through Vol	10	0	140	140	0	350	350	5
RT Vol	20	0	0	0	0	0	0	80
Lane Flow Rate	76	76	152	152	22	380	380	201
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.159	0.149	0.276	0.201	0.04	0.645	0.458	0.395
Departure Headway (Hd)	7.524	7.033	6.522	4.751	6.609	6.1	4.334	7.071
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	474	508	548	747	540	590	826	507
Service Time	5.318	4.813	4.302	2.53	4.376	3.867	2.1	4.847
HCM Lane V/C Ratio	0.16	0.15	0.277	0.203	0.041	0.644	0.46	0.396
HCM Control Delay	11.8	11.1	11.8	8.7	9.7	19.4	10.8	14.4
HCM Lane LOS	B	B	B	A	A	C	B	B
HCM 95th-tile Q	0.6	0.5	1.1	0.7	0.1	4.6	2.4	1.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	100	5	80
Peak Hour Factor	0.82	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	109	5	87
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	14.4
HCM LOS	B

Lane

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	350	20	950	220	40	1580
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	380	22	1033	239	43	1717
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	665	306	2533	789	179	2196
Arrive On Green	0.19	0.19	0.50	0.50	0.05	0.62
Sat Flow, veh/h	3442	1583	5253	1583	3442	3632
Grp Volume(v), veh/h	380	22	1033	239	43	1717
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1721	1770
Q Serve(g_s), s	5.7	0.6	7.3	5.1	0.7	20.3
Cycle Q Clear(g_c), s	5.7	0.6	7.3	5.1	0.7	20.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	665	306	2533	789	179	2196
V/C Ratio(X)	0.57	0.07	0.41	0.30	0.24	0.78
Avail Cap(c_a), veh/h	1477	679	6796	2116	363	5352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	18.8	9.0	8.4	25.9	8.0
Incr Delay (d2), s/veh	1.7	0.2	0.0	0.1	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.8	0.3	3.4	2.2	0.4	9.8
LnGrp Delay(d),s/veh	22.5	19.0	9.0	8.5	27.3	8.2
LnGrp LOS	C	B	A	A	C	A
Approach Vol, veh/h	402		1272			1760
Approach Delay, s/veh	22.3		8.9			8.7
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.0	34.3				41.3		15.6
Change Period (Y+Rc), s	4.0	6.0				6.0		4.6
Max Green Setting (Gmax), s	6.0	76.0				86.0		24.4
Max Q Clear Time (g_c+I1), s	2.7	9.3				22.3		7.7
Green Ext Time (p_c), s	0.0	13.0				12.9		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	580	180	310	160	680	640
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	586	182	313	162	687	646
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	611	546	347	1010	743	632
Arrive On Green	0.34	0.34	0.10	0.54	0.40	0.40
Sat Flow, veh/h	1774	1583	3442	1863	1863	1583
Grp Volume(v), veh/h	586	182	313	162	687	646
Grp Sat Flow(s),veh/h/ln	1774	1583	1721	1863	1863	1583
Q Serve(g_s), s	34.3	9.0	9.5	4.6	37.2	42.3
Cycle Q Clear(g_c), s	34.3	9.0	9.5	4.6	37.2	42.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	611	546	347	1010	743	632
V/C Ratio(X)	0.96	0.33	0.90	0.16	0.92	1.02
Avail Cap(c_a), veh/h	619	552	347	1010	743	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	25.7	47.1	12.2	30.4	31.9
Incr Delay (d2), s/veh	26.0	0.4	25.4	0.2	17.9	41.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	21.2	0.1	5.7	2.4	22.8	25.7
LnGrp Delay(d),s/veh	60.1	26.1	72.6	12.3	48.2	73.6
LnGrp LOS	E	C	E	B	D	F
Approach Vol, veh/h	768			475	1333	
Approach Delay, s/veh	52.0			52.0	60.5	
Approach LOS	D			D	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		63.5		42.5	15.2	48.3		
Change Period (Y+Rc), s		6.0		6.0	4.5	6.0		
Max Green Setting (Gmax), s		57.5		37.0	10.7	42.3		
Max Q Clear Time (g_c+I1), s		6.6		36.3	11.5	44.3		
Green Ext Time (p_c), s		27.0		0.3	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	56.4
HCM 2010 LOS	E

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	1150	580	300	250	270	690
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1211	611	316	0	284	726
Adj No. of Lanes	2	1	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1615	743	709	317	389	1366
Arrive On Green	0.47	0.47	0.20	0.00	0.11	0.39
Sat Flow, veh/h	3442	1583	3632	1583	3442	3632
Grp Volume(v), veh/h	1211	611	316	0	284	726
Grp Sat Flow(s),veh/h/ln	1721	1583	1770	1583	1721	1770
Q Serve(g_s), s	19.9	23.0	5.4	0.0	5.5	10.9
Cycle Q Clear(g_c), s	19.9	23.0	5.4	0.0	5.5	10.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1615	743	709	317	389	1366
V/C Ratio(X)	0.75	0.82	0.45	0.00	0.73	0.53
Avail Cap(c_a), veh/h	2046	941	1180	528	549	2001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	15.8	24.2	0.0	29.6	16.4
Incr Delay (d2), s/veh	1.2	4.8	0.4	0.0	3.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	9.7	10.9	2.7	0.0	2.8	5.4
LnGrp Delay(d),s/veh	16.2	20.6	24.7	0.0	32.5	16.7
LnGrp LOS	B	C	C		C	B
Approach Vol, veh/h	1822		316			1010
Approach Delay, s/veh	17.7		24.7			21.1
Approach LOS	B		C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.8	18.8				31.6		37.4
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	11.0	23.0				39.0		41.0
Max Q Clear Time (g_c+I1), s	7.5	7.4				12.9		25.0
Green Ext Time (p_c), s	0.3	6.4				8.0		7.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	70	30	60	340	410	160	740	50	250	1150	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	93	72	29	62	351	423	165	763	41	258	1186	9
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	603	512	438	603	657	192	1526	682	317	1470	656
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.11	0.43	0.43	0.09	0.42	0.42
Sat Flow, veh/h	693	1863	1580	1286	1863	1580	1774	3539	1581	3442	3539	1580
Grp Volume(v), veh/h	93	72	29	62	351	423	165	763	41	258	1186	9
Grp Sat Flow(s),veh/h/ln	693	1863	1580	1286	1863	1580	1774	1770	1581	1721	1770	1580
Q Serve(g_s), s	16.5	3.5	1.6	4.6	20.1	27.3	11.7	20.0	1.9	9.4	37.7	0.4
Cycle Q Clear(g_c), s	36.6	3.5	1.6	8.0	20.1	27.3	11.7	20.0	1.9	9.4	37.7	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	172	603	512	438	603	657	192	1526	682	317	1470	656
V/C Ratio(X)	0.54	0.12	0.06	0.14	0.58	0.64	0.86	0.50	0.06	0.81	0.81	0.01
Avail Cap(c_a), veh/h	230	759	644	546	759	790	377	2032	908	761	2062	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	30.5	29.8	33.3	36.1	29.8	56.2	26.4	21.3	57.0	32.9	22.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.1	0.3	0.7	4.4	0.2	0.0	1.9	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.2	1.8	0.7	1.6	10.4	12.0	6.0	9.8	0.8	4.6	18.7	0.2
LnGrp Delay(d),s/veh	52.3	30.5	29.8	33.3	36.4	30.5	60.5	26.6	21.3	59.0	34.4	22.0
LnGrp LOS	D	C	C	C	D	C	E	C	C	E	C	C
Approach Vol, veh/h		194			836			969			1453	
Approach Delay, s/veh		40.9			33.2			32.2			38.7	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.6	63.2		47.2	19.6	61.2		47.2
Change Period (Y+Rc), s	5.8	8.0		5.8	5.8	8.0		5.8
Max Green Setting (Gmax), s	28.3	73.5		52.2	27.2	74.6		52.2
Max Q Clear Time (g_c+I1), s	11.4	22.0		38.6	13.7	39.7		29.3
Green Ext Time (p_c), s	0.4	14.8		2.6	0.2	13.4		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	170	60	200	200	140	320	700	50	60	1000	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	113	175	62	206	206	144	330	722	50	62	1031	185
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	547	782	310	547	579	356	1637	731	129	1184	528
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.20	0.46	0.46	0.07	0.33	0.33
Sat Flow, veh/h	1026	1863	1580	1137	1863	1580	1774	3539	1580	1774	3539	1579
Grp Volume(v), veh/h	113	175	62	206	206	144	330	722	50	62	1031	185
Grp Sat Flow(s),veh/h/ln	1026	1863	1580	1137	1863	1580	1774	1770	1580	1774	1770	1579
Q Serve(g_s), s	11.8	8.8	2.5	20.7	10.6	7.6	22.0	16.6	2.1	4.0	32.9	10.6
Cycle Q Clear(g_c), s	22.4	8.8	2.5	29.5	10.6	7.6	22.0	16.6	2.1	4.0	32.9	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	271	547	782	310	547	579	356	1637	731	129	1184	528
V/C Ratio(X)	0.42	0.32	0.08	0.66	0.38	0.25	0.93	0.44	0.07	0.48	0.87	0.35
Avail Cap(c_a), veh/h	345	682	896	402	697	706	401	1754	783	153	1260	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	33.1	16.0	44.6	33.7	26.6	47.2	21.8	17.9	53.6	37.6	30.2
Incr Delay (d2), s/veh	0.8	0.2	0.0	2.0	0.3	0.2	24.7	0.1	0.0	1.0	6.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.4	4.6	1.1	6.7	5.5	3.4	13.2	8.2	0.9	2.0	17.1	4.7
LnGrp Delay(d),s/veh	43.4	33.4	16.0	46.7	34.0	26.7	71.9	22.0	18.0	54.6	44.0	30.5
LnGrp LOS	D	C	B	D	C	C	E	C	B	D	D	C
Approach Vol, veh/h		350			556			1102			1278	
Approach Delay, s/veh		33.5			36.8			36.7			42.6	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.5	63.6		42.1	29.9	48.2		42.1
Change Period (Y+Rc), s	5.8	8.0		6.8	5.8	8.0		* 6.8
Max Green Setting (Gmax), s	10.4	59.6		44.0	27.2	42.8		* 45
Max Q Clear Time (g_c+I1), s	6.0	18.6		24.4	24.0	34.9		31.5
Green Ext Time (p_c), s	0.0	12.8		3.5	0.2	5.3		3.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	1130	50	10	1020	710	20	110	10	950	270	30
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	82	1165	47	10	1052	638	21	113	8	979	278	24
Adj No. of Lanes	2	2	1	2	2	1	2	1	1	2	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	1459	652	78	1318	1066	132	187	158	1039	678	575
Arrive On Green	0.06	0.41	0.41	0.02	0.37	0.37	0.04	0.10	0.10	0.30	0.36	0.36
Sat Flow, veh/h	3442	3539	1581	3442	3539	1581	3442	1863	1574	3442	1863	1581
Grp Volume(v), veh/h	82	1165	47	10	1052	638	21	113	8	979	278	24
Grp Sat Flow(s),veh/h/ln	1721	1770	1581	1721	1770	1581	1721	1863	1574	1721	1863	1581
Q Serve(g_s), s	3.6	44.9	2.8	0.4	41.4	34.4	0.9	9.0	0.7	43.2	17.4	1.5
Cycle Q Clear(g_c), s	3.6	44.9	2.8	0.4	41.4	34.4	0.9	9.0	0.7	43.2	17.4	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	1459	652	78	1318	1066	132	187	158	1039	678	575
V/C Ratio(X)	0.38	0.80	0.07	0.13	0.80	0.60	0.16	0.60	0.05	0.94	0.41	0.04
Avail Cap(c_a), veh/h	221	1472	658	221	1472	1135	221	526	445	1220	1067	905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.2	40.1	27.7	74.6	43.7	13.9	72.5	67.1	63.3	53.1	37.0	32.0
Incr Delay (d2), s/veh	0.4	3.1	0.0	0.3	2.7	0.7	0.2	2.3	0.1	12.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	22.6	1.2	0.2	20.7	15.0	0.4	4.8	0.3	22.3	9.0	0.7
LnGrp Delay(d),s/veh	70.6	43.2	27.8	74.9	46.4	14.5	72.7	69.4	63.4	65.4	37.3	32.0
LnGrp LOS	E	D	C	E	D	B	E	E	E	E	D	C
Approach Vol, veh/h		1294			1700			142			1281	
Approach Delay, s/veh		44.4			34.6			69.6			58.7	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	66.0	52.8	21.4	9.3	72.2	11.8	62.5
Change Period (Y+Rc), s	5.8	8.0	5.8	5.8	5.8	8.0	5.8	5.8
Max Green Setting (Gmax), s	10.0	64.8	55.2	44.0	10.0	64.8	10.0	89.2
Max Q Clear Time (g_c+I1), s	5.6	43.4	45.2	11.0	2.4	46.9	2.9	19.4
Green Ext Time (p_c), s	0.0	14.7	1.8	2.0	0.0	12.8	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	930	500	0	2200	390	0	0	0	300	0	200
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	0	1863	1863				1900	1863	1863
Adj Flow Rate, veh/h	0	969	521	0	2292	0				312	0	208
Adj No. of Lanes	0	2	0	0	3	1				0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	1511	792	0	3422	1065				373	0	332
Arrive On Green	0.00	0.67	0.67	0.00	0.67	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	2339	1177	0	5253	1583				1774	0	1579
Grp Volume(v), veh/h	0	758	732	0	2292	0				312	0	208
Grp Sat Flow(s),veh/h/ln	0	1770	1654	0	1695	1583				1774	0	1579
Q Serve(g_s), s	0.0	19.1	20.2	0.0	20.9	0.0				13.1	0.0	9.3
Cycle Q Clear(g_c), s	0.0	19.1	20.2	0.0	20.9	0.0				13.1	0.0	9.3
Prop In Lane	0.00		0.71	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1191	1113	0	3422	1065				373	0	332
V/C Ratio(X)	0.00	0.64	0.66	0.00	0.67	0.00				0.84	0.00	0.63
Avail Cap(c_a), veh/h	0	1207	1128	0	3470	1080				610	0	543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.3	7.5	0.0	7.6	0.0				29.5	0.0	28.0
Incr Delay (d2), s/veh	0.0	1.2	1.5	0.0	0.5	0.0				2.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	9.7	9.6	0.0	9.7	0.0				6.7	0.0	4.1
LnGrp Delay(d),s/veh	0.0	8.5	9.0	0.0	8.1	0.0				31.9	0.0	28.7
LnGrp LOS		A	A		A					C		C
Approach Vol, veh/h		1490			2292						520	
Approach Delay, s/veh		8.7			8.1						30.6	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		57.4		20.6		57.4		
Change Period (Y+Rc), s		4.9		* 4.2		4.9		
Max Green Setting (Gmax), s		53.2		* 27		53.2		
Max Q Clear Time (g_c+I1), s		22.2		15.1		22.9		
Green Ext Time (p_c), s		30.2		1.3		29.5		

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	1180	0	0	1460	350	1130	0	760	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	53	1242	0	0	1537	0	1189	0	800			
Adj No. of Lanes	1	2	0	0	3	1	2	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	129	1811	0	0	2036	634	1416	0	1262			
Arrive On Green	0.07	0.51	0.00	0.00	0.40	0.00	0.40	0.00	0.40			
Sat Flow, veh/h	1774	3632	0	0	5253	1583	3548	0	3162			
Grp Volume(v), veh/h	53	1242	0	0	1537	0	1189	0	800			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1695	1583	1774	0	1581			
Q Serve(g_s), s	3.1	29.0	0.0	0.0	28.5	0.0	33.2	0.0	22.3			
Cycle Q Clear(g_c), s	3.1	29.0	0.0	0.0	28.5	0.0	33.2	0.0	22.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	129	1811	0	0	2036	634	1416	0	1262			
V/C Ratio(X)	0.41	0.69	0.00	0.00	0.75	0.00	0.84	0.00	0.63			
Avail Cap(c_a), veh/h	162	1905	0	0	2080	648	1781	0	1587			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	48.6	20.2	0.0	0.0	28.3	0.0	29.8	0.0	26.5			
Incr Delay (d2), s/veh	0.8	1.1	0.0	0.0	1.7	0.0	3.1	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	1.6	14.4	0.0	0.0	13.7	0.0	16.8	0.0	9.9			
LnGrp Delay(d),s/veh	49.4	21.2	0.0	0.0	29.9	0.0	32.9	0.0	27.1			
LnGrp LOS	D	C			C		C		C			
Approach Vol, veh/h		1295			1537			1989				
Approach Delay, s/veh		22.4			29.9			30.5				
Approach LOS		C			C			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		61.1			12.2	48.9		48.7
Change Period (Y+Rc), s		4.9			* 4.2	4.9		4.9
Max Green Setting (Gmax), s		59.1			* 10	44.9		55.1
Max Q Clear Time (g_c+I1), s		31.0			5.1	30.5		35.2
Green Ext Time (p_c), s		25.0			0.0	13.4		8.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	200	760	920	460	0	0
Number	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863		
Adj Flow Rate, veh/h	213	809	979	489		
Adj No. of Lanes	2	0	2	1		
Peak Hour Factor	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	881	787	1151	1688		
Arrive On Green	0.50	0.50	0.33	0.91		
Sat Flow, veh/h	1863	1580	3442	1863		
Grp Volume(v), veh/h	213	809	979	489		
Grp Sat Flow(s),veh/h/ln	1770	1580	1721	1863		
Q Serve(g_s), s	3.9	28.2	15.0	1.9		
Cycle Q Clear(g_c), s	3.9	28.2	15.0	1.9		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	881	787	1151	1688		
V/C Ratio(X)	0.24	1.03	0.85	0.29		
Avail Cap(c_a), veh/h	881	787	4362	3426		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.1	14.2	17.5	0.3		
Incr Delay (d2), s/veh	0.1	39.6	0.7	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.9	20.7	7.2	0.8		
LnGrp Delay(d),s/veh	8.2	53.8	18.2	0.4		
LnGrp LOS	A	F	B	A		
Approach Vol, veh/h	1022			1468		
Approach Delay, s/veh	44.3			12.3		
Approach LOS	D			B		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	23.1	33.5				56.6		
Change Period (Y+Rc), s	* 4.2	5.3				5.3		
Max Green Setting (Gmax), s	* 72	28.2				104.2		
Max Q Clear Time (g_c+I1), s	17.0	30.2				3.9		
Green Ext Time (p_c), s	2.0	0.0				8.1		

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	1580	200	0	0	1370
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	11	0	213	0	0	1457
Adj No. of Lanes	1	2	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	42	65	2293	0	0	2293
Arrive On Green	0.02	0.00	0.65	0.00	0.00	0.65
Sat Flow, veh/h	1774	2787	3725	0	0	3725
Grp Volume(v), veh/h	11	0	213	0	0	1457
Grp Sat Flow(s),veh/h/ln	1774	1393	1770	0	0	1770
Q Serve(g_s), s	0.2	0.0	0.7	0.0	0.0	7.1
Cycle Q Clear(g_c), s	0.2	0.0	0.7	0.0	0.0	7.1
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	42	65	2293	0	0	2293
V/C Ratio(X)	0.27	0.00	0.09	0.00	0.00	0.64
Avail Cap(c_a), veh/h	1842	2894	6126	0	0	6126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	1.9	0.0	0.0	3.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	0.3	0.0	0.0	3.3
LnGrp Delay(d),s/veh	15.1	0.0	1.9	0.0	0.0	3.2
LnGrp LOS	B		A			A
Approach Vol, veh/h	11		213			1457
Approach Delay, s/veh	15.1		1.9			3.2
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		24.0				24.0		4.9
Change Period (Y+Rc), s		5.3				5.3		4.2
Max Green Setting (Gmax), s		50.0				50.0		30.0
Max Q Clear Time (g_c+I1), s		2.7				9.1		2.2
Green Ext Time (p_c), s		9.8				9.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	3.1
HCM 2010 LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	440	1590	430	400	380	290
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	458	1656	448	0	396	302
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	519	2080	855	382	474	423
Arrive On Green	0.29	0.59	0.24	0.00	0.27	0.27
Sat Flow, veh/h	1774	3632	3632	1583	1774	1583
Grp Volume(v), veh/h	458	1656	448	0	396	302
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1583	1774	1583
Q Serve(g_s), s	16.0	23.5	7.1	0.0	13.6	11.2
Cycle Q Clear(g_c), s	16.0	23.5	7.1	0.0	13.6	11.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	519	2080	855	382	474	423
V/C Ratio(X)	0.88	0.80	0.52	0.00	0.84	0.71
Avail Cap(c_a), veh/h	1082	3747	1398	626	956	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	10.3	21.3	0.0	22.4	21.5
Incr Delay (d2), s/veh	2.0	0.3	0.2	0.0	1.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.1	11.3	3.5	0.0	6.8	9.5
LnGrp Delay(d),s/veh	23.9	10.6	21.5	0.0	23.9	22.4
LnGrp LOS	C	B	C		C	C
Approach Vol, veh/h		2114	448		698	
Approach Delay, s/veh		13.5	21.5		23.2	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		43.4		21.4	22.4	20.9		
Change Period (Y+Rc), s		5.3		4.1	3.5	5.3		
Max Green Setting (Gmax), s		68.6		34.9	39.5	25.6		
Max Q Clear Time (g_c+I1), s		25.5		15.6	18.0	9.1		
Green Ext Time (p_c), s		8.1		1.7	1.0	6.5		

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	930	1040	0	0	660	240	170	0	640	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	1011	1130	0	0	717	0	185	0	0			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	895	2745	0	0	828	371	221	232	197			
Arrive On Green	0.50	0.78	0.00	0.00	0.23	0.00	0.12	0.00	0.00			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	1863	1583			
Grp Volume(v), veh/h	1011	1130	0	0	717	0	185	0	0			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	1863	1583			
Q Serve(g_s), s	47.5	9.9	0.0	0.0	18.3	0.0	9.6	0.0	0.0			
Cycle Q Clear(g_c), s	47.5	9.9	0.0	0.0	18.3	0.0	9.6	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	895	2745	0	0	828	371	221	232	197			
V/C Ratio(X)	1.13	0.41	0.00	0.00	0.87	0.00	0.84	0.00	0.00			
Avail Cap(c_a), veh/h	895	2766	0	0	849	380	563	591	503			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	23.3	3.5	0.0	0.0	34.6	0.0	40.3	0.0	0.0			
Incr Delay (d2), s/veh	72.5	0.0	0.0	0.0	8.7	0.0	3.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	41.1	4.7	0.0	0.0	10.0	0.0	4.9	0.0	0.0			
LnGrp Delay(d),s/veh	95.8	3.5	0.0	0.0	43.4	0.0	43.5	0.0	0.0			
LnGrp LOS	F	A			D		D					
Approach Vol, veh/h		2141			717			185				
Approach Delay, s/veh		47.1			43.4			43.5				
Approach LOS		D			D			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		78.3			51.0	27.3		15.8
Change Period (Y+Rc), s		5.3			3.5	5.3		4.1
Max Green Setting (Gmax), s		73.6			47.5	22.6		29.9
Max Q Clear Time (g_c+I1), s		11.9			49.5	20.3		11.6
Green Ext Time (p_c), s		11.6			0.0	1.7		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	86.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	120	370	390	0	130	270	70	0	320	430	240
Peak Hour Factor	0.86	0.92	0.92	0.92	0.86	0.92	0.92	0.92	0.86	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	130	402	424	0	141	293	76	0	348	467	261
Number of Lanes	0	1	2	0	0	1	1	1	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	82.8	65.4	93.2
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	37%	0%	100%	24%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	63%	0%	0%	76%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	287	383	120	247	513	130	270	70	260	393
LT Vol	320	0	0	120	0	0	130	0	0	260	0
Through Vol	0	287	143	0	247	123	0	270	0	0	393
RT Vol	0	0	240	0	0	390	0	0	70	0	0
Lane Flow Rate	348	312	417	130	268	558	141	293	76	283	428
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1	1	1	0.5	0.991	1	0.542	1	0.266	1	1
Departure Headway (Hd)	13.767	13.269	12.833	13.802	13.303	12.772	13.802	13.303	12.605	13.738	13.24
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	268	277	288	262	273	290	263	276	286	266	278
Service Time	11.467	10.969	10.533	11.518	11.018	10.487	11.518	11.018	10.319	11.467	10.969
HCM Lane V/C Ratio	1.299	1.126	1.448	0.496	0.982	1.924	0.536	1.062	0.266	1.064	1.54
HCM Control Delay	95.2	93.2	91.5	29.6	91.1	91.3	31.7	93.4	19.8	95.2	93.2
HCM Lane LOS	F	F	F	D	F	F	D	F	C	F	F
HCM 95th-tile Q	9.9	10.1	10.3	2.6	9.9	10.3	3	10.1	1	9.9	10.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	260	590	370
Peak Hour Factor	0.86	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	283	641	402
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	92.8
HCM LOS	F

Lane	SBLn3

Intersection	
Int Delay, s/veh	244.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	80	500	820	150	360	140
Conflicting Peds, #/hr	2	0	0	2	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	0	350	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	543	891	163	391	152

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	893	0	-	0	1610	895
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	717	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	759	-	-	-	~ 115	339
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	484	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	758	-	-	-	~ 101	338
Mov Cap-2 Maneuver	-	-	-	-	~ 101	-
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	428	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	$ 1000.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	758	-	-	-	101	338
HCM Lane V/C Ratio	0.115	-	-	-	3.874	0.45
HCM Control Delay (s)	10.4	-	-	-	$ 1380.5	24.1
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.4	-	-	-	40	2.2

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	460	400	50	390	160	300	280	60	170	290	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	31	479	417	52	406	167	337	257	62	160	326	21
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1185	529	65	1224	546	697	366	310	261	548	232
Arrive On Green	0.03	0.33	0.33	0.04	0.35	0.35	0.20	0.20	0.20	0.15	0.15	0.15
Sat Flow, veh/h	1774	3539	1580	1774	3539	1581	3548	1863	1578	1774	3725	1577
Grp Volume(v), veh/h	31	479	417	52	406	167	337	257	62	160	326	21
Grp Sat Flow(s),veh/h/ln	1774	1770	1580	1774	1770	1581	1774	1863	1578	1774	1863	1577
Q Serve(g_s), s	1.2	7.3	16.7	2.0	6.0	5.4	5.9	9.0	2.3	5.9	5.7	0.8
Cycle Q Clear(g_c), s	1.2	7.3	16.7	2.0	6.0	5.4	5.9	9.0	2.3	5.9	5.7	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	1185	529	65	1224	546	697	366	310	261	548	232
V/C Ratio(X)	0.68	0.40	0.79	0.79	0.33	0.31	0.48	0.70	0.20	0.61	0.60	0.09
Avail Cap(c_a), veh/h	152	1361	608	202	1462	653	1415	743	629	556	1167	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	18.0	21.1	33.6	17.0	16.8	25.0	26.3	23.6	28.1	28.0	25.9
Incr Delay (d2), s/veh	16.0	0.2	6.1	19.0	0.2	0.3	0.5	2.5	0.3	2.3	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	3.6	8.2	1.3	2.9	2.4	3.0	4.9	1.0	3.1	3.0	0.4
LnGrp Delay(d),s/veh	49.9	18.2	27.2	52.6	17.1	17.1	25.6	28.8	23.9	30.4	29.0	26.1
LnGrp LOS	D	B	C	D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		927			625			656			507	
Approach Delay, s/veh		23.3			20.1			26.7			29.3	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		18.8	7.6	28.5		15.3	6.8	29.3
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		28.0	8.0	27.0		22.0	6.0	29.0
Max Q Clear Time (g_c+I1), s		11.0	4.0	18.7		7.9	3.2	8.0
Green Ext Time (p_c), s		2.6	0.0	4.8		2.2	0.0	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	70	280	10	20	640	290	10	240	20	300	200	100
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	304	11	22	696	315	11	261	22	326	217	109

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1013	0	0	317	0	0	1526	1520	314	1504	1368	857
Stage 1	-	-	-	-	-	-	464	464	-	899	899	-
Stage 2	-	-	-	-	-	-	1062	1056	-	605	469	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	684	-	-	1243	-	-	96	~ 119	726	~ 100	~ 147	357
Stage 1	-	-	-	-	-	-	578	564	-	334	358	-
Stage 2	-	-	-	-	-	-	270	302	-	485	561	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	683	-	-	1241	-	-	-	~ 98	724	-	~ 121	356
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 98	-	-	~ 121	-
Stage 1	-	-	-	-	-	-	499	487	-	~ 288	342	-
Stage 2	-	-	-	-	-	-	65	288	-	~ 189	484	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	683	-	-	1241	-	-	-
HCM Lane V/C Ratio	-	0.111	-	-	0.018	-	-	-
HCM Control Delay (s)	-	10.9	0	-	8	0	-	-
HCM Lane LOS	-	B	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-	0.1	-	-	-

Notes

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

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	120	780	300	10	10	310
Conflicting Peds, #/hr	2	0	0	2	2	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	848	326	11	11	337

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	339	0	-	0	1443	336
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	1109	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1220	-	-	-	146	706
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	316	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1218	-	-	-	116	704
Mov Cap-2 Maneuver	-	-	-	-	116	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	252	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1218	-	-	-	608
HCM Lane V/C Ratio	0.107	-	-	-	0.572
HCM Control Delay (s)	8.3	0	-	-	18.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	3.6

Intersection	
Intersection Delay, s/veh	55.8
Intersection LOS	F

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	150	20	0	480	130	0	20	750
Peak Hour Factor	0.95	0.92	0.92	0.95	0.92	0.92	0.95	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	163	22	0	522	141	0	22	815
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	13.8	63.1	59.2
HCM LOS	B	F	F

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	3%	0%	79%
Vol Thru, %	0%	88%	21%
Vol Right, %	97%	12%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	770	170	610
LT Vol	20	0	480
Through Vol	0	150	130
RT Vol	750	20	0
Lane Flow Rate	837	185	663
Geometry Grp	1	1	1
Degree of Util (X)	1	0.357	1
Departure Headway (Hd)	5.617	6.961	6.353
Convergence, Y/N	Yes	Yes	Yes
Cap	644	519	570
Service Time	3.676	4.961	4.412
HCM Lane V/C Ratio	1.3	0.356	1.163
HCM Control Delay	59.2	13.8	63.1
HCM Lane LOS	F	B	F
HCM 95th-tile Q	15.4	1.6	14.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	540	480	730	480	100	680
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	587	522	793	522	109	739
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	604	539	819	695	124	1043
Arrive On Green	0.34	0.34	0.44	0.44	0.07	0.56
Sat Flow, veh/h	1774	1583	1863	1580	1774	1863
Grp Volume(v), veh/h	587	522	793	522	109	739
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1580	1774	1863
Q Serve(g_s), s	32.6	32.4	41.5	27.6	6.1	28.9
Cycle Q Clear(g_c), s	32.6	32.4	41.5	27.6	6.1	28.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	604	539	819	695	124	1043
V/C Ratio(X)	0.97	0.97	0.97	0.75	0.88	0.71
Avail Cap(c_a), veh/h	604	539	820	695	124	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	32.5	27.3	23.4	46.0	16.1
Incr Delay (d2), s/veh	29.7	30.9	23.8	4.6	45.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	21.0	18.7	26.6	12.9	4.6	15.4
LnGrp Delay(d),s/veh	62.2	63.4	51.1	28.0	91.8	18.3
LnGrp LOS	E	E	D	C	F	B
Approach Vol, veh/h	1109		1315			848
Approach Delay, s/veh	62.8		42.0			27.7
Approach LOS	E		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.0	48.9				60.9		39.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	7.0	44.0				56.0		34.0
Max Q Clear Time (g_c+I1), s	8.1	43.5				30.9		34.6
Green Ext Time (p_c), s	0.0	0.4				13.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.3
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	210	490	720	570	10
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	228	533	783	620	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2475	629	632	0	-	0
Stage 1	627	-	-	-	-	-
Stage 2	1848	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	33	482	951	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	137	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	480	949	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	~ 1	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	5.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	949	-	480	-	-
HCM Lane V/C Ratio	0.561	-	0.498	-	-
HCM Control Delay (s)	13.5	0	19.7	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	3.6	-	2.7	-	-

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	430	150	470	750	490	720
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	467	163	511	815	533	783
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	505	451	524	2129	884	394
Arrive On Green	0.28	0.28	0.30	0.60	0.25	0.25
Sat Flow, veh/h	1774	1583	1774	3632	3632	1577
Grp Volume(v), veh/h	467	163	511	815	533	783
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1770	1770	1577
Q Serve(g_s), s	22.5	7.2	25.1	10.5	11.7	22.0
Cycle Q Clear(g_c), s	22.5	7.2	25.1	10.5	11.7	22.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	505	451	524	2129	884	394
V/C Ratio(X)	0.92	0.36	0.98	0.38	0.60	1.99
Avail Cap(c_a), veh/h	544	485	524	2129	884	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	25.1	30.7	9.1	29.2	33.0
Incr Delay (d2), s/veh	20.9	0.5	33.1	0.1	1.2	453.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	14.0	6.9	17.0	5.1	5.8	59.2
LnGrp Delay(d),s/veh	51.5	25.6	63.8	9.2	30.4	486.8
LnGrp LOS	D	C	E	A	C	F
Approach Vol, veh/h	630			1326	1316	
Approach Delay, s/veh	44.8			30.3	301.9	
Approach LOS	D			C	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		58.0		30.1	31.0	27.0		
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		
Max Green Setting (Gmax), s		53.0		27.0	26.0	22.0		
Max Q Clear Time (g_c+I1), s		12.5		24.5	27.1	24.0		
Green Ext Time (p_c), s		16.4		0.6	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	142.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	620	40	660	1480	220	20	1070	550	90	1400	360
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	207	674	42	717	1609	211	22	1163	486	98	1522	389
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1425	419	716	1508	650	80	1369	584	143	1375	586
Arrive On Green	0.05	0.28	0.27	0.21	0.43	0.41	0.02	0.39	0.37	0.04	0.39	0.37
Sat Flow, veh/h	3442	5085	1574	3442	3539	1578	3442	3539	1577	3442	3539	1577
Grp Volume(v), veh/h	207	674	42	717	1609	211	22	1163	486	98	1522	389
Grp Sat Flow(s),veh/h/ln	1721	1695	1574	1721	1770	1578	1721	1770	1577	1721	1770	1577
Q Serve(g_s), s	7.0	15.9	2.5	30.0	61.4	10.6	0.9	43.3	40.5	4.0	56.0	29.6
Cycle Q Clear(g_c), s	7.0	15.9	2.5	30.0	61.4	10.6	0.9	43.3	40.5	4.0	56.0	29.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	1425	419	716	1508	650	80	1369	584	143	1375	586
V/C Ratio(X)	1.24	0.47	0.10	1.00	1.07	0.32	0.28	0.85	0.83	0.68	1.11	0.66
Avail Cap(c_a), veh/h	167	1425	419	716	1508	650	119	1409	602	143	1375	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.6	43.0	28.9	57.1	41.4	18.9	69.2	40.4	41.3	68.1	44.1	37.7
Incr Delay (d2), s/veh	147.9	0.4	0.2	33.9	43.5	0.4	0.7	5.3	10.1	10.6	59.1	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.8	7.5	1.2	17.6	39.0	4.9	0.4	22.2	19.3	2.1	38.6	13.5
LnGrp Delay(d),s/veh	216.5	43.4	29.0	90.9	84.8	19.3	69.9	45.7	51.5	78.7	103.2	41.0
LnGrp LOS	F	D	C	F	F	B	E	D	D	E	F	D
Approach Vol, veh/h		923			2537			1671			2009	
Approach Delay, s/veh		81.6			81.1			47.7			90.0	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	58.7	33.0	43.4	8.7	59.0	12.0	64.4
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	6.4	6.4	6.0	6.0
Max Green Setting (Gmax), s	5.0	54.0	29.0	37.4	4.0	52.6	6.0	58.4
Max Q Clear Time (g_c+I1), s	6.0	45.3	32.0	17.9	2.9	58.0	9.0	63.4
Green Ext Time (p_c), s	0.0	6.7	0.0	5.3	1.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	700	430	1200	1260	150	880	1410	650	120	1590	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	98	761	430	1304	1370	118	957	1533	571	130	1728	121
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1096	488	590	1523	679	429	1846	572	209	1059	471
Arrive On Green	0.05	0.31	0.31	0.17	0.43	0.43	0.12	0.36	0.36	0.06	0.30	0.30
Sat Flow, veh/h	3442	3539	1576	3442	3539	1578	3442	5085	1577	3442	3539	1575
Grp Volume(v), veh/h	98	761	430	1304	1370	118	957	1533	571	130	1728	121
Grp Sat Flow(s),veh/h/ln	1721	1770	1576	1721	1770	1578	1721	1695	1577	1721	1770	1575
Q Serve(g_s), s	3.6	24.3	33.3	22.0	46.2	5.9	16.0	35.3	46.4	4.7	38.4	7.5
Cycle Q Clear(g_c), s	3.6	24.3	33.3	22.0	46.2	5.9	16.0	35.3	46.4	4.7	38.4	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	1096	488	590	1523	679	429	1846	572	209	1059	471
V/C Ratio(X)	0.56	0.69	0.88	2.21	0.90	0.17	2.23	0.83	1.00	0.62	1.63	0.26
Avail Cap(c_a), veh/h	429	1172	522	590	1523	679	429	1846	572	429	1059	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	39.0	42.1	53.2	34.0	22.5	56.2	37.3	40.8	58.8	45.0	34.1
Incr Delay (d2), s/veh	1.1	2.1	16.3	550.3	7.9	0.2	561.4	3.6	37.0	1.1	288.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	12.2	16.6	55.5	24.1	2.6	41.0	17.1	26.0	2.3	61.1	3.3
LnGrp Delay(d),s/veh	60.6	41.0	58.4	603.5	41.8	22.7	617.6	40.8	77.9	59.9	333.7	34.6
LnGrp LOS	E	D	E	F	D	C	F	D	E	E	F	C
Approach Vol, veh/h		1289			2792			3061			1979	
Approach Delay, s/veh		48.3			303.4			228.1			297.5	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	49.6	25.0	43.0	19.0	41.4	9.5	58.5
Change Period (Y+Rc), s	4.0	6.4	4.0	5.7	4.0	6.4	4.0	5.7
Max Green Setting (Gmax), s	15.0	32.0	21.0	40.0	15.0	35.0	15.0	42.0
Max Q Clear Time (g_c+I1), s	6.7	48.4	24.0	35.3	18.0	40.4	5.6	48.2
Green Ext Time (p_c), s	0.1	0.0	0.0	2.0	0.0	0.0	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	240.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	660	870	40	400	1720	520	150	980	210	450	1450	310
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	717	946	43	435	1870	565	163	1065	228	489	1576	337
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	1224	56	197	1256	560	187	974	434	197	995	443
Arrive On Green	0.11	0.35	0.35	0.11	0.35	0.35	0.11	0.28	0.28	0.11	0.28	0.28
Sat Flow, veh/h	1774	3447	157	1774	3539	1577	1774	3539	1575	1774	3539	1575
Grp Volume(v), veh/h	717	486	503	435	1870	565	163	1065	228	489	1576	337
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1774	1770	1577	1774	1770	1575	1774	1770	1575
Q Serve(g_s), s	15.0	33.0	33.0	15.0	48.0	48.0	12.2	37.2	16.6	15.0	38.0	26.5
Cycle Q Clear(g_c), s	15.0	33.0	33.0	15.0	48.0	48.0	12.2	37.2	16.6	15.0	38.0	26.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	628	651	197	1256	560	187	974	434	197	995	443
V/C Ratio(X)	3.64	0.77	0.77	2.21	1.49	1.01	0.87	1.09	0.53	2.48	1.58	0.76
Avail Cap(c_a), veh/h	197	628	651	197	1256	560	197	974	434	197	995	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	38.8	38.8	60.1	43.6	43.6	59.6	49.0	41.5	60.1	48.6	44.5
Incr Delay (d2), s/veh	1202.1	6.8	6.5	561.0	224.1	40.4	29.8	57.6	2.1	683.2	267.9	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	73.0	17.2	17.8	38.0	62.5	27.2	7.6	25.9	7.5	44.7	55.5	12.6
LnGrp Delay(d),s/veh	1262.2	45.5	45.3	621.1	267.7	84.1	89.4	106.6	43.6	743.3	316.5	53.2
LnGrp LOS	F	D	D	F	F	F	F	F	D	F	F	D
Approach Vol, veh/h		1706			2870			1456			2402	
Approach Delay, s/veh		556.8			285.1			94.8			366.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	43.2	19.0	54.0	18.2	44.0	19.0	54.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	15.0	29.0	15.0	34.0	15.0	38.0	15.0	48.0
Max Q Clear Time (g_c+I1), s	17.0	39.2	17.0	35.0	14.2	40.0	17.0	50.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	330.4
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	19.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	30	10	10	120	30	130	230	90	40	180	10
Conflicting Peds, #/hr	2	0	2	2	0	2	2	0	2	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	33	11	11	130	33	141	250	98	43	196	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	165	0	0	45	0	0	336	249	42	406	237	151
Stage 1	-	-	-	-	-	-	62	62	-	170	170	-
Stage 2	-	-	-	-	-	-	274	187	-	236	67	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1413	-	-	1563	-	-	618	654	1029	555	664	895
Stage 1	-	-	-	-	-	-	949	843	-	832	758	-
Stage 2	-	-	-	-	-	-	732	745	-	767	839	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1560	-	-	462	641	1026	344	651	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	462	641	-	344	651	-
Stage 1	-	-	-	-	-	-	940	835	-	824	751	-
Stage 2	-	-	-	-	-	-	530	738	-	481	831	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.5	29.3	16.2
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	618	1411	-	-	1560	-	-	569
HCM Lane V/C Ratio	0.791	0.008	-	-	0.007	-	-	0.439
HCM Control Delay (s)	29.3	7.6	0	-	7.3	0	-	16.2
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	7.7	0	-	-	0	-	-	2.2

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	20	160	290	80	40	10
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	174	315	87	43	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	404	0	-	0	578	363
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1155	-	-	-	478	682
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1153	-	-	-	466	680
Mov Cap-2 Maneuver	-	-	-	-	466	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	800	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1153	-	-	-	497
HCM Lane V/C Ratio	0.019	-	-	-	0.109
HCM Control Delay (s)	8.2	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	70	800	1340	510	310	30
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	76	870	1457	554	337	33
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	97	2306	1888	843	393	351
Arrive On Green	0.05	0.65	0.53	0.53	0.22	0.22
Sat Flow, veh/h	1774	3632	3632	1580	1774	1583
Grp Volume(v), veh/h	76	870	1457	554	337	33
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1580	1774	1583
Q Serve(g_s), s	3.3	9.0	25.8	19.9	14.4	1.3
Cycle Q Clear(g_c), s	3.3	9.0	25.8	19.9	14.4	1.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	97	2306	1888	843	393	351
V/C Ratio(X)	0.78	0.38	0.77	0.66	0.86	0.09
Avail Cap(c_a), veh/h	112	2423	1974	881	810	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	6.3	14.6	13.2	29.5	24.4
Incr Delay (d2), s/veh	25.7	0.1	1.9	1.7	5.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.3	4.4	13.0	9.0	7.6	1.3
LnGrp Delay(d),s/veh	62.5	6.5	16.5	14.9	35.0	24.5
LnGrp LOS	E	A	B	B	C	C
Approach Vol, veh/h		946	2011		370	
Approach Delay, s/veh		11.0	16.0		34.0	
Approach LOS		B	B		C	

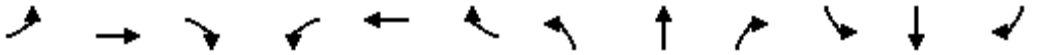
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				56.4		22.5	9.3	47.1
Change Period (Y+Rc), s				5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s				54.0		36.0	5.0	44.0
Max Q Clear Time (g_c+I1), s				11.0		16.4	5.3	27.8
Green Ext Time (p_c), s				32.3		1.1	0.0	14.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	1060	40	490	1820	90	20	10	330	40	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	10	1093	41	505	1876	93	21	10	340	41	10	10
Adj No. of Lanes	1	2	1	2	2	1	0	1	1	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	18	1290	575	587	1858	827	79	23	427	85	12	427
Arrive On Green	0.01	0.36	0.36	0.17	0.52	0.52	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1774	3539	1577	3442	3539	1576	2	85	1575	3	44	1575
Grp Volume(v), veh/h	10	1093	41	505	1876	93	31	0	340	51	0	10
Grp Sat Flow(s),veh/h/ln	1774	1770	1577	1721	1770	1576	87	0	1575	47	0	1575
Q Serve(g_s), s	0.4	22.0	1.3	11.0	40.6	2.3	0.0	0.0	15.5	0.1	0.0	0.4
Cycle Q Clear(g_c), s	0.4	22.0	1.3	11.0	40.6	2.3	21.0	0.0	15.5	21.0	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	0.68		1.00	0.80		1.00
Lane Grp Cap(c), veh/h	18	1290	575	587	1858	827	102	0	427	97	0	427
V/C Ratio(X)	0.57	0.85	0.07	0.86	1.01	0.11	0.30	0.00	0.80	0.53	0.00	0.02
Avail Cap(c_a), veh/h	252	1418	632	623	1858	827	102	0	427	97	0	427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.1	22.6	16.0	31.2	18.4	9.3	23.5	0.0	26.2	33.9	0.0	20.7
Incr Delay (d2), s/veh	25.3	4.7	0.1	11.3	23.3	0.1	1.7	0.0	10.1	5.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	11.5	0.6	6.2	25.6	1.0	0.5	0.0	7.9	1.2	0.0	0.2
LnGrp Delay(d),s/veh	63.4	27.3	16.1	42.5	41.7	9.3	25.2	0.0	36.3	39.1	0.0	20.7
LnGrp LOS	E	C	B	D	F	A	C		D	D		C
Approach Vol, veh/h		1144			2474			371			61	
Approach Delay, s/veh		27.2			40.6			35.3			36.1	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.0	18.2	33.2		26.0	5.8	45.6
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		21.0	14.0	31.0		21.0	11.0	34.0
Max Q Clear Time (g_c+I1), s		23.0	13.0	24.0		23.0	2.4	42.6
Green Ext Time (p_c), s		0.0	0.2	4.2		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.3
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	510	280	90	440	20	740	550	140	50	520	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	133	520	0	92	449	0	755	561	0	51	531	0
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	757	338	158	697	312	963	1542	690	65	681	305
Arrive On Green	0.06	0.21	0.00	0.05	0.20	0.00	0.28	0.44	0.00	0.04	0.19	0.00
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	133	520	0	92	449	0	755	561	0	51	531	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.8	10.1	0.0	2.0	8.7	0.0	15.1	7.9	0.0	2.1	10.6	0.0
Cycle Q Clear(g_c), s	2.8	10.1	0.0	2.0	8.7	0.0	15.1	7.9	0.0	2.1	10.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	757	338	158	697	312	963	1542	690	65	681	305
V/C Ratio(X)	0.62	0.69	0.00	0.58	0.64	0.00	0.78	0.36	0.00	0.79	0.78	0.00
Avail Cap(c_a), veh/h	508	949	425	323	760	340	1154	1542	690	262	854	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.1	27.0	0.0	34.9	27.5	0.0	24.8	14.1	0.0	35.6	28.6	0.0
Incr Delay (d2), s/veh	2.9	1.5	0.0	3.4	1.7	0.0	3.0	0.1	0.0	18.8	3.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.4	5.1	0.0	1.0	4.4	0.0	7.5	3.8	0.0	1.4	5.5	0.0
LnGrp Delay(d),s/veh	36.9	28.5	0.0	38.3	29.2	0.0	27.8	14.2	0.0	54.4	32.3	0.0
LnGrp LOS	D	C		D	C		C	B		D	C	
Approach Vol, veh/h		653			541			1316			582	
Approach Delay, s/veh		30.2			30.7			22.0			34.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	37.5	8.4	20.9	25.9	19.3	9.7	19.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	32.0	7.0	20.0	25.0	18.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	4.1	9.9	4.0	12.1	17.1	12.6	4.8	10.7
Green Ext Time (p_c), s	0.0	7.2	0.1	3.8	3.8	1.6	0.2	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	30	110	140	50	50	200	810	140	70	660	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	42	31	115	146	52	52	208	844	146	73	688	42
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	199	167	185	123	103	251	1137	197	104	997	61
Arrive On Green	0.14	0.11	0.11	0.10	0.07	0.07	0.14	0.38	0.38	0.06	0.29	0.29
Sat Flow, veh/h	1774	1863	1561	1774	1863	1550	1774	3015	522	1774	3387	207
Grp Volume(v), veh/h	42	31	115	146	52	52	208	495	495	73	359	371
Grp Sat Flow(s),veh/h/ln	1774	1863	1561	1774	1863	1550	1774	1770	1767	1774	1770	1824
Q Serve(g_s), s	1.2	0.9	4.0	4.5	1.5	1.8	6.5	13.7	13.7	2.3	10.2	10.2
Cycle Q Clear(g_c), s	1.2	0.9	4.0	4.5	1.5	1.8	6.5	13.7	13.7	2.3	10.2	10.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.11
Lane Grp Cap(c), veh/h	257	199	167	185	123	103	251	667	666	104	521	537
V/C Ratio(X)	0.16	0.16	0.69	0.79	0.42	0.51	0.83	0.74	0.74	0.70	0.69	0.69
Avail Cap(c_a), veh/h	257	494	414	188	494	411	251	907	905	157	813	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	23.0	24.4	24.7	25.4	25.5	23.6	15.2	15.2	26.1	17.7	17.7
Incr Delay (d2), s/veh	0.3	0.4	5.0	19.8	2.3	3.8	20.2	2.2	2.2	8.3	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.6	0.5	1.9	3.2	0.9	0.9	4.5	7.0	7.0	1.4	5.1	5.3
LnGrp Delay(d),s/veh	21.5	23.3	29.4	44.5	27.7	29.4	43.8	17.4	17.5	34.4	19.3	19.3
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		188			250			1198			803	
Approach Delay, s/veh		26.6			37.9			22.0			20.7	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	26.3	10.9	11.0	13.0	21.7	13.2	8.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	29.0	6.0	15.0	8.0	26.0	6.0	15.0
Max Q Clear Time (g_c+I1), s	4.3	15.7	6.5	6.0	8.5	12.2	3.2	3.8
Green Ext Time (p_c), s	0.4	5.4	0.0	0.3	0.0	4.1	0.2	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	430	50	340	280	60	210	1250	620	120	720	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	242	453	53	358	295	63	221	1316	653	126	758	200
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	604	268	421	470	208	409	1444	644	156	941	418
Arrive On Green	0.16	0.17	0.17	0.12	0.13	0.13	0.23	0.41	0.41	0.09	0.27	0.27
Sat Flow, veh/h	1774	3539	1569	3442	3539	1565	1774	3539	1578	1774	3539	1574
Grp Volume(v), veh/h	242	453	53	358	295	63	221	1316	653	126	758	200
Grp Sat Flow(s),veh/h/ln	1774	1770	1569	1721	1770	1565	1774	1770	1578	1774	1770	1574
Q Serve(g_s), s	10.1	9.2	2.2	7.7	6.0	2.1	8.3	26.6	31.0	5.3	15.2	5.2
Cycle Q Clear(g_c), s	10.1	9.2	2.2	7.7	6.0	2.1	8.3	26.6	31.0	5.3	15.2	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	604	268	421	470	208	409	1444	644	156	941	418
V/C Ratio(X)	0.85	0.75	0.20	0.85	0.63	0.30	0.54	0.91	1.01	0.81	0.81	0.48
Avail Cap(c_a), veh/h	341	792	351	421	545	241	409	1444	644	156	1118	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	30.0	27.0	32.6	31.2	18.0	25.7	21.2	22.5	34.0	26.1	9.6
Incr Delay (d2), s/veh	15.9	2.9	0.4	15.1	1.8	0.8	1.4	9.0	39.1	25.6	3.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.2	4.8	1.0	4.6	3.0	1.0	4.2	14.8	20.4	3.7	7.9	2.4
LnGrp Delay(d),s/veh	46.9	32.8	27.4	47.7	33.0	18.8	27.1	30.2	61.6	59.6	29.8	10.4
LnGrp LOS	D	C	C	D	C	B	C	C	F	E	C	B
Approach Vol, veh/h		748			716			2190			1084	
Approach Delay, s/veh		37.0			39.1			39.2			29.7	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	35.0	13.3	17.0	21.5	24.2	16.2	14.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.7	31.0	9.3	17.0	13.7	24.0	14.6	11.7
Max Q Clear Time (g_c+I1), s	7.3	33.0	9.7	11.2	10.3	17.2	12.1	8.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.3	3.0	0.2	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	80	10	70	80	150	150	960	230	10	610	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	52	82	10	72	82	155	155	990	237	10	629	72
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	173	298	36	300	105	198	194	931	788	118	750	86
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.11	0.50	0.50	0.07	0.46	0.46
Sat Flow, veh/h	1132	1626	198	1285	572	1082	1774	1863	1575	1774	1641	188
Grp Volume(v), veh/h	52	0	92	72	0	237	155	990	237	10	0	701
Grp Sat Flow(s),veh/h/ln	1132	0	1825	1285	0	1654	1774	1863	1575	1774	0	1828
Q Serve(g_s), s	2.8	0.0	2.6	3.1	0.0	8.2	5.1	30.0	5.3	0.3	0.0	20.3
Cycle Q Clear(g_c), s	10.9	0.0	2.6	5.7	0.0	8.2	5.1	30.0	5.3	0.3	0.0	20.3
Prop In Lane	1.00		0.11	1.00		0.65	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	173	0	334	300	0	303	194	931	788	118	0	836
V/C Ratio(X)	0.30	0.00	0.28	0.24	0.00	0.78	0.80	1.06	0.30	0.08	0.00	0.84
Avail Cap(c_a), veh/h	173	0	334	300	0	303	207	931	788	118	0	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	21.1	23.5	0.0	23.4	26.1	15.0	8.8	26.3	0.0	14.3
Incr Delay (d2), s/veh	1.0	0.0	0.4	0.4	0.0	12.4	18.4	47.7	1.0	0.3	0.0	9.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	0.0	1.3	1.1	0.0	4.8	3.5	27.3	2.5	0.2	0.0	12.4
LnGrp Delay(d),s/veh	29.5	0.0	21.5	23.9	0.0	35.7	44.4	62.7	9.8	26.6	0.0	24.2
LnGrp LOS	C		C	C		D	D	F	A	C		C
Approach Vol, veh/h		144			309			1382			711	
Approach Delay, s/veh		24.4			33.0			51.6			24.2	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	35.0		16.0	11.6	32.4		16.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	4.0	30.0		11.0	7.0	27.0		11.0
Max Q Clear Time (g_c+I1), s	2.3	32.0		12.9	7.1	22.3		10.2
Green Ext Time (p_c), s	0.8	0.0		0.0	0.0	2.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	40.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	20	180	5	120	5	930	110	150	570	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	10	10	20	184	5	122	5	949	112	153	582	5
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	56	56	212	3	293	9	879	104	155	1143	10
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.01	0.54	0.54	0.09	0.62	0.62
Sat Flow, veh/h	0	301	301	656	18	1562	1774	1635	193	1774	1844	16
Grp Volume(v), veh/h	40	0	0	189	0	122	5	0	1061	153	0	587
Grp Sat Flow(s),veh/h/ln	601	0	0	674	0	1562	1774	0	1828	1774	0	1860
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.5	0.2	0.0	43.0	6.9	0.0	14.0
Cycle Q Clear(g_c), s	15.0	0.0	0.0	15.0	0.0	5.5	0.2	0.0	43.0	6.9	0.0	14.0
Prop In Lane	0.25		0.50	0.97		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	169	0	0	215	0	293	9	0	982	155	0	1153
V/C Ratio(X)	0.24	0.00	0.00	0.88	0.00	0.42	0.54	0.00	1.08	0.99	0.00	0.51
Avail Cap(c_a), veh/h	169	0	0	215	0	293	89	0	982	155	0	1153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	0.0	35.0	0.0	28.6	39.7	0.0	18.5	36.4	0.0	8.5
Incr Delay (d2), s/veh	0.7	0.0	0.0	31.1	0.0	0.9	40.4	0.0	52.9	67.7	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	0.0	6.0	0.0	2.4	0.2	0.0	35.7	6.3	0.0	7.7
LnGrp Delay(d),s/veh	28.3	0.0	0.0	66.1	0.0	29.6	80.1	0.0	71.4	104.2	0.0	10.1
LnGrp LOS	C			E		C	F		F	F		B
Approach Vol, veh/h		40			311			1066			740	
Approach Delay, s/veh		28.3			51.8			71.4			29.5	
Approach LOS		C			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	48.0		20.0	5.4	54.6		20.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	7.0	43.0		15.0	4.0	46.0		15.0
Max Q Clear Time (g_c+I1), s	8.9	45.0		17.0	2.2	16.0		17.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	210	90	190	190	140	150	430	180	40	230	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	32	221	95	200	200	147	158	453	189	42	242	42
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	395	170	277	596	503	197	492	205	152	570	99
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.11	0.39	0.39	0.09	0.37	0.37
Sat Flow, veh/h	1026	1234	530	1057	1863	1571	1774	1247	520	1774	1545	268
Grp Volume(v), veh/h	32	0	316	200	200	147	158	0	642	42	0	284
Grp Sat Flow(s),veh/h/ln	1026	0	1764	1057	1863	1571	1774	0	1767	1774	0	1813
Q Serve(g_s), s	1.8	0.0	11.1	12.9	6.1	5.3	6.5	0.0	25.9	1.7	0.0	8.8
Cycle Q Clear(g_c), s	8.0	0.0	11.1	24.0	6.1	5.3	6.5	0.0	25.9	1.7	0.0	8.8
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.29	1.00		0.15
Lane Grp Cap(c), veh/h	340	0	565	277	596	503	197	0	697	152	0	669
V/C Ratio(X)	0.09	0.00	0.56	0.72	0.34	0.29	0.80	0.00	0.92	0.28	0.00	0.42
Avail Cap(c_a), veh/h	340	0	565	277	596	503	284	0	754	152	0	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	21.1	31.7	19.4	19.1	32.5	0.0	21.6	32.1	0.0	17.7
Incr Delay (d2), s/veh	0.1	0.0	1.2	8.8	0.3	0.3	10.2	0.0	19.5	1.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.5	0.0	5.6	4.8	3.2	2.3	3.8	0.0	16.3	0.9	0.0	4.8
LnGrp Delay(d),s/veh	22.6	0.0	22.4	40.5	19.8	19.4	42.7	0.0	41.1	33.1	0.0	19.7
LnGrp LOS	C		C	D	B	B	D		D	C		B
Approach Vol, veh/h		348			547			800			326	
Approach Delay, s/veh		22.4			27.2			41.5			21.4	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.4	34.6		29.0	13.3	32.7		29.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	4.0	32.0		24.0	12.0	24.0		24.0
Max Q Clear Time (g_c+I1), s	3.7	27.9		13.1	8.5	10.8		26.0
Green Ext Time (p_c), s	0.1	1.6		3.6	0.1	1.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	100	770	0	0	100	480	0	0	10	20	60
Peak Hour Factor	0.96	0.94	0.94	0.94	0.96	0.94	0.94	0.94	0.96	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	106	819	0	0	106	511	0	0	11	21	64
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	3	3
HCM Control Delay	25.2	15.9	14
HCM LOS	D	C	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	11%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	22%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	67%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	100	385	385	100	240	240	110	10	40
LT Vol	10	100	0	0	100	0	0	110	0	0
Through Vol	20	0	385	385	0	240	240	0	10	0
RT Vol	60	0	0	0	0	0	0	0	0	40
Lane Flow Rate	96	106	410	410	106	255	255	117	11	43
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.229	0.23	0.828	0.628	0.244	0.549	0.424	0.284	0.024	0.089
Departure Headway (Hd)	8.616	7.79	7.282	5.52	8.256	7.747	5.982	8.749	8.239	7.526
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	416	461	496	651	435	465	600	411	434	475
Service Time	6.396	5.543	5.035	3.272	6.013	5.504	3.739	6.507	5.998	5.285
HCM Lane V/C Ratio	0.231	0.23	0.827	0.63	0.244	0.548	0.425	0.285	0.025	0.091
HCM Control Delay	14	12.9	36.4	17.2	13.7	19.6	13.1	15	11.2	11
HCM Lane LOS	B	B	E	C	B	C	B	B	B	B
HCM 95th-tile Q	0.9	0.9	8.1	4.4	0.9	3.2	2.1	1.2	0.1	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	110	10	40
Peak Hour Factor	0.96	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	117	11	43
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	13.8
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	110	720	0	0	20	390	0	0	40	10	10
Peak Hour Factor	0.93	0.92	0.92	0.92	0.93	0.92	0.92	0.92	0.93	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	120	783	0	0	22	424	0	0	43	11	11
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	15.9	11.9	12.3
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	67%	100%	0%	0%	100%	0%	0%	77%
Vol Thru, %	17%	0%	100%	100%	0%	100%	100%	3%
Vol Right, %	17%	0%	0%	0%	0%	0%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	110	360	360	20	195	195	195
LT Vol	40	110	0	0	20	0	0	150
Through Vol	10	0	360	360	0	195	195	5
RT Vol	10	0	0	0	0	0	0	40
Lane Flow Rate	65	120	391	391	22	212	212	212
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.148	0.225	0.682	0.49	0.045	0.399	0.295	0.45
Departure Headway (Hd)	8.194	6.788	6.278	4.508	7.394	6.886	5.109	7.642
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	440	525	571	790	487	526	708	468
Service Time	5.895	4.581	4.07	2.299	5.098	4.586	2.809	5.439
HCM Lane V/C Ratio	0.148	0.229	0.685	0.495	0.045	0.403	0.299	0.453
HCM Control Delay	12.3	11.6	21.6	11.6	10.4	14.1	9.9	16.6
HCM Lane LOS	B	B	C	B	B	B	A	C
HCM 95th-tile Q	0.5	0.9	5.2	2.7	0.1	1.9	1.2	2.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	150	5	40
Peak Hour Factor	0.93	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	163	5	43
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	16.6
HCM LOS	C

Lane

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	360	130	1620	200	120	1010
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	387	140	1742	215	129	1086
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	698	321	2492	774	286	2246
Arrive On Green	0.20	0.20	0.49	0.49	0.08	0.63
Sat Flow, veh/h	3442	1583	5253	1580	3442	3632
Grp Volume(v), veh/h	387	140	1742	215	129	1086
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1580	1721	1770
Q Serve(g_s), s	6.6	5.0	17.3	5.2	2.3	10.5
Cycle Q Clear(g_c), s	6.6	5.0	17.3	5.2	2.3	10.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	698	321	2492	774	286	2246
V/C Ratio(X)	0.55	0.44	0.70	0.28	0.45	0.48
Avail Cap(c_a), veh/h	1446	665	5225	1624	581	4451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	22.7	12.9	9.8	28.5	6.3
Incr Delay (d2), s/veh	1.5	2.0	0.1	0.1	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.3	2.4	8.1	2.3	1.2	5.1
LnGrp Delay(d),s/veh	24.8	24.7	13.0	9.9	30.8	6.3
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	527		1957			1215
Approach Delay, s/veh	24.8		12.7			8.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.4	38.0				47.4		17.8
Change Period (Y+Rc), s	4.0	6.0				6.0		4.6
Max Green Setting (Gmax), s	11.0	67.0				82.0		27.4
Max Q Clear Time (g_c+I1), s	4.3	19.3				12.5		8.6
Green Ext Time (p_c), s	0.4	12.6				13.0		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	770	280	340	600	290	650
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	837	304	370	652	315	707
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	850	758	404	761	463	390
Arrive On Green	0.48	0.48	0.12	0.41	0.25	0.25
Sat Flow, veh/h	1774	1583	3442	1863	1863	1567
Grp Volume(v), veh/h	837	304	370	652	315	707
Grp Sat Flow(s),veh/h/ln	1774	1583	1721	1863	1863	1567
Q Serve(g_s), s	49.6	13.2	11.3	33.9	16.3	26.5
Cycle Q Clear(g_c), s	49.6	13.2	11.3	33.9	16.3	26.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	850	758	404	761	463	390
V/C Ratio(X)	0.99	0.40	0.92	0.86	0.68	1.81
Avail Cap(c_a), veh/h	850	758	404	761	463	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	17.9	46.5	28.7	36.2	40.0
Incr Delay (d2), s/veh	27.2	0.3	25.3	10.3	5.2	375.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	30.6	13.7	6.8	19.6	9.1	52.1
LnGrp Delay(d),s/veh	54.5	18.2	71.8	39.0	41.4	415.8
LnGrp LOS	D	B	E	D	D	F
Approach Vol, veh/h	1141			1022	1022	
Approach Delay, s/veh	44.9			50.9	300.4	
Approach LOS	D			D	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		49.5		57.0	17.0	32.5		
Change Period (Y+Rc), s		6.0		6.0	4.5	6.0		
Max Green Setting (Gmax), s		43.5		51.0	12.5	26.5		
Max Q Clear Time (g_c+I1), s		35.9		51.6	13.3	28.5		
Green Ext Time (p_c), s		6.6		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	128.8
HCM 2010 LOS	F

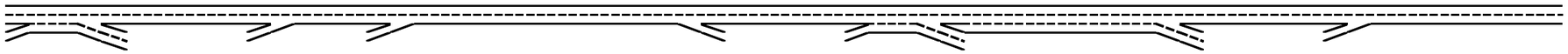
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	390	330	420	1430	600	410
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	406	344	438	0	625	427
Adj No. of Lanes	2	1	2	1	2	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	953	438	812	363	816	1954
Arrive On Green	0.28	0.28	0.23	0.00	0.24	0.55
Sat Flow, veh/h	3442	1583	3632	1583	3442	3632
Grp Volume(v), veh/h	406	344	438	0	625	427
Grp Sat Flow(s),veh/h/ln	1721	1583	1770	1583	1721	1770
Q Serve(g_s), s	5.7	11.7	6.4	0.0	9.9	3.6
Cycle Q Clear(g_c), s	5.7	11.7	6.4	0.0	9.9	3.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	953	438	812	363	816	1954
V/C Ratio(X)	0.43	0.78	0.54	0.00	0.77	0.22
Avail Cap(c_a), veh/h	1648	758	1392	623	1413	3147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	19.5	19.8	0.0	20.8	6.7
Incr Delay (d2), s/veh	0.3	3.1	0.6	0.0	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.7	5.5	3.2	0.0	4.9	1.7
LnGrp Delay(d),s/veh	17.6	22.7	20.4	0.0	22.3	6.7
LnGrp LOS	B	C	C		C	A
Approach Vol, veh/h	750		438			1052
Approach Delay, s/veh	19.9		20.4			16.0
Approach LOS	B		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.9	18.4				37.3		21.2
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	24.0	23.0				52.0		28.0
Max Q Clear Time (g_c+I1), s	11.9	8.4				5.6		13.7
Green Ext Time (p_c), s	2.0	5.1				7.1		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	18.2
HCM 2010 LOS	B

Appendix E-7:
Technical Calculations
Cumulative No Project Conditions –
Freeway & Highway Level of Service

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



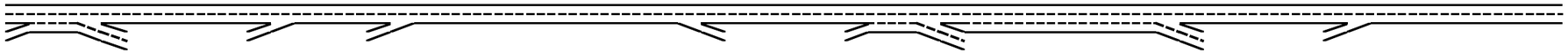
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment													
Type	Weave	Basic	Merge	Merge	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	2,770	1,420	1,150	1,500	1,020	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length			340	1,260								600	
Decel Length						175							
Mainline Volume	3,370	2,890	2,890	3,500	3,860	3,860	2,760	2,760	2,450	2,450	1,510	1,510	1,730
On Ramp Volume	370		610	360				760				220	
Off Ramp Volume	850					1,100		1,070		940			
Express Lane Volume													
EL On Ramp Volume													
EL Off Ramp Volume													
Calculate Flow Rate in General Purpose Lanes (GP)													
GP Volume (vph)	3,740	2,890	3,500	3,860	3,860	3,860	2,760	3,520	2,450	2,450	1,510	1,730	1,730
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	3	2	2	2	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	4,025	3,111	3,767	4,155	4,155	4,155	2,971	3,789	2,637	2,637	1,625	1,862	1,862
GP Flow (pcphpl)	1,342	1,555	1,884	2,077	2,077	2,077	1,485	1,263	879	879	813	931	931
Calculate Speed in General Purpose Lanes													
Lane Width (ft)													
Shoulder Width													
TRD													
f_{LW}													
f_{LC}													
Calculated FFS													
Measured FFS													
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes													
v/c ratio	0.57	0.66	0.80	0.88	0.88	0.88	0.63	0.54	0.37	0.37	0.35	0.40	0.40
Speed (mph)	65.0	64.7	61.7	58.5	58.5	58.5	64.9	65.0	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	20.6	24.1	30.5	35.5	35.5	35.5	22.9	19.4	13.5	13.5	12.5	14.3	14.3
LOS	C	C	D	E	E	E	C	C	B	B	B	B	B
Calculate Operations for Entering GP Lanes													
GP_{IN} Vol (pcph)	3,619		3,097	3,759		4,155		2,961				1,618	
GP_{IN} Cap (pcph)	4,700		4,700	4,700		4,700		4,700				4,700	
GP_{IN} v/c ratio	0.77		0.66	0.80		0.88		0.63				0.34	
Calculate Operations for Exiting GP Lanes													
GP_{OUT} Vol (pcph)	3,092		3,767	4,155		2,985		2,608		1,595		1,862	
GP_{OUT} Cap (pcph)	4,700		4,700	4,700		4,700		4,700		4,700		4,700	
GP_{OUT} v/c ratio	0.66		0.80	0.88		0.64		0.55		0.34		0.40	

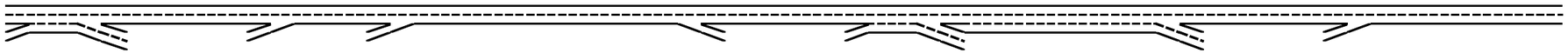
Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Flow Rate in Express Lanes (EL)													
Calculate Speed in Express Lanes													
Calculate Operations in Express Lanes													
Calculate On Ramp Flow Rate													
On Volume (vph)	370		610	360				760				220	
PHF	0.92		0.92	0.92				0.95				0.92	
Total Lanes	1		1	1				1				1	
Terrain	Level		Level	Level				Level				Level	
Grade %	0.0%		0.0%	0.0%				0.0%				0.0%	
Grade Length (mi)	0.00		0.00	0.00				0.00				0.00	
Truck & Bus %	2.0%		2.0%	2.0%				7.0%				4.0%	
RV %	0.0%		0.0%	0.0%				0.0%				0.0%	
E_T	1.5		1.5	1.5				1.5				1.5	
E_R	1.2		1.2	1.2				1.2				1.2	
f_{HV}	0.990		0.990	0.990				0.966				0.980	
f_P	1.00		1.00	1.00				1.00				1.00	
On Flow (pcph)	406		670	395				828				244	
On Flow (pcphpl)	406		670	395				828				244	
Calculate On Ramp Roadway Operations													
On Ramp Type	Right		Right	Right				Right				Right	
On Ramp Speed (mph)	45		25	45				45				45	
On Ramp Cap (pcph)	2,100		1,900	2,100				2,100				2,100	
On Ramp v/c ratio	0.19		0.35	0.19				0.39				0.12	
Calculate Off Ramp Flow Rate													
Off Volume (vph)	850					1,100		1,070		940			
PHF	0.92					0.95		0.92		0.92			
Total Lanes	2					1		2		2			
Terrain	Level					Level		Level		Level			
Grade %	0.0%					0.0%		0.0%		0.0%			
Grade Length (mi)	0.00					0.00		0.00		0.00			
Truck & Bus %	2.0%					2.0%		3.0%		4.0%			
RV %	0.0%					0.0%		0.0%		0.0%			
E_T	1.5					1.5		1.5		1.5			
E_R	1.2					1.2		1.2		1.2			
f_{HV}	0.990					0.990		0.985		0.980			
f_P	1.00					1.00		1.00		1.00			
Off Flow (pcph)	933					1,169		1,180		1,042			
Off Flow (pcphpl)	467					1,169		590		521			
Calculate Off Ramp Roadway Operations													
Off Ramp Type						Right		Right		Right			
Off Ramp Speed						45		45		45			
Off Ramp Cap (pcph)						2,100		4,200		4,200			
Off Ramp v/c ratio						0.56		0.28		0.25			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-La													
Up Type													
Up Distance													
Up Flow (pcph)													
Down Type													
Down Distance													
Down Flow (pcph)													

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



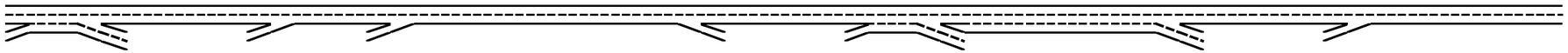
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Merge Influence Area Operations													
Effective v_P (pcph)			3,097	3,759								1,618	
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FM} (Eqn 13-3)			0.587	0.613								0.594	
P_{FM} (Eqn 13-4)													
P_{FM} (Eqn 13-5)													
P_{FM}			1.000	1.000								1.000	
v_{12} (pcph)			3,097	3,759								1,618	
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)			3,097	3,759								1,618	
v_{R12a} (pcph)			3,767	4,155								1,862	
Merge Speed Index			0.47	0.46								0.29	
Merge Area Speed			54.1	54.5								58.3	
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed			54.1	54.5								58.3	
Merge v/c ratio			0.82	0.90								0.40	
Merge Density			32.4	29.8								16.1	
Merge LOS			D	D								B	
Calculate Diverge Influence Area Operations													
Effective v_P (pcph)						4,155							
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FD} (Eqn 13-9)						0.602							
P_{FD} (Eqn 13-10)													
P_{FD} (Eqn 13-11)													
P_{FD}						1.000							
v_{12} (pcph)						4,155							
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)						4,155							
Diverge Speed Index						0.40							
Diverge Area Speed						55.7							
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed						55.7							
Diverge v/c ratio						0.94							
Diverge Density						38.4							
Diverge LOS						E							

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



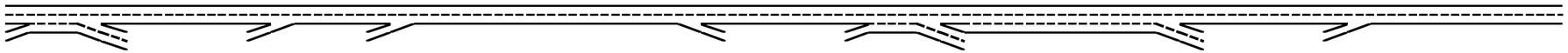
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments													
On to Off Volume (vph)	93							76					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							7.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.966					
f_P	1.00							1.00					
On to Off Flow (pcph)	99							98					
Calculate On Ramp to Mainline Flow Rate for Weave Segments													
On to ML Volume (vph)	278							684					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.985					
f_P	1.00							1.00					
On to ML Flow (pcph)	296							868					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments													
ML to Off Volume (vph)	758							994					
PHF	0.95							0.83					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
ML to Off Flow (pcph)	821							1,216					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for													
GP to GP Volume (vph)	2,613							1,766					
PHF	0.95							0.825					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
GP to GP Flow (pcph)	2,833							2,173					

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
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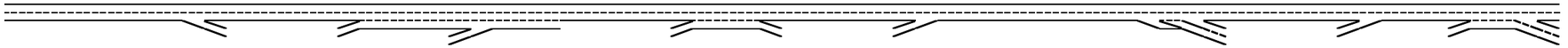
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations													
Weave Type	One-sided							One-sided					
Weave Length	1,770							1,680					
Segment Lanes	3							3					
Weave Lanes	2							3					
Weave Flow (pcph)	1,118							2,083					
Non-Weave Flow	2,931							2,271					
Segment Flow	4,049							4,354					
Max Weave Length	5,328							6,010					
Length Check	OK							OK					
Ideal Weave Capacity	2,078							2,019					
f_{HV}	0.972							0.985					
f_P	0.999							0.997					
Capacity Condition 1	6,054							5,947					
Capacity Condition 2	8,444							7,183					
Weave v/c ratio	0.65							0.72					
Interchange Density								0.666666667					
Lane Changes On to ML													
Lane Changes ML to Off													
Lane Changes On to Off													
Min Lane Change Rate								0					
Weave LC Rate								564					
Non-Weave LC Rate 1								801					
Non-Weave LC Rate 2								2,195					
Non-Weave LC Rate 3								-1,443					
Segment LC Rate								1,364					
Weave Intensity Factor								0.192					
Weave Speed								57.0					
Non-Weave Speed								58.0					
Segment Speed								57.5					
Weave Density								25.2					
Weave LOS								C					
Summarize Segment Operations													
Segment v/c ratio	0.65	0.66	0.82	0.90	0.88	0.94	0.63	0.72	0.37	0.37	0.35	0.40	0.40
Segment Density		24.1	32.4	29.8	35.5	38.4	22.9	25.2	13.5	13.5	12.5	16.1	14.3
Segment LOS		C	D	D	E	E	C	C	B	B	B	B	B
Over Capacity													

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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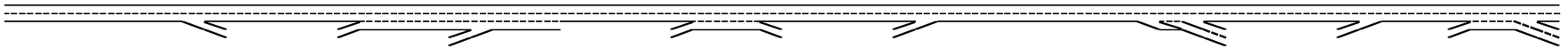
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Define Freeway Segment														
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic	Diverge	Basic	Merge	Weave
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	2,210	1,500	1,830	690	3,344
Accel Length					720				450				400	
Decel Length		150									1,500			
Mainline Volume	1,660	1,660	1,470	1,470	2,290	3,780	3,780	3,685	3,685	4,395	4,395	3,315	3,315	3,845
On Ramp Volume				820	1,490		885		710				530	20
Off Ramp Volume		190					980				1,080			610
Express Lane Volume														
EL On Ramp Volume														
EL Off Ramp Volume														
Calculate Flow Rate in General Purpose Lanes (GP)														
GP Volume (vph)	1,660	1,660	1,470	2,290	3,780	3,780	4,665	3,685	4,395	4,395	4,395	3,315	3,845	3,865
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	2	3	2	2	2	2	2	2	3
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	1,765	1,765	1,563	2,435	4,019	4,019	4,960	3,918	4,673	4,673	4,673	3,524	4,088	4,109
GP Flow (pcphpl)	882	882	781	812	1,340	2,009	1,653	1,959	2,336	2,336	2,336	1,762	2,044	1,370
Calculate Speed in General Purpose Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calculated FFS														
Measured FFS														
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes														
v/c ratio	0.38	0.38	0.33	0.35	0.57	0.86	0.70	0.83	0.99	0.99	0.99	0.75	0.87	0.58
Speed (mph)	65.0	65.0	65.0	65.0	65.0	59.7	64.1	60.6	52.6	52.6	52.6	63.1	59.1	65.0
Density (pcphpl)	13.6	13.6	12.0	12.5	20.6	33.6	25.8	32.3	44.4	44.4	44.4	27.9	34.6	21.1
LOS	B	B	B	B	C	D	C	D	E	E	E	D	D	C
Calculate Operations for Entering GP Lanes														
GP_{IN} Vol (pcph)		1,765		1,534	2,383		3,988		3,893		4,673		3,506	4,087
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		4,700		4,700		4,700	4,700
GP_{IN} v/c ratio		0.38		0.33	0.34		0.85		0.83		0.99		0.75	0.87
Calculate Operations for Exiting GP Lanes														
GP_{OUT} Vol (pcph)		1,555			4,019		3,873		4,673		3,487		4,088	3,439
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		4,700		4,700		4,700	4,700
GP_{OUT} v/c ratio		0.33			0.57		0.82		0.99		0.74		0.87	0.73

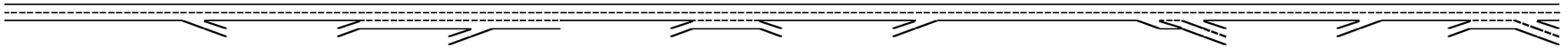
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Flow Rate in Express Lanes (EL)														
Calculate Speed in Express Lanes														
Calculate Operations in Express Lanes														
EL_{Pk} v/c ratio														
Calculate On Ramp Flow Rate														
On Volume (vph)				820	1,490		885		710				530	20
PHF				0.92	0.92		0.92		0.92				0.92	0.92
Total Lanes				1	1		1		1				1	1
Terrain				Level	Level		Level		Level				Level	Level
Grade %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
Grade Length (mi)				0.00	0.00		0.00		0.00				0.00	0.00
Truck & Bus %				2.0%	2.0%		2.0%		2.0%				2.0%	3.0%
RV %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
E_T				1.5	1.5		1.5		1.5				1.5	1.5
E_R				1.2	1.2		1.2		1.2				1.2	1.2
f_{HV}				0.990	0.990		0.990		0.990				0.990	0.985
f_P				1.00	1.00		1.00		1.00				1.00	1.00
On Flow (pcph)				900	1,636		972		779				582	22
On Flow (pcphpl)				900	1,636		972		779				582	22
Calculate On Ramp Roadway Operations														
On Ramp Type				Right	Right		Right		Right				Right	Right
On Ramp Speed (mph)				25	45		45		25				25	45
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900				1,900	2,100
On Ramp v/c ratio				0.47	0.78		0.46		0.41				0.31	0.01
Calculate Off Ramp Flow Rate														
Off Volume (vph)		190					980				1,080			610
PHF		0.92					0.92				0.92			0.92
Total Lanes		1					1				2			2
Terrain		Level					Level				Level			Level
Grade %		0.0%					0.0%				0.0%			0.0%
Grade Length (mi)		0.00					0.00				0.00			0.00
Truck & Bus %		3.0%					4.0%				2.0%			2.0%
RV %		0.0%					0.0%				0.0%			0.0%
E_T		1.5					1.5				1.5			1.5
E_R		1.2					1.2				1.2			1.2
f_{HV}		0.985					0.980				0.990			0.990
f_P		1.00					1.00				1.00			1.00
Off Flow (pcph)		210					1,087				1,186			670
Off Flow (pcphpl)		210					1,087				593			335
Calculate Off Ramp Roadway Operations														
Off Ramp Type		Right					Right				Right			Right
Off Ramp Speed		45					45				45			45
Off Ramp Cap (pcph)		2,100					2,100				4,200			4,200
Off Ramp v/c ratio		0.10					0.52				0.28			0.16
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps														
Up Type					On									
Up Distance					1,000									
Up Flow (pcph)					900									
Down Type					No									
Down Distance														
Down Flow (pcph)														

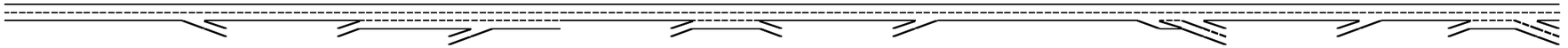
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Merge Influence Area Operations														
Effective v_P (pcph)					2,383				3,893				3,506	
Up Ramp L_{EQ}					1,131									
Down Ramp L_{EQ}														
P_{FM} (Eqn 13-3)					0.598				0.590				0.589	
P_{FM} (Eqn 13-4)														
P_{FM} (Eqn 13-5)														
P_{FM}					0.598				1.000				1.000	
v_{12} (pcph)					1,424				3,893				3,506	
v_3 (pcph)					959									
v_{34} (pcph)														
v_{12a} (pcph)					1,424				3,893				3,506	
v_{R12a} (pcph)					3,060				4,673				4,088	
Merge Speed Index					0.34				0.72				0.53	
Merge Area Speed					57.2				48.5				52.7	
Outer Lanes Volume					959									
Outer Lanes Speed					63.3									
Segment Speed					58.6				48.5				52.7	
Merge v/c ratio					0.67				1.02				0.89	
Merge Density					24.1				38.7				34.6	
Merge LOS					C				F				D	
Calculate Diverge Influence Area Operations														
Effective v_P (pcph)		1,765									4,673			
Up Ramp L_{EQ}														
Down Ramp L_{EQ}														
P_{FD} (Eqn 13-9)		0.706									0.589			
P_{FD} (Eqn 13-10)														
P_{FD} (Eqn 13-11)														
P_{FD}		1.000									1.000			
v_{12} (pcph)		1,765									4,673			
v_3 (pcph)														
v_{34} (pcph)														
v_{12a} (pcph)		1,765									4,673			
Diverge Speed Index		0.32									0.40			
Diverge Area Speed		57.7									55.7			
Outer Lanes Volume														
Outer Lanes Speed														
Segment Speed		57.7									55.7			
Diverge v/c ratio		0.40									1.06			
Diverge Density		18.1									30.9			
Diverge LOS		B									F			

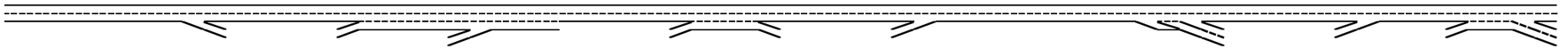
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments														
On to Off Volume (vph)							89							50
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_P							1.00							1.00
On to Off Flow (pcph)							95							53
Calculate On Ramp to Mainline Flow Rate for Weave Segments														
On to ML Volume (vph)							797							-30
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_P							1.00							1.00
On to ML Flow (pcph)							851							-32
Calculate Mainline to Off Ramp Flow Rate for Weave Segments														
ML to Off Volume (vph)							892							560
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_P							1.00							1.00
ML to Off Flow (pcph)							1,059							607
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments														
GP to GP Volume (vph)							2,889							3,285
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_P							1.00							1.00
GP to GP Flow (pcph)							3,432							3,562

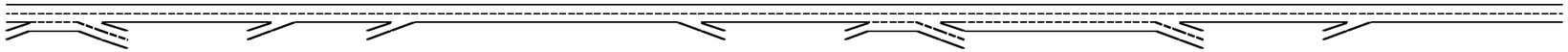
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Weave Segment Operations														
Weave Type							One-sided							One-sided
Weave Length							2,050							2,344
Segment Lanes							3							3
Weave Lanes							2							2
Weave Flow (pcph)							1,910							575
Non-Weave Flow							3,527							3,615
Segment Flow							5,437							4,190
Max Weave Length							6,141							3,905
Length Check							OK							OK
Ideal Weave Capacity							2,037							2,231
f_{wv}							0.989							0.971
f_p							0.998							1.000
Capacity Condition 1							6,031							6,498
Capacity Condition 2							6,742							16,980
Weave v/c ratio							0.89							0.63
Interchange Density														
Lane Changes On to ML														
Lane Changes ML to Off														
Lane Changes On to Off														
Min Lane Change Rate														
Weave LC Rate														
Non-Weave LC Rate 1														
Non-Weave LC Rate 2														
Non-Weave LC Rate 3														
Segment LC Rate														
Weave Intensity Factor														
Weave Speed														
Non-Weave Speed														
Segment Speed														
Weave Density														
Weave LOS														
Summarize Segment Operations														
Segment v/c ratio	0.38	0.40	0.33	0.35	0.67	0.86	0.89	0.83	1.02	0.99	1.06	0.75	0.89	0.63
Segment Density	13.6	18.1	12.0	12.5	24.1	33.6		32.3	-	44.4	-	27.9	34.6	
Segment LOS	B	B	B	B	C	D		D	F	E	F	D	D	
Over Capacity									Merge		Diverge			

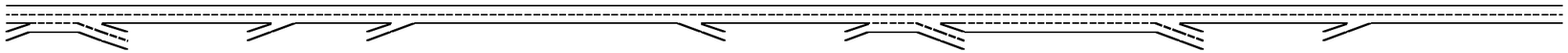
Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment													
Type	Weave	Basic	Merge	Merge	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	2,770	1,420	1,150	1,500	1,020	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length			340	1,260								600	
Decel Length						175							
Mainline Volume	3,540	3,370	3,370	4,220	4,460	4,460	3,650	3,650	3,230	3,230	1,340	1,340	1,740
On Ramp Volume	140		850	240				1,170				400	
Off Ramp Volume	310					810		1,590		1,890			
Express Lane Volume													
EL On Ramp Volume													
EL Off Ramp Volume													
Calculate Flow Rate in General Purpose Lanes (GP)													
GP Volume (vph)	3,680	3,370	4,220	4,460	4,460	4,460	3,650	4,820	3,230	3,230	1,340	1,740	1,740
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	3	2	2	2	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988
f_p	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,920	3,590	4,495	4,751	4,751	4,751	3,888	5,135	3,441	3,441	1,427	1,854	1,854
GP Flow (pcphpl)	1,307	1,795	2,248	2,376	2,376	2,376	1,944	1,712	1,147	1,147	714	927	927
Calculate Speed in General Purpose Lanes													
Lane Width (ft)													
Shoulder Width													
TRD													
f_{LW}													
f_{LC}													
Calculated FFS													
Measured FFS													
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes													
v/c ratio	0.56	0.76	0.96	1.01	1.01	1.01	0.83	0.73	0.49	0.49	0.30	0.39	0.39
Speed (mph)	65.0	62.8	54.8	-	-	-	60.8	63.6	65.0	65.0	65.0	65.0	65.0
Density (pcphpl)	20.1	28.6	41.0	-	-	-	32.0	26.9	17.6	17.6	11.0	14.3	14.3
LOS	C	D	E	F	F	F	D	D	B	B	A	B	B
Calculate Operations for Entering GP Lanes													
GP_{IN} Vol (pcph)	3,766		3,558	4,486		4,751		3,885				1,410	
GP_{IN} Cap (pcph)	4,700		4,700	4,700		4,700		4,700				4,700	
GP_{IN} v/c ratio	0.80		0.76	0.95		1.01		0.83				0.30	
Calculate Operations for Exiting GP Lanes													
GP_{OUT} Vol (pcph)	3,580		4,495	4,751		3,890		3,443		1,345		1,854	
GP_{OUT} Cap (pcph)	4,700		4,700	4,700		4,700		4,700		4,700		4,700	
GP_{OUT} v/c ratio	0.76		0.96	1.01		0.83		0.73		0.29		0.39	

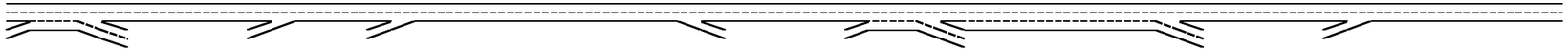
Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Flow Rate in Express Lanes (EL)													
Calculate Speed in Express Lanes													
Calculate Operations in Express Lanes													
Calculate On Ramp Flow Rate													
On Volume (vph)	140		850	240				1,170				400	
PHF	0.92		0.92	0.92				0.95				0.92	
Total Lanes	1		1	1				1				1	
Terrain	Level		Level	Level				Level				Level	
Grade %	0.0%		0.0%	0.0%				0.0%				0.0%	
Grade Length (mi)	0.00		0.00	0.00				0.00				0.00	
Truck & Bus %	3.0%		3.0%	3.0%				3.0%				4.0%	
RV %	0.0%		0.0%	0.0%				0.0%				0.0%	
E_T	1.5		1.5	1.5				1.5				1.5	
E_R	1.2		1.2	1.2				1.2				1.2	
f_{HV}	0.985		0.985	0.985				0.985				0.980	
f_p	1.00		1.00	1.00				1.00				1.00	
On Flow (pcph)	154		938	265				1,250				443	
On Flow (pcphpl)	154		938	265				1,250				443	
Calculate On Ramp Roadway Operations													
On Ramp Type	Right		Right	Right				Right				Right	
On Ramp Speed (mph)	45		25	45				45				45	
On Ramp Cap (pcph)	2,100		1,900	2,100				2,100				2,100	
On Ramp v/c ratio	0.07		0.49	0.13				0.60				0.21	
Calculate Off Ramp Flow Rate													
Off Volume (vph)	310					810		1,590		1,890			
PHF	0.92					0.95		0.954		0.92			
Total Lanes	2					1		2		2			
Terrain	Level					Level		Level		Level			
Grade %	0.0%					0.0%		0.0%		0.0%			
Grade Length (mi)	0.00					0.00		0.00		0.00			
Truck & Bus %	2.0%					2.0%		3.0%		4.0%			
RV %	0.0%					0.0%		0.0%		0.0%			
E_T	1.5					1.5		1.5		1.5			
E_R	1.2					1.2		1.2		1.2			
f_{HV}	0.990					0.990		0.985		0.980			
f_p	1.00					1.00		1.00		1.00			
Off Flow (pcph)	340					861		1,692		2,095			
Off Flow (pcphpl)	170					861		846		1,048			
Calculate Off Ramp Roadway Operations													
Off Ramp Type	Right					Right		Right		Right			
Off Ramp Speed	45					45		45		45			
Off Ramp Cap (pcph)	4,200					2,100		4,200		4,200			
Off Ramp v/c ratio	0.08					0.41		0.40		0.50			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lan													
Up Type													
Up Distance													
Up Flow (pcph)													
Down Type													
Down Distance													
Down Flow (pcph)													

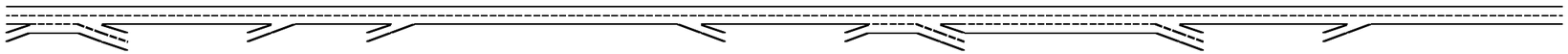
Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Merge Influence Area Operations													
Effective v_p (pcph)			3,558	4,486								1,410	
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FM} (Eqn 13-3)			0.587	0.613								0.594	
P_{FM} (Eqn 13-4)													
P_{FM} (Eqn 13-5)													
P_{FM}			1.000	1.000								1.000	
v_{12} (pcph)			3,558	4,486								1,410	
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)			3,558	4,486								1,410	
v_{O12a} (pcph)			4,495	4,751								1,854	
Merge Speed Index			0.65	-								0.29	
Merge Area Speed			50.0	-								58.3	
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed			50.0									58.3	
Merge v/c ratio			0.98	1.03								0.40	
Merge Density			38.0	-								16.0	
Merge LOS			E	F								B	
Calculate Diverge Influence Area Operations													
Effective v_p (pcph)						4,751							
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FD} (Eqn 13-9)						0.602							
P_{FD} (Eqn 13-10)													
P_{FD} (Eqn 13-11)													
P_{FD}						1.000							
v_{12} (pcph)						4,751							
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)						4,751							
Diverge Speed Index						-							
Diverge Area Speed						-							
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed													
Diverge v/c ratio						1.08							
Diverge Density						-							
Diverge LOS						F							

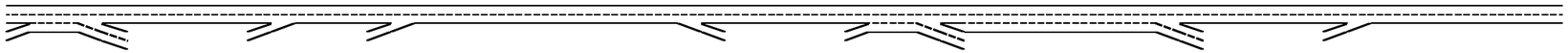
Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments													
On to Off Volume (vph)	35							117					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							7.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.966					
f_p	1.00							1.00					
On to Off Flow (pcph)	37							151					
Calculate On Ramp to Mainline Flow Rate for Weave Segments													
On to ML Volume (vph)	105							1,053					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.985					
f_p	1.00							1.00					
On to ML Flow (pcph)	112							1,336					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments													
ML to Off Volume (vph)	275							1,473					
PHF	0.95							0.83					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_p	1.00							1.00					
ML to Off Flow (pcph)	298							1,801					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for													
GP to GP Volume (vph)	3,265							2,177					
PHF	0.95							0.825					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_p	1.00							1.00					
GP to GP Flow (pcph)	3,540							2,678					

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
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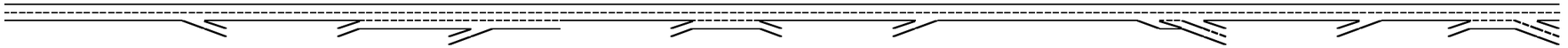
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations													
Weave Type	One-sided							One-sided					
Weave Length	1,770							1,680					
Segment Lanes	3							3					
Weave Lanes	2							3					
Weave Flow (pcph)	410							3,137					
Non-Weave Flow	3,577							2,830					
Segment Flow	3,988							5,967					
Max Weave Length	3,568							6,563					
Length Check	OK							OK					
Ideal Weave Capacity	2,212							1,976					
f_{HV}	0.971							0.985					
f_p	1.000							0.997					
Capacity Condition 1	6,445							5,819					
Capacity Condition 2	22,647							6,534					
Weave v/c ratio	0.60							1.01					
Interchange Density								0.666666667					
Lane Changes On to ML													
Lane Changes ML to Off													
Lane Changes On to Off													
Min Lane Change Rate								0					
Weave LC Rate								564					
Non-Weave LC Rate 1								916					
Non-Weave LC Rate 2								2,320					
Non-Weave LC Rate 3								-1,208					
Segment LC Rate								1,479					
Weave Intensity Factor								0.204					
Weave Speed								56.5					
Non-Weave Speed								55.5					
Segment Speed								56.0					
Weave Density								-					
Weave LOS								F					
Summarize Segment Operations													
Segment v/c ratio	0.60	0.76	0.98	1.03	1.01	1.08	0.83	1.01	0.49	0.49	0.30	0.40	0.39
Segment Density		28.6	38.0	-	-	-	32.0	-	17.6	17.6	11.0	16.0	14.3
Segment LOS		D	E	F	F	F	D	F	B	B	A	B	B
Over Capacity				Segment GP Lanes Out GP Lanes Merge	Segment GP Lanes	Segment GP Lanes In GP Lanes Diverge		Weave					

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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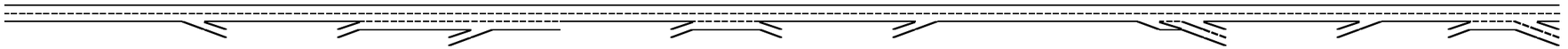
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Define Freeway Segment														
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic	Diverge	Basic	Merge	Weave
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	2,210	1,500	1,830	690	3,344
Accel Length					720				450				400	
Decel Length		150									1,500			
Mainline Volume	2,090	2,090	1,590	1,590	1,980	2,480	2,480	3,490	3,490	4,330	4,330	3,130	3,130	3,950
On Ramp Volume				390	500		1,680		840				820	150
Off Ramp Volume		500					670				1,200			520
Express Lane Volume														
EL On Ramp Volume														
EL Off Ramp Volume														
Calculate Flow Rate in General Purpose Lanes (GP)														
GP Volume (vph)	2,090	2,090	1,590	1,980	2,480	2,480	4,160	3,490	4,330	4,330	4,330	3,130	3,950	4,100
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	2	3	2	2	2	2	2	2	3
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	2,222	2,222	1,690	2,105	2,637	2,637	4,423	3,710	4,603	4,603	4,603	3,328	4,199	4,359
GP Flow (pcphpl)	1,111	1,111	845	702	879	1,318	1,474	1,855	2,302	2,302	2,302	1,664	2,100	1,453
Calculate Speed in General Purpose Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calculated FFS														
Measured FFS														
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes														
v/c ratio	0.47	0.47	0.36	0.30	0.37	0.56	0.63	0.79	0.98	0.98	0.98	0.71	0.89	0.62
Speed (mph)	65.0	65.0	65.0	65.0	65.0	65.0	64.9	62.1	53.5	53.5	53.5	64.0	58.1	65.0
Density (pcphpl)	17.1	17.1	13.0	10.8	13.5	20.3	22.7	29.9	43.0	43.0	43.0	26.0	36.2	22.4
LOS	B	B	B	A	B	C	C	D	E	E	E	C	E	C
Calculate Operations for Entering GP Lanes														
GP_{IN} Vol (pcph)		2,222		1,677	2,088		2,569		3,681		4,603		3,299	4,194
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		4,700		4,700		4,700	4,700
GP_{IN} v/c ratio		0.47		0.36	0.30		0.55		0.78		0.98		0.70	0.89
Calculate Operations for Exiting GP Lanes														
GP_{OUT} Vol (pcph)		1,673			2,637		3,687		4,603		3,286		4,199	3,788
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		4,700		4,700		4,700	4,700
GP_{OUT} v/c ratio		0.36			0.37		0.78		0.98		0.70		0.89	0.81

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



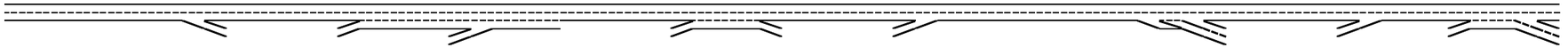
Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Flow Rate in Express Lanes (EL)														
Calculate Speed in Express Lanes														
Calculate Operations in Express Lanes														
EL_{Pk} v/c ratio														
Calculate On Ramp Flow Rate														
On Volume (vph)				390	500		1,680		840				820	150
PHF				0.92	0.92		0.92		0.92				0.92	0.92
Total Lanes				1	1		1		1				1	1
Terrain				Level	Level		Level		Level				Level	Level
Grade %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
Grade Length (mi)				0.00	0.00		0.00		0.00				0.00	0.00
Truck & Bus %				2.0%	2.0%		3.0%		2.0%				2.0%	2.0%
RV %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
E_T				1.5	1.5		1.5		1.5				1.5	1.5
E_R				1.2	1.2		1.2		1.2				1.2	1.2
f_{HV}				0.990	0.990		0.985		0.990				0.990	0.990
f_P				1.00	1.00		1.00		1.00				1.00	1.00
On Flow (pcph)				428	549		1,853		922				900	165
On Flow (pcphpl)				428	549		1,853		922				900	165
Calculate On Ramp Roadway Operations														
On Ramp Type				Right	Right		Right		Right				Right	Right
On Ramp Speed (mph)				25	45		45		25				25	45
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900				1,900	2,100
On Ramp v/c ratio				0.23	0.26		0.88		0.49				0.47	0.08
Calculate Off Ramp Flow Rate														
Off Volume (vph)		500					670				1,200			520
PHF		0.92					0.92				0.92			0.92
Total Lanes		1					1				2			2
Terrain		Level					Level				Level			Level
Grade %		0.0%					0.0%				0.0%			0.0%
Grade Length (mi)		0.00					0.00				0.00			0.00
Truck & Bus %		2.0%					2.0%				2.0%			2.0%
RV %		0.0%					0.0%				0.0%			0.0%
E_T		1.5					1.5				1.5			1.5
E_R		1.2					1.2				1.2			1.2
f_{HV}		0.990					0.990				0.990			0.990
f_P		1.00					1.00				1.00			1.00
Off Flow (pcph)		549					736				1,317			571
Off Flow (pcphpl)		549					736				659			285
Calculate Off Ramp Roadway Operations														
Off Ramp Type		Right					Right				Right			Right
Off Ramp Speed		45					45				45			45
Off Ramp Cap (pcph)		2,100					2,100				4,200			4,200
Off Ramp v/c ratio		0.26					0.35				0.31			0.14
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps														
Up Type					On									
Up Distance					1,000									
Up Flow (pcph)					428									
Down Type					No									
Down Distance														
Down Flow (pcph)														

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative No Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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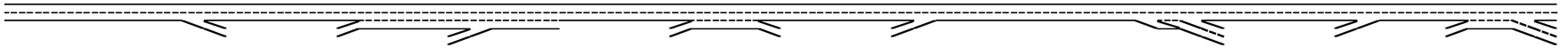
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Merge Influence Area Operations														
Effective v_P (pcph)					2,088				3,681				3,299	
Up Ramp L_{EQ}					835									
Down Ramp L_{EQ}														
P_{FM} (Eqn 13-3)					0.598				0.590				0.589	
P_{FM} (Eqn 13-4)														
P_{FM} (Eqn 13-5)														
P_{FM}					0.598				1.000				1.000	
v_{12} (pcph)					1,248				3,681				3,299	
v_3 (pcph)					840									
v_{34} (pcph)														
v_{12a} (pcph)					1,248				3,681				3,299	
v_{R12a} (pcph)					1,797				4,603				4,199	
Merge Speed Index					0.28				0.69				0.56	
Merge Area Speed					58.6				49.2				52.1	
Outer Lanes Volume					840									
Outer Lanes Speed					63.8									
Segment Speed					60.1				49.2				52.1	
Merge v/c ratio					0.39				1.00				0.91	
Merge Density					14.7				38.1				35.3	
Merge LOS					B				F				E	
Calculate Diverge Influence Area Operations														
Effective v_P (pcph)		2,222									4,603			
Up Ramp L_{EQ}														
Down Ramp L_{EQ}														
P_{FD} (Eqn 13-9)		0.679									0.584			
P_{FD} (Eqn 13-10)														
P_{FD} (Eqn 13-11)														
P_{FD}		1.000									1.000			
v_{12} (pcph)		2,222									4,603			
v_3 (pcph)														
v_{34} (pcph)														
v_{12a} (pcph)		2,222									4,603			
Diverge Speed Index		0.35									0.42			
Diverge Area Speed		57.0									55.4			
Outer Lanes Volume														
Outer Lanes Speed														
Segment Speed		57.0									55.4			
Diverge v/c ratio		0.51									1.05			
Diverge Density		22.0									30.3			
Diverge LOS		C									F			

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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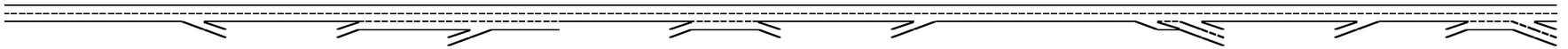
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments														
On to Off Volume (vph)							168							50
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_P							1.00							1.00
On to Off Flow (pcph)							179							53
Calculate On Ramp to Mainline Flow Rate for Weave Segments														
On to ML Volume (vph)							1,512							100
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_P							1.00							1.00
On to ML Flow (pcph)							1,615							107
Calculate Mainline to Off Ramp Flow Rate for Weave Segments														
ML to Off Volume (vph)							502							470
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_P							1.00							1.00
ML to Off Flow (pcph)							596							510
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments														
GP to GP Volume (vph)							1,978							3,480
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_P							1.00							1.00
GP to GP Flow (pcph)							2,350							3,773

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Weave Segment Operations														
Weave Type							One-sided							One-sided
Weave Length							2,050							2,344
Segment Lanes							3							3
Weave Lanes							2							2
Weave Flow (pcph)							2,212							616
Non-Weave Flow							2,530							3,826
Segment Flow							4,742							4,443
Max Weave Length							7,437							3,920
Length Check							OK							OK
Ideal Weave Capacity							1,938							2,229
f_{wv}							0.988							0.971
f_p							0.995							1.000
Capacity Condition 1							5,716							6,495
Capacity Condition 2							5,059							16,797
Weave v/c ratio							0.92							0.66
Interchange Density														
Lane Changes On to ML														
Lane Changes ML to Off														
Lane Changes On to Off														
Min Lane Change Rate														
Weave LC Rate														
Non-Weave LC Rate 1														
Non-Weave LC Rate 2														
Non-Weave LC Rate 3														
Segment LC Rate														
Weave Intensity Factor														
Weave Speed														
Non-Weave Speed														
Segment Speed														
Weave Density														
Weave LOS														
Summarize Segment Operations														
Segment v/c ratio	0.47	0.51	0.36	0.30	0.39	0.56	0.92	0.79	1.00	0.98	1.05	0.71	0.91	0.66
Segment Density	17.1	22.0	13.0	10.8	14.7	20.3		29.9	-	43.0	-	26.0	35.3	
Segment LOS	B	C	B	A	B	C		D	F	E	F	C	E	
Over Capacity									Merge		Diverge			

Leisch Method for Weaving Analysis

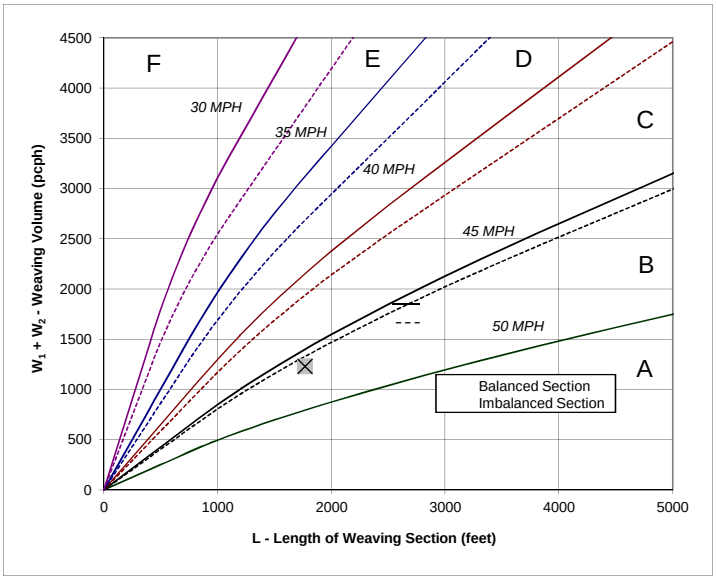
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,770

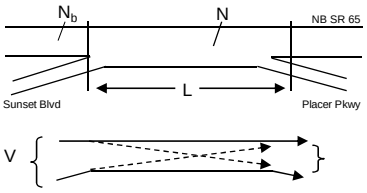
Project Information

Project	Village 5 SP
Scenario	Cumulative No Project - AM
Freeway	NB SR 65
On-ramp	Sunset Blvd
Off-ramp	Placer Pkwy

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,740	Volume (vph)*	370	Volume (vph)*	850
Truck Percentage	5%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	3,824	Volume (pcph)	374	Volume (pcph)	859



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	Y
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**45 MPH** and **50 MPH**
	If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph)	46.4
4. Weaving Intensity Factor (k)	1.77
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,370
6. Level of Service (LOS)	D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

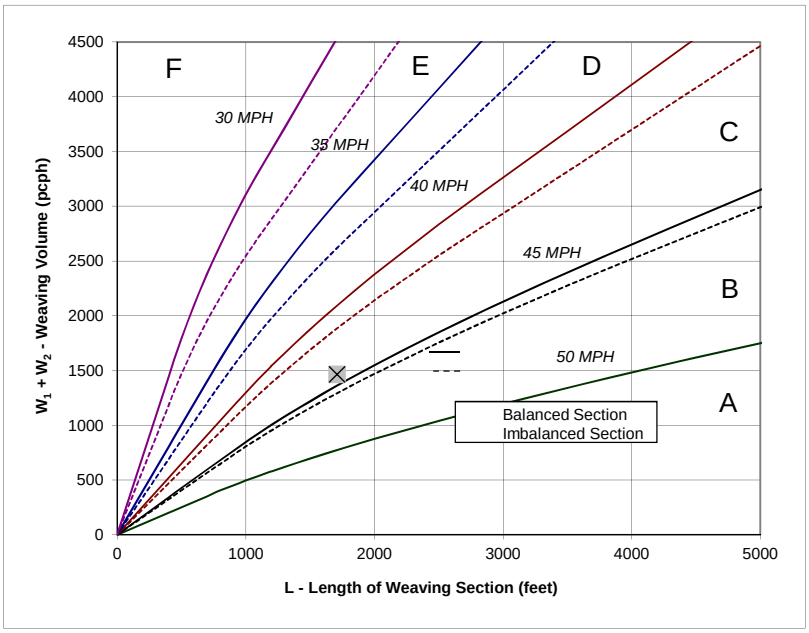
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

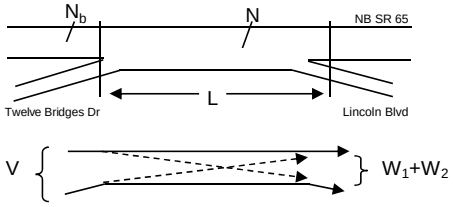
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information	
Project	Village 5 SP EIR
Scenario	Cumulative No Project - AM
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,520	Volume (vph)*	570	Volume (vph)*	880
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	3,555	Volume (pcph)	576	Volume (pcph)	889



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **44.3**
4. Weaving Intensity Factor (k) **2.06**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **1,388**
6. Level of Service (LOS) **D**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

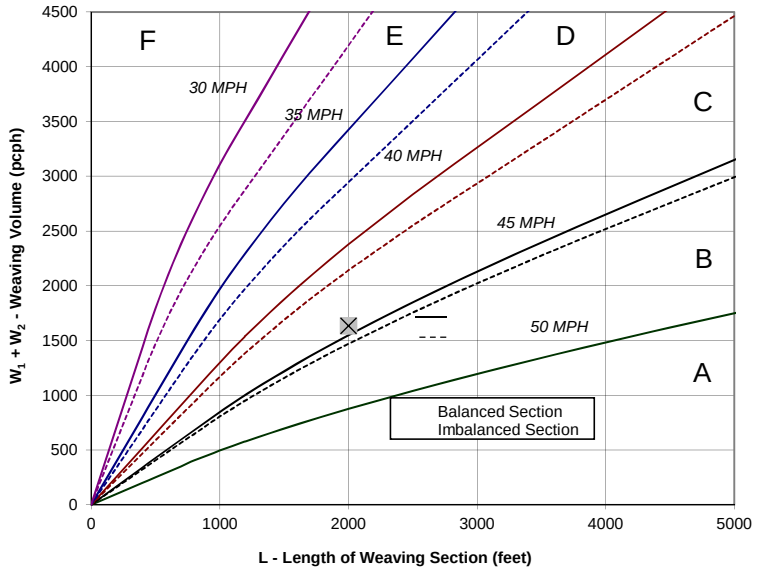
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

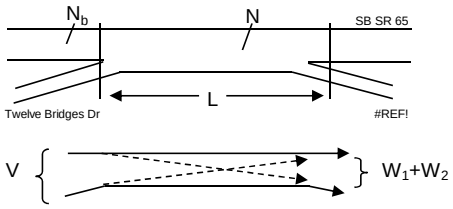
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Village 5 SP EIR
Scenario	Cumulative No Project - AM
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,665	Volume (vph)*	761	Volume (vph)*	856
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,712	Volume (pcph)	769	Volume (pcph)	865



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	N
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**40 MPH** and **45 MPH**
If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.	
3. Interpolated Weaving Speed (S_w, mph)	43.8
4. Weaving Intensity Factor (k)	2.12
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,858
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

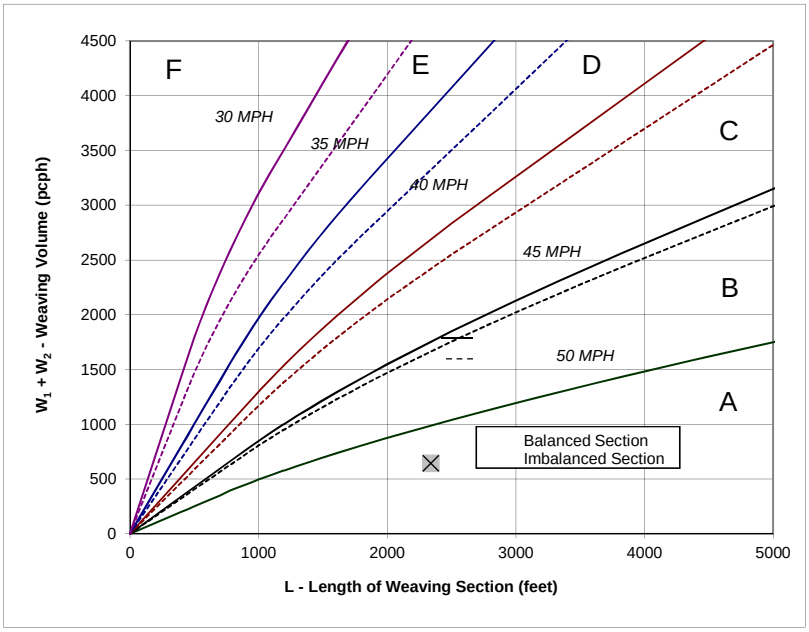
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,340

Project Information	
Project	Village 5 SP
Scenario	Cumulative No Project - AM
Freeway	SB SR 65
On-ramp	Placer Pkwy
Off-ramp	Sunset Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,865	Volume (vph)*	20	Volume (vph)*	610
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	3,904	Volume (pcph)	20	Volume (pcph)	623



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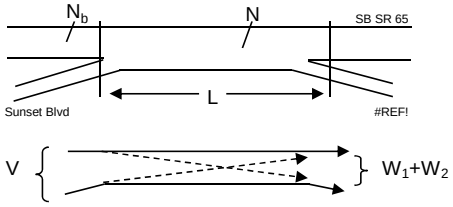


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **50.9**
4. Weaving Intensity Factor (k) **1.00**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **1,301**
6. Level of Service (LOS) **D**

BASIC

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

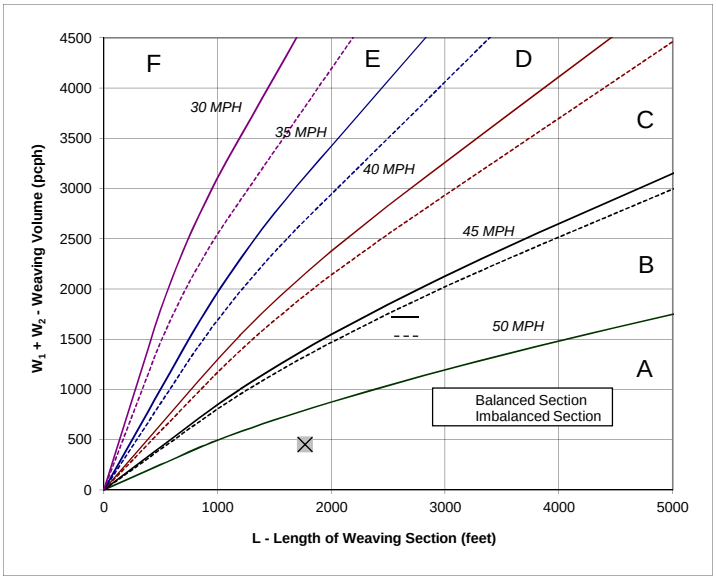
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,770

Project Information

Project	Village 5 SP
Scenario	Cumulative No Project - PM
Freeway	NB SR 65
On-ramp	Sunset Blvd
Off-ramp	Placer Pkwy

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	3,680	Volume (vph)*	140	Volume (vph)*	310
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	3,724	Volume (pcph)	141	Volume (pcph)	313



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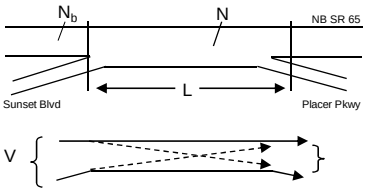


Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	Y
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**40 MPH** and **45 MPH**
	If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph)	51.3
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$	1,241
6. Level of Service (LOS)	C

Did not fall in the realm of we

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

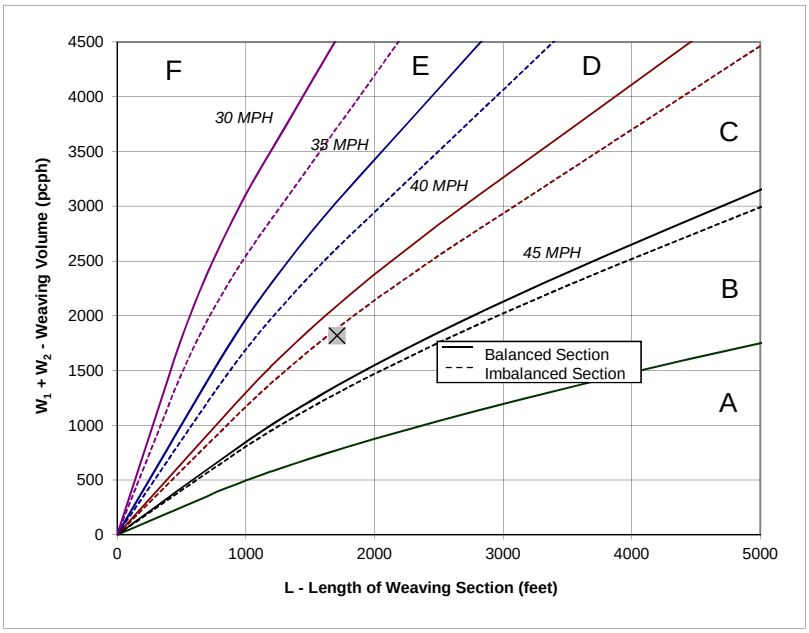
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information	
Project	Village 5 SP EIR
Scenario	Cumulative No Project - PM
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,820	Volume (vph)*	690	Volume (vph)*	1,110
Truck Percentage	4%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,916	Volume (pcph)	697	Volume (pcph)	1,121



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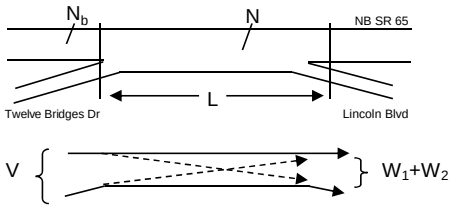


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **41.9**
4. Weaving Intensity Factor (k) **2.35**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **1,952**
6. Level of Service (LOS) **F**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

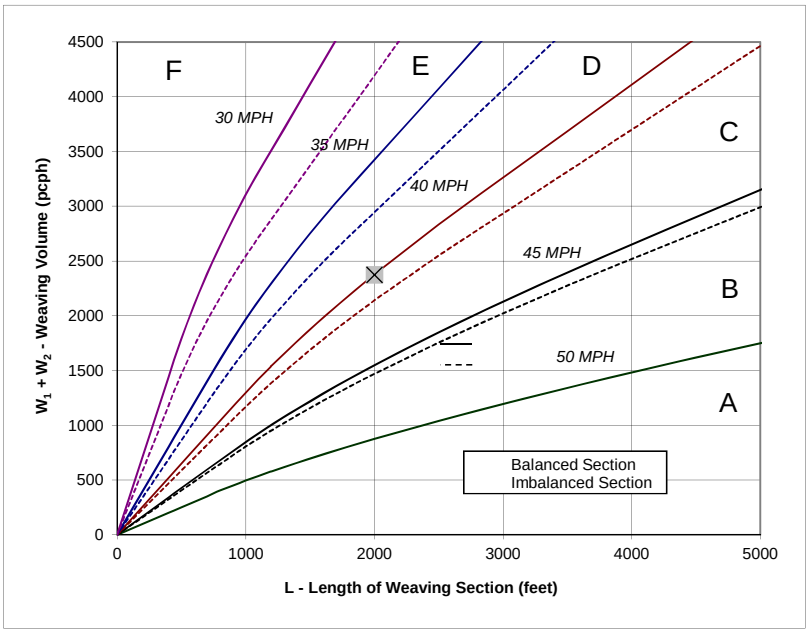
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

Project Information

Project	Village 5 SP EIR
Scenario	Cumulative No Project - PM
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,160	Volume (vph)*	1,680	Volume (vph)*	670
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,202	Volume (pcph)	1,697	Volume (pcph)	677



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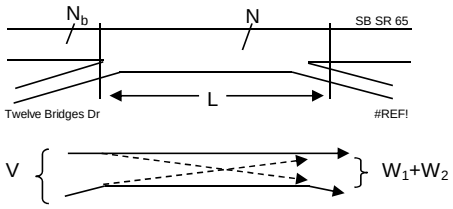

Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   35 MPH and **40 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **38.5**
4. Weaving Intensity Factor (k) **2.67**
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ **1,777**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

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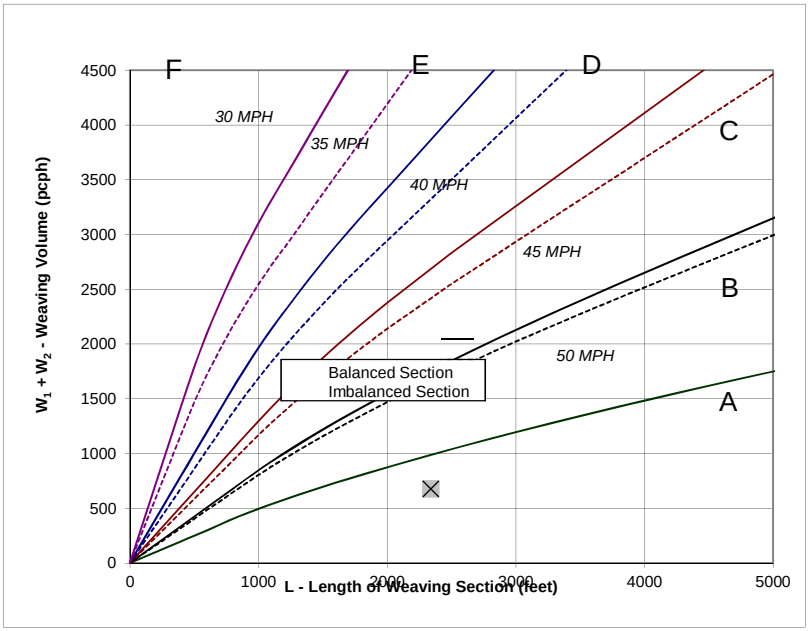
Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,340

Project Information	
Project	Village 5 SP
Scenario	Cumulative No Project - PM
Freeway	SB SR 65
On-ramp	Placer Pkwy
Off-ramp	Sunset Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,100	Volume (vph)*	150	Volume (vph)*	520
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,141	Volume (pcph)	152	Volume (pcph)	525



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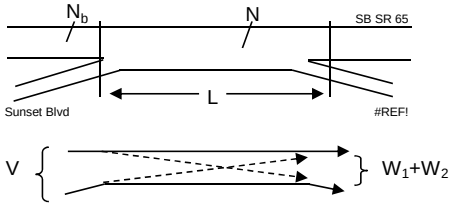


Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	Y
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**45 MPH** and **50 MPH**
If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.	
3. Interpolated Weaving Speed (S_w, mph)	52.0
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,380
6. Level of Service (LOS)	D

Did not fall

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/6/2014
Analysis Time Period	AM
Highway	65
From/To	north of Riosa
Jurisdiction	Placer County
Analysis Year	Cumulative No Project
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.92	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd	1190	veh/h
Opposing direction volume, Vo	1050	veh/h

Average Travel Speed

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adj. factor,(note-5) fHV	1.000	1.000
Grade adj. factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1293 pc/h	1141 pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	1.0	mi/h
Average travel speed, ATSd	34.8	mi/h
Percent Free Flow Speed, PFFS	63.6	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1293 pc/h	1141 pc/h
Base percent time-spent-following,(note-4) BPTSFd	86.1 %	
Adjustment for no-passing zones, fnp	12.5	
Percent time-spent-following, PTSFd	92.7 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.76	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	34.8	mi/h
Percent time-spent-following, PTSFd (from above)	92.7	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	1293.5
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.43
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/7/2014
Analysis Period:	AM
Highway:	65
From/To:	Riosa Road to Wise Road
Jurisdiction:	Placer County
Analysis Year:	Cumulative No Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1040	vph	880	vph
Peak-hour factor, PHF	0.93		0.92	
Peak 15-minute volume, v15	280		239	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	592	pcphpl	506	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	592	pcphpl	506	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	9.9	pc/mi/ln	8.4	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	559.1	478.3
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.28	6.20
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	AM
Highway:	65
From/To:	Wise Rd to Nelson Ln
Jurisdiction:	Placer County
Analysis Year:	Cumulative No Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1090	vph	1070	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	296		291	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	627	pcphpl	616	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	627	pcphpl	616	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	10.4	pc/mi/ln	10.3	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	592.4	581.5
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.31	6.30
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

HCS 2010: Two-Lane Highways Release 6.60

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/7/2014
Analysis Time Period	PM
Highway	65
From/To	Riosa north
Jurisdiction	Placer County
Analysis Year	Cumulative No Project
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.98	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd	1410	veh/h
Opposing direction volume, Vo	1240	veh/h

Average Travel Speed

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adj. factor,(note-5) fHV	1.000	1.000
Grade adj. factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1439 pc/h	1265 pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	1.0	mi/h
Average travel speed, ATSd	32.8	mi/h
Percent Free Flow Speed, PFFS	59.9	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1439 pc/h	1265 pc/h
Base percent time-spent-following,(note-4) BPTSFd	88.9 %	
Adjustment for no-passing zones, fnp	9.8	
Percent time-spent-following, PTSFd	94.1 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.85	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	32.8	mi/h
Percent time-spent-following, PTSFd (from above)	94.1	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	1438.8
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.48
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Riosa Road to Wise Road
Jurisdiction:	Placer County
Analysis Year:	Cumulative No Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1240	vph	950	vph
Peak-hour factor, PHF	0.94		0.92	
Peak 15-minute volume, v15	330		258	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	699	pcphpl	547	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	699	pcphpl	547	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.6	pc/mi/ln	9.1	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	659.6	516.3
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.37	6.24
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Wise to Nelson
Jurisdiction:	Placer County
Analysis Year:	Cumulative No Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1260	vph	1070	vph
Peak-hour factor, PHF	0.93		0.94	
Peak 15-minute volume, v15	339		285	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	718	pcphpl	603	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	718	pcphpl	603	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	12.0	pc/mi/ln	10.1	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	677.4	569.1
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.38	6.29
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Appendix E-8:
Technical Calculations
Cumulative Plus Project Conditions –
Intersection Level of Service

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	270	140	80	50	200	10	880	80	310	1010	20
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	11	293	152	87	54	217	11	957	87	337	1098	22
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	497	422	195	497	b12	47	14b4	b55	413	1795	803
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.41	0.41	0.12	0.51	0.51
Sat Flow, veh/h	1104	18b3	1583	941	18b3	1583	1774	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	11	293	152	87	54	217	11	957	87	337	1098	22
Grp Sat Flow(s),veh/h/ln	1104	18b3	1583	941	18b3	1583	1774	1770	1583	1721	1770	1583
Q Serve(g_s), s	0.7	13.4	7.b	8.7	2.1	9.b	0.b	21.3	3.3	9.4	21.7	0.7
Cycle Q Clear(g_c), s	2.9	13.4	7.b	22.1	2.1	9.b	0.b	21.3	3.3	9.4	21.7	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	497	422	195	497	b12	47	14b4	b55	413	1795	803
V/C Ratio(X)	0.03	0.59	0.3b	0.45	0.11	0.35	0.23	0.b5	0.13	0.82	0.b1	0.03
Avail Cap(c_a), veh/h	544	835	710	3b7	835	900	181	3247	1452	702	3247	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	31.3	29.2	40.9	27.2	21.4	4b.8	23.1	17.9	42.1	17.3	12.1
Incr Delay (d2), s/veh	0.0	0.4	0.2	0.b	0.0	0.1	0.9	0.4	0.1	1.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.2	7.0	3.4	2.3	1.1	4.2	0.3	10.4	1.5	4.5	10.b	0.3
LnGrp Delay(d),s/veh	28.3	31.7	29.4	41.5	27.2	21.5	47.7	23.5	17.9	43.b	17.5	12.1
LnGrp LOS	C	C	C	D	C	C	D	C	B	D	B	B
Approach Vol, veh/h		45b			358			1055			1457	
Approach Delay, s/veh		30.9			27.2			23.3			23.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2		4	5	b		8
Phs Duration (G+Y+Rc), s	17.b	48.b		32.0	8.4	57.8		32.0
Change Period (Y+Rc), s	5.8	8.0		5.8	5.8	8.0		5.8
Max Green Setting (Gmax), s	20.0	90.0		44.0	10.0	90.0		44.0
Max Q Clear Time (g_c+I1), s	11.4	23.3		15.4	2.b	23.7		24.1
Green Ext Time (p_c), s	0.4	17.2		2.1	0.0	17.2		2.0

Intersection Summary		
HCM 2010 Ctrl Delay		24.8
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	200	300	30	120	30	70	800	230	130	850	250
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	152	217	32b	33	130	33	7b	870	250	141	924	272
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	311	450	508	208	450	5b4	141	1407	b29	204	1533	b8b
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.08	0.40	0.40	0.11	0.43	0.43
Sat Flow, veh/h	1218	18b3	1583	8b0	18b3	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	152	217	32b	33	130	33	7b	870	250	141	924	272
Grp Sat Flow(s),veh/h/ln	1218	18b3	1583	8b0	18b3	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	9.7	8.4	14.7	2.9	4.8	1.1	3.4	1b.4	9.5	b.4	1b.8	9.8
Cycle Q Clear(g_c), s	14.5	8.4	14.7	11.2	4.8	1.1	3.4	1b.4	9.5	b.4	1b.8	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	450	508	208	450	5b4	141	1407	b29	204	1533	b8b
V/C Ratio(X)	0.49	0.48	0.b4	0.1b	0.29	0.0b	0.54	0.b2	0.40	0.b9	0.b0	0.40
Avail Cap(c_a), veh/h	b57	979	958	452	979	1014	170	2537	1135	212	2537	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	27.3	24.3	32.1	25.9	17.7	37.1	20.1	18.0	35.b	18.2	1b.2
Incr Delay (d2), s/veh	0.9	0.b	1.0	0.3	0.3	0.0	1.2	0.3	0.3	7.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	3.3	4.4	b.b	0.7	2.5	0.5	1.7	8.0	4.1	3.5	8.1	4.4
LnGrp Delay(d),s/veh	32.7	27.8	25.3	32.3	2b.1	17.7	38.3	20.5	18.3	42.8	18.5	1b.5
LnGrp LOS	C	C	C	C	C	B	D	C	B	D	B	B
Approach Vol, veh/h		b95			19b			119b			1337	
Approach Delay, s/veh		27.7			25.8			21.2			20.b	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2		4	5	b		8
Phs Duration (G+Y+Rc), s	15.4	41.3		27.0	12.4	44.3		27.0
Change Period (Y+Rc), s	5.8	8.0		b.8	5.8	8.0		* b.8
Max Green Setting (Gmax), s	10.0	b0.0		44.0	8.0	b0.0		* 44
Max Q Clear Time (g_c+I1), s	8.4	18.4		1b.7	5.4	18.8		13.2
Green Ext Time (p_c), s	0.0	14.8		3.5	0.0	14.8		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.b
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the 6arrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	1020	110	990	890	1030	1b0	810	980	830	470	50
Num6er	1	b	1b	5	2	12	7	4	14	3	8	18
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	53	1074	11b	1042	937	1084	1b8	853	1032	874	495	53
Adj No. of Lanes	2	2	1	2	2	1	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1b3	877	392	55b	1280	797	203	b00	510	487	753	b40
Arrive On Green	0.05	0.25	0.25	0.1b	0.3b	0.3b	0.0b	0.32	0.32	0.14	0.40	0.40
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	18b3	1583	3442	18b3	1583
Grp Volume(v), veh/h	53	1074	11b	1042	937	1084	1b8	853	1032	874	495	53
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	18b3	1583	1721	18b3	1583
Q Serve(g_s), s	3.0	49.4	11.9	32.2	45.8	72.1	9.b	b4.2	b4.2	28.2	43.0	4.1
Cycle Q Clear(g_c), s	3.0	49.4	11.9	32.2	45.8	72.1	9.b	b4.2	b4.2	28.2	43.0	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1b3	877	392	55b	1280	797	203	b00	510	487	753	b40
V/C Ratio(X)	0.32	1.22	0.30	1.87	0.73	1.3b	0.83	1.42	2.02	1.80	0.bb	0.08
Avail Cap(c_a), veh/h	181	877	392	55b	1280	797	281	b00	510	487	753	b40
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	91.9	75.0	b0.9	83.b	55.2	49.5	92.8	b7.b	b7.b	85.b	48.2	3b.b
Incr Delay (d2), s/veh	0.4	111.4	0.3	400.5	2.1	170.4	9.9	199.b	4b7.9	3bb.2	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	1.4	37.7	5.2	4b.2	22.8	81.5	4.9	bb.2	94.3	38.1	22.5	1.8
LnGrp Delay(d),s/veh	92.3	18b.4	b1.2	484.1	57.3	219.9	102.7	2b7.2	535.5	451.8	50.1	3b.b
LnGrp LOS	F	F	E	F	E	F	F	F	F	F	D	D
Approach Vol, veh/h		1243			30b3			2053			1422	
Approach Delay, s/veh		170.7			2b0.1			388.b			29b.5	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	15.3	80.1	34.0	70.0	38.0	57.4	17.5	8b.5
Change Period (Y+Rc), s	5.8	8.0	5.8	5.8	5.8	8.0	5.8	5.8
Max Green Setting (Gmax), s	10.5	71.1	28.2	b4.2	32.2	49.4	1b.3	7b.1
Max Q Clear Time (g_c+I1), s	5.0	74.1	30.2	bb.2	34.2	51.4	11.b	45.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	15.7

Intersection Summary	
HCM 2010 Ctrl Delay	28b.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1230	1540	0	1110	820	0	0	0	350	0	b0
Num6er	5	2	12	1	b	1b				7	4	14
Initial Q (Q6), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	18b3	1900	0	18b3	18b3				1900	18b3	18b3
Adj Flow Rate, veh/h	0	1337	1b74	0	1207	0				380	0	b5
Adj No. of Lanes	0	2	0	0	3	1				0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	127b	1142	0	3bbb	1142				334	0	298
Arrive On Green	0.00	0.72	0.72	0.00	0.72	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	18b3	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	1337	1b74	0	1207	0				380	0	b5
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1b95	1583				1774	0	1583
Q Serve(g_s), s	0.0	72.1	72.1	0.0	8.7	0.0				18.8	0.0	3.5
Cycle Q Clear(g_c), s	0.0	72.1	72.1	0.0	8.7	0.0				18.8	0.0	3.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	127b	1142	0	3bbb	1142				334	0	298
V/C Ratio(X)	0.00	1.05	1.47	0.00	0.33	0.00				1.14	0.00	0.22
Avail Cap(c_a), veh/h	0	127b	1142	0	3bbb	1142				334	0	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.9	14.0	0.0	5.1	0.0				40.b	0.0	34.4
Incr Delay (d2), s/veh	0.0	38.7	214.7	0.0	0.1	0.0				92.b	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.0	48.1	98.8	0.0	4.0	0.0				17.8	0.0	1.5
LnGrp Delay(d),s/veh	0.0	52.7	228.7	0.0	5.2	0.0				133.2	0.0	34.5
LnGrp LOS		F	F		A					F		C
Approach Vol, veh/h		3011			1207						445	
Approach Delay, s/veh		150.5			5.2						118.8	
Approach LOS		F			A						F	

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2		4		b		
Phs Duration (G+Y+Rc), s		77.0		23.0		77.0		
Change Period (Y+Rc), s		4.9		* 4.2		4.9		
Max Green Setting (Gmax), s		72.1		* 19		72.1		
Max Q Clear Time (g_c+I1), s		74.1		20.8		10.7		
Green Ext Time (p_c), s		0.0		0.0		b1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	109.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the 6arrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1b0	1420	0	0	1540	370	390	0	550	0	0	0
Num6er	5	2	12	1	b	1b	3	8	18			
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	18b3	18b3	0	0	18b3	18b3	18b3	18b3	18b3			
Adj Flow Rate, veh/h	174	1543	0	0	1b74	0	424	0	598			
Adj No. of Lanes	1	2	0	0	3	1	2	0	2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	212	2337	0	0	2501	779	799	0	713			
Arrive On Green	0.12	0.bb	0.00	0.00	0.49	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	1774	3b32	0	0	5253	1583	3548	0	31b7			
Grp Volume(v), veh/h	174	1543	0	0	1b74	0	424	0	598			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1b95	1583	1774	0	1583			
Q Serve(g_s), s	8.2	22.5	0.0	0.0	21.4	0.0	9.0	0.0	15.5			
Cycle Q Clear(g_c), s	8.2	22.5	0.0	0.0	21.4	0.0	9.0	0.0	15.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	212	2337	0	0	2501	779	799	0	713			
V/C Ratio(X)	0.82	0.bb	0.00	0.00	0.b7	0.00	0.53	0.00	0.84			
Avail Cap(c_a), veh/h	b21	2337	0	0	29b7	924	1242	0	1109			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	3b.8	8.8	0.0	0.0	1b.5	0.0	29.2	0.0	31.7			
Incr Delay (d2), s/veh	3.0	0.7	0.0	0.0	0.5	0.0	0.2	0.0	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-2b1b5%),veh/ln	4.2	11.0	0.0	0.0	10.0	0.0	4.4	0.0	b.9			
LnGrp Delay(d),s/veh	39.8	9.5	0.0	0.0	17.0	0.0	29.4	0.0	33.b			
LnGrp LOS	D	A			B		C		C			
Approach Vol, veh/h		1717			1b74			1022				
Approach Delay, s/veh		12.b			17.0			31.9				
Approach LOS		B			B			C				

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2			5	b		8
Phs Duration (G+Y+Rc), s		b1.5			14.4	47.0		24.2
Change Period (Y+Rc), s		4.9			* 4.2	4.9		4.9
Max Green Setting (Gmax), s		50.0			* 30	50.0		30.0
Max Q Clear Time (g_c+I1), s		24.5			10.2	23.4		17.5
Green Ext Time (p_c), s		24.2			0.2	18.8		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

Notes

User approved volume 6alancing among the lanes for turning movement.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the 6arrier.

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	80	5	880	1070	0	0
Number	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863		
Adj Flow Rate, veh/h	87	5	957	1163		
Adj No. of Lanes	2	0	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	1086	62	1274	1540		
Arrive On Green	0.32	0.32	0.37	0.83		
Sat Flow, veh/h	3497	194	3442	1863		
Grp Volume(v), veh/h	45	47	957	1163		
Grp Sat Flow(s),veh/h/ln	1770	1828	1721	1863		
Q Serve(g_s), s	0.5	0.6	7.4	8.8		
Cycle Q Clear(g_c), s	0.5	0.6	7.4	8.8		
Prop In Lane		0.11	1.00			
Lane Grp Cap(c), veh/h	565	583	1274	1540		
V/C Ratio(X)	0.08	0.08	0.75	0.76		
Avail Cap(c_a), veh/h	1863	1925	7631	6347		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.3	7.3	8.4	1.2		
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.3	0.3	3.5	4.0		
LnGrp Delay(d),s/veh	7.3	7.3	8.7	1.5		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h	92			2120		
Approach Delay, s/veh	7.3			4.8		
Approach LOS	A			A		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	15.5	15.1				30.6		
Change Period (Y+Rc), s	* 4.2	5.3				5.3		
Max Green Setting (Gmax), s	* 68	32.2				104.2		
Max Q Clear Time (g_c+I1), s	9.4	2.6				10.8		
Green Ext Time (p_c), s	1.9	7.2				7.8		

Intersection Summary	
HCM 2010 Ctrl Delay	4.9
HCM 2010 LOS	A

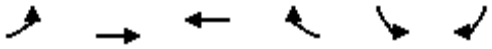
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	1050	80	0	0	1930
Num6er	3	18	2	12	1	b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	0	0	18b3
Adj Flow Rate, veh/h	22	0	87	0	0	2098
Adj No. of Lanes	1	2	2	0	0	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	7b	120	2b20	0	0	2b20
Arrive On Green	0.04	0.00	0.74	0.00	0.00	0.74
Sat Flow, veh/h	1774	2787	3725	0	0	3725
Grp Volume(v), veh/h	22	0	87	0	0	2098
Grp Sat Flow(s),veh/h/ln	1774	1393	1770	0	0	1770
Q Serve(g_s), s	0.5	0.0	0.3	0.0	0.0	1b.b
Cycle Q Clear(g_c), s	0.5	0.0	0.3	0.0	0.0	1b.b
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	7b	120	2b20	0	0	2b20
V/C Ratio(X)	0.29	0.00	0.03	0.00	0.00	0.80
Avail Cap(c_a), veh/h	1214	1908	4038	0	0	4038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	1.5	0.0	0.0	3.b
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.3	0.0	0.1	0.0	0.0	7.7
LnGrp Delay(d),s/veh	21.1	0.0	1.5	0.0	0.0	3.9
LnGrp LOS	C		A			A
Approach Vol, veh/h	22		87			2098
Approach Delay, s/veh	21.1		1.5			3.9
Approach LOS	C		A			A

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2				b		8
Phs Duration (G+Y+Rc), s		37.7				37.7		b.1
Change Period (Y+Rc), s		5.3				5.3		4.2
Max Green Setting (Gmax), s		50.0				50.0		30.0
Max Q Clear Time (g_c+I1), s		2.3				18.b		2.5
Green Ext Time (p_c), s		15.9				13.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	4.0
HCM 2010 LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	120	440	1270	590	570	560
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	130	478	1380	0	620	609
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	150	1952	1542	690	647	577
Arrive On Green	0.08	0.55	0.44	0.00	0.36	0.36
Sat Flow, veh/h	1774	3632	3632	1583	1774	1583
Grp Volume(v), veh/h	130	478	1380	0	620	609
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1583	1774	1583
Q Serve(g_s), s	8.1	7.9	40.5	0.0	38.3	40.9
Cycle Q Clear(g_c), s	8.1	7.9	40.5	0.0	38.3	40.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	150	1952	1542	690	647	577
V/C Ratio(X)	0.87	0.24	0.90	0.00	0.96	1.05
Avail Cap(c_a), veh/h	150	3146	2736	1224	647	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	13.0	29.3	0.0	34.8	35.6
Incr Delay (d2), s/veh	36.2	0.0	0.9	0.0	25.2	52.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	3.8	19.9	0.0	23.3	37.8
LnGrp Delay(d),s/veh	86.9	13.1	30.1	0.0	60.0	88.3
LnGrp LOS	F	B	C		E	F
Approach Vol, veh/h		608	1380		1229	
Approach Delay, s/veh		28.8	30.1		74.0	
Approach LOS		C	C		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		67.2		45.0	13.0	54.2		
Change Period (Y+Rc), s		5.3		4.1	3.5	5.3		
Max Green Setting (Gmax), s		99.7		40.9	9.5	86.7		
Max Q Clear Time (g_c+I1), s		9.9		42.9	10.1	42.5		
Green Ext Time (p_c), s		6.4		0.0	0.0	6.4		

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	270	740	0	0	1270	660	590	0	510	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	293	804	0	0	1380	0	641	0	0			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	282	2017	0	0	1342	600	611	642	546			
Arrive On Green	0.16	0.57	0.00	0.00	0.38	0.00	0.34	0.00	0.00			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	1863	1583			
Grp Volume(v), veh/h	293	804	0	0	1380	0	641	0	0			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	1863	1583			
Q Serve(g_s), s	17.5	13.9	0.0	0.0	41.7	0.0	37.9	0.0	0.0			
Cycle Q Clear(g_c), s	17.5	13.9	0.0	0.0	41.7	0.0	37.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	282	2017	0	0	1342	600	611	642	546			
V/C Ratio(X)	1.04	0.40	0.00	0.00	1.03	0.00	1.05	0.00	0.00			
Avail Cap(c_a), veh/h	282	2017	0	0	1342	600	611	642	546			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	46.3	13.2	0.0	0.0	34.1	0.0	36.0	0.0	0.0			
Incr Delay (d2), s/veh	63.8	0.0	0.0	0.0	32.2	0.0	49.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	13.6	6.7	0.0	0.0	26.3	0.0	27.0	0.0	0.0			
LnGrp Delay(d),s/veh	110.1	13.2	0.0	0.0	66.3	0.0	85.9	0.0	0.0			
LnGrp LOS	F	B			F		F					
Approach Vol, veh/h		1097			1380			641				
Approach Delay, s/veh		39.1			66.3			85.9				
Approach LOS		D			E			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		68.0			21.0	47.0		42.0
Change Period (Y+Rc), s		5.3			3.5	5.3		4.1
Max Green Setting (Gmax), s		62.7			17.5	41.7		37.9
Max Q Clear Time (g_c+I1), s		15.9			19.5	43.7		39.9
Green Ext Time (p_c), s		15.3			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	60.7
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	88.9
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	360	290	520	0	430	580	230	0	590	660	200
Peak Hour Factor	0.81	0.92	0.92	0.92	0.81	0.92	0.92	0.92	0.81	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	391	315	565	0	467	630	250	0	641	717	217
Number of Lanes	0	1	2	0	0	1	1	1	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	85.6	88.3	93.7
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	52%	0%	100%	16%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	48%	0%	0%	84%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	590	440	420	360	193	617	430	580	230	60	267
LT Vol	590	0	0	360	0	0	430	0	0	60	0
Through Vol	0	440	220	0	193	97	0	580	0	0	267
RT Vol	0	0	200	0	0	520	0	0	230	0	0
Lane Flow Rate	641	478	457	391	210	670	467	630	250	65	290
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1	1	1	1	0.772	1	1	1	0.871	0.25	1
Departure Headway (Hd)	13.77	13.272	12.94	13.731	13.233	12.645	13.731	13.233	12.536	13.818	13.318
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	269	277	283	266	273	295	266	277	290	262	275
Service Time	11.47	10.972	10.64	11.502	11.003	10.414	11.502	11.003	10.305	11.518	11.018
HCM Lane V/C Ratio	2.383	1.726	1.615	1.47	0.769	2.271	1.756	2.274	0.862	0.248	1.055
HCM Control Delay	95.2	93.3	91.9	95.3	49.9	91.1	95.3	93.4	62.3	21.1	93.4
HCM Lane LOS	F	F	F	F	E	F	F	F	F	C	F
HCM 95th-tile Q	9.9	10.1	10.2	9.9	5.8	10.3	9.9	10.1	7.6	1	10.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	400	120
Peak Hour Factor	0.81	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	65	435	130
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	84.6
HCM LOS	F

Lane	SBLn3

Intersection	
Int Delay, s/veh	15.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	140	810	320	560	430	310	130	20	290	70	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	250	-	0	350	-	-	350	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	152	880	348	609	467	337	141	22	315	76	11	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	467	0	0	1228	0	0	3066	3044	1054	3212	3218	467
Stage 1	-	-	-	-	-	-	1359	1359	-	1685	1685	-
Stage 2	-	-	-	-	-	-	1707	1685	-	1527	1533	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1094	-	-	~ 568	-	-	~ 8	~ 13	~ 275	~ 6	~ 10	596
Stage 1	-	-	-	-	-	-	183	217	-	119	150	-
Stage 2	-	-	-	-	-	-	~ 116	150	-	147	178	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1094	-	-	~ 568	-	-	-	~ 11	~ 275	-	~ 9	596
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 11	-	-	~ 9	-
Stage 1	-	-	-	-	-	-	158	187	-	102	150	-
Stage 2	-	-	-	-	-	-	~ 102	150	-	-	153	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	36.6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	108	1094	-	-	~ 568	-	-	-	34
HCM Lane V/C Ratio	-	3.12	0.139	-	-	1.072	-	-	-	1.279
HCM Control Delay (s)	$ 1039.1		8.8	-	-	85	-	-	-	$ 428.3
HCM Lane LOS	-	F	A	-	-	F	-	-	-	F
HCM 95th %tile Q(veh)	-	32.5	0.5	-	-	17.9	-	-	-	4.7

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	450	370	50	b10	230	510	170	140	200	230	50
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	33	489	402	54	bb3	250	554	185	152	15b	33b	54
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	1138	509	b8	1179	528	778	409	347	255	535	227
Arrive On Green	0.03	0.32	0.32	0.04	0.33	0.33	0.22	0.22	0.22	0.14	0.14	0.14
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3548	18b3	1583	1774	3725	1583
Grp Volume(v), veh/h	33	489	402	54	bb3	250	554	185	152	15b	33b	54
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	18b3	1583	1774	18b3	1583
Q Serve(g_s), s	1.3	7.9	1b.7	2.2	11.1	9.0	10.4	b.2	b.0	b.0	b.1	2.2
Cycle Q Clear(g_c), s	1.3	7.9	1b.7	2.2	11.1	9.0	10.4	b.2	b.0	b.0	b.1	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1138	509	b8	1179	528	778	409	347	255	535	227
V/C Ratio(X)	0.b9	0.43	0.79	0.79	0.5b	0.47	0.71	0.45	0.44	0.b1	0.b3	0.24
Avail Cap(c_a), veh/h	147	1225	548	197	1323	592	1523	800	b80	51b	1083	4b0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	19.3	22.3	34.4	19.8	19.1	2b.1	24.4	24.3	29.0	29.1	27.4
Incr Delay (d2), s/veh	1b.5	0.3	7.2	18.0	0.4	0.7	1.2	0.8	0.9	2.4	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.9	3.8	8.3	1.4	5.5	4.1	5.2	3.3	2.7	3.1	3.2	1.0
LnGrp Delay(d),s/veh	51.4	19.5	29.5	52.4	20.2	19.7	27.3	25.2	25.2	31.4	30.3	27.9
LnGrp LOS	D	B	C	D	C	B	C	C	C	C	C	C
Approach Vol, veh/h		924			9b7			891			54b	
Approach Delay, s/veh		25.0			21.9			2b.5			30.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2	3	4		b	7	8
Phs Duration (G+Y+Rc), s		20.8	7.8	28.2		15.4	b.9	29.1
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		31.0	8.0	25.0		21.0	b.0	27.0
Max Q Clear Time (g_c+I1), s		12.4	4.2	18.7		8.1	3.3	13.1
Green Ext Time (p_c), s		3.4	0.0	4.5		2.2	0.0	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

Notes

User approved volume 6alancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	90	450	340	240	190	170	90	470	400	290	380	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	98	489	370	261	207	185	98	511	435	315	413	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	391	0	0	859	0	0	1913	1783	674	2163	1875	299
Stage 1	-	-	-	-	-	-	870	870	-	821	821	-
Stage 2	-	-	-	-	-	-	1043	913	-	1342	1054	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1168	-	-	782	-	-	~ 51	~ 82	455	~ 34	~ 72	741
Stage 1	-	-	-	-	-	-	346	~ 369	-	369	~ 389	-
Stage 2	-	-	-	-	-	-	277	~ 352	-	~ 188	~ 303	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1168	-	-	782	-	-	-	~ 38	455	-	~ 33	741
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 38	-	-	~ 33	-
Stage 1	-	-	-	-	-	-	286	~ 305	-	~ 305	~ 219	-
Stage 2	-	-	-	-	-	-	-	~ 198	-	-	~ 250	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	4.8		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1168	-	-	782	-	-	-
HCM Lane V/C Ratio	-	0.084	-	-	0.334	-	-	-
HCM Control Delay (s)	-	8.4	0	-	11.9	0	-	-
HCM Lane LOS	-	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-	1.5	-	-	-

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

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	290	560	20	50	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	315	609	22	54	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	630	0	-	0	957	620
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	952	-	-	-	286	488
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	952	-	-	-	282	488
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	713	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	952	-	-	-	335
HCM Lane V/C Ratio	0.011	-	-	-	0.26
HCM Control Delay (s)	8.8	0	-	-	19.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1

Intersection	
Intersection Delay, s/veh	78.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	40	210	130	0	240	200	150	0	30	690	40
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	228	141	0	261	217	163	0	33	750	43
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	77.6	78.1	78.4
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	11%	41%	12%
Vol Thru, %	91%	55%	34%	85%
Vol Right, %	5%	34%	25%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	760	380	590	410
LT Vol	30	40	240	50
Through Vol	690	210	200	350
RT Vol	40	130	150	10
Lane Flow Rate	826	413	641	446
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	1	1
Departure Headway (Hd)	9.608	9.447	9.56	9.641
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	388	388	385	379
Service Time	7.608	7.447	7.56	7.641
HCM Lane V/C Ratio	2.129	1.064	1.665	1.177
HCM Control Delay	78.4	77.6	78.1	78.5
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.9	12	11.9	11.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	50	350	10
Peak Hour Factor	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	54	380	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	78.5
HCM LOS	F

Lane

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	320	1b0	890	570	550	750
Num6er	3	18	2	12	1	b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	348	174	9b7	b20	598	815
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	380	339	751	b38	411	127b
Arrive On Green	0.21	0.21	0.40	0.40	0.23	0.b9
Sat Flow, veh/h	1774	1583	18b3	1583	1774	18b3
Grp Volume(v), veh/h	348	174	9b7	b20	598	815
Grp Sat Flow(s),veh/h/ln	1774	1583	18b3	1583	1774	18b3
Q Serve(g_s), s	19.0	9.b	40.0	38.1	23.0	24.3
Cycle Q Clear(g_c), s	19.0	9.b	40.0	38.1	23.0	24.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	380	339	751	b38	411	127b
V/C Ratio(X)	0.92	0.51	1.29	0.97	1.45	0.b4
Avail Cap(c_a), veh/h	393	351	751	b38	411	127b
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	34.4	29.b	29.1	38.1	8.7
Incr Delay (d2), s/veh	25.5	1.2	139.5	28.5	217.b	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	12.0	4.3	49.5	21.b	3b.0	12.b
LnGrp Delay(d),s/veh	b3.b	35.b	1b9.1	57.5	255.7	9.8
LnGrp LOS	E	D	F	E	F	A
Approach Vol, veh/h	522		1587			1413
Approach Delay, s/veh	54.3		125.5			113.9
Approach LOS	D		F			F

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2				b		8
Phs Duration (G+Y+Rc), s	28.0	45.0				73.0		2b.2
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	23.0	40.0				b8.0		22.0
Max Q Clear Time (g_c+I1), s	25.0	42.0				2b.3		21.0
Green Ext Time (p_c), s	0.0	0.0				22.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	110.3
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	123.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	530	200	850	770	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	576	217	924	837	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2201	842	848	0	-	0
Stage 1	842	-	-	-	-	-
Stage 2	1359	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	49	~ 364	790	-	-	-
Stage 1	423	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	21	~ 364	790	-	-	-
Mov Cap-2 Maneuver	21	-	-	-	-	-
Stage 1	423	-	-	-	-	-
Stage 2	104	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 538.1	2.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	790	-	279	-	-
HCM Lane V/C Ratio	0.275	-	2.104	-	-
HCM Control Delay (s)	11.3	0	$ 538.1	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	1.1	-	43.5	-	-

Notes

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	b90	3b0	80	780	710	340
Num6er	7	14	5	2	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	750	391	87	848	772	370
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	813	725	113	14b3	1010	452
Arrive On Green	0.4b	0.4b	0.0b	0.41	0.29	0.29
Sat Flow, veh/h	1774	1583	1774	3b32	3b32	1583
Grp Volume(v), veh/h	750	391	87	848	772	370
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1770	1770	1583
Q Serve(g_s), s	30.8	13.8	3.8	14.4	15.5	1b.9
Cycle Q Clear(g_c), s	30.8	13.8	3.8	14.4	15.5	1b.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	813	725	113	14b3	1010	452
V/C Ratio(X)	0.92	0.54	0.77	0.58	0.7b	0.82
Avail Cap(c_a), veh/h	93b	835	251	177b	1048	4b9
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	15.2	35.8	17.b	25.4	25.9
Incr Delay (d2), s/veh	13.2	0.b	10.7	0.4	3.3	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	18.0	13.1	2.2	7.0	8.0	8.7
LnGrp Delay(d),s/veh	33.0	15.8	4b.5	18.0	28.7	3b.5
LnGrp LOS	C	B	D	B	C	D
Approach Vol, veh/h	1141			935	1142	
Approach Delay, s/veh	27.1			20.b	31.2	
Approach LOS	C			C	C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2		4	5	b		
Phs Duration (G+Y+Rc), s		37.1		40.b	9.9	27.2		
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		
Max Green Setting (Gmax), s		39.0		41.0	11.0	23.0		
Max Q Clear Time (g_c+I1), s		1b.4		32.8	5.8	18.9		
Green Ext Time (p_c), s		12.2		2.8	0.1	3.3		

Intersection Summary	
HCM 2010 Ctrl Delay	2b.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	310	1240	90	370	410	70	40	1430	bb0	190	820	140
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	337	1348	98	402	44b	7b	43	1554	717	207	891	152
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	713	1423	419	425	b4b	2b5	592	1b02	b88	212	1154	488
Arrive On Green	0.21	0.28	0.27	0.12	0.18	0.17	0.17	0.45	0.44	0.0b	0.33	0.31
Sat Flow, veh/h	3442	5085	1574	3442	3539	15b9	3442	3539	1578	3442	3539	157b
Grp Volume(v), veh/h	337	1348	98	402	44b	7b	43	1554	717	207	891	152
Grp Sat Flow(s),veh/h/ln	1721	1b95	1574	1721	1770	15b9	1721	1770	1578	1721	1770	157b
Q Serve(g_s), s	12.5	37.9	4.b	1b.9	17.2	5.2	1.5	b2.5	b3.b	8.8	33.1	10.7
Cycle Q Clear(g_c), s	12.5	37.9	4.b	1b.9	17.2	5.2	1.5	b2.5	b3.b	8.8	33.1	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	713	1423	419	425	b4b	2b5	592	1b02	b88	212	1154	488
V/C Ratio(X)	0.47	0.95	0.23	0.95	0.b9	0.29	0.07	0.97	1.04	0.97	0.77	0.31
Avail Cap(c_a), veh/h	713	1423	419	425	9bb	407	592	1b02	b88	212	1b3b	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	51.4	17.7	b3.4	55.7	37.b	50.b	38.9	41.1	b8.3	44.3	38.5
Incr Delay (d2), s/veh	0.2	13.5	0.4	30.0	2.0	0.9	0.0	1b.0	45.b	54.0	2.1	0.b
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	b.0	19.5	2.9	9.8	8.b	2.b	0.7	34.0	3b.3	5.7	1b.5	4.8
LnGrp Delay(d),s/veh	51.0	b4.9	18.1	93.4	57.7	38.5	50.b	54.9	8b.7	122.3	4b.3	39.0
LnGrp LOS	D	E	B	F	E	D	D	D	F	F	D	D
Approach Vol, veh/h		1783			924			2314			1250	
Approach Delay, s/veh		59.7			71.7			b4.7			58.0	
Approach LOS		E			E			E			E	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	12.0	b9.0	21.0	43.8	30.5	50.5	35.2	29.b
Change Period (Y+Rc), s	4.0	b.4	4.0	b.0	b.4	b.4	b.0	b.0
Max Green Setting (Gmax), s	8.0	b2.b	17.0	37.8	4.2	b4.0	1b.0	3b.8
Max Q Clear Time (g_c+I1), s	10.8	b5.b	18.9	39.9	3.5	35.1	14.5	19.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.b	9.1	1.2	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	b3.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	1030	880	530	450	90	410	1b20	970	120	1250	40
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	120	1120	957	57b	489	98	44b	17b1	1054	130	1359	43
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	1147	513	578	1538	b88	420	1803	5b1	208	1037	4b4
Arrive On Green	0.0b	0.32	0.32	0.17	0.43	0.43	0.12	0.35	0.35	0.0b	0.29	0.29
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	3539	1583
Grp Volume(v), veh/h	120	1120	957	57b	489	98	44b	17b1	1054	130	1359	43
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1b95	1583	1721	1770	1583
Q Serve(g_s), s	4.5	41.0	42.5	21.9	11.9	4.9	1b.0	44.8	4b.5	4.8	38.4	2.b
Cycle Q Clear(g_c), s	4.5	41.0	42.5	21.9	11.9	4.9	1b.0	44.8	4b.5	4.8	38.4	2.b
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	1147	513	578	1538	b88	420	1803	5b1	208	1037	4b4
V/C Ratio(X)	0.b1	0.98	1.8b	1.00	0.32	0.14	1.0b	0.98	1.88	0.b3	1.31	0.09
Avail Cap(c_a), veh/h	420	1147	513	578	1538	b88	420	1803	5b1	420	1037	4b4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	b0.3	43.8	44.3	54.5	24.3	22.3	57.b	41.8	42.3	b0.1	4b.4	33.7
Incr Delay (d2), s/veh	1.1	21.0	39b.4	3b.7	0.2	0.2	b1.3	1b.0	401.7	1.2	14b.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	2.2	23.4	75.1	13.3	5.8	2.2	11.2	23.7	82.8	2.3	39.9	1.1
LnGrp Delay(d),s/veh	b1.5	b4.8	440.7	91.2	24.5	22.5	118.8	57.8	444.0	b1.3	193.2	33.8
LnGrp LOS	E	E	F	F	C	C	F	E	F	E	F	C
Approach Vol, veh/h		2197			11b3			32b1			1532	
Approach Delay, s/veh		228.4			57.4			191.0			177.b	
Approach LOS		F			E			F			F	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	10.9	49.5	25.0	45.7	19.0	41.4	10.5	b0.2
Change Period (Y+Rc), s	4.0	b.4	4.0	5.7	4.0	b.4	4.0	5.7
Max Green Setting (Gmax), s	15.0	32.0	21.0	40.0	15.0	35.0	15.0	42.0
Max Q Clear Time (g_c+I1), s	b.8	48.5	23.9	44.5	18.0	40.4	b.5	13.9
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	0.0	0.1	24.5

Intersection Summary	
HCM 2010 Ctrl Delay	179.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	550	14b0	70	180	5b0	340	1b0	1250	330	540	1070	b50
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	1900	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	598	1587	7b	19b	b09	370	174	1359	359	587	11b3	707
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1053	50	212	1083	485	199	104b	4b8	212	1071	479
Arrive On Green	0.12	0.31	0.31	0.12	0.31	0.31	0.11	0.30	0.30	0.12	0.30	0.30
Sat Flow, veh/h	1774	3439	1b4	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	598	813	850	19b	b09	370	174	1359	359	587	11b3	707
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	15.0	38.4	38.4	13.7	18.1	2b.b	12.1	37.1	25.9	15.0	38.0	38.0
Cycle Q Clear(g_c), s	15.0	38.4	38.4	13.7	18.1	2b.b	12.1	37.1	25.9	15.0	38.0	38.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	542	5b1	212	1083	485	199	104b	4b8	212	1071	479
V/C Ratio(X)	2.82	1.50	1.51	0.92	0.5b	0.7b	0.87	1.30	0.77	2.77	1.09	1.48
Avail Cap(c_a), veh/h	212	542	5b1	212	1353	b05	212	104b	4b8	212	1071	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	43.b	43.b	54.7	3b.5	39.4	54.8	44.2	40.3	55.3	43.8	43.8
Incr Delay (d2), s/veh	832.4	235.3	240.2	40.7	0.9	b.2	27.9	141.b	8.b	809.1	53.7	224.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	5b.3	54.1	5b.8	9.2	9.0	12.5	7.5	38.b	12.4	54.9	2b.4	4b.5
LnGrp Delay(d),s/veh	887.b	278.9	283.8	95.4	37.4	45.7	82.7	185.9	48.8	8b4.4	97.5	2b8.b
LnGrp LOS	F	F	F	F	D	D	F	F	D	F	F	F
Approach Vol, veh/h		22b1			1175			1892			2457	
Approach Delay, s/veh		441.7			49.7			150.4			330.0	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	19.0	43.1	19.0	44.4	18.1	44.0	19.0	44.4
Change Period (Y+Rc), s	4.0	b.0	4.0	b.0	4.0	b.0	4.0	b.0
Max Green Setting (Gmax), s	15.0	29.0	15.0	34.0	15.0	38.0	15.0	48.0
Max Q Clear Time (g_c+I1), s	17.0	39.1	15.7	40.4	14.1	40.0	17.0	28.b
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9

Intersection Summary	
HCM 2010 Ctrl Delay	27b.5
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	242.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	140	100	150	40	20	100	10	190	10	80	410	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	152	109	163	43	22	109	11	207	11	87	446	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	272	0	0	892	712	190	766	739	76
Stage 1	-	-	-	-	-	-	495	495	-	163	163	-
Stage 2	-	-	-	-	-	-	397	217	-	603	576	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1291	-	-	263	358	852	320	~ 345	985
Stage 1	-	-	-	-	-	-	556	546	-	839	763	-
Stage 2	-	-	-	-	-	-	629	723	-	486	502	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1291	-	-	-	302	852	127	~ 291	985
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	302	-	127	~ 291	-
Stage 1	-	-	-	-	-	-	486	477	-	733	736	-
Stage 2	-	-	-	-	-	-	234	697	-	238	~ 439	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	2		$ 600.5
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1455	-	-	1291	-	-	248
HCM Lane V/C Ratio	-	0.105	-	-	0.034	-	-	2.235
HCM Control Delay (s)	-	7.8	0	-	7.9	0	-	$ 600.5
HCM Lane LOS	-	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	-	0.4	-	-	0.1	-	-	43.1

Notes

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

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	270	120	20	60	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	293	130	22	65	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	152	0	-	0	456	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1429	-	-	-	562	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1429	-	-	-	557	907
Mov Cap-2 Maneuver	-	-	-	-	557	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	733	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1429	-	-	-	616
HCM Lane V/C Ratio	0.008	-	-	-	0.141
HCM Control Delay (s)	7.5	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	40	1450	b30	230	590	70
Num6er	7	4	8	18	1	1b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	43	157b	b85	250	b41	7b
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	54	1729	1404	b28	b91	b1b
Arrive On Green	0.03	0.49	0.40	0.40	0.39	0.39
Sat Flow, veh/h	1774	3b32	3b32	1583	1774	1583
Grp Volume(v), veh/h	43	157b	b85	250	b41	7b
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1583	1774	1583
Q Serve(g_s), s	2.0	33.b	11.8	9.2	28.3	2.5
Cycle Q Clear(g_c), s	2.0	33.b	11.8	9.2	28.3	2.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	54	1729	1404	b28	b91	b1b
V/C Ratio(X)	0.79	0.91	0.49	0.40	0.93	0.12
Avail Cap(c_a), veh/h	239	18b1	1404	b28	803	71b
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	19.3	18.4	17.7	23.9	1b.0
Incr Delay (d2), s/veh	22.4	7.0	0.3	0.4	15.b	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	1.3	17.9	5.9	4.1	1b.7	2.8
LnGrp Delay(d),s/veh	b1.8	2b.2	18.7	18.1	39.4	1b.1
LnGrp LOS	E	C	B	B	D	B
Approach Vol, veh/h		1b19	935		717	
Approach Delay, s/veh		27.2	18.5		37.0	
Approach LOS		C	B		D	

Timer	1	2	3	4	5	b	7	8
Assigned Phs				4		b	7	8
Phs Duration (G+Y+Rc), s				44.9		3b.8	7.5	37.4
Change Period (Y+Rc), s				5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s				43.0		37.0	11.0	27.0
Max Q Clear Time (g_c+I1), s				35.b		30.3	4.0	13.8
Green Ext Time (p_c), s				4.4		1.b	0.0	11.4

Intersection Summary	
HCM 2010 Ctrl Delay	2b.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	1980	50	340	800	30	50	10	700	90	10	10
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	1900	18b3	18b3	1900	18b3	18b3
Adj Flow Rate, veh/h	11	2152	54	370	870	33	54	11	7b1	98	11	11
Adj No. of Lanes	1	2	1	2	2	1	0	1	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	1573	704	421	19b8	880	73	8	422	7b	5	422
Arrive On Green	0.01	0.44	0.44	0.12	0.5b	0.5b	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	0	32	1583	0	17	1583
Grp Volume(v), veh/h	11	2152	54	370	870	33	b5	0	7b1	109	0	11
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	32	0	1583	17	0	1583
Q Serve(g_s), s	0.b	40.0	1.8	9.5	13.0	0.9	0.0	0.0	24.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.b	40.0	1.8	9.5	13.0	0.9	24.0	0.0	24.0	24.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	0.83		1.00	0.90		1.00
Lane Grp Cap(c), veh/h	19	1573	704	421	19b8	880	82	0	422	81	0	422
V/C Ratio(X)	0.58	1.37	0.08	0.88	0.44	0.04	0.80	0.00	1.80	1.35	0.00	0.03
Avail Cap(c_a), veh/h	217	1573	704	421	19b8	880	82	0	422	81	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.3	25.0	14.4	38.8	11.8	9.1	41.9	0.0	33.0	43.b	0.0	24.4
Incr Delay (d2), s/veh	25.0	1b9.8	0.0	18.8	0.2	0.0	40.b	0.0	370.4	220.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.4	5b.5	0.8	5.b	b.3	0.4	2.5	0.0	53.9	b.9	0.0	0.2
LnGrp Delay(d),s/veh	b9.4	194.8	14.4	57.7	11.9	9.1	82.5	0.0	403.4	2b3.8	0.0	24.4
LnGrp LOS	E	F	B	E	B	A	F		F	F		C
Approach Vol, veh/h		2217			1273			82b			120	
Approach Delay, s/veh		189.8			25.1			378.1			241.9	
Approach LOS		F			C			F			F	

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2	3	4		b	7	8
Phs Duration (G+Y+Rc), s		29.0	1b.0	45.0		29.0	b.0	55.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		24.0	11.0	40.0		24.0	11.0	40.0
Max Q Clear Time (g_c+I1), s		2b.0	11.5	42.0		2b.0	2.b	15.0
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	179.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	240	550	340	130	b00	20	370	320	80	b0	5b0	70
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	2b1	598	0	141	b52	0	402	348	0	b5	b09	0
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	987	442	222	852	381	517	1183	529	83	817	3b5
Arrive On Green	0.10	0.28	0.00	0.0b	0.24	0.00	0.15	0.33	0.00	0.05	0.23	0.00
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	2b1	598	0	141	b52	0	402	348	0	b5	b09	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.3	10.b	0.0	2.9	12.5	0.0	8.2	5.3	0.0	2.b	11.b	0.0
Cycle Q Clear(g_c), s	5.3	10.b	0.0	2.9	12.5	0.0	8.2	5.3	0.0	2.b	11.b	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	987	442	222	852	381	517	1183	529	83	817	3b5
V/C Ratio(X)	0.74	0.b1	0.00	0.b3	0.77	0.00	0.78	0.29	0.00	0.78	0.75	0.00
Avail Cap(c_a), veh/h	427	1023	458	332	92b	414	5b9	1413	b32	195	1218	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.b	22.7	0.0	33.1	25.7	0.0	29.7	17.9	0.0	34.2	25.9	0.0
Incr Delay (d2), s/veh	5.4	1.0	0.0	3.0	3.b	0.0	b.2	0.1	0.0	14.5	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	2.8	5.3	0.0	1.5	b.5	0.0	4.3	2.b	0.0	1.b	5.8	0.0
LnGrp Delay(d),s/veh	37.0	23.7	0.0	3b.1	29.2	0.0	35.9	18.0	0.0	48.8	27.3	0.0
LnGrp LOS	D	C		D	C		D	B		D	C	
Approach Vol, veh/h		859			793			750			b74	
Approach Delay, s/veh		27.7			30.5			27.b			29.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	8.4	29.3	9.7	25.3	15.9	21.8	12.5	22.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	29.0	7.0	21.0	12.0	25.0	9.0	19.0
Max Q Clear Time (g_c+I1), s	4.b	7.3	4.9	12.b	10.2	13.b	7.3	14.5
Green Ext Time (p_c), s	0.0	3.8	0.1	5.0	0.8	3.2	0.2	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	70	310	180	120	70	150	b10	130	40	750	130
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	1900	18b3	18b3	1900
Adj Flow Rate, veh/h	7b	7b	337	19b	130	7b	1b3	bb3	141	43	815	141
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	339	289	235	185	157	200	8b2	183	259	995	172
Arrive On Green	0.22	0.18	0.18	0.13	0.10	0.10	0.11	0.30	0.30	0.15	0.33	0.33
Sat Flow, veh/h	1774	18b3	1583	1774	18b3	1583	1774	290b	b17	1774	3018	522
Grp Volume(v), veh/h	7b	7b	337	19b	130	7b	1b3	403	401	43	478	478
Grp Sat Flow(s),veh/h/ln	1774	18b3	1583	1774	18b3	1583	1774	1770	1754	1774	1770	1771
Q Serve(g_s), s	2.9	2.9	15.0	8.9	5.b	3.7	7.4	17.1	17.1	1.7	20.4	20.4
Cycle Q Clear(g_c), s	2.9	2.9	15.0	8.9	5.b	3.7	7.4	17.1	17.1	1.7	20.4	20.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.29
Lane Grp Cap(c), veh/h	382	339	289	235	185	157	200	525	520	259	584	584
V/C Ratio(X)	0.20	0.22	1.17	0.83	0.70	0.48	0.82	0.77	0.77	0.17	0.82	0.82
Avail Cap(c_a), veh/h	382	339	289	302	453	385	259	8b0	852	259	731	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	2b.5	28.7	33.7	34.8	35.9	35.1	35.7	2b.4	2b.4	30.8	25.3	25.3
Incr Delay (d2), s/veh	0.3	0.3	10b.3	14.5	4.8	2.3	14.3	2.4	2.5	0.3	5.9	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	1.4	1.5	15.0	5.3	3.1	1.7	4.4	8.b	8.b	0.9	10.9	10.9
LnGrp Delay(d),s/veh	2b.7	29.0	140.0	49.3	40.7	37.3	50.0	28.8	28.8	31.1	31.3	31.3
LnGrp LOS	C	C	F	D	D	D	D	C	C	C	C	C
Approach Vol, veh/h		489			402			9b7			999	
Approach Delay, s/veh		105.1			44.3			32.4			31.3	
Approach LOS		F			D			C			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	17.0	29.4	15.9	20.0	14.3	32.1	22.7	13.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	b.0	40.0	14.0	15.0	12.0	34.0	9.0	20.0
Max Q Clear Time (g_c+I1), s	3.7	19.1	10.9	17.0	9.4	22.4	4.9	7.b
Green Ext Time (p_c), s	1.3	5.3	0.2	0.0	0.1	4.7	0.8	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	4b.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	290	b0	b20	340	40	50	b20	240	80	830	220
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	137	305	b3	b53	358	42	53	b53	253	84	874	232
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	493	220	827	989	443	70	912	408	1b5	1102	493
Arrive On Green	0.10	0.14	0.14	0.24	0.28	0.28	0.04	0.2b	0.2b	0.09	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	137	305	b3	b53	358	42	53	b53	253	84	874	232
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.5	4.8	1.7	10.5	4.8	0.8	1.8	10.0	8.4	2.7	13.4	7.0
Cycle Q Clear(g_c), s	4.5	4.8	1.7	10.5	4.8	0.8	1.8	10.0	8.4	2.7	13.4	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	493	220	827	989	443	70	912	408	1b5	1102	493
V/C Ratio(X)	0.77	0.b2	0.29	0.79	0.3b	0.09	0.7b	0.72	0.b2	0.51	0.79	0.47
Avail Cap(c_a), veh/h	371	1015	454	929	1230	550	147	1254	5b1	1b5	12b0	5b4
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	2b.0	24.0	14.5	21.1	17.1	7.4	28.2	20.0	19.4	25.b	18.7	1b.5
Incr Delay (d2), s/veh	7.0	1.3	0.7	4.2	0.2	0.1	15.5	1.2	1.5	2.b	3.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	2.5	2.4	0.9	5.5	2.4	0.5	1.2	5.0	3.8	1.4	b.9	3.1
LnGrp Delay(d),s/veh	33.0	25.3	15.2	25.3	17.3	7.5	43.7	21.3	21.0	28.1	21.8	17.2
LnGrp LOS	C	C	B	C	B	A	D	C	C	C	C	B
Approach Vol, veh/h		505			1053			959			1190	
Approach Delay, s/veh		2b.1			21.9			22.4			21.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	9.5	19.3	18.2	12.3	b.3	22.5	9.9	20.b
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	21.0	1b.0	17.0	4.9	21.1	12.4	20.b
Max Q Clear Time (g_c+I1), s	4.7	12.0	12.5	b.8	3.8	15.4	b.5	b.8
Green Ext Time (p_c), s	0.2	3.3	1.7	1.5	0.0	3.1	0.2	4.3

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	b0	200	100	70	10	1b0	b00	70	10	880	40
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	1900	18b3	18b3	1900	18b3	18b3	18b3	18b3	18b3	1900
Adj Flow Rate, veh/h	54	b5	217	109	7b	11	174	b52	7b	11	957	43
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	72	239	148	302	44	122	751	b38	2b3	854	38
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.07	0.40	0.40	0.15	0.48	0.48
Sat Flow, veh/h	1305	378	12b2	1093	1592	230	1774	18b3	1583	1774	17b9	79
Grp Volume(v), veh/h	54	0	282	109	0	87	174	b52	7b	11	0	1000
Grp Sat Flow(s),veh/h/ln	1305	0	1b40	1093	0	1822	1774	18b3	1583	1774	0	1849
Q Serve(g_s), s	2.1	0.0	9.8	1.2	0.0	2.4	4.0	18.b	1.7	0.3	0.0	28.0
Cycle Q Clear(g_c), s	4.5	0.0	9.8	11.0	0.0	2.4	4.0	18.b	1.7	0.3	0.0	28.0
Prop In Lane	1.00		0.77	1.00		0.13	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	319	0	311	148	0	34b	122	751	b38	2b3	0	892
V/C Ratio(X)	0.17	0.00	0.91	0.74	0.00	0.25	1.42	0.87	0.12	0.04	0.00	1.12
Avail Cap(c_a), veh/h	319	0	311	148	0	34b	122	899	7b4	2b3	0	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	23.0	28.9	0.0	20.0	27.0	15.9	10.8	21.2	0.0	15.0
Incr Delay (d2), s/veh	0.2	0.0	28.b	17.7	0.0	0.4	230.8	7.9	0.1	0.1	0.0	b9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.8	0.0	b.9	2.5	0.0	1.2	9.8	11.1	0.8	0.2	0.0	31.2
LnGrp Delay(d),s/veh	22.2	0.0	51.b	4b.b	0.0	20.4	257.8	23.8	10.9	21.2	0.0	84.0
LnGrp LOS	C		D	D		C	F	C	B	C		F
Approach Vol, veh/h		33b			19b			902			1011	
Approach Delay, s/veh		4b.8			35.0			b7.9			83.3	
Approach LOS		D			C			E			F	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2		4	5	b		8
Phs Duration (G+Y+Rc), s	13.b	28.4		1b.0	9.0	33.0		1b.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	4.0	28.0		11.0	4.0	28.0		11.0
Max Q Clear Time (g_c+I1), s	2.3	20.b		11.8	b.0	30.0		13.0
Green Ext Time (p_c), s	1.2	2.7		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	b8.7
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	5	5	130	5	1b0	5	b40	150	140	8b0	5
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	18b3	1900	1900	18b3	18b3	18b3	18b3	1900	18b3	18b3	1900
Adj Flow Rate, veh/h	5	5	5	141	5	174	5	b9b	1b3	152	935	5
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	79	48	280	8	29b	9	725	170	179	109b	b
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.01	0.50	0.50	0.10	0.59	0.59
Sat Flow, veh/h	87	423	255	954	44	1583	1774	14b0	342	1774	1851	10
Grp Volume(v), veh/h	15	0	0	14b	0	174	5	0	859	152	0	940
Grp Sat Flow(s),veh/h/ln	7bb	0	0	998	0	1583	1774	0	1802	1774	0	18b1
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	7.0	0.2	0.0	31.9	5.9	0.0	28.9
Cycle Q Clear(g_c), s	10.8	0.0	0.0	10.8	0.0	7.0	0.2	0.0	31.9	5.9	0.0	28.9
Prop In Lane	0.33		0.33	0.97		1.00	1.00		0.19	1.00		0.01
Lane Grp Cap(c), veh/h	212	0	0	288	0	29b	9	0	895	179	0	1102
V/C Ratio(X)	0.07	0.00	0.00	0.51	0.00	0.59	0.53	0.00	0.9b	0.85	0.00	0.85
Avail Cap(c_a), veh/h	25b	0	0	329	0	342	102	0	908	179	0	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	27.3	0.0	25.8	34.5	0.0	1b.8	30.7	0.0	11.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.4	0.0	2.0	39.9	0.0	20.5	30.3	0.0	b.b
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.2	0.0	0.0	2.8	0.0	3.2	0.2	0.0	20.b	4.4	0.0	1b.7
LnGrp Delay(d),s/veh	23.7	0.0	0.0	28.7	0.0	27.8	74.3	0.0	37.4	b1.0	0.0	18.3
LnGrp LOS	C			C		C	E		D	E		B
Approach Vol, veh/h		15			320			8b4			1092	
Approach Delay, s/veh		23.7			28.2			37.b			24.3	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2		4	5	b		8
Phs Duration (G+Y+Rc), s	12.0	39.5		18.0	5.4	4b.2		18.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	7.0	35.0		15.0	4.0	38.0		15.0
Max Q Clear Time (g_c+I1), s	7.9	33.9		12.8	2.2	30.9		12.8
Green Ext Time (p_c), s	0.0	0.7		0.3	0.0	4.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	200	230	190	310	50	140	150	200	30	430	b0
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	1900	18b3	18b3	18b3	18b3	18b3	1900	18b3	18b3	1900
Adj Flow Rate, veh/h	33	217	250	207	337	54	152	1b3	217	33	4b7	b5
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	27b	318	215	b51	553	118	197	2b2	229	535	75
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.07	0.27	0.27	0.13	0.33	0.33
Sat Flow, veh/h	989	791	911	922	18b3	1583	1774	72b	9bb	1774	1b01	223
Grp Volume(v), veh/h	33	0	4b7	207	337	54	152	0	380	33	0	532
Grp Sat Flow(s),veh/h/ln	989	0	1702	922	18b3	1583	1774	0	1b92	1774	0	1823
Q Serve(g_s), s	1.b	0.0	14.8	b.2	8.b	1.4	4.0	0.0	12.7	1.0	0.0	1b.5
Cycle Q Clear(g_c), s	10.3	0.0	14.8	21.0	8.b	1.4	4.0	0.0	12.7	1.0	0.0	1b.5
Prop In Lane	1.00		0.54	1.00		1.00	1.00		0.57	1.00		0.12
Lane Grp Cap(c), veh/h	323	0	595	215	b51	553	118	0	4b0	229	0	b10
V/C Ratio(X)	0.10	0.00	0.79	0.9b	0.52	0.10	1.29	0.00	0.83	0.14	0.00	0.87
Avail Cap(c_a), veh/h	323	0	595	215	b51	553	118	0	b7b	229	0	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.b	0.0	17.5	28.b	15.5	13.2	28.0	0.0	20.b	23.2	0.0	18.8
Incr Delay (d2), s/veh	0.1	0.0	b.9	50.5	0.7	0.1	178.7	0.0	5.5	0.3	0.0	9.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	0.5	0.0	8.0	b.4	4.5	0.b	7.8	0.0	b.b	0.5	0.0	10.0
LnGrp Delay(d),s/veh	19.7	0.0	24.4	79.1	1b.2	13.2	20b.8	0.0	2b.0	23.5	0.0	28.7
LnGrp LOS	B		C	E	B	B	F		C	C		C
Approach Vol, veh/h		500			598			532			5b5	
Approach Delay, s/veh		24.1			37.7			77.7			28.4	
Approach LOS		C			D			E			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2		4	5	b		8
Phs Duration (G+Y+Rc), s	12.8	21.3		2b.0	9.0	25.1		2b.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	4.0	24.0		21.0	4.0	24.0		21.0
Max Q Clear Time (g_c+I1), s	3.0	14.7		1b.8	b.0	18.5		23.0
Green Ext Time (p_c), s	0.4	1.b		2.5	0.0	1.b		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	47.7
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	60	510	0	0	70	1130	0	0	10	20	120
Peak Hour Factor	0.73	0.92	0.92	0.92	0.73	0.92	0.92	0.92	0.73	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	554	0	0	76	1228	0	0	11	22	130
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	3	3
HCM Control Delay	26.4	68	21.7
HCM LOS	D	F	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	7%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	13%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	80%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	60	255	255	70	565	565	210	20	90
LT Vol	10	60	0	0	70	0	0	210	0	0
Through Vol	20	0	255	255	0	565	565	0	20	0
RT Vol	120	0	0	0	0	0	0	0	0	90
Lane Flow Rate	163	65	277	277	76	614	614	228	22	98
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.465	0.181	0.73	0.597	0.2	1	1	0.61	0.055	0.229
Departure Headway (Hd)	10.259	9.987	9.487	7.751	9.484	8.966	7.169	9.619	9.12	8.422
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	351	359	383	466	377	405	504	377	393	427
Service Time	8.033	7.745	7.244	5.509	7.275	6.756	4.957	7.37	6.871	6.173
HCM Lane V/C Ratio	0.464	0.181	0.723	0.594	0.202	1.516	1.218	0.605	0.056	0.23
HCM Control Delay	21.7	15	34.1	21.4	14.7	75.6	67.1	26.4	12.4	13.7
HCM Lane LOS	C	B	D	C	B	F	F	D	B	B
HCM 95th-tile Q	2.4	0.7	5.6	3.8	0.7	12.2	13.6	3.9	0.2	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	210	20	90
Peak Hour Factor	0.73	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	228	22	98
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	22
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	33.5
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	90	430	0	0	20	1120	0	0	40	10	20
Peak Hour Factor	0.82	0.92	0.92	0.92	0.82	0.92	0.92	0.92	0.82	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	98	467	0	0	22	1217	0	0	43	11	22
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	13.7	46.4	13.3
HCM LOS	B	E	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	57%	100%	0%	0%	100%	0%	0%	60%
Vol Thru, %	14%	0%	100%	100%	0%	100%	100%	2%
Vol Right, %	29%	0%	0%	0%	0%	0%	0%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	90	215	215	20	560	560	215
LT Vol	40	90	0	0	20	0	0	130
Through Vol	10	0	215	215	0	560	560	5
RT Vol	20	0	0	0	0	0	0	80
Lane Flow Rate	76	98	234	234	22	609	609	234
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.182	0.211	0.472	0.359	0.044	1	0.844	0.525
Departure Headway (Hd)	8.625	7.773	7.272	5.532	7.285	6.772	4.994	8.092
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	415	460	493	645	489	536	718	444
Service Time	6.41	5.552	5.05	3.31	5.069	4.556	2.775	5.861
HCM Lane V/C Ratio	0.183	0.213	0.475	0.363	0.045	1.136	0.848	0.527
HCM Control Delay	13.3	12.6	16.4	11.4	10.4	65.1	28.9	19.5
HCM Lane LOS	B	B	C	B	B	F	D	C
HCM 95th-tile Q	0.7	0.8	2.5	1.6	0.1	14	9.6	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	130	5	80
Peak Hour Factor	0.82	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	141	5	87
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	19.5
HCM LOS	C

Lane

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	350	20	950	220	40	1580
Num6er	3	18	2	12	1	b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	380	22	1033	239	43	1717
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	bb5	30b	2533	789	179	219b
Arrive On Green	0.19	0.19	0.50	0.50	0.05	0.b2
Sat Flow, veh/h	3442	1583	5253	1583	3442	3b32
Grp Volume(v), veh/h	380	22	1033	239	43	1717
Grp Sat Flow(s),veh/h/ln	1721	1583	1b95	1583	1721	1770
Q Serve(g_s), s	5.7	0.b	7.3	5.1	0.7	20.3
Cycle Q Clear(g_c), s	5.7	0.b	7.3	5.1	0.7	20.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	bb5	30b	2533	789	179	219b
V/C Ratio(X)	0.57	0.07	0.41	0.30	0.24	0.78
Avail Cap(c_a), veh/h	1477	b79	b79b	211b	3b3	5352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	18.8	9.0	8.4	25.9	8.0
Incr Delay (d2), s/veh	1.7	0.2	0.0	0.1	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	2.8	0.3	3.4	2.2	0.4	9.8
LnGrp Delay(d),s/veh	22.5	19.0	9.0	8.5	27.3	8.2
LnGrp LOS	C	B	A	A	C	A
Approach Vol, veh/h	402		1272			17b0
Approach Delay, s/veh	22.3		8.9			8.7
Approach LOS	C		A			A

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2				b		8
Phs Duration (G+Y+Rc), s	7.0	34.3				41.3		15.b
Change Period (Y+Rc), s	4.0	b.0				b.0		4.b
Max Green Setting (Gmax), s	b.0	7b.0				8b.0		24.4
Max Q Clear Time (g_c+I1), s	2.7	9.3				22.3		7.7
Green Ext Time (p_c), s	0.0	13.0				12.9		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	580	180	310	170	700	b50
Num6er	7	14	5	2	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	58b	182	313	172	707	b57
Adj No. of Lanes	1	1	2	1	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	b00	535	34b	1023	757	b44
Arrive On Green	0.34	0.34	0.10	0.55	0.41	0.41
Sat Flow, veh/h	1774	1583	3442	18b3	18b3	1583
Grp Volume(v), veh/h	58b	182	313	172	707	b57
Grp Sat Flow(s),veh/h/ln	1774	1583	1721	18b3	18b3	1583
Q Serve(g_s), s	34.8	9.2	9.b	4.9	38.7	43.3
Cycle Q Clear(g_c), s	34.8	9.2	9.b	4.9	38.7	43.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	b00	535	34b	1023	757	b44
V/C Ratio(X)	0.98	0.34	0.91	0.17	0.93	1.02
Avail Cap(c_a), veh/h	b00	535	34b	1023	757	b44
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	2b.4	47.4	11.9	30.2	31.b
Incr Delay (d2), s/veh	30.9	0.4	2b.2	0.2	19.0	40.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	22.1	9.0	5.8	2.5	23.8	2b.1
LnGrp Delay(d),s/veh	b5.8	2b.7	73.b	12.1	49.2	72.4
LnGrp LOS	E	C	E	B	D	F
Approach Vol, veh/h	7b8			485	13b4	
Approach Delay, s/veh	5b.5			51.8	b0.4	
Approach LOS	E			D	E	

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2		4	5	b		
Phs Duration (G+Y+Rc), s		b4.5		42.0	15.2	49.3		
Change Period (Y+Rc), s		b.0		b.0	4.5	b.0		
Max Green Setting (Gmax), s		58.5		3b.0	10.7	43.3		
Max Q Clear Time (g_c+I1), s		b.9		3b.8	11.b	45.3		
Green Ext Time (p_c), s		28.3		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	57.b
HCM 2010 LOS	E

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	1200	b30	300	270	290	b90
Num6er	3	18	2	12	1	b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	12b3	bb3	31b	0	305	72b
Adj No. of Lanes	2	1	2	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1b91	778	1213	543	82b	1213
Arrive On Green	0.49	0.49	0.34	0.00	0.34	0.34
Sat Flow, veh/h	3442	1583	3b32	1583	2055	3b32
Grp Volume(v), veh/h	12b3	bb3	31b	0	305	72b
Grp Sat Flow(s),veh/h/ln	1721	1583	1770	1583	1027	1770
Q Serve(g_s), s	1b.7	20.8	3.7	0.0	7.1	9.b
Cycle Q Clear(g_c), s	1b.7	20.8	3.7	0.0	10.8	9.b
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1b91	778	1213	543	82b	1213
V/C Ratio(X)	0.75	0.85	0.2b	0.00	0.37	0.b0
Avail Cap(c_a), veh/h	1877	8b4	1543	b90	1018	1543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.b	12.b	13.4	0.0	17.3	15.4
Incr Delay (d2), s/veh	1.5	7.b	0.1	0.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	8.2	10.5	1.8	0.0	2.0	4.7
LnGrp Delay(d),s/veh	13.1	20.2	13.b	0.0	17.b	15.9
LnGrp LOS	B	C	B		B	B
Approach Vol, veh/h	192b		31b			1031
Approach Delay, s/veh	15.5		13.b			1b.4
Approach LOS	B		B			B

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2				b		8
Phs Duration (G+Y+Rc), s		24.7				24.7		31.9
Change Period (Y+Rc), s		5.3				5.3		4.1
Max Green Setting (Gmax), s		24.7				24.7		30.9
Max Q Clear Time (g_c+I1), s		5.7				12.8		22.8
Green Ext Time (p_c), s		8.8				b.b		5.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.b
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	10	10	30	10	350	10	520	50	b70	400	10
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	1900	18b3	18b3	18b3	18b3	18b3	1900	18b3	18b3	1900
Adj Flow Rate, veh/h	33	11	11	33	11	380	11	5b5	54	728	435	11
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	220	220	41	479	407	18	721	b9	582	1900	48
Arrive On Green	0.02	0.2b	0.2b	0.02	0.2b	0.2b	0.01	0.22	0.22	0.33	0.54	0.54
Sat Flow, veh/h	1774	85b	85b	1774	18b3	1583	1774	32bb	311	1774	3528	89
Grp Volume(v), veh/h	33	0	22	33	11	380	11	30b	313	728	218	228
Grp Sat Flow(s),veh/h/ln	1774	0	1712	1774	18b3	1583	1774	1770	1808	1774	1770	1847
Q Serve(g_s), s	2.1	0.0	1.1	2.1	0.5	2b.1	0.7	18.1	18.2	3b.5	7.2	7.2
Cycle Q Clear(g_c), s	2.1	0.0	1.1	2.1	0.5	2b.1	0.7	18.1	18.2	3b.5	7.2	7.2
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	41	0	440	41	479	407	18	390	399	582	953	995
V/C Ratio(X)	0.80	0.00	0.05	0.80	0.02	0.93	0.b0	0.78	0.79	1.25	0.23	0.23
Avail Cap(c_a), veh/h	b4	0	477	72	519	441	b4	4b9	480	582	987	1030
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	0.0	31.1	54.0	30.9	40.4	54.8	40.8	40.9	37.4	13.5	13.5
Incr Delay (d2), s/veh	31.0	0.0	0.0	28.2	0.0	2b.1	27.4	7.0	7.0	12b.4	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	1.4	0.0	0.5	1.3	0.3	14.3	0.5	9.b	9.8	38.2	3.5	3.7
LnGrp Delay(d),s/veh	85.1	0.0	31.1	82.2	30.9	bb.5	82.2	47.8	47.9	1b3.8	13.b	13.b
LnGrp LOS	F		C	F	C	E	F	D	D	F	B	B
Approach Vol, veh/h		55			424			b30			1174	
Approach Delay, s/veh		b3.5			bb.8			48.5			10b.7	
Approach LOS		E			E			D			F	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	41.0	29.5	7.1	33.b	5.7	b4.9	7.1	33.b
Change Period (Y+Rc), s	4.5	5.0	4.5	* 5	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	3b.5	29.5	4.5	* 31	4.0	b2.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	38.5	20.2	4.1	3.1	2.7	9.2	4.1	28.1
Green Ext Time (p_c), s	0.0	4.4	0.0	1.b	0.0	8.2	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	82.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the 6arrier.

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	820	10	30	360	10	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	891	11	33	391	11	76

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	902	0	1158	451
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	749	-	189	556
Stage 1	-	-	-	-	358	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	749	-	181	556
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	358	-
Stage 2	-	-	-	-	726	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	442	-	-	749	-
HCM Lane V/C Ratio	0.197	-	-	0.044	-
HCM Control Delay (s)	15.1	-	-	10	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	770	10	20	300	50	20	20	100	50	20	10
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	1900	18b3	18b3	18b3	18b3	18b3	1900	18b3	18b3	1900
Adj Flow Rate, veh/h	54	837	11	22	32b	54	22	22	109	54	22	11
Adj No. of Lanes	1	2	0	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	13bb	18	37	127b	571	134	51	250	75	178	89
Arrive On Green	0.04	0.38	0.38	0.02	0.3b	0.3b	0.08	0.19	0.19	0.04	0.15	0.15
Sat Flow, veh/h	1774	3577	47	1774	3539	1583	1774	273	1351	1774	1173	58b
Grp Volume(v), veh/h	54	414	434	22	32b	54	22	0	131	54	0	33
Grp Sat Flow(s),veh/h/ln	1774	1770	1854	1774	1770	1583	1774	0	1b24	1774	0	1759
Q Serve(g_s), s	1.5	9.5	9.5	0.b	3.2	1.1	0.b	0.0	3.b	1.5	0.0	0.8
Cycle Q Clear(g_c), s	1.5	9.5	9.5	0.b	3.2	1.1	0.b	0.0	3.b	1.5	0.0	0.8
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.83	1.00		0.33
Lane Grp Cap(c), veh/h	75	b7b	708	37	127b	571	134	0	301	75	0	2b8
V/C Ratio(X)	0.72	0.b1	0.b1	0.59	0.2b	0.09	0.1b	0.00	0.44	0.72	0.00	0.12
Avail Cap(c_a), veh/h	308	10b1	1111	159	1824	81b	195	0	1282	2bb	0	1459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.7	12.5	12.5	24.3	11.3	10.b	21.7	0.0	18.1	23.7	0.0	18.3
Incr Delay (d2), s/veh	12.3	0.9	0.9	13.9	0.1	0.1	0.b	0.0	1.0	12.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	1.0	4.8	5.0	0.4	1.b	0.5	0.3	0.0	1.7	1.0	0.0	0.4
LnGrp Delay(d),s/veh	35.9	13.4	13.4	38.2	11.4	10.7	22.2	0.0	19.1	35.9	0.0	18.5
LnGrp LOS	D	B	B	D	B	B	C		B	D		B
Approach Vol, veh/h		902			402			153			87	
Approach Delay, s/veh		14.7			12.7			19.5			29.3	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	b.b	13.8	5.b	24.1	8.3	12.1	b.b	23.1
Change Period (Y+Rc), s	4.5	4.5	4.5	5.0	4.5	4.5	4.5	5.0
Max Green Setting (Gmax), s	7.5	39.5	4.5	30.0	5.5	41.5	8.7	25.8
Max Q Clear Time (g_c+I1), s	3.5	5.b	2.b	11.5	2.b	2.8	3.5	5.2
Green Ext Time (p_c), s	0.0	1.0	0.0	7.7	0.0	1.1	0.0	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	780	210	70	90	b0	200	180	970	340	590	310	b70
Num6er	7	4	14	3	8	18	5	2	12	1	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	848	228	7b	98	b5	217	19b	1054	370	b41	337	728
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	792	1181	528	149	519	520	255	14b3	45b	b2b	2011	991
Arrive On Green	0.23	0.33	0.33	0.04	0.15	0.15	0.07	0.29	0.29	0.18	0.40	0.40
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	848	228	7b	98	b5	217	19b	1054	370	b41	337	728
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1b95	1583	1721	1b95	1583
Q Serve(g_s), s	28.5	5.7	4.2	3.5	2.0	13.2	b.9	23.0	2b.9	22.5	5.3	39.4
Cycle Q Clear(g_c), s	28.5	5.7	4.2	3.5	2.0	13.2	b.9	23.0	2b.9	22.5	5.3	39.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	792	1181	528	149	519	520	255	14b3	45b	b2b	2011	991
V/C Ratio(X)	1.07	0.19	0.14	0.bb	0.13	0.42	0.77	0.72	0.81	1.02	0.17	0.73
Avail Cap(c_a), veh/h	792	1741	779	239	1172	812	398	1b02	499	b2b	2011	991
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.b	29.4	28.9	58.3	45.9	32.3	5b.2	39.b	41.0	50.b	24.2	1b.1
Incr Delay (d2), s/veh	52.4	0.1	0.1	4.9	0.1	0.5	4.8	1.5	9.2	42.4	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	19.2	2.8	1.8	1.7	1.0	5.9	3.5	10.9	12.9	14.3	2.5	17.8
LnGrp Delay(d),s/veh	100.0	29.4	29.0	b3.2	4b.0	32.9	b1.1	41.1	50.1	93.0	24.3	18.9
LnGrp LOS	F	C	C	E	D	C	E	D	D	F	C	B
Approach Vol, veh/h		1152			380			1b20			170b	
Approach Delay, s/veh		81.4			43.0			45.5			47.8	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	b	7	8
Assigned Phs	1	2	3	4	5	b	7	8
Phs Duration (G+Y+Rc), s	27.0	40.b	9.8	4b.3	13.7	53.9	33.0	23.2
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	22.5	39.0	8.b	b0.9	14.3	47.2	28.5	41.0
Max Q Clear Time (g_c+I1), s	24.5	28.9	5.5	7.7	8.9	41.4	30.5	15.2
Green Ext Time (p_c), s	0.0	b.7	0.1	3.1	0.3	4.9	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.b
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	20	10	40	10	30	10	450	200	20	400	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	22	11	43	11	33	11	489	217	22	435	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	172	69	238	68	96	21	1025	452	39	1548	39
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.01	0.43	0.43	0.02	0.44	0.44
Sat Flow, veh/h	219	1060	426	547	422	592	1774	2391	1055	1774	3528	89
Grp Volume(v), veh/h	44	0	0	87	0	0	11	361	345	22	218	228
Grp Sat Flow(s),veh/h/ln	1706	0	0	1562	0	0	1774	1770	1677	1774	1770	1847
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.2	5.3	5.3	0.4	2.8	2.9
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.6	0.0	0.0	0.2	5.3	5.3	0.4	2.8	2.9
Prop In Lane	0.25		0.25	0.49		0.38	1.00		0.63	1.00		0.05
Lane Grp Cap(c), veh/h	401	0	0	402	0	0	21	758	718	39	777	811
V/C Ratio(X)	0.11	0.00	0.00	0.22	0.00	0.00	0.54	0.48	0.48	0.57	0.28	0.28
Avail Cap(c_a), veh/h	1632	0	0	1527	0	0	393	1617	1532	491	1714	1789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	0.0	13.4	0.0	0.0	17.8	7.4	7.4	17.5	6.5	6.5
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	20.0	0.5	0.5	12.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	0.0	0.0	0.8	0.0	0.0	0.2	2.6	2.5	0.3	1.4	1.5
LnGrp Delay(d),s/veh	13.1	0.0	0.0	13.6	0.0	0.0	37.7	7.9	7.9	29.7	6.7	6.7
LnGrp LOS	B			B			D	A	A	C	A	A
Approach Vol, veh/h		44			87			717			468	
Approach Delay, s/veh		13.1			13.6			8.4			7.8	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	20.5		10.9	4.4	20.9		10.9
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0
Max Green Setting (Gmax), s	10.0	33.0		33.0	8.0	35.0		33.0
Max Q Clear Time (g_c+I1), s	2.4	7.3		2.8	2.2	4.9		3.6
Green Ext Time (p_c), s	0.0	8.1		0.7	0.0	8.5		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	380	30	0	20	140	20	0	30	20	80
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	413	33	0	22	152	22	0	33	22	87
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	16.8	10.1	9.8
HCM LOS	C	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	23%	100%	0%	100%	0%	20%
Vol Thru, %	15%	0%	93%	0%	88%	60%
Vol Right, %	62%	0%	7%	0%	12%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	10	410	20	160	50
LT Vol	30	10	0	20	0	10
Through Vol	20	0	380	0	140	30
RT Vol	80	0	30	0	20	10
Lane Flow Rate	141	11	446	22	174	54
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.208	0.017	0.643	0.037	0.266	0.088
Departure Headway (Hd)	5.419	5.749	5.194	6.107	5.513	5.83
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	667	616	686	589	656	617
Service Time	3.419	3.542	2.986	3.812	3.218	3.839
HCM Lane V/C Ratio	0.211	0.018	0.65	0.037	0.265	0.088
HCM Control Delay	9.8	8.6	17	9	10.2	9.4
HCM Lane LOS	A	A	C	A	B	A
HCM 95th-tile Q	0.8	0.1	4.7	0.1	1.1	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	30	10
Peak Hour Factor	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	33	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.4
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	837	229	76	44
Demand Flow Rate, veh/h	854	233	77	44
Vehicles Circulating, veh/h	44	122	854	222
Vehicles Exiting, veh/h	222	809	44	133
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	18.7	5.9	9.8	4.4
Approach LOS	C	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	854	233	77	44
Cap Entry Lane, veh/h	1081	1000	481	905
Entry HV Adj Factor	0.981	0.984	0.984	0.995
Flow Entry, veh/h	837	229	76	44
Cap Entry, veh/h	1060	984	473	901
V/C Ratio	0.790	0.233	0.160	0.049
Control Delay, s/veh	18.7	5.9	9.8	4.4
LOS	C	A	A	A
95th %tile Queue, veh	9	1	1	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	590	140	50	900	310	1b0
Num6er	7	14	5	2	b	1b
Initial Q (Q6), veh	0	0	0	0	0	0
Ped-Bike Adj(A_p6T)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	18b3	18b3	18b3	18b3	18b3	18b3
Adj Flow Rate, veh/h	b41	152	54	978	337	174
Adj No. of Lanes	1	1	1	3	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	741	bb1	72	2083	1459	454
Arrive On Green	0.42	0.42	0.04	0.41	0.29	0.29
Sat Flow, veh/h	1774	1583	1774	5253	5253	1583
Grp Volume(v), veh/h	b41	152	54	978	337	174
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1b95	1b95	1583
Q Serve(g_s), s	18.1	3.4	1.7	7.7	2.8	4.8
Cycle Q Clear(g_c), s	18.1	3.4	1.7	7.7	2.8	4.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	741	bb1	72	2083	1459	454
V/C Ratio(X)	0.87	0.23	0.74	0.47	0.23	0.38
Avail Cap(c_a), veh/h	143b	1282	210	3330	2312	720
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.b	10.3	2b.1	11.9	15.0	15.7
Incr Delay (d2), s/veh	3.2	0.2	14.0	0.2	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-2b1b5%),veh/ln	9.4	3.7	1.1	3.7	1.3	2.2
LnGrp Delay(d),s/veh	17.8	10.5	40.0	12.0	15.1	1b.2
LnGrp LOS	B	B	D	B	B	B
Approach Vol, veh/h	793			1032	511	
Approach Delay, s/veh	1b.4			13.5	15.5	
Approach LOS	B			B	B	

Timer	1	2	3	4	5	b	7	8
Assigned Phs		2		4	5	b		
Phs Duration (G+Y+Rc), s		27.5		27.5	b.7	20.8		
Change Period (Y+Rc), s		5.0		4.5	4.5	5.0		
Max Green Setting (Gmax), s		3b.0		44.5	b.5	25.0		
Max Q Clear Time (g_c+I1), s		9.7		20.1	3.7	b.8		
Green Ext Time (p_c), s		10.7		2.8	0.0	8.9		

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	20	10	10	40	10	450	10	20	430	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	11	22	11	11	43	11	489	11	22	467	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	96	137	192	64	180	606	1562	35	595	1560	37
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	245	568	813	167	380	1068	913	3539	80	894	3535	83
Grp Volume(v), veh/h	44	0	0	65	0	0	11	244	256	22	234	244
Grp Sat Flow(s),veh/h/ln	1625	0	0	1614	0	0	913	1770	1849	894	1770	1848
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.3	2.3	0.4	2.2	2.2
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.9	0.0	0.0	2.4	2.3	2.3	2.7	2.2	2.2
Prop In Lane	0.25		0.50	0.17		0.66	1.00		0.04	1.00		0.05
Lane Grp Cap(c), veh/h	449	0	0	436	0	0	606	781	816	595	781	816
V/C Ratio(X)	0.10	0.00	0.00	0.15	0.00	0.00	0.02	0.31	0.31	0.04	0.30	0.30
Avail Cap(c_a), veh/h	2087	0	0	2083	0	0	1236	2002	2092	1213	2002	2091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.1	0.0	0.0	9.2	0.0	0.0	5.4	4.6	4.6	5.5	4.6	4.6
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	0.0	0.0	0.4	0.0	0.0	0.1	1.1	1.2	0.1	1.1	1.1
LnGrp Delay(d),s/veh	9.2	0.0	0.0	9.4	0.0	0.0	5.4	4.9	4.9	5.5	4.8	4.8
LnGrp LOS	A			A			A	A	A	A	A	A
Approach Vol, veh/h		44			65			511			500	
Approach Delay, s/veh		9.2			9.4			4.9			4.8	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		16.3		9.3		16.3		9.3
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		29.0		31.0		29.0		31.0
Max Q Clear Time (g_c+I1), s		4.4		2.6		4.7		2.9
Green Ext Time (p_c), s		6.6		0.6		6.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	5.3
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Vol, veh/h	0	10	50	0	50	70	0	100	10
Peak Hour Factor	0.95	0.92	0.92	0.95	0.92	0.92	0.95	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	54	0	54	76	0	109	11
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.3	8.1	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	42%	17%	0%
Vol Thru, %	58%	0%	91%
Vol Right, %	0%	83%	9%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	120	60	110
LT Vol	50	10	0
Through Vol	70	0	100
RT Vol	0	50	10
Lane Flow Rate	130	65	120
Geometry Grp	1	1	1
Degree of Util (X)	0.153	0.073	0.136
Departure Headway (Hd)	4.223	4.016	4.093
Convergence, Y/N	Yes	Yes	Yes
Cap	844	897	868
Service Time	2.279	2.016	2.155
HCM Lane V/C Ratio	0.154	0.072	0.138
HCM Control Delay	8.1	7.3	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.2	0.5

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	150	130	80	170	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	163	141	87	185	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	228	0	-	0	370	185
Stage 1	-	-	-	-	185	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1340	-	-	-	630	857
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	847	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	624	857
Mov Cap-2 Maneuver	-	-	-	-	624	-
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	839	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	634
HCM Lane V/C Ratio	0.008	-	-	-	0.309
HCM Control Delay (s)	7.7	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	70	30	640	310	160	620	6070	90	450	6350	60
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	93	74	36	641	356	143	625	6603	93	458	6394	60
Adj No. of Lanes	6	6	6	6	6	6	6	4	6	4	4	6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	686	205	561	117	205	220	677	6117	218	367	6146	232
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.60	0.16	0.16	0.09	0.10	0.10
Sat Flow, veh/h	291	6823	6583	6482	6823	6583	6771	3539	6583	3114	3539	6583
Grp Volume(v), veh/h	93	74	36	641	356	143	625	6603	93	458	6394	60
Grp Sat Flow(s),veh/h/ln	291	6823	6583	6482	6823	6583	6771	6770	6583	6746	6770	6583
Q Serve(g_s), s	61.5	3.6	6.5	8.1	67.2	43.9	60.1	30.6	1.4	8.3	13.7	0.1
Cycle Q Clear(g_c), s	34.6	3.6	6.5	66.5	67.2	43.9	60.1	30.6	1.4	8.3	13.7	0.1
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	686	205	561	117	205	220	677	6117	218	367	6146	232
V/C Ratio(X)	0.54	0.64	0.02	0.48	0.58	0.21	0.93	0.72	0.61	0.86	0.98	0.04
Avail Cap(c_a), veh/h	442	748	269	534	748	725	677	6117	218	327	6146	232
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	15.0	42.7	42.4	30.7	36.2	42.6	50.3	48.2	40.9	50.4	33.4	40.3
Incr Delay (d4), s/veh	0.8	0.0	0.0	0.6	0.3	0.9	18.5	4.3	0.6	60.6	69.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	4.8	6.2	0.7	3.0	9.6	60.2	7.5	65.4	6.8	1.1	45.0	0.4
LnGrp Delay(d),s/veh	15.8	42.7	42.4	30.8	36.9	47.0	98.8	30.9	46.0	20.4	54.3	40.3
LnGrp LOS	D	C	C	C	C	C	F	C	C	E	D	C
Approach Vol, veh/h		692			898			6326			6220	
Approach Delay, s/veh		35.7			49.5			38.5			53.3	
Approach LOS		D			C			D			D	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4		1	5	2		8
Phs Duration (G+Y+Rc), s	62.4	51.0		14.1	67.0	53.4		14.1
Change Period (Y+Rc), s	5.8	8.0		5.8	5.8	8.0		5.8
Max Green Setting (Gmax), s	64.0	11.1		11.0	66.4	15.4		11.0
Max Q Clear Time (g_c+I6), s	60.3	34.6		31.6	64.1	15.7		45.9
Green Ext Time (p_c), s	0.6	9.5		4.1	0.0	0.0		4.9

Intersection Summary		
HCM 4060 Ctrl Delay		14.1
HCM 4060 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	330	460	20	400	310	610	340	850	50	20	6630	360
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	310	462	24	402	356	611	330	872	54	24	6625	340
Adj No. of Lanes	6	6	6	6	6	6	6	4	6	6	4	6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	473	740	837	389	740	768	454	6391	241	669	6647	501
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.61	0.39	0.39	0.07	0.34	0.34
Sat Flow, veh/h	899	6823	6583	6097	6823	6583	6771	3539	6583	6771	3539	6583
Grp Volume(v), veh/h	310	462	24	402	356	611	330	872	54	24	6625	340
Grp Sat Flow(s),veh/h/ln	899	6823	6583	6097	6823	6583	6771	6770	6583	6771	6770	6583
Q Serve(g_s), s	33.0	60.9	4.2	46.7	69.4	7.1	69.4	42.9	4.8	1.2	13.0	43.3
Cycle Q Clear(g_c), s	54.4	60.9	4.2	34.5	69.4	7.1	69.4	42.9	4.8	1.2	13.0	43.3
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	473	740	837	389	740	768	454	6391	241	669	6647	501
V/C Ratio(X)	6.45	0.30	0.07	0.53	0.19	0.40	6.36	0.23	0.08	0.54	6.03	0.23
Avail Cap(c_a), veh/h	473	740	837	397	731	730	454	6391	241	637	6647	501
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	51.4	48.7	65.2	10.0	36.3	44.4	57.9	33.0	45.2	20.9	12.0	39.3
Incr Delay (d4), s/veh	637.7	0.4	0.0	6.0	0.1	0.6	621.6	0.8	0.0	6.3	35.8	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	40.2	5.2	6.6	2.7	9.9	3.3	40.9	63.3	6.4	4.3	42.2	60.2
LnGrp Delay(d),s/veh	696.9	48.9	65.2	16.0	36.7	44.3	444.0	33.8	45.7	24.4	86.8	16.2
LnGrp LOS	F	C	B	D	C	C	F	C	C	E	F	D
Approach Vol, veh/h		268			706			6458			6517	
Approach Delay, s/veh		667.3			34.5			84.8			74.7	
Approach LOS		F			C			F			E	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4		1	5	2		8
Phs Duration (G+Y+Rc), s	61.8	26.4		59.0	45.0	56.0		59.0
Change Period (Y+Rc), s	5.8	8.0		2.8	5.8	8.0		* 2.8
Max Green Setting (Gmax), s	60.1	56.8		54.4	69.4	13.0		* 53
Max Q Clear Time (g_c+I6), s	2.2	48.9		51.4	46.4	15.0		31.5
Green Ext Time (p_c), s	0.0	63.0		0.0	0.0	0.0		2.6

Intersection Summary			
HCM 4060 Ctrl Delay		75.2	
HCM 4060 LOS		E	

Notes

* HCM 4060 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	600	6630	620	6070	6040	820	20	220	6610	6670	960	610
Number	6	2	62	5	4	64	7	1	61	3	8	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	603	6625	625	6603	6054	887	24	280	6675	6402	938	611
Adj No. of Lanes	4	4	6	4	4	6	4	6	6	4	6	6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	431	6045	159	337	6634	274	468	269	542	326	297	594
Arrive On Green	0.07	0.49	0.49	0.60	0.34	0.34	0.02	0.33	0.33	0.60	0.37	0.37
Sat Flow, veh/h	3114	3539	6583	3114	3539	6583	3114	6823	6583	3114	6823	6583
Grp Volume(v), veh/h	603	6625	625	6603	6054	887	24	280	6675	6402	938	611
Grp Sat Flow(s),veh/h/ln	6746	6770	6583	6746	6770	6583	6746	6823	6583	6746	6823	6583
Q Serve(g_s), s	1.4	14.0	64.0	61.4	16.7	12.1	4.5	18.4	18.4	65.4	51.4	9.6
Cycle Q Clear(g_c), s	1.4	14.0	64.0	61.4	16.7	12.1	4.5	18.4	18.4	65.4	51.4	9.6
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	431	6045	159	337	6634	274	468	269	542	326	297	594
V/C Ratio(X)	0.11	6.61	0.32	3.47	0.93	6.34	0.48	6.60	4.43	3.31	6.35	0.41
Avail Cap(c_a), veh/h	426	6045	159	337	6634	274	426	269	542	326	297	594
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	21.9	56.5	10.8	25.1	17.7	16.7	21.8	18.1	18.1	21.9	15.1	36.3
Incr Delay (d4), s/veh	0.5	73.2	0.1	6030.3	63.6	651.6	0.3	22.0	520.7	6026.3	625.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	4.0	36.0	5.3	55.0	44.5	55.2	6.4	32.6	603.0	20.1	59.9	1.0
LnGrp Delay(d),s/veh	25.1	645.6	16.4	6095.7	20.9	695.8	25.0	661.1	209.6	6642.4	460.8	36.1
LnGrp LOS	E	F	D	F	E	F	E	F	F	F	F	C
Approach Vol, veh/h		6133			3014			6967			4488	
Approach Delay, s/veh		666.6			175.1			162.0			284.0	
Approach LOS		F			F			F			F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	65.2	51.1	46.0	51.0	40.0	50.0	65.0	20.0
Change Period (Y+Rc), s	5.8	8.0	5.8	5.8	5.8	8.0	5.8	5.8
Max Green Setting (Gmax), s	66.0	15.4	65.4	18.4	61.4	14.0	66.0	54.1
Max Q Clear Time (g_c+I6), s	2.4	18.1	67.4	50.4	62.4	11.0	1.5	52.4
Green Ext Time (p_c), s	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 4060 Ctrl Delay	152.2
HCM 4060 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	6030	520	0	4380	390	0	0	0	250	0	410
Number	5	4	64	6	2	62				7	1	61
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00				6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00				6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	0	6823	6900	0	6823	6823				6900	6823	6823
Adj Flow Rate, veh/h	0	6073	583	0	4179	0				277	0	450
Adj No. of Lanes	0	4	0	0	3	6				0	6	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	4	4	0	4	4				4	4	4
Cap, veh/h	0	6402	247	0	4740	817				552	0	192
Arrive On Green	0.00	0.53	0.53	0.00	0.53	0.00				0.36	0.00	0.36
Sat Flow, veh/h	0	4317	6674	0	5453	6583				6771	0	6583
Grp Volume(v), veh/h	0	834	841	0	4179	0				277	0	450
Grp Sat Flow(s),veh/h/ln	0	6770	6252	0	6295	6583				6771	0	6583
Q Serve(g_s), s	0.0	41.8	47.2	0.0	42.5	0.0				68.8	0.0	7.7
Cycle Q Clear(g_c), s	0.0	41.8	47.2	0.0	42.5	0.0				68.8	0.0	7.7
Prop In Lane	0.00		0.76	0.00		6.00				6.00		6.00
Lane Grp Cap(c), veh/h	0	917	882	0	4740	817				552	0	192
V/C Ratio(X)	0.00	0.88	0.93	0.00	0.96	0.00				6.44	0.00	0.50
Avail Cap(c_a), veh/h	0	917	882	0	4746	817				552	0	192
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00				6.00	6.00	6.00
Upstream Filter(I)	0.00	6.00	6.00	0.00	6.00	0.00				6.00	0.00	6.00
Uniform Delay (d), s/veh	0.0	64.4	64.9	0.0	64.7	0.0				40.2	0.0	62.8
Incr Delay (d4), s/veh	0.0	9.7	62.0	0.0	5.4	0.0				663.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	0.0	61.3	62.3	0.0	63.5	0.0				42.7	0.0	3.1
LnGrp Delay(d),s/veh	0.0	46.9	49.0	0.0	67.9	0.0				631.4	0.0	67.6
LnGrp LOS		C	C		B					F		B
Approach Vol, veh/h		6252			4179						947	
Approach Delay, s/veh		45.1			67.9						604.2	
Approach LOS		C			B						F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4		1		2		
Phs Duration (G+Y+Rc), s		37.0		43.0		37.0		
Change Period (Y+Rc), s		1.9		* 1.4		1.9		
Max Green Setting (Gmax), s		34.6		* 69		34.6		
Max Q Clear Time (g_c+I6), s		49.2		40.8		48.5		
Green Ext Time (p_c), s		4.5		0.0		3.2		

Intersection Summary	
HCM 4060 Ctrl Delay	35.9
HCM 4060 LOS	D

Notes

* HCM 4060 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	6590	0	0	6580	740	6690	0	720	0	0	0
Number	5	4	64	6	2	62	3	8	68			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00			
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00			
Adj Sat Flow, veh/h/ln	6823	6823	0	0	6823	6823	6823	6823	6823			
Adj Flow Rate, veh/h	95	6271	0	0	6223	0	6453	0	800			
Adj No. of Lanes	6	4	0	0	3	6	4	0	4			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	684	6791	0	0	6861	525	6351	0	6409			
Arrive On Green	0.60	0.56	0.00	0.00	0.32	0.00	0.38	0.00	0.38			
Sat Flow, veh/h	6771	3234	0	0	5453	6583	3518	0	3627			
Grp Volume(v), veh/h	95	6271	0	0	6223	0	6453	0	800			
Grp Sat Flow(s),veh/h/ln	6771	6770	0	0	6295	6583	6771	0	6583			
Q Serve(g_s), s	1.5	38.9	0.0	0.0	47.5	0.0	49.7	0.0	68.1			
Cycle Q Clear(g_c), s	1.5	38.9	0.0	0.0	47.5	0.0	49.7	0.0	68.1			
Prop In Lane	6.00		0.00	0.00		6.00	6.00		6.00			
Lane Grp Cap(c), veh/h	684	6791	0	0	6861	525	6351	0	6409			
V/C Ratio(X)	0.54	0.93	0.00	0.00	0.94	0.00	0.93	0.00	0.22			
Avail Cap(c_a), veh/h	404	6861	0	0	6861	525	6165	0	6423			
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00			
Upstream Filter(I)	6.00	6.00	0.00	0.00	6.00	0.00	6.00	0.00	6.00			
Uniform Delay (d), s/veh	37.1	40.3	0.0	0.0	47.6	0.0	42.0	0.0	44.5			
Incr Delay (d4), s/veh	0.9	9.1	0.0	0.0	7.9	0.0	60.0	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-42625%),veh/ln	4.4	46.4	0.0	0.0	61.6	0.0	62.3	0.0	8.4			
LnGrp Delay(d),s/veh	38.3	49.7	0.0	0.0	35.0	0.0	32.0	0.0	43.1			
LnGrp LOS	D	C			C		D		C			
Approach Vol, veh/h		6729			6223			4053				
Approach Delay, s/veh		30.4			35.0			36.6				
Approach LOS		C			C			C				

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4			5	2		8
Phs Duration (G+Y+Rc), s		19.5			63.4	32.3		38.5
Change Period (Y+Rc), s		1.9			* 1.4	1.9		1.9
Max Green Setting (Gmax), s		15.6			* 60	30.9		35.6
Max Q Clear Time (g_c+I6), s		10.9			2.5	49.5		36.7
Green Ext Time (p_c), s		3.7			0.0	6.1		6.9

Intersection Summary	
HCM 4060 Ctrl Delay	34.0
HCM 4060 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 4060 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	200	760	920	460	0	0
Number	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863		
Adj Flow Rate, veh/h	213	809	979	489		
Adj No. of Lanes	2	0	2	1		
Peak Hour Factor	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	881	788	1151	1688		
Arrive On Green	0.50	0.50	0.33	0.91		
Sat Flow, veh/h	1863	1583	3442	1863		
Grp Volume(v), veh/h	213	809	979	489		
Grp Sat Flow(s),veh/h/ln	1770	1583	1721	1863		
Q Serve(g_s), s	3.9	28.2	15.0	1.9		
Cycle Q Clear(g_c), s	3.9	28.2	15.0	1.9		
Prop In Lane		1.00	1.00			
Lane Grp Cap(c), veh/h	881	788	1151	1688		
V/C Ratio(X)	0.24	1.03	0.85	0.29		
Avail Cap(c_a), veh/h	881	788	4362	3426		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.1	14.2	17.5	0.3		
Incr Delay (d2), s/veh	0.1	39.0	0.7	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.9	20.6	7.2	0.8		
LnGrp Delay(d),s/veh	8.2	53.2	18.2	0.4		
LnGrp LOS	A	F	B	A		
Approach Vol, veh/h	1022			1468		
Approach Delay, s/veh	43.8			12.3		
Approach LOS	D			B		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	23.1	33.5				56.6		
Change Period (Y+Rc), s	* 4.2	5.3				5.3		
Max Green Setting (Gmax), s	* 72	28.2				104.2		
Max Q Clear Time (g_c+I1), s	17.0	30.2				3.9		
Green Ext Time (p_c), s	2.0	0.0				8.1		

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

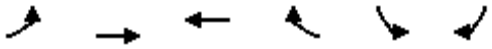
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	1580	200	0	0	1370
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	11	0	213	0	0	1457
Adj No. of Lanes	1	2	2	0	0	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	42	65	2253	0	0	2253
Arrive On Green	0.02	0.00	0.64	0.00	0.00	0.64
Sat Flow, veh/h	1774	2787	3725	0	0	3725
Grp Volume(v), veh/h	11	0	213	0	0	1457
Grp Sat Flow(s),veh/h/ln	1774	1393	1770	0	0	1770
Q Serve(g_s), s	0.2	0.0	0.7	0.0	0.0	7.1
Cycle Q Clear(g_c), s	0.2	0.0	0.7	0.0	0.0	7.1
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	42	65	2253	0	0	2253
V/C Ratio(X)	0.26	0.00	0.09	0.00	0.00	0.65
Avail Cap(c_a), veh/h	1904	2991	6332	0	0	6332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	2.0	0.0	0.0	3.1
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.3	0.0	0.0	3.3
LnGrp Delay(d),s/veh	14.7	0.0	2.0	0.0	0.0	3.3
LnGrp LOS	B		A			A
Approach Vol, veh/h	11		213			1457
Approach Delay, s/veh	14.7		2.0			3.3
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		23.1				23.1		4.9
Change Period (Y+Rc), s		5.3				5.3		4.2
Max Green Setting (Gmax), s		50.0				50.0		30.0
Max Q Clear Time (g_c+I1), s		2.7				9.1		2.2
Green Ext Time (p_c), s		8.8				8.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	3.2
HCM 2010 LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	440	1690	430	400	530	330
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	458	1760	448	0	552	344
Adj No. of Lanes	1	2	2	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	495	1942	802	359	595	531
Arrive On Green	0.28	0.55	0.23	0.00	0.34	0.34
Sat Flow, veh/h	1774	3632	3632	1583	1774	1583
Grp Volume(v), veh/h	458	1760	448	0	552	344
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1583	1774	1583
Q Serve(g_s), s	20.3	36.2	9.1	0.0	24.3	15.0
Cycle Q Clear(g_c), s	20.3	36.2	9.1	0.0	24.3	15.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	495	1942	802	359	595	531
V/C Ratio(X)	0.93	0.91	0.56	0.00	0.93	0.65
Avail Cap(c_a), veh/h	536	2248	1026	459	637	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	16.4	27.8	0.0	26.0	22.9
Incr Delay (d2), s/veh	20.5	4.8	0.2	0.0	18.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	18.7	4.4	0.0	14.9	13.1
LnGrp Delay(d),s/veh	48.9	21.2	28.0	0.0	44.7	24.6
LnGrp LOS	D	C	C		D	C
Approach Vol, veh/h		2218	448		896	
Approach Delay, s/veh		26.9	28.0		37.0	
Approach LOS		C	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		49.8		31.3	26.1	23.7		
Change Period (Y+Rc), s		5.3		4.1	3.5	5.3		
Max Green Setting (Gmax), s		51.5		29.1	24.5	23.5		
Max Q Clear Time (g_c+I1), s		38.2		26.3	22.3	11.1		
Green Ext Time (p_c), s		6.3		0.8	0.3	6.1		

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1030	1190	0	0	660	260	170	0	640	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	1120	1293	0	0	717	0	185	0	0			
Adj No. of Lanes	1	2	0	0	2	1	1	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	994	2845	0	0	762	341	213	224	190			
Arrive On Green	0.56	0.80	0.00	0.00	0.22	0.00	0.12	0.00	0.00			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1774	1863	1583			
Grp Volume(v), veh/h	1120	1293	0	0	717	0	185	0	0			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	1863	1583			
Q Serve(g_s), s	69.5	14.0	0.0	0.0	24.7	0.0	12.7	0.0	0.0			
Cycle Q Clear(g_c), s	69.5	14.0	0.0	0.0	24.7	0.0	12.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	994	2845	0	0	762	341	213	224	190			
V/C Ratio(X)	1.13	0.45	0.00	0.00	0.94	0.00	0.87	0.00	0.00			
Avail Cap(c_a), veh/h	994	2845	0	0	762	341	585	614	522			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	27.3	3.8	0.0	0.0	47.9	0.0	53.6	0.0	0.0			
Incr Delay (d2), s/veh	70.0	0.0	0.0	0.0	19.4	0.0	4.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	53.0	6.7	0.0	0.0	14.1	0.0	6.5	0.0	0.0			
LnGrp Delay(d),s/veh	97.3	3.8	0.0	0.0	67.3	0.0	57.7	0.0	0.0			
LnGrp LOS	F	A			E		E					
Approach Vol, veh/h		2413			717			185				
Approach Delay, s/veh		47.2			67.3			57.7				
Approach LOS		D			E			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		105.0			73.0	32.0		19.0
Change Period (Y+Rc), s		5.3			3.5	5.3		4.1
Max Green Setting (Gmax), s		99.7			69.5	26.7		40.9
Max Q Clear Time (g_c+I1), s		16.0			71.5	26.7		14.7
Green Ext Time (p_c), s		14.0			0.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	52.1
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	90.6
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	190	770	640	0	260	400	70	0	630	470	360
Peak Hour Factor	0.81	0.92	0.92	0.92	0.81	0.92	0.92	0.92	0.81	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	207	837	696	0	283	435	76	0	685	511	391
Number of Lanes	0	1	2	0	0	1	1	1	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	87.7	87.1	93.6
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	30%	0%	100%	29%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	70%	0%	0%	71%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	630	313	517	190	513	897	260	400	70	260	393
LT Vol	630	0	0	190	0	0	260	0	0	260	0
Through Vol	0	313	157	0	513	257	0	400	0	0	393
RT Vol	0	0	360	0	0	640	0	0	70	0	0
Lane Flow Rate	685	341	562	207	558	975	283	435	76	283	428
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1	1	1	0.79	1	1	1	1	0.266	1	1
Departure Headway (Hd)	13.748	13.251	12.765	13.765	13.267	12.77	13.802	13.303	12.605	13.758	13.261
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	274	276	286	264	279	292	266	278	286	266	278
Service Time	11.518	11.018	10.531	11.526	11.026	10.527	11.526	11.026	10.327	11.518	11.018
HCM Lane V/C Ratio	2.5	1.236	1.965	0.784	2	3.339	1.064	1.565	0.266	1.064	1.54
HCM Control Delay	95.4	93.4	91.5	53.8	93.5	91.5	95.4	93.5	19.8	95.4	93.4
HCM Lane LOS	F	F	F	F	F	F	F	F	C	F	F
HCM 95th-tile Q	9.9	10.1	10.3	6	10.1	10.3	9.9	10.1	1	9.9	10.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	260	590	410
Peak Hour Factor	0.81	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	283	641	446
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	92.9
HCM LOS	F

Lane	SBLn3

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	80	500	250	480	510	150	430	20	720	360	30	170
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	250	-	0	350	-	-	350	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	87	543	272	522	554	163	467	22	783	391	33	185

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	554	0	0	815	0	0	2560	2451	679	2853	2587	554
Stage 1	-	-	-	-	-	-	853	853	-	1598	1598	-
Stage 2	-	-	-	-	-	-	1707	1598	-	1255	989	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1016	-	-	812	-	-	~ 18	31	~ 452	~ 11	~ 25	532
Stage 1	-	-	-	-	-	-	~ 354	376	-	~ 134	166	-
Stage 2	-	-	-	-	-	-	~ 116	166	-	~ 210	325	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1016	-	-	812	-	-	-	~ 10	~ 452	-	~ 8	532
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 10	-	-	~ 8	-
Stage 1	-	-	-	-	-	-	~ 324	344	-	~ 123	59	-
Stage 2	-	-	-	-	-	-	~ 12	59	-	-	297	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	7.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	206	1016	-	-	812	-	-	-	49
HCM Lane V/C Ratio	-	3.905	0.086	-	-	0.643	-	-	-	4.437
HCM Control Delay (s)	$	1352.6	8.9	-	-	17	-	-	$	1714.6
HCM Lane LOS	-	F	A	-	-	C	-	-	-	F
HCM 95th %tile Q(veh)	-	78.6	0.3	-	-	4.8	-	-	-	24.4

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	700	230	50	190	620	370	480	20	670	490	30
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	14	749	252	54	560	627	385	494	24	620	342	36
Adj No. of Lanes	6	4	6	6	4	6	4	6	6	6	4	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	57	6642	501	25	6614	566	750	391	335	457	539	449
Arrive On Green	0.03	0.34	0.34	0.01	0.34	0.34	0.46	0.46	0.46	0.61	0.61	0.61
Sat Flow, veh/h	6771	3539	6583	6771	3539	6583	3518	6823	6583	6771	3745	6583
Grp Volume(v), veh/h	14	749	252	54	560	627	385	494	24	620	342	36
Grp Sat Flow(s),veh/h/ln	6771	6770	6583	6771	6770	6583	6771	6823	6583	6771	6823	6583
Q Serve(g_s), s	6.2	64.4	44.0	4.0	7.9	5.5	2.2	60.6	4.4	5.9	5.7	6.4
Cycle Q Clear(g_c), s	6.2	64.4	44.0	4.0	7.9	5.5	2.2	60.6	4.4	5.9	5.7	6.4
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	57	6642	501	25	6614	566	750	391	335	457	539	449
V/C Ratio(X)	0.71	0.25	6.30	0.80	0.15	0.33	0.56	0.71	0.69	0.24	0.20	0.61
Avail Cap(c_a), veh/h	648	6642	501	603	6614	566	6680	269	542	539	6636	186
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	33.4	40.3	43.2	33.6	68.5	67.7	41.6	45.5	44.1	47.8	47.7	45.8
Incr Delay (d4), s/veh	67.0	6.3	650.6	40.1	0.3	0.1	0.5	4.8	0.3	4.5	6.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	6.6	2.4	30.5	6.1	3.9	4.5	3.3	5.5	6.0	3.0	3.0	0.5
LnGrp Delay(d),s/veh	50.6	46.2	673.7	53.5	68.8	68.6	41.7	48.3	44.2	30.3	48.8	42.6
LnGrp LOS	D	C	F	D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		6147			749			739			567	
Approach Delay, s/veh		94.3			46.6			45.9			49.6	
Approach LOS		F			C			C			C	

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4	3	1		2	7	8
Phs Duration (G+Y+Rc), s		69.2	7.5	47.0		65.0	7.4	47.3
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		43.0	1.0	44.0		46.0	5.0	46.0
Max Q Clear Time (g_c+I6), s		64.6	1.0	41.0		7.9	3.2	9.9
Green Ext Time (p_c), s		4.5	0.0	0.0		4.6	0.0	7.9

Intersection Summary	
HCM 4060 Ctrl Delay	53.4
HCM 4060 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	260	150	460	410	220	190	710	330	230	570	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	283	163	500	446	239	207	772	359	250	620	87

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	685	0	0	446	0	0	2347	2114	364	2560	2076	565
Stage 1	-	-	-	-	-	-	429	429	-	1565	1565	-
Stage 2	-	-	-	-	-	-	1918	1685	-	995	511	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	908	-	-	1114	-	-	~ 25	~ 51	681	~ 18	~ 54	524
Stage 1	-	-	-	-	-	-	604	~ 584	-	~ 140	~ 172	-
Stage 2	-	-	-	-	-	-	~ 87	~ 150	-	295	~ 537	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	908	-	-	1114	-	-	-	~ 12	681	-	~ 12	524
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 12	-	-	~ 12	-
Stage 1	-	-	-	-	-	-	574	~ 555	-	~ 133	~ 42	-
Stage 2	-	-	-	-	-	-	-	~ 36	-	-	~ 511	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	4.6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	908	-	-	1114	-	-	-
HCM Lane V/C Ratio	-	0.036	-	-	0.449	-	-	-
HCM Control Delay (s)	-	9.1	0	-	10.8	0	-	-
HCM Lane LOS	-	A	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	2.4	-	-	-

Notes

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

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	810	600	50	20	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	880	652	54	22	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	707	0	-	0	1625	679
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	946	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	891	-	-	-	113	452
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	377	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	891	-	-	-	105	452
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	350	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	38.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	891	-	-	-	141
HCM Lane V/C Ratio	0.037	-	-	-	0.231
HCM Control Delay (s)	9.2	0	-	-	38.1
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection	
Intersection Delay, s/veh	78.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	340	40	0	80	430	100	0	100	510	320
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	370	43	0	87	467	109	0	109	554	348
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	78.2	78.1	77.6
HCM LOS	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	3%	13%	20%
Vol Thru, %	55%	87%	70%	78%
Vol Right, %	34%	10%	16%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	930	390	610	900
LT Vol	100	10	80	180
Through Vol	510	340	430	700
RT Vol	320	40	100	20
Lane Flow Rate	1011	424	663	978
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	1	1
Departure Headway (Hd)	9.353	9.575	9.466	9.565
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	394	382	385	391
Service Time	7.446	7.575	7.559	7.658
HCM Lane V/C Ratio	2.566	1.11	1.722	2.501
HCM Control Delay	77.6	78.2	78.1	78.6
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	12	11.9	11.9	11.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	180	700	20
Peak Hour Factor	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	196	761	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	78.6
HCM LOS	F

Lane

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	510	590	6090	180	690	6070
Number	3	68	4	64	6	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00	6.00		6.00	6.00	
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	587	216	6685	544	407	6623
Adj No. of Lanes	6	6	6	6	6	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	185	133	993	811	622	6449
Arrive On Green	0.47	0.47	0.53	0.53	0.09	0.22
Sat Flow, veh/h	6771	6583	6823	6583	6771	6823
Grp Volume(v), veh/h	587	216	6685	544	407	6623
Grp Sat Flow(s),veh/h/ln	6771	6583	6823	6583	6771	6823
Q Serve(g_s), s	16.0	16.0	80.0	31.1	61.0	81.8
Cycle Q Clear(g_c), s	16.0	16.0	80.0	31.1	61.0	81.8
Prop In Lane	6.00	6.00		6.00	6.00	
Lane Grp Cap(c), veh/h	185	133	993	811	622	6449
V/C Ratio(X)	6.46	6.18	6.69	0.24	6.45	0.95
Avail Cap(c_a), veh/h	185	133	993	811	622	6449
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	51.5	51.5	35.0	41.1	28.0	43.6
Incr Delay (d4), s/veh	664.7	448.2	92.8	6.1	654.2	61.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	35.4	15.1	27.2	65.3	63.9	18.3
LnGrp Delay(d),s/veh	627.4	483.6	636.8	45.7	440.2	37.7
LnGrp LOS	F	F	F	C	F	D
Approach Vol, veh/h	6448		6707			6370
Approach Delay, s/veh	447.7		99.1			25.1
Approach LOS	F		F			E

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4				2		8
Phs Duration (G+Y+Rc), s	69.0	85.0				601.0		12.0
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	61.0	80.0				99.0		16.0
Max Q Clear Time (g_c+I6), s	62.0	84.0				82.8		13.0
Green Ext Time (p_c), s	0.0	0.0				66.6		0.0

Intersection Summary	
HCM 4060 Ctrl Delay	645.4
HCM 4060 LOS	F

Intersection	
Int Delay, s/veh	94.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	280	590	1090	980	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	304	641	1185	1065	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3538	1071	1076	0	-	0
Stage 1	1071	-	-	-	-	-
Stage 2	2467	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 7	~ 268	648	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 7	~ 268	648	-	-	-
Mov Cap-2 Maneuver	~ 7	-	-	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	66	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 844.3	20.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	648	-	117	-	-
HCM Lane V/C Ratio	0.99	-	2.694	-	-
HCM Control Delay (s)	58	0	$ 844.3	-	-
HCM Lane LOS	F	A	F	-	-
HCM 95th %tile Q(veh)	15.1	-	28.9	-	-

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	550	650	170	990	860	790
Number	7	61	5	4	2	62
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00	6.00	6.00			6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	598	623	566	6072	880	859
Adj No. of Lanes	6	6	6	4	4	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	521	501	181	4096	925	134
Arrive On Green	0.34	0.34	0.47	0.59	0.47	0.47
Sat Flow, veh/h	6771	6583	6771	3234	3234	6583
Grp Volume(v), veh/h	598	623	566	6072	880	859
Grp Sat Flow(s),veh/h/ln	6771	6583	6771	6770	6770	6583
Q Serve(g_s), s	35.0	8.2	30.0	69.7	42.5	30.0
Cycle Q Clear(g_c), s	35.0	8.2	30.0	69.7	42.5	30.0
Prop In Lane	6.00	6.00	6.00			6.00
Lane Grp Cap(c), veh/h	521	501	181	4096	925	134
V/C Ratio(X)	6.02	0.34	6.02	0.56	0.96	6.99
Avail Cap(c_a), veh/h	521	501	181	4096	925	134
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	37.5	48.5	10.0	63.4	38.7	10.0
Incr Delay (d4), s/veh	51.2	0.1	52.5	0.4	64.2	153.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	45.2	8.1	44.4	9.2	61.2	27.5
LnGrp Delay(d),s/veh	94.6	48.9	92.5	63.1	56.3	193.1
LnGrp LOS	F	C	F	B	D	F
Approach Vol, veh/h	726			6587	6739	
Approach Delay, s/veh	78.5			10.4	429.7	
Approach LOS	E			D	F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4		1	5	2		
Phs Duration (G+Y+Rc), s		70.0		10.0	35.0	35.0		
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		
Max Green Setting (Gmax), s		25.0		35.0	30.0	30.0		
Max Q Clear Time (g_c+I6), s		46.7		37.0	34.0	34.0		
Green Ext Time (p_c), s		42.1		0.0	0.0	0.0		

Intersection Summary	
HCM 4060 Ctrl Delay	615.0
HCM 4060 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	400	240	10	220	6180	440	40	6610	550	90	6120	320
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		0.99	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	467	271	13	767	6209	439	44	6439	598	98	6587	396
Adj No. of Lanes	4	3	6	4	4	6	4	4	6	4	4	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	626	6313	395	731	6177	237	665	6145	260	638	6394	595
Arrive On Green	0.05	0.42	0.45	0.46	0.14	0.10	0.03	0.10	0.39	0.01	0.39	0.38
Sat Flow, veh/h	3114	5085	6571	3114	3539	6577	3114	3539	6577	3114	3539	6577
Grp Volume(v), veh/h	467	271	13	767	6209	439	44	6439	598	98	6587	396
Grp Sat Flow(s),veh/h/ln	6746	6295	6571	6746	6770	6577	6746	6770	6577	6746	6770	6577
Q Serve(g_s), s	7.0	62.9	4.7	36.6	24.2	63.6	0.9	18.3	52.4	1.4	59.0	30.8
Cycle Q Clear(g_c), s	7.0	62.9	4.7	36.6	24.2	63.6	0.9	18.3	52.4	1.4	59.0	30.8
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	626	6313	395	731	6177	237	665	6145	260	638	6394	595
V/C Ratio(X)	6.35	0.50	0.66	0.98	6.09	0.38	0.69	0.87	0.98	0.76	6.61	0.22
Avail Cap(c_a), veh/h	626	6313	395	731	6177	237	665	6145	260	638	6394	595
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	76.5	12.8	30.9	58.2	13.7	46.4	70.5	16.4	15.1	76.6	15.5	38.7
Incr Delay (d4), s/veh	693.3	0.1	0.4	47.3	56.7	0.5	0.3	2.3	36.5	63.7	74.4	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	7.2	8.0	6.4	67.5	16.4	5.8	0.1	41.8	49.8	4.3	14.8	63.9
LnGrp Delay(d),s/veh	421.8	17.3	36.6	85.9	95.1	46.7	70.8	17.5	77.0	81.9	667.7	16.8
LnGrp LOS	F	D	C	F	F	C	E	D	E	F	F	D
Approach Vol, veh/h		931			4525			6859			4072	
Approach Delay, s/veh		97.6			85.9			57.4			606.8	
Approach LOS		F			F			E			F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	9.0	23.1	35.0	14.2	60.1	24.0	64.0	25.2
Change Period (Y+Rc), s	1.0	2.1	1.0	2.0	2.1	2.1	2.0	2.0
Max Green Setting (Gmax), s	5.0	57.0	36.0	32.2	1.0	55.2	2.0	59.2
Max Q Clear Time (g_c+I6), s	2.4	58.4	33.6	68.9	4.9	26.0	9.0	21.2
Green Ext Time (p_c), s	0.0	0.0	0.0	5.6	6.0	0.0	0.0	0.0

Intersection Summary	
HCM 4060 Ctrl Delay	81.2
HCM 4060 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	700	130	6400	6420	650	880	6120	250	640	6210	630
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	98	726	127	6301	6370	623	957	6587	707	630	6783	616
Adj No. of Lanes	4	4	6	4	4	6	4	3	6	4	4	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	665	6003	119	556	6156	219	163	4680	279	626	6458	523
Arrive On Green	0.03	0.48	0.48	0.62	0.16	0.16	0.64	0.13	0.13	0.05	0.32	0.32
Sat Flow, veh/h	3114	3539	6583	3114	3539	6583	3114	5085	6583	3114	3539	6583
Grp Volume(v), veh/h	98	726	127	6301	6370	623	957	6587	707	630	6783	616
Grp Sat Flow(s),veh/h/ln	6746	6770	6583	6746	6770	6583	6746	6295	6583	6746	6770	6583
Q Serve(g_s), s	1.4	49.1	14.5	41.0	55.9	60.4	68.0	38.9	21.3	5.2	53.3	9.5
Cycle Q Clear(g_c), s	1.4	49.1	14.5	41.0	55.9	60.4	68.0	38.9	21.3	5.2	53.3	9.5
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	665	6003	119	556	6156	219	163	4680	279	626	6458	523
V/C Ratio(X)	0.85	0.72	6.01	4.37	0.91	0.45	4.34	0.73	6.01	0.86	6.14	0.45
Avail Cap(c_a), veh/h	665	6003	119	556	6156	219	163	4680	279	626	6458	523
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	74.6	19.6	53.7	23.0	14.2	49.6	22.0	35.2	14.8	70.8	18.3	31.4
Incr Delay (d4), s/veh	16.3	3.8	53.5	246.4	64.9	0.3	200.3	6.1	15.9	41.6	694.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	4.7	61.9	45.3	58.9	49.8	1.5	13.0	68.5	32.7	3.4	59.7	1.4
LnGrp Delay(d),s/veh	663.1	54.9	607.3	281.4	55.5	49.1	222.3	37.0	88.7	95.0	416.6	31.2
LnGrp LOS	F	D	F	F	E	C	F	D	F	F	F	C
Approach Vol, veh/h		6342			4837			3456			4051	
Approach Delay, s/veh		72.5			313.0			433.5			467.7	
Approach LOS		E			F			F			F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	60.0	27.3	47.0	15.7	46.0	52.3	8.0	21.7
Change Period (Y+Rc), s	1.0	2.1	1.0	5.7	1.0	2.1	1.0	5.7
Max Green Setting (Gmax), s	2.0	20.9	43.0	10.0	67.0	19.9	1.0	59.0
Max Q Clear Time (g_c+I6), s	7.2	22.3	42.0	11.5	40.0	55.3	2.4	57.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6

Intersection Summary	
HCM 4060 Ctrl Delay	410.9
HCM 4060 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	870	10	100	6740	540	650	6040	460	150	6500	360
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6900	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	767	912	13	135	6870	525	623	6609	448	189	6230	337
Adj No. of Lanes	6	4	0	6	4	6	6	4	6	6	4	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	440	901	16	162	6368	590	26	972	137	659	6674	541
Arrive On Green	0.64	0.42	0.42	0.43	0.37	0.37	0.03	0.48	0.48	0.09	0.33	0.33
Sat Flow, veh/h	6771	3118	657	6771	3539	6583	6771	3539	6583	6771	3539	6583
Grp Volume(v), veh/h	767	182	503	135	6870	525	623	6609	448	189	6230	337
Grp Sat Flow(s),veh/h/ln	6771	6770	6835	6771	6770	6583	6771	6770	6583	6771	6770	6583
Q Serve(g_s), s	68.0	38.0	38.0	31.0	51.0	50.5	5.0	10.0	67.7	63.0	18.0	42.4
Cycle Q Clear(g_c), s	68.0	38.0	38.0	31.0	51.0	50.5	5.0	10.0	67.7	63.0	18.0	42.4
Prop In Lane	6.00		0.09	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	440	121	186	162	6368	590	26	972	137	659	6674	541
V/C Ratio(X)	3.42	6.05	6.05	6.05	6.14	0.92	4.22	6.61	0.54	3.07	6.39	0.21
Avail Cap(c_a), veh/h	440	121	186	162	6368	590	26	972	137	659	6674	541
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	23.5	53.5	53.5	55.5	15.5	11.1	70.0	54.5	11.1	22.0	18.5	16.4
Incr Delay (d4), s/veh	6042.7	51.2	53.9	52.2	693.0	47.4	793.5	73.9	4.0	950.0	686.1	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	76.2	45.2	42.1	43.4	26.7	42.1	65.9	49.5	8.0	18.3	54.9	66.9
LnGrp Delay(d),s/veh	6090.4	608.6	607.1	664.6	438.5	76.2	823.5	642.1	12.1	6062.0	449.9	11.8
LnGrp LOS	F	F	F	F	F	E	F	F	D	F	F	D
Approach Vol, veh/h		6702			4870			6500			4152	
Approach Delay, s/veh		540.7			682.5			691.3			326.0	
Approach LOS		F			F			F			F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	67.0	12.0	38.0	11.0	9.0	51.0	44.0	20.0
Change Period (Y+Rc), s	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0
Max Green Setting (Gmax), s	63.0	10.0	31.0	38.0	5.0	18.0	68.0	51.0
Max Q Clear Time (g_c+I6), s	65.0	14.0	32.0	10.0	7.0	50.0	40.0	52.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 4060 Ctrl Delay	301.9
HCM 4060 LOS	F

Intersection	
Int Delay, s/veh	146.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	60	10	10	180	110	20	580	110	90	320	230
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	65	11	11	196	120	22	630	120	98	348	250

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	315	0	0	76	0	0	734	495	71	810	440	255
Stage 1	-	-	-	-	-	-	158	158	-	277	277	-
Stage 2	-	-	-	-	-	-	576	337	-	533	163	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1245	-	-	1523	-	-	336	~ 476	991	298	511	784
Stage 1	-	-	-	-	-	-	844	767	-	729	681	-
Stage 2	-	-	-	-	-	-	503	641	-	531	763	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1245	-	-	1523	-	-	94	~ 455	991	-	488	784
Mov Cap-2 Maneuver	-	-	-	-	-	-	94	~ 455	-	-	488	-
Stage 1	-	-	-	-	-	-	814	739	-	703	675	-
Stage 2	-	-	-	-	-	-	165	635	-	~ 66	736	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.2	$ 363.4	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	444	1245	-	-	1523	-	-	-
HCM Lane V/C Ratio	1.738	0.035	-	-	0.007	-	-	-
HCM Control Delay (s)	$ 363.4	8	0	-	7.4	0	-	-
HCM Lane LOS	F	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	47.1	0.1	-	-	0	-	-	-

Notes

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

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	20	160	290	80	40	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	174	315	87	43	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	402	0	-	0	576	359
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1157	-	-	-	479	685
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1157	-	-	-	469	685
Mov Cap-2 Maneuver	-	-	-	-	469	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	802	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1157	-	-	-	501
HCM Lane V/C Ratio	0.019	-	-	-	0.108
HCM Control Delay (s)	8.2	0	-	-	13.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	90	910	6550	540	330	10
Number	7	1	8	68	6	62
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00			6.00	6.00	6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	98	6044	6285	525	359	13
Adj No. of Lanes	6	4	4	6	6	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	645	4337	6893	817	107	321
Arrive On Green	0.07	0.22	0.53	0.53	0.43	0.43
Sat Flow, veh/h	6771	3234	3234	6583	6771	6583
Grp Volume(v), veh/h	98	6044	6285	525	359	13
Grp Sat Flow(s),veh/h/ln	6771	6770	6770	6583	6771	6583
Q Serve(g_s), s	1.9	64.5	38.5	43.5	67.8	4.0
Cycle Q Clear(g_c), s	1.9	64.5	38.5	43.5	67.8	4.0
Prop In Lane	6.00			6.00	6.00	6.00
Lane Grp Cap(c), veh/h	645	4337	6893	817	107	321
V/C Ratio(X)	0.78	0.11	0.89	0.27	0.88	0.64
Avail Cap(c_a), veh/h	465	4549	6907	853	283	209
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	16.2	7.1	68.8	65.3	33.8	47.7
Incr Delay (d4), s/veh	60.6	0.6	5.7	4.0	7.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	4.8	2.6	40.4	60.7	9.5	6.9
LnGrp Delay(d),s/veh	56.7	7.5	41.1	67.3	16.4	47.9
LnGrp LOS	D	A	C	B	D	C
Approach Vol, veh/h		6640	4450		104	
Approach Delay, s/veh		66.1	44.2		39.8	
Approach LOS		B	C		D	

Timer	6	4	3	1	5	2	7	8
Assigned Phs				1		2	7	8
Phs Duration (G+Y+Rc), s				25.6		45.9	66.1	53.2
Change Period (Y+Rc), s				5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s				25.0		35.0	66.0	19.0
Max Q Clear Time (g_c+I6), s				61.5		69.8	2.9	10.5
Green Ext Time (p_c), s				16.2		6.6	0.6	8.4

Intersection Summary	
HCM 4060 Ctrl Delay	46.6
HCM 4060 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	6440	10	190	4010	90	40	60	330	10	60	60
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6900	6823	6823	6900	6823	6823
Adj Flow Rate, veh/h	60	6458	16	505	4603	93	46	60	310	16	60	60
Adj No. of Lanes	6	4	6	4	4	6	0	6	6	0	6	6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	68	6157	254	238	4078	930	70	40	325	75	60	325
Arrive On Green	0.06	0.16	0.16	0.69	0.59	0.59	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	6771	3539	6583	3114	3539	6583	0	89	6583	0	15	6583
Grp Volume(v), veh/h	60	6458	16	505	4603	93	36	0	310	56	0	60
Grp Sat Flow(s),veh/h/ln	6771	6770	6583	6746	6770	6583	89	0	6583	15	0	6583
Q Serve(g_s), s	0.5	48.4	6.1	64.4	56.0	4.4	0.0	0.0	68.3	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.5	48.4	6.1	64.4	56.0	4.4	40.0	0.0	68.3	40.0	0.0	0.1
Prop In Lane	6.00		6.00	6.00		6.00	0.28		6.00	0.80		6.00
Lane Grp Cap(c), veh/h	68	6157	254	238	4078	930	90	0	325	85	0	325
V/C Ratio(X)	0.57	0.82	0.02	0.79	6.06	0.60	0.31	0.00	0.93	0.20	0.00	0.03
Avail Cap(c_a), veh/h	84	6589	766	238	4078	930	90	0	325	85	0	325
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	0.00	6.00	6.00	0.00	6.00
Uniform Delay (d), s/veh	14.8	43.3	65.1	33.8	67.9	7.9	30.2	0.0	34.8	39.1	0.0	45.9
Incr Delay (d4), s/veh	42.0	1.9	0.0	2.7	44.7	0.0	4.3	0.0	30.5	66.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	0.1	61.2	0.2	2.3	36.6	6.0	0.8	0.0	66.6	6.5	0.0	0.4
LnGrp Delay(d),s/veh	28.9	48.4	65.5	10.5	10.7	7.9	34.8	0.0	23.4	50.1	0.0	45.9
LnGrp LOS	E	C	B	D	F	A	C		E	D		C
Approach Vol, veh/h		6309			4706			376			26	
Approach Delay, s/veh		48.6			39.5			20.7			12.1	
Approach LOS		C			D			E			D	

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4	3	1		2	7	8
Phs Duration (G+Y+Rc), s		45.0	46.6	10.8		45.0	5.9	52.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		40.0	62.0	39.0		40.0	1.0	56.0
Max Q Clear Time (g_c+I6), s		44.0	61.4	30.4		44.0	4.5	53.0
Green Ext Time (p_c), s		0.0	6.8	5.2		0.0	0.0	0.0

Intersection Summary	
HCM 4060 Ctrl Delay	38.0
HCM 4060 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	700	390	90	650	20	980	550	140	50	570	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	133	714	0	92	663	0	1000	561	0	51	582	0
Adj No. of Lanes	2	2	1	2	2	1	2	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	804	360	155	751	336	932	1575	705	65	745	333
Arrive On Green	0.06	0.23	0.00	0.05	0.21	0.00	0.27	0.44	0.00	0.04	0.21	0.00
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	133	714	0	92	663	0	1000	561	0	51	582	0
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.1	15.9	0.0	2.1	14.7	0.0	22.0	8.5	0.0	2.3	12.6	0.0
Cycle Q Clear(g_c), s	3.1	15.9	0.0	2.1	14.7	0.0	22.0	8.5	0.0	2.3	12.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	804	360	155	751	336	932	1575	705	65	745	333
V/C Ratio(X)	0.64	0.89	0.00	0.59	0.88	0.00	1.07	0.36	0.00	0.79	0.78	0.00
Avail Cap(c_a), veh/h	297	804	360	297	784	351	932	1656	741	153	1002	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.3	30.4	0.0	38.0	31.0	0.0	29.6	14.9	0.0	38.8	30.3	0.0
Incr Delay (d2), s/veh	3.3	11.8	0.0	3.6	11.3	0.0	50.9	0.1	0.0	18.7	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	9.1	0.0	1.1	8.4	0.0	17.0	4.2	0.0	1.5	6.4	0.0
LnGrp Delay(d),s/veh	40.6	42.2	0.0	41.6	42.3	0.0	80.5	15.0	0.0	57.5	33.2	0.0
LnGrp LOS	D	D		D	D		F	B		E	C	
Approach Vol, veh/h		847			755			1561			633	
Approach Delay, s/veh		42.0			42.2			57.0			35.1	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	41.1	8.7	23.5	27.0	22.1	9.9	22.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	38.0	7.0	18.0	22.0	23.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	4.3	10.5	4.1	17.9	24.0	14.6	5.1	16.7
Green Ext Time (p_c), s	0.0	9.3	0.1	0.1	0.0	2.5	0.1	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	47.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	30	660	610	50	20	400	860	610	70	710	10
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6900	6823	6823	6900
Adj Flow Rate, veh/h	14	36	665	612	54	24	408	811	612	73	776	14
Adj No. of Lanes	6	6	6	6	6	6	6	4	0	6	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	412	685	657	681	646	603	457	6639	697	610	6023	58
Arrive On Green	0.61	0.60	0.60	0.60	0.02	0.02	0.61	0.38	0.38	0.08	0.36	0.36
Sat Flow, veh/h	6771	6823	6583	6771	6823	6583	6771	3068	544	6771	3161	682
Grp Volume(v), veh/h	14	36	665	612	54	24	408	195	195	73	100	163
Grp Sat Flow(s),veh/h/ln	6771	6823	6583	6771	6823	6583	6771	6770	6776	6771	6770	6830
Q Serve(g_s), s	6.4	0.9	1.6	1.7	6.2	4.4	2.7	61.4	61.4	4.3	66.8	66.8
Cycle Q Clear(g_c), s	6.4	0.9	1.6	1.7	6.2	4.4	2.7	61.4	61.4	4.3	66.8	66.8
Prop In Lane	6.00		6.00	6.00		6.00	6.00		0.49	6.00		0.60
Lane Grp Cap(c), veh/h	412	685	657	681	646	603	457	228	228	610	556	570
V/C Ratio(X)	0.67	0.67	0.73	0.79	0.13	0.20	0.86	0.71	0.71	0.54	0.73	0.73
Avail Cap(c_a), veh/h	412	172	101	466	507	136	334	921	921	686	863	816
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	44.3	41.4	45.7	45.7	42.1	42.7	41.3	65.8	65.8	42.0	68.0	68.0
Incr Delay (d4), s/veh	0.3	0.1	2.1	62.3	4.1	5.2	60.9	6.8	6.8	3.0	6.8	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	0.2	0.5	4.6	3.6	0.9	6.6	1.0	7.4	7.4	6.3	2.6	2.3
LnGrp Delay(d),s/veh	44.7	41.7	34.6	14.0	48.8	34.3	35.3	67.2	67.2	49.0	69.8	69.8
LnGrp LOS	C	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		688			420			6698			882	
Approach Delay, s/veh		48.7			37.0			40.7			40.2	
Approach LOS		C			D			C			C	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	9.2	47.4	66.6	60.8	63.5	43.3	63.6	8.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	2.0	34.0	7.0	65.0	66.0	47.0	2.0	62.0
Max Q Clear Time (g_c+I6), s	1.3	62.4	2.7	2.6	8.7	63.8	3.4	1.4
Green Ext Time (p_c), s	0.9	2.0	0.0	0.3	0.6	1.5	0.4	0.3

Intersection Summary	
HCM 4060 Ctrl Delay	44.9
HCM 4060 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	420	550	20	310	160	20	440	6450	240	640	740	430
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	471	579	23	358	134	23	434	6362	253	642	758	414
Adj No. of Lanes	6	4	6	4	4	6	6	4	6	6	4	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	308	252	493	143	172	463	135	6501	273	652	917	141
Arrive On Green	0.67	0.69	0.69	0.64	0.63	0.63	0.45	0.14	0.14	0.09	0.47	0.47
Sat Flow, veh/h	6771	3539	6583	3114	3539	6583	6771	3539	6583	6771	3539	6583
Grp Volume(v), veh/h	471	579	23	358	134	23	434	6362	253	642	758	414
Grp Sat Flow(s),veh/h/ln	6771	6770	6583	6746	6770	6583	6771	6770	6583	6771	6770	6583
Q Serve(g_s), s	63.5	61.3	3.0	9.6	60.8	4.5	60.4	30.5	32.6	2.4	67.9	7.2
Cycle Q Clear(g_c), s	63.5	61.3	3.0	9.6	60.8	4.5	60.4	30.5	32.6	2.4	67.9	7.2
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	308	252	493	143	172	463	135	6501	273	652	917	141
V/C Ratio(X)	0.89	0.88	0.46	0.85	0.96	0.30	0.53	0.88	0.97	0.86	0.80	0.57
Avail Cap(c_a), veh/h	367	273	306	143	172	463	135	6501	273	659	6699	532
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	32.6	35.5	30.9	38.1	38.4	44.0	49.3	43.2	45.4	10.0	30.5	66.2
Incr Delay (d4), s/veh	41.7	63.0	0.1	61.2	40.9	0.8	6.3	2.6	47.5	45.4	3.6	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	8.7	8.6	6.3	5.4	2.7	6.1	5.6	62.6	40.8	1.6	9.6	1.1
LnGrp Delay(d),s/veh	20.8	18.5	36.3	53.0	59.6	44.8	30.2	49.2	54.2	25.3	33.7	64.8
LnGrp LOS	E	D	C	D	E	C	C	C	D	E	C	B
Approach Vol, veh/h		962			853			4406			6642	
Approach Delay, s/veh		56.0			53.9			32.2			34.7	
Approach LOS		D			D			D			C	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	66.9	14.0	65.0	40.2	45.9	47.9	69.5	62.0
Change Period (Y+Rc), s	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Green Setting (Gmax), s	8.0	38.0	66.0	67.0	65.7	30.3	62.0	64.0
Max Q Clear Time (g_c+I6), s	8.4	38.6	66.6	62.3	64.4	69.9	65.5	64.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.1	1.6	0.0	0.0

Intersection Summary	
HCM 4060 Ctrl Delay	16.4
HCM 4060 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	80	60	80	80	650	650	970	410	60	230	70
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6900	6823	6823	6900	6823	6823	6823	6823	6823	6900
Adj Flow Rate, veh/h	54	84	60	84	84	655	655	6000	417	60	219	74
Adj No. of Lanes	6	6	0	6	6	0	6	6	6	6	6	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	643	452	36	419	96	674	693	6017	890	668	852	95
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.66	0.52	0.52	0.07	0.54	0.54
Sat Flow, veh/h	6639	6249	699	6499	578	6094	6771	6823	6583	6771	6218	683
Grp Volume(v), veh/h	54	0	94	84	0	437	655	6000	417	60	0	746
Grp Sat Flow(s),veh/h/ln	6639	0	6848	6499	0	6270	6771	6823	6583	6771	0	6830
Q Serve(g_s), s	6.4	0.0	3.6	1.4	0.0	9.8	2.0	35.5	5.7	0.1	0.0	46.8
Cycle Q Clear(g_c), s	66.0	0.0	3.6	7.3	0.0	9.8	2.0	35.5	5.7	0.1	0.0	46.8
Prop In Lane	6.00		0.66	6.00		0.25	6.00		6.00	6.00		0.60
Lane Grp Cap(c), veh/h	643	0	487	419	0	424	693	6017	890	668	0	956
V/C Ratio(X)	0.14	0.00	0.34	0.33	0.00	0.90	0.80	0.92	0.48	0.08	0.00	0.72
Avail Cap(c_a), veh/h	643	0	487	419	0	424	448	6021	905	668	0	956
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	0.00	6.00	6.00	0.00	6.00	6.00	6.00	6.00	6.00	0.00	6.00
Uniform Delay (d), s/veh	31.8	0.0	42.4	49.1	0.0	49.0	30.5	61.5	8.0	30.7	0.0	63.3
Incr Delay (d4), s/veh	4.3	0.0	0.2	0.8	0.0	36.5	62.0	69.0	0.8	0.3	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	6.6	0.0	6.2	6.2	0.0	2.8	3.8	43.2	4.7	0.4	0.0	64.3
LnGrp Delay(d),s/veh	37.6	0.0	42.8	30.4	0.0	20.5	12.5	33.5	8.7	36.0	0.0	68.9
LnGrp LOS	D		C	C		E	D	C	A	C		B
Approach Vol, veh/h		611			369			6104			736	
Approach Delay, s/veh		30.5			54.7			30.5			69.6	
Approach LOS		C			D			C			B	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4		1	5	2		8
Phs Duration (G+Y+Rc), s	9.7	11.3		62.0	64.2	16.1		62.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	1.0	10.0		66.0	9.0	35.0		66.0
Max Q Clear Time (g_c+I6), s	4.1	37.5		63.0	8.0	43.8		66.8
Green Ext Time (p_c), s	0.8	6.8		0.0	0.0	3.9		0.0

Intersection Summary		
HCM 4060 Ctrl Delay		30.0
HCM 4060 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	60	40	680	5	630	5	910	660	680	570	5
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6900	6823	6900	6900	6823	6823	6823	6823	6900	6823	6823	6900
Adj Flow Rate, veh/h	60	60	40	681	5	633	5	959	664	681	584	5
Adj No. of Lanes	0	6	0	0	6	6	6	6	0	6	6	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	50	50	50	689	3	421	9	960	602	697	6440	60
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.06	0.52	0.52	0.66	0.22	0.22
Sat Flow, veh/h	0	303	303	220	68	6583	6771	6238	696	6771	6811	62
Grp Volume(v), veh/h	10	0	0	689	0	633	5	0	6076	681	0	587
Grp Sat Flow(s),veh/h/ln	202	0	0	278	0	6583	6771	0	6849	6771	0	6820
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.9	0.3	0.0	50.0	9.3	0.0	61.6
Cycle Q Clear(g_c), s	65.0	0.0	0.0	65.0	0.0	2.9	0.3	0.0	50.0	9.3	0.0	61.6
Prop In Lane	0.45		0.50	0.97		6.00	6.00		0.60	6.00		0.06
Lane Grp Cap(c), veh/h	656	0	0	694	0	421	9	0	6062	697	0	6430
V/C Ratio(X)	0.47	0.00	0.00	0.98	0.00	0.50	0.51	0.00	6.05	0.93	0.00	0.18
Avail Cap(c_a), veh/h	656	0	0	694	0	421	79	0	6062	697	0	6430
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	0.00	0.00	6.00	0.00	6.00	6.00	0.00	6.00	6.00	0.00	6.00
Uniform Delay (d), s/veh	34.5	0.0	0.0	10.5	0.0	31.6	11.7	0.0	40.0	39.7	0.0	7.5
Incr Delay (d4), s/veh	0.9	0.0	0.0	20.4	0.0	6.5	16.6	0.0	13.2	15.5	0.0	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	0.9	0.0	0.0	7.9	0.0	3.6	0.4	0.0	37.6	7.0	0.0	7.2
LnGrp Delay(d),s/veh	33.1	0.0	0.0	600.8	0.0	35.2	85.7	0.0	23.2	85.4	0.0	8.9
LnGrp LOS	C			F		D	F		F	F		A
Approach Vol, veh/h		10			344			6072			776	
Approach Delay, s/veh		33.1			73.9			23.7			47.6	
Approach LOS		C			E			E			C	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4		1	5	2		8
Phs Duration (G+Y+Rc), s	65.0	55.0		40.0	5.5	21.5		40.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	60.0	50.0		65.0	1.0	52.0		65.0
Max Q Clear Time (g_c+I6), s	66.3	54.0		67.0	4.3	62.6		67.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.6		0.0

Intersection Summary		
HCM 4060 Ctrl Delay	56.8	
HCM 4060 LOS	D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	420	630	690	460	610	680	130	680	10	430	10
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6900	6823	6823	6823	6823	6823	6900	6823	6823	6900
Adj Flow Rate, veh/h	34	471	637	400	446	617	689	153	689	14	414	14
Adj No. of Lanes	6	6	0	6	6	6	6	6	0	6	6	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	329	145	463	453	275	571	442	184	406	661	199	87
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.63	0.39	0.39	0.02	0.34	0.34
Sat Flow, veh/h	6060	6673	582	976	6823	6583	6771	6419	546	6771	6517	428
Grp Volume(v), veh/h	34	0	166	400	446	617	689	0	214	14	0	481
Grp Sat Flow(s),veh/h/ln	6060	0	6759	976	6823	6583	6771	0	6776	6771	0	6865
Q Serve(g_s), s	6.9	0.0	65.5	63.5	2.9	5.4	8.3	0.0	48.0	6.8	0.0	60.6
Cycle Q Clear(g_c), s	8.8	0.0	65.5	49.0	2.9	5.4	8.3	0.0	48.0	6.8	0.0	60.6
Prop In Lane	6.00		0.33	6.00		6.00	6.00		0.49	6.00		0.65
Lane Grp Cap(c), veh/h	329	0	238	453	275	571	442	0	283	661	0	585
V/C Ratio(X)	0.09	0.00	0.21	0.79	0.33	0.42	0.81	0.00	0.91	0.37	0.00	0.19
Avail Cap(c_a), veh/h	329	0	238	453	275	571	411	0	708	661	0	585
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	0.00	6.00	6.00	6.00	6.00	6.00	0.00	6.00	6.00	0.00	6.00
Uniform Delay (d), s/veh	46.2	0.0	46.4	31.5	68.1	67.9	31.6	0.0	43.7	35.9	0.0	46.8
Incr Delay (d4), s/veh	0.6	0.0	4.4	65.1	0.3	0.4	40.5	0.0	44.5	4.0	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	0.5	0.0	7.9	5.5	3.2	4.3	5.1	0.0	67.8	0.9	0.0	5.5
LnGrp Delay(d),s/veh	46.7	0.0	43.1	19.9	68.7	68.4	51.5	0.0	12.4	37.8	0.0	41.2
LnGrp LOS	C		C	D	B	B	D		D	D		C
Approach Vol, veh/h		113			528			836			342	
Approach Delay, s/veh		43.3			49.2			18.6			42.3	
Approach LOS		C			C			D			C	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4		1	5	2		8
Phs Duration (G+Y+Rc), s	60.6	35.9		31.0	65.4	30.8		31.0
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0
Max Green Setting (Gmax), s	1.0	34.0		49.0	66.0	45.0		49.0
Max Q Clear Time (g_c+I6), s	3.8	30.0		67.5	60.3	64.6		36.0
Green Ext Time (p_c), s	0.0	0.9		1.1	0.0	6.1		0.0

Intersection Summary	
HCM 4060 Ctrl Delay	31.9
HCM 4060 LOS	C

Intersection	
Intersection Delay, s/veh	47.3
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	120	1270	0	0	100	680	0	0	10	20	60
Peak Hour Factor	0.73	0.94	0.94	0.94	0.73	0.94	0.94	0.94	0.73	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	128	1351	0	0	106	723	0	0	11	21	64
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	3	3
HCM Control Delay	62.7	30.9	17
HCM LOS	F	D	C

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	11%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	22%	0%	100%	100%	0%	100%	100%	0%	100%	0%
Vol Right, %	67%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	120	635	635	100	340	340	110	10	60
LT Vol	10	120	0	0	100	0	0	110	0	0
Through Vol	20	0	635	635	0	340	340	0	10	0
RT Vol	60	0	0	0	0	0	0	0	0	60
Lane Flow Rate	96	128	676	676	106	362	362	117	11	64
Geometry Grp	8	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.275	0.306	1	1	0.265	0.852	0.678	0.313	0.027	0.149
Departure Headway (Hd)	10.346	8.637	8.126	6.354	8.98	8.48	6.748	9.616	9.118	8.42
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	348	416	453	574	401	427	535	374	394	427
Service Time	8.097	6.382	5.871	4.098	6.706	6.207	4.474	7.345	6.847	6.15
HCM Lane V/C Ratio	0.276	0.308	1.492	1.178	0.264	0.848	0.677	0.313	0.028	0.15
HCM Control Delay	17	15.2	71.5	62.8	14.9	44	22.6	16.7	12.1	12.6
HCM Lane LOS	C	C	F	F	B	E	C	C	B	B
HCM 95th-tile Q	1.1	1.3	12.9	14.5	1.1	8.4	5.1	1.3	0.1	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	110	10	60
Peak Hour Factor	0.73	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	117	11	64
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	15.1
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	43.3
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	110	1240	0	0	20	610	0	0	50	10	10
Peak Hour Factor	0.82	0.92	0.92	0.92	0.82	0.92	0.92	0.92	0.82	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	120	1348	0	0	22	663	0	0	54	11	11
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	3
HCM Control Delay	58.4	21.2	14.5
HCM LOS	F	C	B

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	71%	100%	0%	0%	100%	0%	0%	67%
Vol Thru, %	14%	0%	100%	100%	0%	100%	100%	2%
Vol Right, %	14%	0%	0%	0%	0%	0%	0%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	110	620	620	20	305	305	225
LT Vol	50	110	0	0	20	0	0	150
Through Vol	10	0	620	620	0	305	305	5
RT Vol	10	0	0	0	0	0	0	70
Lane Flow Rate	76	120	674	674	22	332	332	245
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.199	0.257	1	1	0.05	0.71	0.55	0.591
Departure Headway (Hd)	9.436	7.743	7.227	5.439	8.214	7.712	5.97	8.705
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	380	464	505	667	438	471	607	413
Service Time	7.201	5.482	4.966	3.177	5.927	5.426	3.688	6.469
HCM Lane V/C Ratio	0.2	0.259	1.335	1.01	0.05	0.705	0.547	0.593
HCM Control Delay	14.5	13.2	67.1	57.8	11.4	27.2	15.8	23.4
HCM Lane LOS	B	B	F	F	B	D	C	C
HCM 95th-tile Q	0.7	1	13.6	15.7	0.2	5.5	3.3	3.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	150	5	70
Peak Hour Factor	0.82	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	163	5	76
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	23.4
HCM LOS	C

Lane

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	360	130	1620	200	120	1010
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	387	140	1742	215	129	1086
Adj No. of Lanes	2	1	3	1	2	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	698	321	2492	776	286	2246
Arrive On Green	0.20	0.20	0.49	0.49	0.08	0.63
Sat Flow, veh/h	3442	1583	5253	1583	3442	3632
Grp Volume(v), veh/h	387	140	1742	215	129	1086
Grp Sat Flow(s),veh/h/ln	1721	1583	1695	1583	1721	1770
Q Serve(g_s), s	6.6	5.0	17.3	5.2	2.3	10.5
Cycle Q Clear(g_c), s	6.6	5.0	17.3	5.2	2.3	10.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	698	321	2492	776	286	2246
V/C Ratio(X)	0.55	0.44	0.70	0.28	0.45	0.48
Avail Cap(c_a), veh/h	1446	665	5226	1627	581	4451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	22.7	12.9	9.8	28.5	6.3
Incr Delay (d2), s/veh	1.5	2.0	0.1	0.1	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	2.4	8.1	2.3	1.2	5.1
LnGrp Delay(d),s/veh	24.8	24.7	13.0	9.9	30.8	6.3
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	527		1957			1215
Approach Delay, s/veh	24.8		12.7			8.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.4	38.0				47.4		17.8
Change Period (Y+Rc), s	4.0	6.0				6.0		4.6
Max Green Setting (Gmax), s	11.0	67.0				82.0		27.4
Max Q Clear Time (g_c+I1), s	4.3	19.3				12.5		8.6
Green Ext Time (p_c), s	0.4	12.6				13.0		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	780	490	310	240	300	250
Number	7	61	5	4	2	62
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00	6.00	6.00			6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	818	365	370	271	342	707
Adj No. of Lanes	6	6	4	6	6	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	831	711	392	721	122	392
Arrive On Green	0.17	0.17	0.64	0.16	0.45	0.45
Sat Flow, veh/h	6771	6583	3114	6823	6823	6583
Grp Volume(v), veh/h	818	365	370	271	342	707
Grp Sat Flow(s),veh/h/ln	6771	6583	6746	6823	6823	6583
Q Serve(g_s), s	17.0	63.4	60.7	33.5	65.9	45.0
Cycle Q Clear(g_c), s	17.0	63.4	60.7	33.5	65.9	45.0
Prop In Lane	6.00	6.00	6.00			6.00
Lane Grp Cap(c), veh/h	831	711	392	721	122	392
V/C Ratio(X)	6.04	0.14	0.93	0.88	0.70	6.79
Avail Cap(c_a), veh/h	831	711	392	721	122	392
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	42.5	67.5	13.9	47.3	31.6	37.5
Incr Delay (d4), s/veh	35.5	0.1	49.3	64.5	5.9	323.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	36.4	63.1	2.7	69.7	8.9	50.9
LnGrp Delay(d),s/veh	24.0	67.9	73.4	39.8	39.9	106.3
LnGrp LOS	F	B	E	D	D	F
Approach Vol, veh/h	6623			6011	6033	
Approach Delay, s/veh	50.6			56.2	487.3	
Approach LOS	D			D	F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4		1	5	2		
Phs Duration (G+Y+Rc), s		17.0		53.0	62.0	36.0		
Change Period (Y+Rc), s		2.0		2.0	1.5	2.0		
Max Green Setting (Gmax), s		16.0		17.0	66.5	45.0		
Max Q Clear Time (g_c+I6), s		35.5		19.0	64.7	47.0		
Green Ext Time (p_c), s		5.0		0.0	0.0	0.0		

Intersection Summary	
HCM 4060 Ctrl Delay	642.4
HCM 4060 LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	160	350	140	6180	250	160
Number	3	68	4	64	6	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00	6.00		6.00	6.00	
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	147	325	138	0	277	147
Adj No. of Lanes	4	6	4	6	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	919	137	4077	949	6629	4077
Arrive On Green	0.48	0.48	0.59	0.00	0.59	0.59
Sat Flow, veh/h	3114	6583	3234	6583	6837	3234
Grp Volume(v), veh/h	147	325	138	0	277	147
Grp Sat Flow(s),veh/h/ln	6746	6583	6770	6583	969	6770
Q Serve(g_s), s	7.5	65.8	1.4	0.0	40.0	1.6
Cycle Q Clear(g_c), s	7.5	65.8	1.4	0.0	41.3	1.6
Prop In Lane	6.00	6.00		6.00	6.00	
Lane Grp Cap(c), veh/h	919	137	4077	949	6629	4077
V/C Ratio(X)	0.15	0.81	0.46	0.00	0.58	0.46
Avail Cap(c_a), veh/h	6341	209	5115	4132	4967	5115
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	0.00	6.00	6.00
Uniform Delay (d), s/veh	46.8	41.8	7.6	0.0	64.8	7.6
Incr Delay (d4), s/veh	0.3	7.6	0.6	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	3.2	7.8	4.6	0.0	5.6	4.0
LnGrp Delay(d),s/veh	44.6	36.9	7.6	0.0	63.3	7.6
LnGrp LOS	C	C	A		B	A
Approach Vol, veh/h	794		138			6601
Approach Delay, s/veh	42.2		7.6			60.9
Approach LOS	C		A			B

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4				2		8
Phs Duration (G+Y+Rc), s		17.7				17.7		45.6
Change Period (Y+Rc), s		5.0				5.0		5.0
Max Green Setting (Gmax), s		664.0				664.0		48.0
Max Q Clear Time (g_c+I6), s		2.4				42.3		67.8
Green Ext Time (p_c), s		62.2				62.1		4.3

Intersection Summary	
HCM 4060 Ctrl Delay	65.5
HCM 4060 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	60	60	50	60	770	60	510	20	130	260	30
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6900	6823	6823	6823	6823	6823	6900	6823	6823	6900
Adj Flow Rate, veh/h	66	66	66	51	66	837	66	587	25	127	223	33
Adj No. of Lanes	6	6	0	6	6	6	6	4	0	6	4	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	69	431	431	29	524	178	69	782	87	158	6289	81
Arrive On Green	0.06	0.47	0.47	0.01	0.30	0.30	0.06	0.41	0.41	0.42	0.19	0.19
Sat Flow, veh/h	6771	852	852	6771	6823	6583	6771	3461	355	6771	3134	676
Grp Volume(v), veh/h	66	0	44	51	66	837	66	343	349	127	314	351
Grp Sat Flow(s),veh/h/ln	6771	0	6764	6771	6823	6583	6771	6770	6800	6771	6770	6833
Q Serve(g_s), s	0.2	0.0	6.0	3.6	0.1	36.0	0.2	67.3	67.1	42.5	64.5	64.5
Cycle Q Clear(g_c), s	0.2	0.0	6.0	3.6	0.1	36.0	0.2	67.3	67.1	42.5	64.5	64.5
Prop In Lane	6.00		0.50	6.00		6.00	6.00		0.40	6.00		0.09
Lane Grp Cap(c), veh/h	69	0	128	29	524	178	69	133	110	158	876	904
V/C Ratio(X)	0.59	0.00	0.05	0.78	0.04	6.75	0.59	0.75	0.75	6.04	0.39	0.39
Avail Cap(c_a), veh/h	29	0	568	72	524	178	29	508	567	158	892	948
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	0.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	50.2	0.0	47.5	18.9	45.4	35.8	50.2	35.8	35.9	38.6	62.1	62.1
Incr Delay (d4), s/veh	42.1	0.0	0.0	32.8	0.0	312.2	42.1	5.0	5.0	17.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	0.1	0.0	0.5	4.4	0.4	59.5	0.1	9.0	9.4	68.9	2.6	2.1
LnGrp Delay(d),s/veh	77.0	0.0	47.5	85.7	45.4	384.1	77.0	10.8	10.9	85.3	62.7	62.7
LnGrp LOS	E		C	F	C	F	E	D	D	F	B	B
Approach Vol, veh/h		33			904			223			6623	
Approach Delay, s/veh		11.0			320.3			16.5			11.3	
Approach LOS		D			F			D			D	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	36.0	30.6	8.5	33.6	5.2	55.5	5.2	32.0
Change Period (Y+Rc), s	1.5	5.0	1.5	* 5	1.5	5.0	1.5	5.0
Max Green Setting (Gmax), s	42.5	49.5	1.1	* 36	1.0	54.0	1.0	36.0
Max Q Clear Time (g_c+I6), s	48.5	69.1	5.6	3.0	4.2	61.5	4.2	33.0
Green Ext Time (p_c), s	0.0	5.7	0.0	1.4	0.0	60.9	0.0	0.0

Intersection Summary	
HCM 4060 Ctrl Delay	612.8
HCM 4060 LOS	F

Notes

* HCM 4060 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	450	10	60	870	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	489	11	65	946	11	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	500	0	1098	250
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1060	-	207	750
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	509	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1060	-	194	750
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	478	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	308	-	-	1060	-
HCM Lane V/C Ratio	0.071	-	-	0.062	-
HCM Control Delay (s)	17.6	-	-	8.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	110	40	670	840	0	60	0	20	0	0	0
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6900	6823	6823	6823	6823	6823	6900	6823	6823	6900
Adj Flow Rate, veh/h	0	178	44	685	896	0	66	0	25	0	0	0
Adj No. of Lanes	6	4	0	6	4	6	6	6	0	6	6	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	5	6101	25	438	4370	6020	602	0	91	5	5	0
Arrive On Green	0.00	0.16	0.16	0.63	0.27	0.00	0.02	0.00	0.02	0.00	0.00	0.00
Sat Flow, veh/h	6771	3112	658	6771	3539	6583	6771	0	6583	6771	6823	0
Grp Volume(v), veh/h	0	415	455	685	896	0	66	0	25	0	0	0
Grp Sat Flow(s),veh/h/ln	6771	6770	6835	6771	6770	6583	6771	0	6583	6771	6823	0
Q Serve(g_s), s	0.0	3.3	3.1	3.5	3.9	0.0	0.4	0.0	6.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.3	3.1	3.5	3.9	0.0	0.4	0.0	6.1	0.0	0.0	0.0
Prop In Lane	6.00		0.09	6.00		6.00	6.00		6.00	6.00		0.00
Lane Grp Cap(c), veh/h	5	746	718	438	4370	6020	602	0	91	5	5	0
V/C Ratio(X)	0.00	0.31	0.31	0.78	0.38	0.00	0.60	0.00	0.29	0.00	0.00	0.00
Avail Cap(c_a), veh/h	404	6620	6404	379	4274	6695	404	0	6229	404	6921	0
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	0.00	6.00	6.00	6.00	6.00	0.00	6.00	0.00	6.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.4	7.4	61.7	4.2	0.0	65.2	0.0	62.4	0.0	0.0	0.0
Incr Delay (d4), s/veh	0.0	0.3	0.3	5.1	0.6	0.0	0.1	0.0	8.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	0.0	6.2	6.7	4.6	6.9	0.0	0.6	0.0	0.8	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	7.1	7.1	40.6	4.7	0.0	62.0	0.0	41.8	0.0	0.0	0.0
LnGrp LOS		A	A	C	A		B		C			
Approach Vol, veh/h		500			6072			72			0	
Approach Delay, s/veh		7.1			5.7			43.5			0.0	
Approach LOS		A			A			C				

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	0.0	2.2	9.4	69.3	2.2	0.0	0.0	48.5
Change Period (Y+Rc), s	1.5	1.5	1.5	5.0	1.5	1.5	1.5	5.0
Max Green Setting (Gmax), s	1.0	37.0	7.5	43.0	1.0	37.0	1.0	42.5
Max Q Clear Time (g_c+I6), s	0.0	3.1	5.5	5.1	4.4	0.0	0.0	5.9
Green Ext Time (p_c), s	0.0	0.1	0.6	8.9	0.0	0.0	0.0	9.7

Intersection Summary	
HCM 4060 Ctrl Delay	7.0
HCM 4060 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	830	640	450	110	490	220	670	370	400	320	850	930
Number	7	1	61	3	8	68	5	4	64	6	2	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	904	630	474	178	365	767	685	104	467	396	941	6066
Adj No. of Lanes	4	4	6	4	4	6	4	3	6	4	3	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	863	6474	529	516	993	243	431	6443	386	389	6156	842
Arrive On Green	0.41	0.32	0.32	0.62	0.48	0.48	0.07	0.41	0.41	0.66	0.49	0.49
Sat Flow, veh/h	3114	3539	6583	3114	3539	6583	3114	5085	6583	3114	5085	6583
Grp Volume(v), veh/h	904	630	474	178	365	767	685	104	467	396	941	6066
Grp Sat Flow(s),veh/h/ln	6746	6770	6583	6746	6770	6583	6746	6295	6583	6746	6295	6583
Q Serve(g_s), s	31.5	3.2	69.1	69.9	60.3	16.0	7.7	9.5	67.2	62.5	43.4	16.7
Cycle Q Clear(g_c), s	31.5	3.2	69.1	69.9	60.3	16.0	7.7	9.5	67.2	62.5	43.4	16.7
Prop In Lane	6.00		6.00	6.00		6.00	6.00		6.00	6.00		6.00
Lane Grp Cap(c), veh/h	863	6474	529	516	993	243	431	6443	386	389	6156	842
V/C Ratio(X)	6.66	0.60	0.18	0.88	0.34	6.65	0.79	0.33	0.57	6.06	0.21	6.44
Avail Cap(c_a), veh/h	863	6474	529	294	993	243	345	6357	143	389	6156	842
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	55.8	36.6	32.4	20.3	16.5	11.3	27.6	15.8	18.9	21.8	15.2	35.0
Incr Delay (d4), s/veh	22.3	0.0	0.2	60.7	0.4	85.1	8.7	0.4	6.5	17.4	0.9	666.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	43.8	6.8	8.2	60.4	5.6	39.8	1.0	1.5	7.9	60.1	66.0	58.9
LnGrp Delay(d),s/veh	644.6	36.4	32.8	76.0	16.7	649.7	75.7	15.9	50.3	664.0	12.5	612.8
LnGrp LOS	F	C	D	E	D	F	E	D	D	F	D	F
Approach Vol, veh/h		6301			6560			801			4342	
Approach Delay, s/veh		95.4			94.8			51.0			606.6	
Approach LOS		F			F			D			F	

Timer	6	4	3	1	5	2	7	8
Assigned Phs	6	4	3	1	5	2	7	8
Phs Duration (G+Y+Rc), s	46.0	10.6	47.5	57.5	61.1	12.7	39.0	12.0
Change Period (Y+Rc), s	1.5	5.0	1.5	5.0	1.5	5.0	1.5	5.0
Max Green Setting (Gmax), s	62.5	39.0	49.1	12.6	63.8	16.7	31.5	16.0
Max Q Clear Time (g_c+I6), s	68.5	69.2	46.9	46.1	9.7	13.7	32.5	13.0
Green Ext Time (p_c), s	0.0	61.5	6.6	7.8	0.4	0.0	0.0	0.0

Intersection Summary	
HCM 4060 Ctrl Delay	96.3
HCM 4060 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	270	20	30	10	560	70	40	540	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	11	11	293	22	33	11	609	76	43	587	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	225	177	518	28	42	20	1125	140	65	1352	25
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.01	0.36	0.36	0.04	0.38	0.38
Sat Flow, veh/h	418	722	570	1212	91	137	1774	3168	395	1774	3554	67
Grp Volume(v), veh/h	33	0	0	348	0	0	11	340	345	43	292	306
Grp Sat Flow(s),veh/h/ln	1710	0	0	1439	0	0	1774	1770	1793	1774	1770	1851
Q Serve(g_s), s	0.0	0.0	0.0	9.7	0.0	0.0	0.3	7.2	7.3	1.1	5.8	5.8
Cycle Q Clear(g_c), s	0.6	0.0	0.0	10.3	0.0	0.0	0.3	7.2	7.3	1.1	5.8	5.8
Prop In Lane	0.33		0.33	0.84		0.09	1.00		0.22	1.00		0.04
Lane Grp Cap(c), veh/h	634	0	0	589	0	0	20	629	637	65	673	704
V/C Ratio(X)	0.05	0.00	0.00	0.59	0.00	0.00	0.54	0.54	0.54	0.66	0.43	0.43
Avail Cap(c_a), veh/h	1477	0	0	1354	0	0	301	976	989	376	1051	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	14.7	0.0	0.0	23.2	12.1	12.1	22.4	10.8	10.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.0	20.9	0.7	0.7	11.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	0.0	0.0	4.2	0.0	0.0	0.3	3.6	3.7	0.7	2.8	3.0
LnGrp Delay(d),s/veh	11.4	0.0	0.0	15.6	0.0	0.0	44.1	12.9	12.9	33.5	11.3	11.3
LnGrp LOS	B			B			D	B	B	C	B	B
Approach Vol, veh/h		33			348			696			641	
Approach Delay, s/veh		11.4			15.6			13.3			12.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	21.7		19.7	4.5	22.9		19.7
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0
Max Green Setting (Gmax), s	10.0	26.0		40.0	8.0	28.0		40.0
Max Q Clear Time (g_c+I1), s	3.1	9.3		2.6	2.3	7.8		12.3
Green Ext Time (p_c), s	0.0	7.5		2.6	0.0	8.2		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	16.6
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	160	10	0	80	490	10	0	10	20	30
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	174	11	0	87	533	11	0	11	22	33
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	2
HCM Control Delay	10.1	19.9	9.3
HCM LOS	B	C	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	17%	100%	0%	100%	0%	50%
Vol Thru, %	33%	0%	94%	0%	98%	25%
Vol Right, %	50%	0%	6%	0%	2%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	10	170	80	500	40
LT Vol	10	10	0	80	0	20
Through Vol	20	0	160	0	490	10
RT Vol	30	0	10	0	10	10
Lane Flow Rate	65	11	185	87	543	43
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.102	0.018	0.276	0.133	0.755	0.071
Departure Headway (Hd)	5.607	5.924	5.378	5.514	4.998	5.867
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	633	600	663	648	723	605
Service Time	3.692	3.697	3.15	3.27	2.753	3.96
HCM Lane V/C Ratio	0.103	0.018	0.279	0.134	0.751	0.071
HCM Control Delay	9.3	8.8	10.2	9.1	21.6	9.4
HCM Lane LOS	A	A	B	A	C	A
HCM 95th-tile Q	0.3	0.1	1.1	0.5	7	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	10	10
Peak Hour Factor	0.95	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	11	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.4
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	18.7
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	326	880	76	207
Demand Flow Rate, veh/h	332	898	77	210
Vehicles Circulating, veh/h	122	77	343	898
Vehicles Exiting, veh/h	986	343	111	77
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.1	24.6	5.5	16.7
Approach LOS	A	C	A	C

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	332	898	77	210
Cap Entry Lane, veh/h	1000	1046	802	460
Entry HV Adj Factor	0.981	0.980	0.984	0.984
Flow Entry, veh/h	326	880	76	207
Cap Entry, veh/h	981	1025	789	453
V/C Ratio	0.332	0.858	0.096	0.456
Control Delay, s/veh	7.1	24.6	5.5	16.7
LOS	A	C	A	C
95th %tile Queue, veh	1	11	0	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	430	70	650	560	890	250
Number	7	61	5	4	2	62
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	6.00	6.00	6.00			6.00
Parking Bus, Adj	6.00	6.00	6.00	6.00	6.00	6.00
Adj Sat Flow, veh/h/ln	6823	6823	6823	6823	6823	6823
Adj Flow Rate, veh/h	450	72	623	551	927	707
Adj No. of Lanes	6	6	6	3	3	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	342	496	408	3347	4310	749
Arrive On Green	0.68	0.68	0.64	0.25	0.12	0.12
Sat Flow, veh/h	6771	6583	6771	5453	5453	6583
Grp Volume(v), veh/h	450	72	623	551	927	707
Grp Sat Flow(s),veh/h/ln	6771	6583	6771	6295	6295	6583
Q Serve(g_s), s	7.9	4.1	5.4	4.5	7.1	45.2
Cycle Q Clear(g_c), s	7.9	4.1	5.4	4.5	7.1	45.2
Prop In Lane	6.00	6.00	6.00			6.00
Lane Grp Cap(c), veh/h	342	496	408	3347	4310	749
V/C Ratio(X)	0.77	0.42	0.78	0.67	0.16	0.97
Avail Cap(c_a), veh/h	6669	998	323	3770	4310	749
HCM Platoon Ratio	6.00	6.00	6.00	6.00	6.00	6.00
Upstream Filter(I)	6.00	6.00	6.00	6.00	6.00	6.00
Uniform Delay (d), s/veh	44.7	40.5	45.4	3.9	60.2	65.1
Incr Delay (d4), s/veh	3.8	0.5	2.3	0.0	0.6	42.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-42625%),veh/ln	1.4	4.3	4.9	6.6	3.1	62.3
LnGrp Delay(d),s/veh	42.5	46.0	36.5	1.0	60.7	16.5
LnGrp LOS	C	C	C	A	B	D
Approach Vol, veh/h	342			767	6271	
Approach Delay, s/veh	45.4			60.4	43.7	
Approach LOS	C			B	C	

Timer	6	4	3	1	5	2	7	8
Assigned Phs		4		1	5	2		
Phs Duration (G+Y+Rc), s		13.1		65.3	66.1	34.0		
Change Period (Y+Rc), s		5.0		1.5	1.5	5.0		
Max Green Setting (Gmax), s		13.5		37.0	64.0	47.0		
Max Q Clear Time (g_c+I6), s		1.5		9.9	7.4	47.2		
Green Ext Time (p_c), s		69.3		6.0	0.4	0.0		

Intersection Summary		
HCM 4060 Ctrl Delay		40.3
HCM 4060 LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	10	10	20	30	620	10	30	650	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	11	11	11	11	22	33	674	11	33	707	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	91	69	184	67	102	553	1935	32	567	1937	30
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	369	721	545	278	534	812	731	3564	58	754	3567	55
Grp Volume(v), veh/h	33	0	0	44	0	0	33	335	350	33	351	367
Grp Sat Flow(s),veh/h/ln	1634	0	0	1623	0	0	731	1770	1852	754	1770	1853
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.2	3.2	0.8	3.4	3.4
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.7	0.0	0.0	4.2	3.2	3.2	4.0	3.4	3.4
Prop In Lane	0.33		0.33	0.25		0.50	1.00		0.03	1.00		0.03
Lane Grp Cap(c), veh/h	365	0	0	354	0	0	553	961	1006	567	961	1006
V/C Ratio(X)	0.09	0.00	0.00	0.12	0.00	0.00	0.06	0.35	0.35	0.06	0.36	0.37
Avail Cap(c_a), veh/h	1787	0	0	1781	0	0	857	1699	1778	881	1699	1779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	0.0	11.8	0.0	0.0	5.1	3.9	3.9	5.0	3.9	3.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	0.0	0.3	0.0	0.0	0.2	1.5	1.6	0.2	1.7	1.8
LnGrp Delay(d),s/veh	11.9	0.0	0.0	12.0	0.0	0.0	5.2	4.1	4.1	5.1	4.2	4.2
LnGrp LOS	B			B			A	A	A	A	A	A
Approach Vol, veh/h		33			44			718			751	
Approach Delay, s/veh		11.9			12.0			4.2			4.2	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		21.4		8.8		21.4		8.8
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		29.0		31.0		29.0		31.0
Max Q Clear Time (g_c+I1), s		6.2		2.5		6.0		2.7
Green Ext Time (p_c), s		10.2		0.4		10.2		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	4.6
HCM 2010 LOS	A

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Vol, veh/h	0	10	80	0	60	80	0	60	10
Peak Hour Factor	0.95	0.92	0.92	0.95	0.92	0.92	0.95	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	87	0	65	87	0	65	11
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.4	8.3	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	43%	11%	0%
Vol Thru, %	57%	0%	86%
Vol Right, %	0%	89%	14%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	140	90	70
LT Vol	60	10	0
Through Vol	80	0	60
RT Vol	0	80	10
Lane Flow Rate	152	98	76
Geometry Grp	1	1	1
Degree of Util (X)	0.18	0.107	0.087
Departure Headway (Hd)	4.251	3.932	4.137
Convergence, Y/N	Yes	Yes	Yes
Cap	838	917	854
Service Time	2.307	1.932	2.217
HCM Lane V/C Ratio	0.181	0.107	0.089
HCM Control Delay	8.3	7.4	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.4	0.3

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	230	260	170	110	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	250	283	185	120	11

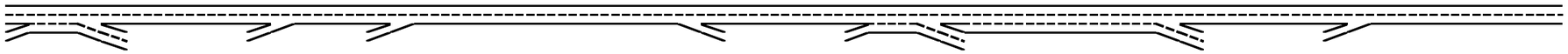
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	647	375
Stage 1	-	-	-	-	375	-
Stage 2	-	-	-	-	272	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	436	671
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	774	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	431	671
Mov Cap-2 Maneuver	-	-	-	-	431	-
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1094	-	-	-	444
HCM Lane V/C Ratio	0.01	-	-	-	0.294
HCM Control Delay (s)	8.3	0	-	-	16.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.2

Appendix E-9:
Technical Calculations
Cumulative Plus Project Conditions –
Freeway & Highway Level of Service

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



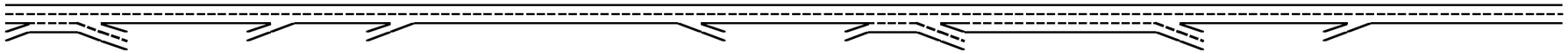
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment													
Type	Weave	Basic	Merge	Merge	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	2,770	1,420	1,150	1,500	1,020	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length			340	1,260								600	
Decel Length						175							
Mainline Volume	3,840	3,510	3,510	4,250	4,560	4,560	3,460	3,460	3,320	3,320	2,380	2,380	2,910
On Ramp Volume	390		740	310				930				530	
Off Ramp Volume	720					1,100		1,070		940			
Express Lane Volume													
EL On Ramp Volume													
EL Off Ramp Volume													
Calculate Flow Rate in General Purpose Lanes (GP)													
GP Volume (vph)	4,230	3,510	4,250	4,560	4,560	4,560	3,460	4,390	3,320	3,320	2,380	2,910	2,910
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	3	2	2	2	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	4,553	3,778	4,574	4,908	4,908	4,908	3,724	4,725	3,573	3,573	2,562	3,132	3,132
GP Flow (pcphpl)	1,518	1,889	2,287	2,454	2,454	2,454	1,862	1,575	1,191	1,191	1,281	1,566	1,566
Calculate Speed in General Purpose Lanes													
Lane Width (ft)													
Shoulder Width													
TRD													
f_{LW}													
f_{LC}													
Calculated FFS													
Measured FFS													
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes													
v/c ratio	0.65	0.80	0.97	1.04	1.04	1.04	0.79	0.67	0.51	0.51	0.55	0.67	0.67
Speed (mph)	64.8	61.6	53.8	-	-	-	62.0	64.6	65.0	65.0	65.0	64.6	64.6
Density (pcphpl)	23.4	30.7	42.5	-	-	-	30.0	24.4	18.3	18.3	19.7	24.2	24.2
LOS	C	D	E	F	F	F	D	C	C	C	C	C	C
Calculate Operations for Entering GP Lanes													
GP_{IN} Vol (pcph)	4,125		3,762	4,568		4,908		3,712				2,544	
GP_{IN} Cap (pcph)	4,700		4,700	4,700		4,700		4,700				4,700	
GP_{IN} v/c ratio	0.88		0.80	0.97		1.04		0.79				0.54	
Calculate Operations for Exiting GP Lanes													
GP_{OUT} Vol (pcph)	3,762		4,574	4,908		3,739		3,545		2,531		3,132	
GP_{OUT} Cap (pcph)	4,700		4,700	4,700		4,700		4,700		4,700		4,700	
GP_{OUT} v/c ratio	0.80		0.97	1.04		0.80		0.75		0.54		0.67	

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



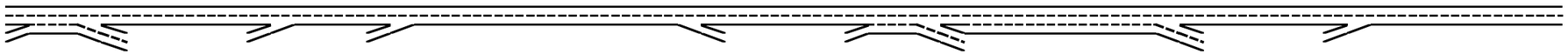
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Flow Rate in Express Lanes (EL)													
Calculate Speed in Express Lanes													
Calculate Operations in Express Lanes													
Calculate On Ramp Flow Rate													
On Volume (vph)	390		740	310				930				530	
PHF	0.92		0.92	0.92				0.95				0.92	
Total Lanes	1		1	1				1				1	
Terrain	Level		Level	Level				Level				Level	
Grade %	0.0%		0.0%	0.0%				0.0%				0.0%	
Grade Length (mi)	0.00		0.00	0.00				0.00				0.00	
Truck & Bus %	2.0%		2.0%	2.0%				7.0%				4.0%	
RV %	0.0%		0.0%	0.0%				0.0%				0.0%	
E_T	1.5		1.5	1.5				1.5				1.5	
E_R	1.2		1.2	1.2				1.2				1.2	
f_{HV}	0.990		0.990	0.990				0.966				0.980	
f_P	1.00		1.00	1.00				1.00				1.00	
On Flow (pcph)	428		812	340				1,013				588	
On Flow (pcphpl)	428		812	340				1,013				588	
Calculate On Ramp Roadway Operations													
On Ramp Type	Right		Right	Right				Right				Right	
On Ramp Speed (mph)	45		25	45				45				45	
On Ramp Cap (pcph)	2,100		1,900	2,100				2,100				2,100	
On Ramp v/c ratio	0.20		0.43	0.16				0.48				0.28	
Calculate Off Ramp Flow Rate													
Off Volume (vph)	720					1,100		1,070		940			
PHF	0.92					0.95		0.92		0.92			
Total Lanes	2					1		2		2			
Terrain	Level					Level		Level		Level			
Grade %	0.0%					0.0%		0.0%		0.0%			
Grade Length (mi)	0.00					0.00		0.00		0.00			
Truck & Bus %	2.0%					2.0%		3.0%		4.0%			
RV %	0.0%					0.0%		0.0%		0.0%			
E_T	1.5					1.5		1.5		1.5			
E_R	1.2					1.2		1.2		1.2			
f_{HV}	0.990					0.990		0.985		0.980			
f_P	1.00					1.00		1.00		1.00			
Off Flow (pcph)	790					1,169		1,180		1,042			
Off Flow (pcphpl)	395					1,169		590		521			
Calculate Off Ramp Roadway Operations													
Off Ramp Type						Right		Right		Right			
Off Ramp Speed						45		45		45			
Off Ramp Cap (pcph)						2,100		4,200		4,200			
Off Ramp v/c ratio						0.56		0.28		0.25			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-La													
Up Type													
Up Distance													
Up Flow (pcph)													
Down Type													
Down Distance													
Down Flow (pcph)													

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



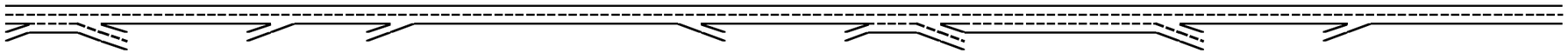
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Merge Influence Area Operations													
Effective v_P (pcph)			3,762	4,568								2,544	
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FM} (Eqn 13-3)			0.587	0.613								0.594	
P_{FM} (Eqn 13-4)													
P_{FM} (Eqn 13-5)													
P_{FM}			1.000	1.000								1.000	
v_{12} (pcph)			3,762	4,568								2,544	
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)			3,762	4,568								2,544	
v_{R12a} (pcph)			4,574	4,908								3,132	
Merge Speed Index			0.68	-								0.36	
Merge Area Speed			49.3	-								56.8	
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed			49.3									56.8	
Merge v/c ratio			0.99	1.07								0.68	
Merge Density			38.6	-								25.9	
Merge LOS			E	F								C	
Calculate Diverge Influence Area Operations													
Effective v_P (pcph)						4,908							
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FD} (Eqn 13-9)						0.584							
P_{FD} (Eqn 13-10)													
P_{FD} (Eqn 13-11)													
P_{FD}						1.000							
v_{12} (pcph)						4,908							
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)						4,908							
Diverge Speed Index						-							
Diverge Area Speed						-							
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed													
Diverge v/c ratio						1.12							
Diverge Density						-							
Diverge LOS						F							

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



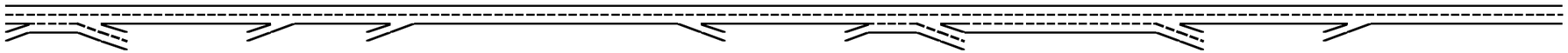
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments													
On to Off Volume (vph)	98							93					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							7.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.966					
f_P	1.00							1.00					
On to Off Flow (pcph)	104							120					
Calculate On Ramp to Mainline Flow Rate for Weave Segments													
On to ML Volume (vph)	293							837					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.985					
f_P	1.00							1.00					
On to ML Flow (pcph)	313							1,062					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments													
ML to Off Volume (vph)	623							977					
PHF	0.95							0.83					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
ML to Off Flow (pcph)	675							1,195					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for													
GP to GP Volume (vph)	3,218							2,483					
PHF	0.95							0.825					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
GP to GP Flow (pcph)	3,488							3,055					

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key

<> Express Lane (HOV)

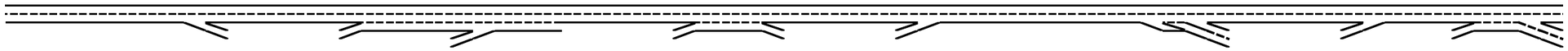
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations													
Weave Type	One-sided							One-sided					
Weave Length	1,770							1,680					
Segment Lanes	3							3					
Weave Lanes	2							3					
Weave Flow (pcph)	987							2,257					
Non-Weave Flow	3,593							3,175					
Segment Flow	4,580							5,432					
Max Weave Length	4,696							5,289					
Length Check	OK							OK					
Ideal Weave Capacity	2,126							2,074					
f_{HV}	0.972							0.985					
f_P	0.999							0.997					
Capacity Condition 1	6,195							6,109					
Capacity Condition 2	10,811							8,272					
Weave v/c ratio	0.72							0.87					
Interchange Density								0.666666667					
Lane Changes On to ML													
Lane Changes ML to Off													
Lane Changes On to Off													
Min Lane Change Rate								0					
Weave LC Rate								564					
Non-Weave LC Rate 1								987					
Non-Weave LC Rate 2								2,397					
Non-Weave LC Rate 3								-1,062					
Segment LC Rate								1,551					
Weave Intensity Factor								0.212					
Weave Speed								56.2					
Non-Weave Speed								56.3					
Segment Speed								56.3					
Weave Density								32.2					
Weave LOS								D					
Summarize Segment Operations													
Segment v/c ratio	0.72	0.80	0.99	1.07	1.04	1.12	0.79	0.87	0.51	0.51	0.55	0.68	0.67
Segment Density		30.7	38.6	-	-	-	30.0	32.2	18.3	18.3	19.7	25.9	24.2
Segment LOS		D	E	F	F	F	D	D	C	C	C	C	C
Over Capacity				Segment GP Lanes Out GP Lanes Merge	Segment GP Lanes	Segment GP Lanes In GP Lanes Diverge							

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Time Period: AM Peak Hour

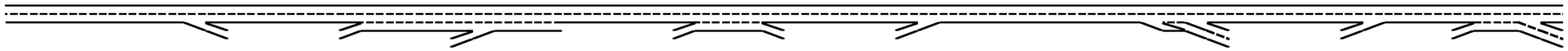
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Define Freeway Segment														
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic	Diverge	Basic	Merge	Weave
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	2,210	1,500	1,830	690	3,344
Accel Length					720				450				400	
Decel Length		150									1,500			
Mainline Volume	2,830	2,830	2,420	2,420	3,240	4,780	4,780	4,535	4,535	5,245	5,245	4,135	4,135	4,695
On Ramp Volume				820	1,540		885		710				560	20
Off Ramp Volume		410					1,130				1,110			660
Express Lane Volume														
EL On Ramp Volume														
EL Off Ramp Volume														
Calculate Flow Rate in General Purpose Lanes (GP)														
GP Volume (vph)	2,830	2,830	2,420	3,240	4,780	4,780	5,665	4,535	5,245	5,245	5,245	4,135	4,695	4,715
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	2	3	2	2	2	2	2	2	3
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,009	3,009	2,573	3,445	5,082	5,082	6,023	4,821	5,576	5,576	5,576	4,396	4,992	5,013
GP Flow (pcphpl)	1,504	1,504	1,286	1,148	1,694	2,541	2,008	2,411	2,788	2,788	2,788	2,198	2,496	1,671
Calculate Speed in General Purpose Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calculated FFS														
Measured FFS														
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes														
v/c ratio	0.64	0.64	0.55	0.49	0.72	1.08	0.85	1.03	1.19	1.19	1.19	0.94	1.06	0.71
Speed (mph)	64.8	64.8	65.0	65.0	63.8	-	59.8	-	-	-	-	56.0	-	64.0
Density (pcphpl)	23.2	23.2	19.8	17.7	26.6	-	33.6	-	-	-	-	39.3	-	26.1
LOS	C	C	C	B	D	F	D	F	F	F	F	E	F	D
Calculate Operations for Entering GP Lanes														
GP_{IN} Vol (pcph)		3,009		2,544	3,391		5,051		4,797		5,576		4,377	4,991
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		4,700		4,700		4,700	4,700
GP_{IN} v/c ratio		0.64		0.54	0.48		1.07		1.02		1.19		0.93	1.06
Calculate Operations for Exiting GP Lanes														
GP_{OUT} Vol (pcph)		2,556			5,082		4,770		5,576		4,358		4,992	4,288
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		4,700		4,700		4,700	4,700
GP_{OUT} v/c ratio		0.54			0.72		1.01		1.19		0.93		1.06	0.91

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



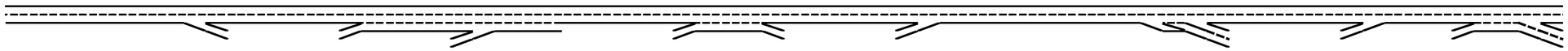
Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Flow Rate in Express Lanes (EL)														
EL Volume (vph)														
PHF														
Express Lanes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrain														
Grade %														
Grade Length (mi)														
Truck & Bus %														
RV %														
E_T	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5					1.5
E_R	1.2	1.2	1.2	1.2	1.2		1.2	1.2	1.2					1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990		0.990	0.990	0.990					0.990
f_P														
EL Flow (pcph)														
EL Flow (pcphpl)														
Calculate Speed in Express Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calc'd FFS														
Measured FFS														
FFS														
Calculate Operations in Express Lanes														
EL_{IN} v/c ratio														
Calculate On Ramp Flow Rate														
On Volume (vph)				820	1,540		885		710				560	20
PHF				0.92	0.92		0.92		0.92				0.92	0.92
Total Lanes				1	1		1		1				1	1
Terrain				Level	Level		Level		Level				Level	Level
Grade %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
Grade Length (mi)				0.00	0.00		0.00		0.00				0.00	0.00
Truck & Bus %				2.0%	2.0%		2.0%		2.0%				2.0%	3.0%
RV %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
E_T				1.5	1.5		1.5		1.5				1.5	1.5
E_R				1.2	1.2		1.2		1.2				1.2	1.2
f_{HV}				0.990	0.990		0.990		0.990				0.990	0.985
f_P				1.00	1.00		1.00		1.00				1.00	1.00
On Flow (pcph)				900	1,691		972		779				615	22
On Flow (pcphpl)				900	1,691		972		779				615	22
Calculate On Ramp Roadway Operations														
On Ramp Type				Right	Right		Right		Right				Right	Right
On Ramp Speed (mph)				25	45		45		25				25	45
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900				1,900	2,100
On Ramp v/c ratio				0.47	0.81		0.46		0.41				0.32	0.01

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Time Period: AM Peak Hour

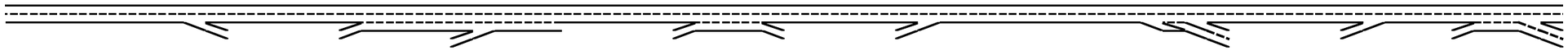
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Off Ramp Flow Rate														
Off Volume (vph)		410					1,130				1,110			660
PHF		0.92					0.92				0.92			0.92
Total Lanes		1					1				2			2
Terrain		Level					Level				Level			Level
Grade %		0.0%					0.0%				0.0%			0.0%
Grade Length (mi)		0.00					0.00				0.00			0.00
Truck & Bus %		3.0%					4.0%				2.0%			2.0%
RV %		0.0%					0.0%				0.0%			0.0%
E_T		1.5					1.5				1.5			1.5
E_R		1.2					1.2				1.2			1.2
f_{HV}		0.985					0.980				0.990			0.990
f_P		1.00					1.00				1.00			1.00
Off Flow (pcph)		452					1,253				1,219			725
Off Flow (pcphpl)		452					1,253				609			362
Calculate Off Ramp Roadway Operations														
Off Ramp Type		Right					Right				Right			Right
Off Ramp Speed		45					45				45			45
Off Ramp Cap (pcph)		2,100					2,100				4,200			4,200
Off Ramp v/c ratio		0.22					0.60				0.29			0.17
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps														
Up Type					On									
Up Distance					1,000									
Up Flow (pcph)					900									
Down Type					No									
Down Distance														
Down Flow (pcph)														
Calculate Merge Influence Area Operations														
Effective v_P (pcph)					3,391				4,797				4,377	
Up Ramp L_{EQ}					1,359									
Down Ramp L_{EQ}														
P_{FM} (Eqn 13-3)					0.598				0.590				0.589	
P_{FM} (Eqn 13-4)														
P_{FM} (Eqn 13-5)														
P_{FM}					0.598				1.000				1.000	
v_{12} (pcph)					2,027				4,797				4,377	
v_3 (pcph)					1,364									
v_{34} (pcph)														
v_{12a} (pcph)					2,027				4,797				4,377	
v_{R12a} (pcph)					3,717				5,576				4,992	
Merge Speed Index					0.42				-				-	
Merge Area Speed					55.4				-				-	
Outer Lanes Volume					1,364									
Outer Lanes Speed					61.9									
Segment Speed					57.0									
Merge v/c ratio					0.81				1.21				1.09	
Merge Density					29.2				-				-	
Merge LOS					D				F				F	
Calculate Diverge Influence Area Operations														
Effective v_P (pcph)		3,009									5,576			
Up Ramp L_{EQ}														
Down Ramp L_{EQ}														
P_{FD} (Eqn 13-9)		0.664									0.565			
P_{FD} (Eqn 13-10)														

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key

<> Express Lane (HOV)

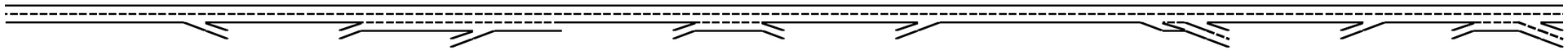
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
P_{FD} (Eqn 13-11)														
P_{FD}		1.000									1.000			
v_{12} (pcph)		3,009									5,576			
v_3 (pcph)														
v_{34} (pcph)														
v_{12a} (pcph)		3,009									5,576			
Diverge Speed Index		0.34									-			
Diverge Area Speed		57.2									-			
Outer Lanes Volume														
Outer Lanes Speed														
Segment Speed		57.2												
Diverge v/c ratio		0.68									1.27			
Diverge Density		28.8									-			
Diverge LOS		D									F			
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments														
On to Off Volume (vph)							89							50
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_p							1.00							1.00
On to Off Flow (pcph)							95							53
Calculate On Ramp to Mainline Flow Rate for Weave Segments														
On to ML Volume (vph)							797							-30
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_p							1.00							1.00
On to ML Flow (pcph)							851							-32
Calculate Mainline to Off Ramp Flow Rate for Weave Segments														
ML to Off Volume (vph)							1,042							610
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_p							1.00							1.00
ML to Off Flow (pcph)							1,238							661
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments														

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Time Period: AM Peak Hour

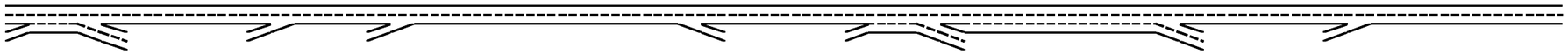
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
GP to GP Volume (vph)							3,739							4,085
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_P							1.00							1.00
GP to GP Flow (pcph)							4,442							4,429
Calculate Weave Segment Operations														
Weave Type							One-sided							One-sided
Weave Length							2,050							2,344
Segment Lanes							3							3
Weave Lanes							2							2
Weave Flow (pcph)							2,089							629
Non-Weave Flow							4,537							4,482
Segment Flow							6,625							5,112
Max Weave Length							5,748							3,765
Length Check							OK							OK
Ideal Weave Capacity							2,067							2,241
f_{HV}							0.989							0.971
f_P							0.998							1.000
Capacity Condition 1							6,124							6,529
Capacity Condition 2							7,518							18,930
Weave v/c ratio							1.07							0.76
Interchange Density														
Lane Changes On to ML														
Lane Changes ML to Off														
Lane Changes On to Off														
Min Lane Change Rate														
Weave LC Rate														
Non-Weave LC Rate 1														
Non-Weave LC Rate 2														
Non-Weave LC Rate 3														
Segment LC Rate														
Weave Intensity Factor														
Weave Speed														
Non-Weave Speed														
Segment Speed														
Weave Density														
Weave LOS														
Summarize Segment Operations														
Segment v/c ratio	0.64	0.68	0.55	0.49	0.81	1.08	1.07	1.03	1.21	1.19	1.27	0.94	1.09	0.76
Segment Density	23.2	28.8	19.8	17.7	29.2	-	-	-	-	-	-	39.3	-	-
Segment LOS	C	D	C	B	D	F	F	F	F	F	F	E	F	F
Over Capacity						Segment GP Lanes	In GP Lanes Out GP Lanes Weave	Segment GP Lanes	Segment GP Lanes In GP Lanes Out GP Lanes Merge	Segment GP Lanes	Segment GP Lanes In GP Lanes Diverge		Segment GP Lanes Out GP Lanes Merge	In GP Lanes

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



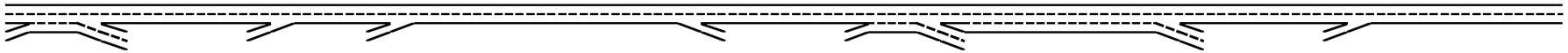
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment													
Type	Weave	Basic	Merge	Merge	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	2,770	1,420	1,150	1,500	1,020	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length			340	1,260								600	
Decel Length						175							
Mainline Volume	4,150	3,980	3,980	5,000	5,200	5,200	4,390	4,390	4,090	4,090	2,140	2,140	2,950
On Ramp Volume	170		1,020	200				1,290				810	
Off Ramp Volume	340					810		1,590		1,950			
Express Lane Volume													
EL On Ramp Volume													
EL Off Ramp Volume													
Calculate Flow Rate in General Purpose Lanes (GP)													
GP Volume (vph)	4,320	3,980	5,000	5,200	5,200	5,200	4,390	5,680	4,090	4,090	2,140	2,950	2,950
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	3	2	2	2	2	2	2	3	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	4,602	4,240	5,326	5,539	5,539	5,539	4,677	6,051	4,357	4,357	2,280	3,143	3,143
GP Flow (pcphpl)	1,534	2,120	2,663	2,770	2,770	2,770	2,338	2,017	1,452	1,452	1,140	1,571	1,571
Calculate Speed in General Purpose Lanes													
Lane Width (ft)													
Shoulder Width													
TRD													
f_{LW}													
f_{LC}													
Calculated FFS													
Measured FFS													
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes													
v/c ratio	0.65	0.90	1.13	1.18	1.18	1.18	1.00	0.86	0.62	0.62	0.49	0.67	0.67
Speed (mph)	64.7	57.7	-	-	-	-	52.5	59.6	65.0	65.0	65.0	64.6	64.6
Density (pcphpl)	23.7	36.8	-	-	-	-	44.5	33.8	22.4	22.4	17.5	24.3	24.3
LOS	C	E	F	F	F	F	E	D	C	C	B	C	C
Calculate Operations for Entering GP Lanes													
GP_{IN} Vol (pcph)	4,414		4,201	5,319		5,539		4,672				2,244	
GP_{IN} Cap (pcph)	4,700		4,700	4,700		4,700		4,700				4,700	
GP_{IN} v/c ratio	0.94		0.89	1.13		1.18		0.99				0.48	
Calculate Operations for Exiting GP Lanes													
GP_{OUT} Vol (pcph)	4,229		5,326	5,539		4,678		4,359		2,195		3,143	
GP_{OUT} Cap (pcph)	4,700		4,700	4,700		4,700		4,700		4,700		4,700	
GP_{OUT} v/c ratio	0.90		1.13	1.18		1.00		0.93		0.47		0.67	

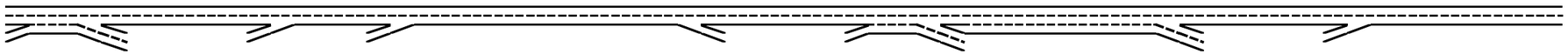
Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key
<> Express Lane (HOV)
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Flow Rate in Express Lanes (EL)													
Calculate Speed in Express Lanes													
Calculate Operations in Express Lanes													
Calculate On Ramp Flow Rate													
On Volume (vph)	170		1,020	200				1,290				810	
PHF	0.92		0.92	0.92				0.95				0.92	
Total Lanes	1		1	1				1				1	
Terrain	Level		Level	Level				Level				Level	
Grade %	0.0%		0.0%	0.0%				0.0%				0.0%	
Grade Length (mi)	0.00		0.00	0.00				0.00				0.00	
Truck & Bus %	3.0%		3.0%	3.0%				3.0%				4.0%	
RV %	0.0%		0.0%	0.0%				0.0%				0.0%	
E_T	1.5		1.5	1.5				1.5				1.5	
E_R	1.2		1.2	1.2				1.2				1.2	
f_{HV}	0.985		0.985	0.985				0.985				0.980	
f_P	1.00		1.00	1.00				1.00				1.00	
On Flow (pcph)	188		1,125	221				1,378				898	
On Flow (pcphpl)	188		1,125	221				1,378				898	
Calculate On Ramp Roadway Operations													
On Ramp Type	Right		Right	Right				Right				Right	
On Ramp Speed (mph)	45		25	45				45				45	
On Ramp Cap (pcph)	2,100		1,900	2,100				2,100				2,100	
On Ramp v/c ratio	0.09		0.59	0.11				0.66				0.43	
Calculate Off Ramp Flow Rate													
Off Volume (vph)	340					810		1,590		1,950			
PHF	0.92					0.95		0.954		0.92			
Total Lanes	2					1		2		2			
Terrain	Level					Level		Level		Level			
Grade %	0.0%					0.0%		0.0%		0.0%			
Grade Length (mi)	0.00					0.00		0.00		0.00			
Truck & Bus %	2.0%					2.0%		3.0%		4.0%			
RV %	0.0%					0.0%		0.0%		0.0%			
E_T	1.5					1.5		1.5		1.5			
E_R	1.2					1.2		1.2		1.2			
f_{HV}	0.990					0.990		0.985		0.980			
f_P	1.00					1.00		1.00		1.00			
Off Flow (pcph)	373					861		1,692		2,162			
Off Flow (pcphpl)	187					861		846		1,081			
Calculate Off Ramp Roadway Operations													
Off Ramp Type	Right					Right		Right		Right			
Off Ramp Speed	45					45		45		45			
Off Ramp Cap (pcph)	4,200					2,100		4,200		4,200			
Off Ramp v/c ratio	0.09					0.41		0.40		0.51			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-La													
Up Type													
Up Distance													
Up Flow (pcph)													
Down Type													
Down Distance													
Down Flow (pcph)													

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



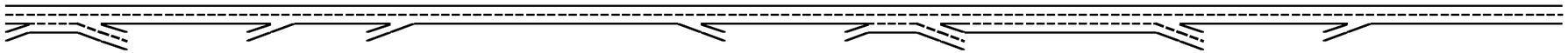
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Merge Influence Area Operations													
Effective v_P (pcph)			4,201	5,319								2,244	
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FM} (Eqn 13-3)			0.587	0.613								0.594	
P_{FM} (Eqn 13-4)													
P_{FM} (Eqn 13-5)													
P_{FM}			1.000	1.000								1.000	
v_{12} (pcph)			4,201	5,319								2,244	
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)			4,201	5,319								2,244	
v_{R12a} (pcph)			5,326	5,539								3,143	
Merge Speed Index			-	-								0.36	
Merge Area Speed			-	-								56.8	
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed												56.8	
Merge v/c ratio			1.16	1.20								0.68	
Merge Density			-	-								25.8	
Merge LOS			F	F								C	
Calculate Diverge Influence Area Operations													
Effective v_P (pcph)						5,539							
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FD} (Eqn 13-9)						0.582							
P_{FD} (Eqn 13-10)													
P_{FD} (Eqn 13-11)													
P_{FD}						1.000							
v_{12} (pcph)						5,539							
v_3 (pcph)													
v_{34} (pcph)													
v_{12a} (pcph)						5,539							
Diverge Speed Index						-							
Diverge Area Speed						-							
Outer Lanes Volume													
Outer Lanes Speed													
Segment Speed													
Diverge v/c ratio						1.26							
Diverge Density						-							
Diverge LOS						F							

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



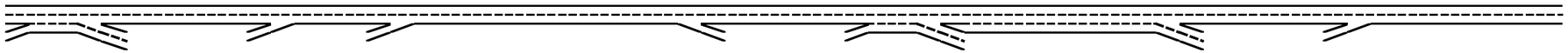
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments													
On to Off Volume (vph)	43							129					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							7.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.966					
f_P	1.00							1.00					
On to Off Flow (pcph)	45							167					
Calculate On Ramp to Mainline Flow Rate for Weave Segments													
On to ML Volume (vph)	128							1,161					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.985					
f_P	1.00							1.00					
On to ML Flow (pcph)	136							1,473					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments													
ML to Off Volume (vph)	298							1,461					
PHF	0.95							0.83					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
ML to Off Flow (pcph)	323							1,787					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for													
GP to GP Volume (vph)	3,853							2,929					
PHF	0.95							0.825					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
GP to GP Flow (pcph)	4,177							3,604					

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



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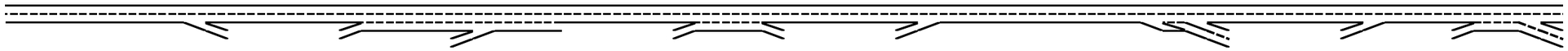
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations													
Weave Type	One-sided							One-sided					
Weave Length	1,770							1,680					
Segment Lanes	3							3					
Weave Lanes	2							3					
Weave Flow (pcph)	459							3,260					
Non-Weave Flow	4,222							3,770					
Segment Flow	4,681							7,030					
Max Weave Length	3,520							5,839					
Length Check	OK							OK					
Ideal Weave Capacity	2,216							2,032					
f_{HV}	0.971							0.985					
f_{P}	1.000							0.997					
Capacity Condition 1	6,456							5,984					
Capacity Condition 2	23,778							7,410					
Weave v/c ratio	0.70							1.15					
Interchange Density								0.666666667					
Lane Changes On to ML													
Lane Changes ML to Off													
Lane Changes On to Off													
Min Lane Change Rate								0					
Weave LC Rate								564					
Non-Weave LC Rate 1								1,109					
Non-Weave LC Rate 2								2,530					
Non-Weave LC Rate 3								-808					
Segment LC Rate								1,673					
Weave Intensity Factor								0.225					
Weave Speed								55.8					
Non-Weave Speed								53.8					
Segment Speed								54.7					
Weave Density								-					
Weave LOS								F					
Summarize Segment Operations													
Segment v/c ratio	0.70	0.90	1.16	1.20	1.18	1.26	1.00	1.15	0.62	0.62	0.49	0.68	0.67
Segment Density		36.8	-	-	-	-	44.5	-	22.4	22.4	17.5	25.8	24.3
Segment LOS		E	F	F	F	F	E	F	C	C	B	C	C
Over Capacity			Segment GP Lanes Out GP Lanes Merge	Segment GP Lanes In GP Lanes Out GP Lanes Merge	Segment GP Lanes	Segment GP Lanes In GP Lanes Diverge		Weave					

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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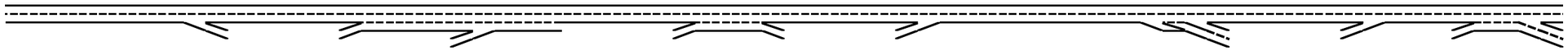
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Define Freeway Segment														
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic	Diverge	Basic	Merge	Weave
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	2,210	1,500	1,830	690	3,344
Accel Length					720				450				400	
Decel Length		150									1,500			
Mainline Volume	3,440	3,440	2,550	2,550	2,940	3,500	3,500	4,320	4,320	5,160	5,160	3,910	3,910	4,690
On Ramp Volume				390	560		1,680		840				780	80
Off Ramp Volume		890					860				1,250			550
Express Lane Volume														
EL On Ramp Volume														
EL Off Ramp Volume														
Calculate Flow Rate in General Purpose Lanes (GP)														
GP Volume (vph)	3,440	3,440	2,550	2,940	3,500	3,500	5,180	4,320	5,160	5,160	5,160	3,910	4,690	4,770
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	2	3	2	2	2	2	2	2	3
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,657	3,657	2,711	3,126	3,721	3,721	5,507	4,593	5,486	5,486	5,486	4,157	4,986	5,071
GP Flow (pcphpl)	1,829	1,829	1,356	1,042	1,240	1,861	1,836	2,296	2,743	2,743	2,743	2,078	2,493	1,690
Calculate Speed in General Purpose Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calculated FFS														
Measured FFS														
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes														
v/c ratio	0.78	0.78	0.58	0.44	0.53	0.79	0.78	0.98	1.17	1.17	1.17	0.88	1.06	0.72
Speed (mph)	62.4	62.4	65.0	65.0	65.0	62.0	62.3	53.6	-	-	-	58.5	-	63.8
Density (pcphpl)	29.3	29.3	20.9	16.0	19.1	30.0	29.5	42.8	-	-	-	35.5	-	26.5
LOS	D	D	C	B	C	D	D	E	F	F	F	E	F	D
Calculate Operations for Entering GP Lanes														
GP_{IN} Vol (pcph)		3,657		2,698	3,106		3,654		4,564		5,486		4,130	4,983
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		4,700		4,700		4,700	4,700
GP_{IN} v/c ratio		0.78		0.57	0.44		0.78		0.97		1.17		0.88	1.06
Calculate Operations for Exiting GP Lanes														
GP_{OUT} Vol (pcph)		2,680			3,721		4,563		5,486		4,114		4,986	4,467
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		4,700		4,700		4,700	4,700
GP_{OUT} v/c ratio		0.57			0.53		0.97		1.17		0.88		1.06	0.95

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



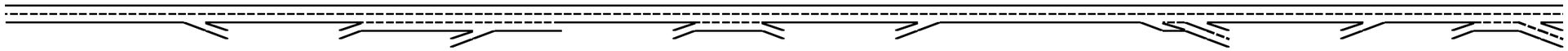
Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Flow Rate in Express Lanes (EL)														
EL Volume (vph)														
PHF														
Express Lanes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrain														
Grade %														
Grade Length (mi)														
Truck & Bus %														
RV %														
E_T	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5					1.5
E_R	1.2	1.2	1.2	1.2	1.2		1.2	1.2	1.2					1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990		0.990	0.990	0.990					0.990
f_P														
EL Flow (pcph)														
EL Flow (pcphpl)														
Calculate Speed in Express Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calc'd FFS														
Measured FFS														
FFS														
Calculate Operations in Express Lanes														
EL_{IN} v/c ratio														
Calculate On Ramp Flow Rate														
On Volume (vph)				390	560		1,680		840				780	80
PHF				0.92	0.92		0.92		0.92				0.92	0.92
Total Lanes				1	1		1		1				1	1
Terrain				Level	Level		Level		Level				Level	Level
Grade %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
Grade Length (mi)				0.00	0.00		0.00		0.00				0.00	0.00
Truck & Bus %				2.0%	2.0%		3.0%		2.0%				2.0%	2.0%
RV %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
E_T				1.5	1.5		1.5		1.5				1.5	1.5
E_R				1.2	1.2		1.2		1.2				1.2	1.2
f_{HV}				0.990	0.990		0.985		0.990				0.990	0.990
f_P				1.00	1.00		1.00		1.00				1.00	1.00
On Flow (pcph)				428	615		1,853		922				856	88
On Flow (pcphpl)				428	615		1,853		922				856	88
Calculate On Ramp Roadway Operations														
On Ramp Type				Right	Right		Right		Right				Right	Right
On Ramp Speed (mph)				25	45		45		25				25	45
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900				1,900	2,100
On Ramp v/c ratio				0.23	0.29		0.88		0.49				0.45	0.04
Calculate Off Ramp Flow Rate														
Off Volume (vph)		890					860				1,250			550
PHF		0.92					0.92				0.92			0.92
Total Lanes		1					1				2			2
Terrain		Level					Level				Level			Level
Grade %		0.0%					0.0%				0.0%			0.0%
Grade Length (mi)		0.00					0.00				0.00			0.00

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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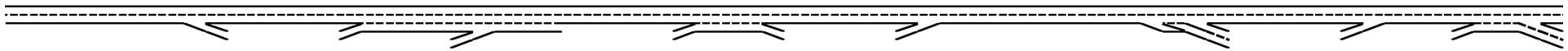
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Truck & Bus %		2.0%					2.0%				2.0%			2.0%
RV %		0.0%					0.0%				0.0%			0.0%
E_T		1.5					1.5				1.5			1.5
E_R		1.2					1.2				1.2			1.2
f_{HV}		0.990					0.990				0.990			0.990
f_P		1.00					1.00				1.00			1.00
Off Flow (pcph)		977					944				1,372			604
Off Flow (pcphpl)		977					944				686			302
Calculate Off Ramp Roadway Operations														
Off Ramp Type		Right					Right				Right			Right
Off Ramp Speed		45					45				45			45
Off Ramp Cap (pcph)		2,100					2,100				4,200			4,200
Off Ramp v/c ratio		0.47					0.45				0.33			0.14
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps														
Up Type					On									
Up Distance					1,000									
Up Flow (pcph)					428									
Down Type					No									
Down Distance														
Down Flow (pcph)														
Calculate Merge Influence Area Operations														
Effective v_P (pcph)					3,106				4,564				4,130	
Up Ramp L_{EQ}					1,067									
Down Ramp L_{EQ}														
P_{FM} (Eqn 13-3)					0.598				0.590				0.589	
P_{FM} (Eqn 13-4)														
P_{FM} (Eqn 13-5)														
P_{FM}					0.598				1.000				1.000	
v_{12} (pcph)					1,856				4,564				4,130	
v_3 (pcph)					1,250									
v_{34} (pcph)														
v_{12a} (pcph)					1,856				4,564				4,130	
v_{R12a} (pcph)					2,471				5,486				4,986	
Merge Speed Index					0.30				-				-	
Merge Area Speed					58.0				-				-	
Outer Lanes Volume					1,250									
Outer Lanes Speed					62.3									
Segment Speed					59.4									
Merge v/c ratio					0.54				1.19				1.08	
Merge Density					20.0				-				-	
Merge LOS					B				F				F	
Calculate Diverge Influence Area Operations														
Effective v_P (pcph)		3,657									5,486			
Up Ramp L_{EQ}														
Down Ramp L_{EQ}														
P_{FD} (Eqn 13-9)		0.624									0.560			
P_{FD} (Eqn 13-10)														
P_{FD} (Eqn 13-11)														
P_{FD}		1.000									1.000			
v_{12} (pcph)		3,657									5,486			
v_3 (pcph)														
v_{34} (pcph)														
v_{12a} (pcph)		3,657									5,486			
Diverge Speed Index		0.39									-			

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key

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No Trucks

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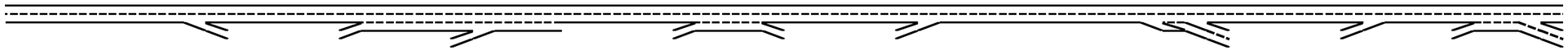
Diverge Area Speed		56.1									-			
Outer Lanes Volume														
Outer Lanes Speed														
Segment Speed		56.1												
Diverge v/c ratio		0.83									1.25			
Diverge Density		34.4									-			
Diverge LOS		D									F			
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments														
On to Off Volume (vph)							168							50
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_p							1.00							1.00
On to Off Flow (pcph)							179							53
Calculate On Ramp to Mainline Flow Rate for Weave Segments														
On to ML Volume (vph)							1,512							30
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_p							1.00							1.00
On to ML Flow (pcph)							1,615							32
Calculate Mainline to Off Ramp Flow Rate for Weave Segments														
ML to Off Volume (vph)							692							500
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_p							1.00							1.00
ML to Off Flow (pcph)							822							542
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments														
GP to GP Volume (vph)							2,808							4,190
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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No Trucks

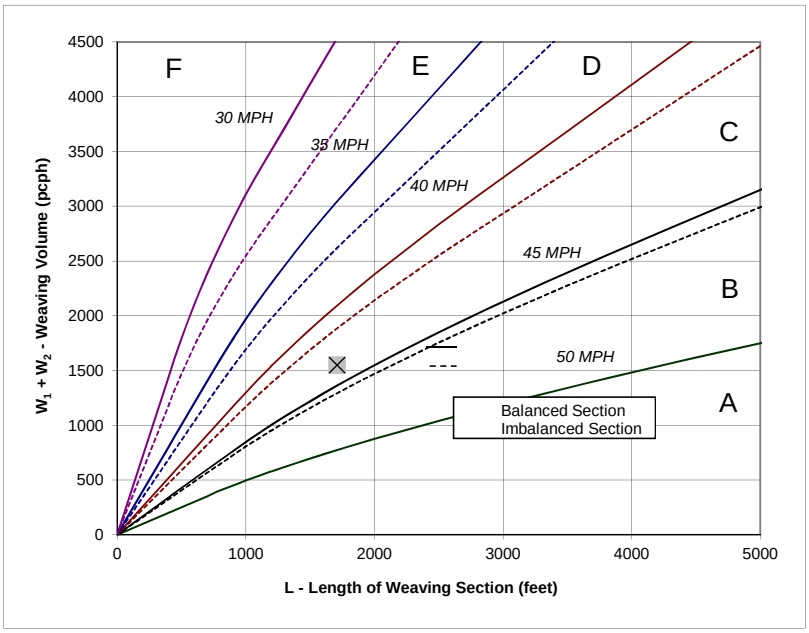
Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_P							1.00							1.00
GP to GP Flow (pcph)							3,337							4,543
Calculate Weave Segment Operations														
Weave Type							One-sided							One-sided
Weave Length							2,050							2,344
Segment Lanes							3							3
Weave Lanes							2							2
Weave Flow (pcph)							2,438							574
Non-Weave Flow							3,516							4,596
Segment Flow							5,954							5,170
Max Weave Length							6,787							3,647
Length Check							OK							OK
Ideal Weave Capacity							1,988							2,250
f_{HV}							0.989							0.971
f_P							0.996							1.000
Capacity Condition 1							5,871							6,555
Capacity Condition 2							5,772							20,986
Weave v/c ratio							1.02							0.77
Interchange Density														
Lane Changes On to ML														
Lane Changes ML to Off														
Lane Changes On to Off														
Min Lane Change Rate														
Weave LC Rate														
Non-Weave LC Rate 1														
Non-Weave LC Rate 2														
Non-Weave LC Rate 3														
Segment LC Rate														
Weave Intensity Factor														
Weave Speed														
Non-Weave Speed														
Segment Speed														
Weave Density														
Weave LOS														
Summarize Segment Operations														
Segment v/c ratio	0.78	0.83	0.58	0.44	0.54	0.79	1.02	0.98	1.19	1.17	1.25	0.88	1.08	0.77
Segment Density	29.3	34.4	20.9	16.0	20.0	30.0	-	42.8	-	-	-	35.5	-	-
Segment LOS	D	D	C	B	B	D	F	E	F	F	F	E	F	F
Over Capacity							Weave		Segment GP Lanes Out GP Lanes Merge	Segment GP Lanes	Segment GP Lanes In GP Lanes Diverge		Segment GP Lanes Out GP Lanes Merge	In GP Lanes

Leisch Method for Weaving Analysis

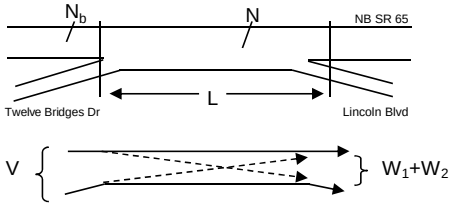
Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information	
Project	Village 5 SP EIR
Scenario	Cumulative Plus Project
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,390	Volume (vph)*	698	Volume (vph)*	838
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,434	Volume (pcph)	704	Volume (pcph)	846



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) 43.7
4. Weaving Intensity Factor (k) 2.14
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ 1,745
6. Level of Service (LOS) E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

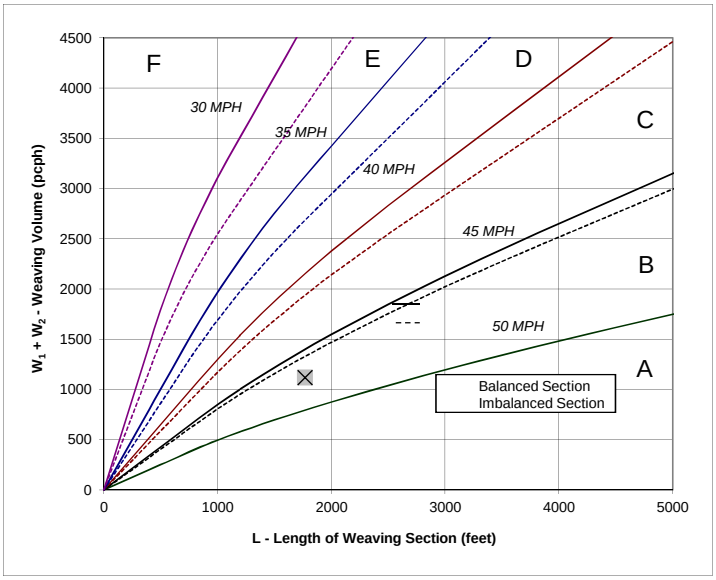
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,770

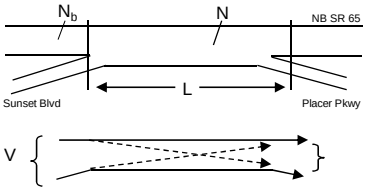
Project Information

Project	Village 5 SP
Scenario	Cumulative Plus Project
Freeway	NB SR 65
On-ramp	Sunset Blvd
Off-ramp	Placer Pkwy

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,230	Volume (vph)*	390	Volume (vph)*	720
Truck Percentage	5%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,325	Volume (pcph)	394	Volume (pcph)	727



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   45 MPH and **50 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) 47.3
4. Weaving Intensity Factor (k) 1.63
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] 1,525
6. Level of Service (LOS) D

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

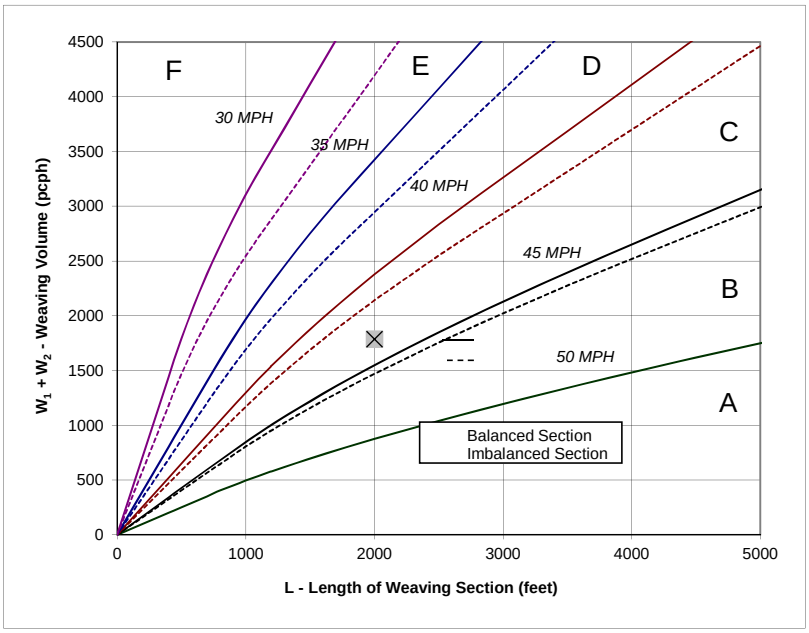
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

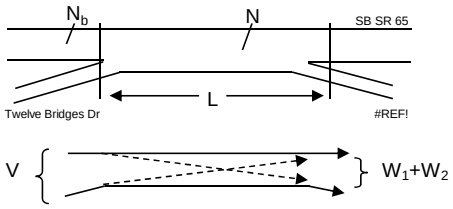
Project Information

Project	Village 5 SP EIR
Scenario	Cumulative Plus Project
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,655	Volume (vph)*	761	Volume (vph)*	1,006
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,712	Volume (pcph)	769	Volume (pcph)	1,016



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **42.6**
4. Weaving Intensity Factor (k) **2.27**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **2,229**
6. Level of Service (LOS) **F**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

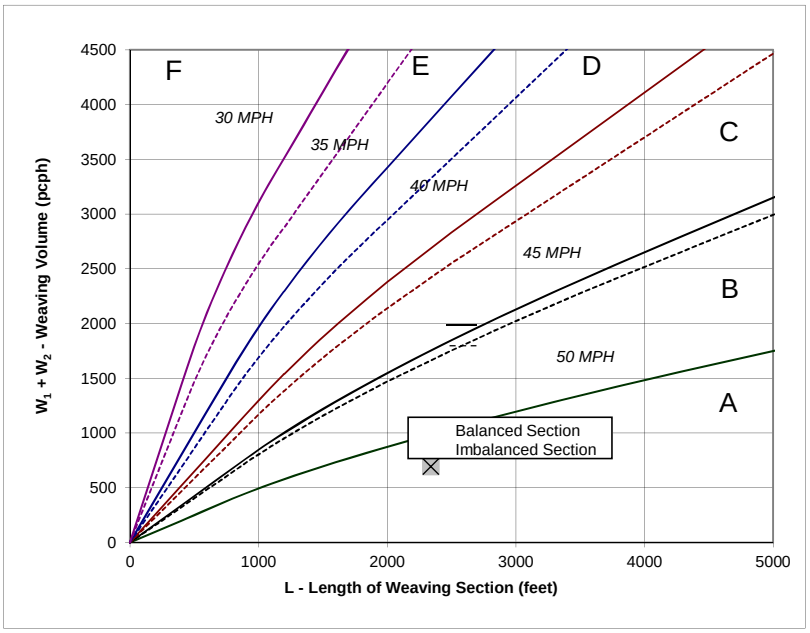
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,340

Project Information	
Project	Village 5 SP
Scenario	Cumulative Plus Project
Freeway	SB SR 65
On-ramp	Placer Pkwy
Off-ramp	Sunset Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,715	Volume (vph)*	20	Volume (vph)*	660
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	4%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,762	Volume (pcph)	20	Volume (pcph)	674



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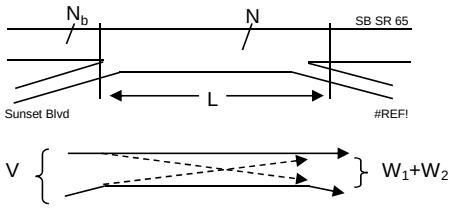


Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	Y
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**45 MPH** and **50 MPH**
If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.	
3. Interpolated Weaving Speed (S_w, mph)	51.9
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,587
6. Level of Service (LOS)	E

BASIC

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

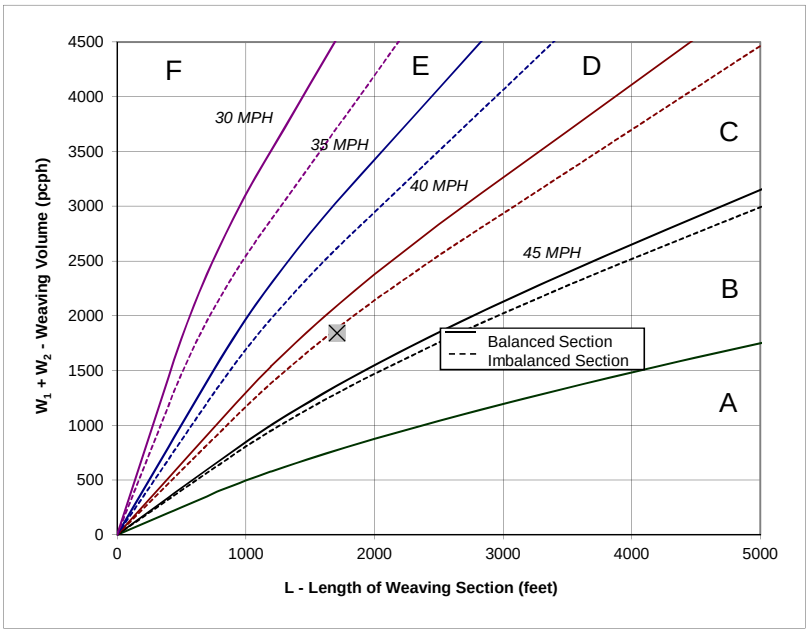
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,710

Project Information

Project	Village 5 SP EIR
Scenario	Cumulative Plus Project
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,680	Volume (vph)*	761	Volume (vph)*	1,061
Truck Percentage	4%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,794	Volume (pcph)	769	Volume (pcph)	1,072



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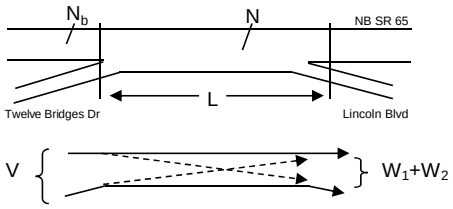


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) 41.7
4. Weaving Intensity Factor (k) 2.37
5. Service Volume (SV, pcph)
   $SV = (1/N)*[V + (k - 1)*\min(W_1, W_2)]$ 2,282
6. Level of Service (LOS) F

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

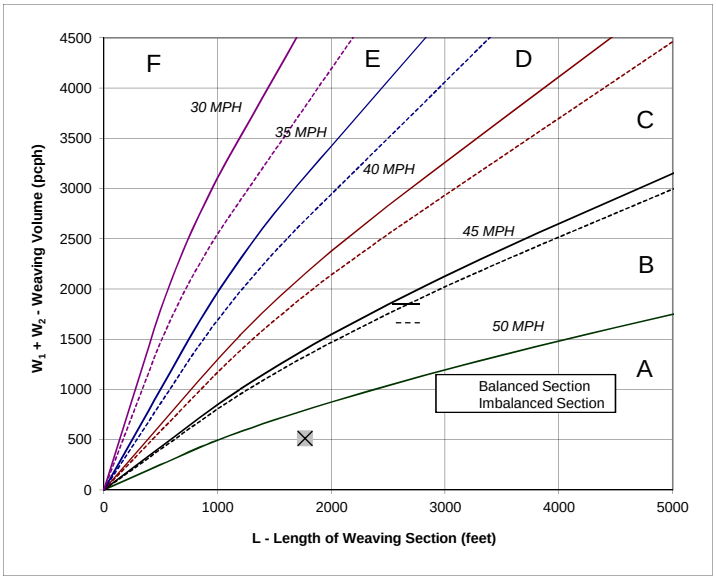
Data Input

Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	1,770

Project Information

Project	Village 5 SP
Scenario	Cumulative Plus Project
Freeway	NB SR 65
On-ramp	Sunset Blvd
Off-ramp	Placer Pkwy

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,320	Volume (vph)*	170	Volume (vph)*	340
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,372	Volume (pcph)	172	Volume (pcph)	343



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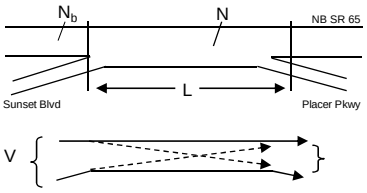


Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	Y
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**40 MPH** and **45 MPH**
If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.	
3. Interpolated Weaving Speed (S_w, mph)	50.9
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,457
6. Level of Service (LOS)	D

Did not fall in the realm of we

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

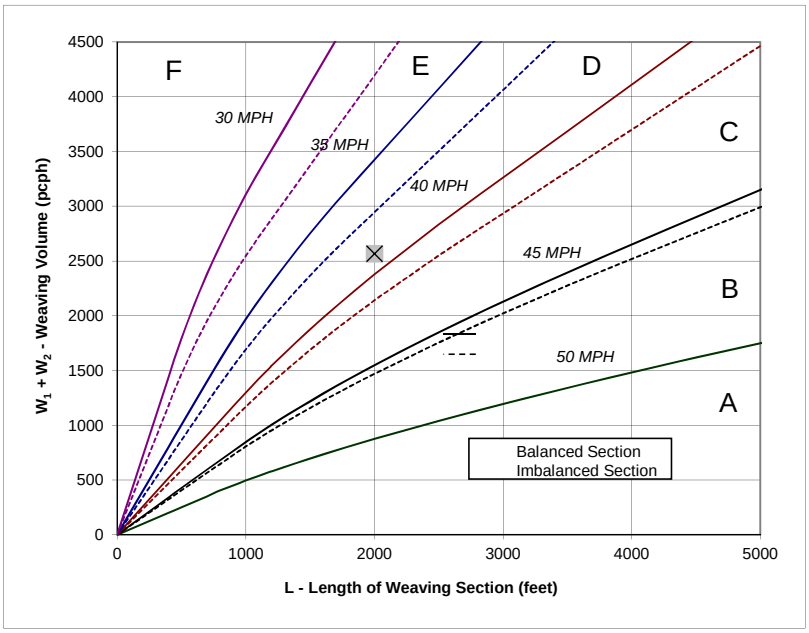
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Village 5 SP EIR
Scenario	Cumulative Plus Project
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,180	Volume (vph)*	1,680	Volume (vph)*	860
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,232	Volume (pcph)	1,697	Volume (pcph)	869



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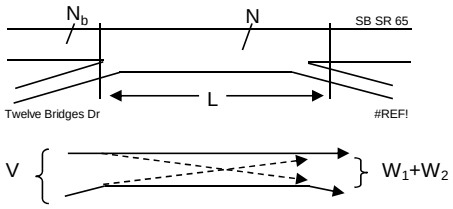


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **N**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   35 MPH and **40 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **37.4**
4. Weaving Intensity Factor (k) **2.75**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **2,251**
6. Level of Service (LOS) **F**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

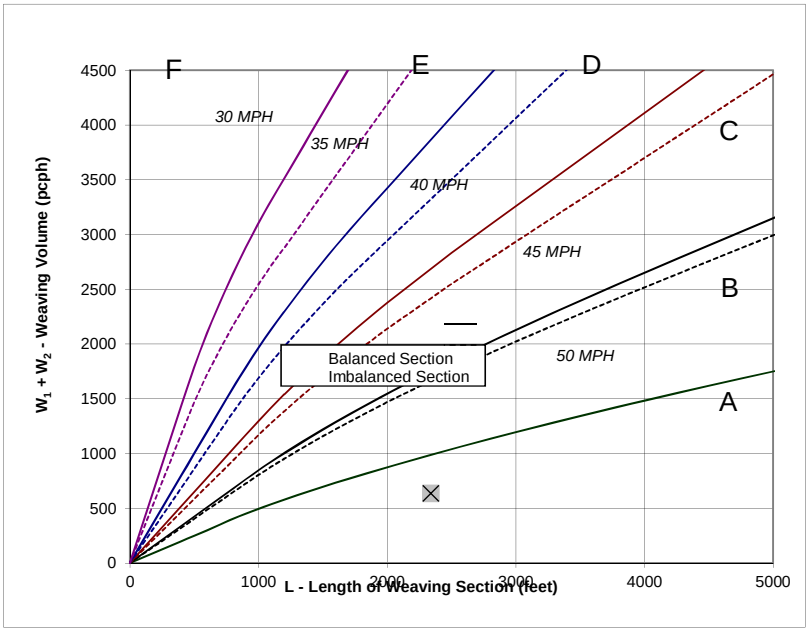
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	2
Number of Lanes in Weaving Section	N	3
Length of Weaving Section (feet)	L	2,340

Project Information	
Project	Village 5 SP
Scenario	Cumulative Plus Project
Freeway	SB SR 65
On-ramp	Placer Pkwy
Off-ramp	Sunset Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,770	Volume (vph)*	80	Volume (vph)*	550
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,818	Volume (pcph)	81	Volume (pcph)	556



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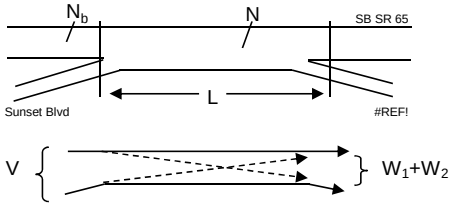


Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	Y
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**45 MPH** and **50 MPH**
If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.	
3. Interpolated Weaving Speed (S_w, mph)	52.3
4. Weaving Intensity Factor (k)	1.00
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,606
6. Level of Service (LOS)	E
	Did not fall

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/6/2014
Analysis Time Period	AM
Highway	65
From/To	north of Riosa
Jurisdiction	Placer County
Analysis Year	Cumulative Plus Project
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.92	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd	1340	veh/h
Opposing direction volume, Vo	1090	veh/h

Average Travel Speed

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adj. factor,(note-5) fHV	1.000	1.000
Grade adj. factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1457 pc/h	1185 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h

Estimated Free-Flow Speed:

Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	1.0	mi/h
Average travel speed, ATSd	33.2	mi/h
Percent Free Flow Speed, PFFS	60.7	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1457 pc/h	1185 pc/h
Base percent time-spent-following,(note-4) BPTSFd	88.9 %	
Adjustment for no-passing zones, fnp	10.1	
Percent time-spent-following, PTSFd	94.5 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.86	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	33.2	mi/h
Percent time-spent-following, PTSFd (from above)	94.5	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	1456.5
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.49
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/7/2014
Analysis Period:	AM
Highway:	65
From/To:	Riosa Road to Wise Road
Jurisdiction:	Placer County
Analysis Year:	Cumulative Plus Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1230	vph	970	vph
Peak-hour factor, PHF	0.93		0.92	
Peak 15-minute volume, v15	331		264	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	700	pcphpl	558	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	700	pcphpl	558	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.7	pc/mi/ln	9.3	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	661.3	527.2
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.37	6.25
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	AM
Highway:	65
From/To:	Wise Rd to Nelson Ln
Jurisdiction:	Placer County
Analysis Year:	Cumulative Plus Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1180	vph	1100	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	321		299	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	679	pcphpl	633	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	679	pcphpl	633	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.3	pc/mi/ln	10.6	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	641.3	597.8
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.35	6.32
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

HCS 2010: Two-Lane Highways Release 6.60

Phone: Fax:
E-Mail:

Directional Two-Lane Highway Segment Analysis

Analyst	Allison Crump
Agency/Co.	Fehr and Peers
Date Performed	8/7/2014
Analysis Time Period	PM
Highway	65
From/To	Riosa north
Jurisdiction	Placer County
Analysis Year	Cumulative Plus Project
Description	Village 5

Input Data

Highway class	Class 1		Peak hour factor, PHF	0.98	
Shoulder width	6.0	ft	% Trucks and buses	12	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	0.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	0	%
Grade: Length	-	mi	% No-passing zones	100	%
Up/down	-	%	Access point density	1	/mi

Analysis direction volume, Vd	1610	veh/h
Opposing direction volume, Vo	1570	veh/h

Average Travel Speed

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adj. factor,(note-5) fHV	1.000	1.000
Grade adj. factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1643 pc/h	1602 pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	0.0	mi/h
Adj. for access point density,(note-3) fA	0.3	mi/h
Free-flow speed, FFSd	54.8	mi/h
Adjustment for no-passing zones, fnp	0.7	mi/h
Average travel speed, ATSd	28.9	mi/h
Percent Free Flow Speed, PFFS	52.7	%

Percent Time-Spent-Following

Direction	Analysis(d)	Opposing (o)
PCE for trucks, ET	1.0	1.0
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	1.000
Grade adjustment factor,(note-1) fg	1.00	1.00
Directional flow rate,(note-2) vi	1643 pc/h	1602 pc/h
Base percent time-spent-following,(note-4) BPTSFd	92.8 %	
Adjustment for no-passing zones, fnp	6.4	
Percent time-spent-following, PTSFd	96.0 %	

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.97	
Peak 15-min vehicle-miles of travel, VMT15	0	veh-mi
Peak-hour vehicle-miles of travel, VMT60	0	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1700	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	1700	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.0	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSd (from above)	28.9	mi/h
Percent time-spent-following, PTSFd (from above)	96.0	
Level of service, LOSd (from above)	E	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSpl	-	
Percent free flow speed including passing lane, PFFSpl	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	1642.9
Effective width of outside lane, We	24.00
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	6.55
Bicycle LOS	F

Notes:
1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific dewngrade segments are treated as level terrain.
2. If vi (vd or vo) >= 1,700 pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for v>200 veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Riosa Road to Wise Road
Jurisdiction:	Placer County
Analysis Year:	Cumulative Plus Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1500	vph	1320	vph
Peak-hour factor, PHF	0.94		0.92	
Peak 15-minute volume, v15	399		359	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	845	pcphpl	760	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	845	pcphpl	760	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	14.1	pc/mi/ln	12.7	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	797.9	717.4
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.46	6.41
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Allison Crump
Agency/Co:	Fehr and Peers
Date:	8/6/2014
Analysis Period:	PM
Highway:	65
From/To:	Wise to Nelson
Jurisdiction:	Placer County
Analysis Year:	Cumulative Plus Project
Project ID:	Village 5

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type				
Free-flow speed:	Measured		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1390	vph	1220	vph
Peak-hour factor, PHF	0.93		0.94	
Peak 15-minute volume, v15	374		324	
Trucks and buses	12	%	12	%
Recreational vehicles	0	%	0	%
Terrain type	Level		Level	
Grade	0.00	%	0.00	%
Segment length	0.00	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.943		0.943	
Flow rate, vp	792	pcphpl	687	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	792	pcphpl	687	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	13.2	pc/mi/ln	11.4	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	65	65
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	747.3	648.9
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	5.07	5.07
Bicycle LOS Score, BLOS	6.43	6.36
Bicycle LOS	F	F

Overall results are not computed when free-flow speed is less than 45 mph.

Appendix E-10:
Technical Calculations
Existing Plus Project Mitigations –
Intersection Level of Service

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	220	360	400	330	60	410	150	140	40	160	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	2	1	1	2	1	1	1	2	0
Cap, veh/h	96	545	745	597	768	653	613	504	428	62	370	89
Arrive On Green	0.05	0.29	0.29	0.17	0.41	0.41	0.18	0.27	0.27	0.03	0.13	0.13
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	3442	1863	1583	1774	2901	701
Grp Volume(v), veh/h	74	272	444	494	407	74	506	185	173	49	125	122
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1721	1863	1583	1774	1863	1739
Q Serve(g_s), s	3.2	9.5	16.2	10.9	12.9	2.3	11.2	6.3	7.0	2.2	5.0	5.2
Cycle Q Clear(g_c), s	3.2	9.5	16.2	10.9	12.9	2.3	11.2	6.3	7.0	2.2	5.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	96	545	745	597	768	653	613	504	428	62	237	222
V/C Ratio(X)	0.77	0.50	0.60	0.83	0.53	0.11	0.83	0.37	0.40	0.79	0.53	0.55
Avail Cap(c_a), veh/h	225	733	905	743	898	764	786	969	824	180	733	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	23.1	15.3	31.4	17.4	14.3	31.2	23.3	23.5	37.7	32.2	32.2
Incr Delay (d2), s/veh	12.4	0.7	0.8	6.4	0.6	0.1	5.7	0.4	0.6	19.7	1.8	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	4.3	5.7	5.1	5.5	0.8	5.1	2.8	2.7	1.3	2.3	2.3
Lane Grp Delay (d), s/veh	49.2	23.8	16.1	37.8	18.0	14.4	36.9	23.7	24.1	57.4	34.0	34.4
Lane Grp LOS	D	C	B	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h		790			975			864			296	
Approach Delay, s/veh		21.8			27.7			31.5			38.0	
Approach LOS		C			C			C			D	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.2	28.1		17.7	37.5		18.0	26.3		6.7	15.0	
Change Period (Y+Rc), s	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s	10.0	31.0		17.0	38.0		18.0	41.0		8.0	31.0	
Max Q Clear Time (g_c+I1), s	5.2	18.2		12.9	14.9		13.2	9.0		4.2	7.2	
Green Ext Time (p_c), s	0.0	4.8		0.7	6.1		0.9	3.0		0.0	2.9	

Intersection Summary												
HCM 2010 Ctrl Delay			28.3									
HCM 2010 LOS			C									

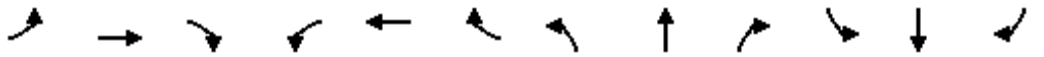
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	370	360	540	240	20	140	5	0	10	5	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	2	1	0	1	1	1	1	1	0
Cap, veh/h	9	571	485	726	869	72	194	311	264	102	98	98
Arrive On Green	0.01	0.31	0.31	0.21	0.51	0.51	0.11	0.17	0.00	0.06	0.11	0.11
Sat Flow, veh/h	1774	1863	1583	3442	1696	141	1774	1863	1583	1774	856	856
Grp Volume(v), veh/h	5	407	396	593	0	286	154	5	0	11	0	10
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1838	1774	1863	1583	1774	0	1712
Q Serve(g_s), s	0.2	13.5	16.1	11.4	0.0	6.3	5.9	0.2	0.0	0.4	0.0	0.4
Cycle Q Clear(g_c), s	0.2	13.5	16.1	11.4	0.0	6.3	5.9	0.2	0.0	0.4	0.0	0.4
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	9	571	485	726	0	941	194	311	264	102	0	196
V/C Ratio(X)	0.53	0.71	0.82	0.82	0.00	0.30	0.79	0.02	0.00	0.11	0.00	0.05
Avail Cap(c_a), veh/h	204	695	591	988	0	1002	305	748	636	204	0	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.6	21.4	22.4	26.2	0.0	9.8	30.3	24.3	0.0	31.2	0.0	27.5
Incr Delay (d2), s/veh	39.6	2.7	7.3	3.9	0.0	0.2	7.3	0.0	0.0	0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	5.9	6.4	4.8	0.0	2.2	3.0	0.1	0.0	0.2	0.0	0.2
Lane Grp Delay (d), s/veh	74.2	24.1	29.7	30.1	0.0	10.0	37.6	24.3	0.0	31.6	0.0	27.6
Lane Grp LOS	E	C	C	C		B	D	C		C		C
Approach Vol, veh/h		808			879			159			21	
Approach Delay, s/veh		27.2			23.6			37.2			29.7	
Approach LOS		C			C			D			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	4.4	26.4		18.7	40.7		11.6	16.6		8.0	13.0	
Change Period (Y+Rc), s	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s	8.0	26.0		20.0	38.0		12.0	28.0		8.0	24.0	
Max Q Clear Time (g_c+I1), s	2.2	18.1		13.4	8.3		7.9	2.2		2.4	2.4	
Green Ext Time (p_c), s	0.0	3.2		1.3	5.6		0.1	0.0		0.0	0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			26.4									
HCM 2010 LOS			C									

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	220	100	220	140	30	80	130	460	60	70	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	2	1	0	1	1	1	1	1	0
Cap, veh/h	19	306	139	346	508	109	118	674	573	87	553	76
Arrive On Green	0.01	0.25	0.25	0.10	0.34	0.34	0.07	0.36	0.36	0.05	0.34	0.34
Sat Flow, veh/h	1774	1212	553	3442	1488	318	1774	1863	1583	1774	1603	220
Grp Volume(v), veh/h	11	0	364	250	0	193	91	148	523	68	0	91
Grp Sat Flow(s),veh/h/ln	1774	0	1765	1721	0	1807	1774	1863	1583	1774	0	1824
Q Serve(g_s), s	0.5	0.0	14.8	5.4	0.0	6.0	3.8	4.2	24.0	2.9	0.0	2.6
Cycle Q Clear(g_c), s	0.5	0.0	14.8	5.4	0.0	6.0	3.8	4.2	24.0	2.9	0.0	2.6
Prop In Lane	1.00		0.31	1.00		0.18	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	19	0	445	346	0	617	118	674	573	87	0	629
V/C Ratio(X)	0.57	0.00	0.82	0.72	0.00	0.31	0.77	0.22	0.91	0.78	0.00	0.14
Avail Cap(c_a), veh/h	186	0	695	542	0	807	256	758	645	210	0	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	26.8	33.2	0.0	18.5	35.0	16.8	23.2	35.8	0.0	17.2
Incr Delay (d2), s/veh	23.6	0.0	4.4	2.9	0.0	0.3	10.2	0.2	16.4	13.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	6.3	2.3	0.0	2.4	2.0	1.8	10.7	1.6	0.0	1.1
Lane Grp Delay (d), s/veh	61.1	0.0	31.2	36.1	0.0	18.8	45.2	17.0	39.5	49.4	0.0	17.3
Lane Grp LOS	E		C	D		B	D	B	D	D		B
Approach Vol, veh/h		375			443			762			159	
Approach Delay, s/veh		32.1			28.5			35.8			31.1	
Approach LOS		C			C			D			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	4.8	24.2		11.7	31.0		9.1	32.6		7.8	31.3	
Change Period (Y+Rc), s	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s	8.0	30.0		12.0	34.0		11.0	31.0		9.0	29.0	
Max Q Clear Time (g_c+I1), s	2.5	16.8		7.4	8.0		5.8	26.0		4.9	4.6	
Green Ext Time (p_c), s	0.0	2.4		0.3	3.0		0.1	1.6		0.0	3.3	

Intersection Summary			
HCM 2010 Ctrl Delay		32.7	
HCM 2010 LOS		C	

Notes

Intersection	
Intersection Delay, s/veh	20.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	140	20	80	50	40	10	20	330	20	10	170	60
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	177	25	101	63	51	13	25	418	25	13	215	76
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	17.3	12.7	29.1	13.7
HCM LOS	C	B	D	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	5%	58%	50%	6%	0%
Vol Thru, %	89%	8%	40%	94%	0%
Vol Right, %	5%	33%	10%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	240	100	180	60
LT Vol	330	20	40	170	0
Through Vol	20	80	10	0	60
RT Vol	20	140	50	10	0
Lane Flow Rate	468	304	127	228	76
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.797	0.55	0.252	0.437	0.13
Departure Headway (Hd)	6.123	6.517	7.166	6.908	6.163
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	590	553	499	519	579
Service Time	4.171	4.573	5.239	4.666	3.921
HCM Lane V/C Ratio	0.793	0.55	0.255	0.439	0.131
HCM Control Delay	29.1	17.3	12.7	15	9.8
HCM Lane LOS	D	C	B	B	A
HCM 95th-tile Q	7.7	3.3	1	2.2	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	170	60	370	210	190	300
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1
Cap, veh/h	330	301	608	517	277	1075
Arrive On Green	0.19	0.19	0.33	0.33	0.16	0.58
Sat Flow, veh/h	1774	1615	1863	1583	1774	1863
Grp Volume(v), veh/h	254	1	416	236	213	337
Grp Sat Flow(s),veh/h/ln	1774	1615	1863	1583	1774	1863
Q Serve(g_s), s	5.7	0.0	8.2	5.0	4.9	3.9
Cycle Q Clear(g_c), s	5.7	0.0	8.2	5.0	4.9	3.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	330	301	608	517	277	1075
V/C Ratio(X)	0.77	0.00	0.68	0.46	0.77	0.31
Avail Cap(c_a), veh/h	883	803	927	788	588	1721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	14.0	12.3	11.3	17.1	4.6
Incr Delay (d2), s/veh	3.8	0.0	1.4	0.6	4.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.3	0.0	2.9	1.5	2.0	0.8
Lane Grp Delay (d), s/veh	20.1	14.0	13.7	11.9	21.6	4.8
Lane Grp LOS	C	B	B	B	C	A
Approach Vol, veh/h	255		652			550
Approach Delay, s/veh	20.0		13.1			11.3
Approach LOS	C		B			B

Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			18.8		10.6	29.4
Change Period (Y+Rc), s			5.0		4.0	5.0
Max Green Setting (Gmax), s			21.0		14.0	39.0
Max Q Clear Time (g_c+I1), s			10.2		6.9	5.9
Green Ext Time (p_c), s			3.6		0.3	5.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Notes
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	50	40	60	490	370	100
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	0
Cap, veh/h	243	221	97	1140	646	175
Arrive On Green	0.14	0.14	0.05	0.61	0.46	0.46
Sat Flow, veh/h	1774	1615	1774	1863	1412	383
Grp Volume(v), veh/h	103	1	71	576	0	553
Grp Sat Flow(s),veh/h/ln	1774	1615	1774	1863	0	1795
Q Serve(g_s), s	2.1	0.0	1.6	6.9	0.0	9.6
Cycle Q Clear(g_c), s	2.1	0.0	1.6	6.9	0.0	9.6
Prop In Lane	1.00	1.00	1.00			0.21
Lane Grp Cap(c), veh/h	243	221	97	1140	0	821
V/C Ratio(X)	0.42	0.00	0.73	0.51	0.00	0.67
Avail Cap(c_a), veh/h	1023	932	445	2196	0	1486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	14.9	18.6	4.3	0.0	8.5
Incr Delay (d2), s/veh	1.2	0.0	10.1	0.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	0.8	1.2	0.0	2.5
Lane Grp Delay (d), s/veh	16.9	14.9	28.7	4.7	0.0	9.5
Lane Grp LOS	B	B	C	A		A
Approach Vol, veh/h	104			647	553	
Approach Delay, s/veh	16.9			7.3	9.5	
Approach LOS	B			A	A	

Timer						
Assigned Phs			5	2	6	
Phs Duration (G+Y+Rc), s			6.2	29.4	23.2	
Change Period (Y+Rc), s			4.0	5.0	5.0	
Max Green Setting (Gmax), s			10.0	47.0	33.0	
Max Q Clear Time (g_c+I1), s			3.6	8.9	11.6	
Green Ext Time (p_c), s			0.1	7.6	6.6	

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	30	20	10	20	50	10	60	10	80	210	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	44	29	15	29	74	15	88	15	118	309	74

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	757	713	346	743	743	96	382	0	0	103	0	0
Stage 1	581	581	-	125	125	-	-	-	-	-	-	-
Stage 2	176	132	-	618	618	-	-	-	-	-	-	-
Follow-up Headway	4	4	3	4	4	3	2	-	-	2	-	-
Pot Capacity-1 Maneuver	324	357	697	331	343	960	1176	-	-	1489	-	-
Stage 1	499	500	-	879	792	-	-	-	-	-	-	-
Stage 2	826	787	-	477	481	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	253	316	697	259	304	960	1176	-	-	1489	-	-
Mov Capacity-2 Maneuver	253	316	-	259	304	-	-	-	-	-	-	-
Stage 1	492	449	-	867	781	-	-	-	-	-	-	-
Stage 2	724	776	-	370	432	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24	14	1	2

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1176	-	-	319	511	1489	-	-
HCM Lane V/C Ratio	0.013	-	-	0.415	0.23	0.079	-	-
HCM Control Delay (s)	8.1	0	-	24.1	14.1	7.625	0	-
HCM Lane LOS	A	A		C	B	A	A	
HCM 95th %tile Q(veh)	0.038	-	-	1.962	0.881	0.257	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	330	10	40	610	60	10	20	70	170	20	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	0	1	0	1	1	1
Cap, veh/h	350	1852	787	532	1852	787	95	132	356	453	582	494
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	606	3725	1583	923	3725	1583	63	423	1140	1263	1863	1583
Grp Volume(v), veh/h	82	452	14	55	836	82	137	0	0	233	27	151
Grp Sat Flow(s),veh/h/ln	606	1863	1583	923	1863	1583	1627	0	0	1263	1863	1583
Q Serve(g_s), s	5.3	3.6	0.2	1.9	7.6	1.4	0.0	0.0	0.0	8.9	0.5	3.8
Cycle Q Clear(g_c), s	13.0	3.6	0.2	5.5	7.6	1.4	3.2	0.0	0.0	12.1	0.5	3.8
Prop In Lane	1.00		1.00	1.00		1.00	0.10		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	350	1852	787	532	1852	787	584	0	0	453	582	494
V/C Ratio(X)	0.23	0.24	0.02	0.10	0.45	0.10	0.23	0.00	0.00	0.51	0.05	0.31
Avail Cap(c_a), veh/h	511	2842	1208	777	2842	1208	1295	0	0	1022	1421	1208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	7.5	6.7	9.1	8.6	7.0	13.5	0.0	0.0	18.1	12.6	13.7
Incr Delay (d2), s/veh	0.3	0.1	0.0	0.1	0.2	0.1	0.2	0.0	0.0	0.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	1.4	0.1	0.4	2.9	0.5	1.3	0.0	0.0	2.7	0.2	1.4
Lane Grp Delay (d), s/veh	13.1	7.6	6.7	9.2	8.7	7.1	13.7	0.0	0.0	19.0	12.6	14.1
Lane Grp LOS	B	A	A	A	A	A	B			B	B	B
Approach Vol, veh/h		548			973			137			411	
Approach Delay, s/veh		8.4			8.6			13.7			16.7	
Approach LOS		A			A			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		31.1			31.1			21.4			21.4	
Change Period (Y+Rc), s		5.0			5.0			5.0			5.0	
Max Green Setting (Gmax), s		40.0			40.0			40.0			40.0	
Max Q Clear Time (g_c+I1), s		15.0			9.6			5.2			14.1	
Green Ext Time (p_c), s		11.1			12.1			2.3			2.2	

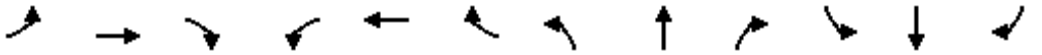
Intersection Summary												
HCM 2010 Ctrl Delay			10.5									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	810	230	60	40	90	190	150	530	220	710	280	750
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	880	250	65	43	98	0	163	576	239	772	304	0
Adj No. of Lanes	3	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1032	943	422	101	317	142	241	1211	377	871	2143	667
Arrive On Green	0.21	0.27	0.27	0.03	0.09	0.00	0.07	0.24	0.24	0.25	0.42	0.00
Sat Flow, veh/h	5003	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	880	250	65	43	98	0	163	576	239	772	304	0
Grp Sat Flow(s),veh/h/ln	1668	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	15.1	5.0	2.8	1.1	2.3	0.0	4.1	8.7	12.1	19.3	3.3	0.0
Cycle Q Clear(g_c), s	15.1	5.0	2.8	1.1	2.3	0.0	4.1	8.7	12.1	19.3	3.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1032	943	422	101	317	142	241	1211	377	871	2143	667
V/C Ratio(X)	0.85	0.27	0.15	0.43	0.31	0.00	0.68	0.48	0.63	0.89	0.14	0.00
Avail Cap(c_a), veh/h	1148	2100	940	328	1625	727	482	2221	691	983	2961	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.1	25.9	25.1	42.6	38.1	0.0	40.5	29.2	30.5	32.1	15.9	0.0
Incr Delay (d2), s/veh	5.9	0.1	0.2	2.8	0.5	0.0	3.3	0.3	1.8	9.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.5	2.5	1.2	0.6	1.2	0.0	2.1	4.1	5.4	10.2	1.5	0.0
LnGrp Delay(d),s/veh	40.0	26.0	25.2	45.4	38.6	0.0	43.8	29.5	32.3	41.2	15.9	0.0
LnGrp LOS	D	C	C	D	D		D	C	C	D	B	
Approach Vol, veh/h		1195			141			978			1076	
Approach Delay, s/veh		36.3			40.7			32.6			34.0	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.1	26.3	7.1	28.8	10.8	42.6	22.9	13.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	25.5	39.0	8.5	53.0	12.5	52.0	20.5	41.0
Max Q Clear Time (g_c+I1), s	21.3	14.1	3.1	7.0	6.1	5.3	17.1	4.3
Green Ext Time (p_c), s	1.3	7.2	0.0	2.7	0.2	8.1	1.3	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C



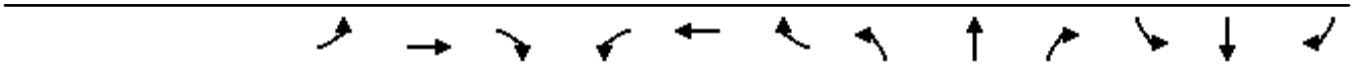
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1100	0	550	0	450	130	0	850	50
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1382	0	399	0	489	0	0	924	0
Adj No. of Lanes				2	0	1	0	3	1	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1700	0	759	0	1654	515	0	1654	515
Arrive On Green				0.48	0.00	0.48	0.00	0.33	0.00	0.00	0.33	0.00
Sat Flow, veh/h				3548	0	1583	0	5253	1583	0	5253	1583
Grp Volume(v), veh/h				1382	0	399	0	489	0	0	924	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1695	1583	0	1695	1583
Q Serve(g_s), s				17.0	0.0	9.0	0.0	3.7	0.0	0.0	7.7	0.0
Cycle Q Clear(g_c), s				17.0	0.0	9.0	0.0	3.7	0.0	0.0	7.7	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1700	0	759	0	1654	515	0	1654	515
V/C Ratio(X)				0.81	0.00	0.53	0.00	0.30	0.00	0.00	0.56	0.00
Avail Cap(c_a), veh/h				2013	0	899	0	2090	651	0	2090	651
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.4	0.0	9.3	0.0	12.9	0.0	0.0	14.2	0.0
Incr Delay (d2), s/veh				2.3	0.0	0.6	0.0	0.1	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln				8.8	0.0	4.0	0.0	1.7	0.0	0.0	3.6	0.0
LnGrp Delay(d),s/veh				13.6	0.0	9.8	0.0	13.0	0.0	0.0	14.5	0.0
LnGrp LOS				B		A		B			B	
Approach Vol, veh/h					1781			489			924	
Approach Delay, s/veh					12.8			13.0			14.5	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		21.6				21.6		29.5
Change Period (Y+Rc), s		5.0				5.0		5.0
Max Green Setting (Gmax), s		21.0				21.0		29.0
Max Q Clear Time (g_c+I1), s		5.7				9.7		19.0
Green Ext Time (p_c), s		8.6				7.0		5.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	0	240	0	0	0	0	550	980	0	1500	450
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h	33	0	261				0	598	0	0	1630	0
Adj No. of Lanes	1	0	1				0	3	1	0	3	1
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	372	0	332				0	2913	907	0	2913	907
Arrive On Green	0.21	0.00	0.21				0.00	0.57	0.00	0.00	0.57	0.00
Sat Flow, veh/h	1774	0	1583				0	5253	1583	0	5253	1583
Grp Volume(v), veh/h	33	0	261				0	598	0	0	1630	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1583	0	1695	1583
Q Serve(g_s), s	0.7	0.0	7.2				0.0	2.6	0.0	0.0	9.3	0.0
Cycle Q Clear(g_c), s	0.7	0.0	7.2				0.0	2.6	0.0	0.0	9.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	372	0	332				0	2913	907	0	2913	907
V/C Ratio(X)	0.09	0.00	0.79				0.00	0.21	0.00	0.00	0.56	0.00
Avail Cap(c_a), veh/h	733	0	655				0	3431	1068	0	3431	1068
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.6	0.0	17.2				0.0	4.8	0.0	0.0	6.2	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.1				0.0	0.0	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	0.0	3.5				0.0	1.2	0.0	0.0	4.3	0.0
LnGrp Delay(d),s/veh	14.7	0.0	21.3				0.0	4.8	0.0	0.0	6.3	0.0
LnGrp LOS	B		C					A			A	
Approach Vol, veh/h		294						598			1630	
Approach Delay, s/veh		20.6						4.8			6.3	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		31.3		14.6		31.3		
Change Period (Y+Rc), s		5.0		5.0		5.0		
Max Green Setting (Gmax), s		31.0		19.0		31.0		
Max Q Clear Time (g_c+I1), s		4.6		9.2		11.3		
Green Ext Time (p_c), s		18.8		0.7		15.1		

Intersection Summary	
HCM 2010 Ctrl Delay	7.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	420	590	180	290	20	460	150	360	60	130	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	2	1	1	2	1	1	1	2	0
Cap, veh/h	88	678	864	282	738	628	626	563	479	88	471	138
Arrive On Green	0.05	0.36	0.36	0.08	0.40	0.40	0.18	0.30	0.30	0.05	0.17	0.17
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	3442	1863	1583	1774	2768	814
Grp Volume(v), veh/h	68	477	670	205	330	23	523	170	409	68	98	95
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1721	1863	1583	1774	1863	1719
Q Serve(g_s), s	3.4	19.5	29.7	5.2	11.6	0.8	13.1	6.2	21.6	3.4	4.1	4.3
Cycle Q Clear(g_c), s	3.4	19.5	29.7	5.2	11.6	0.8	13.1	6.2	21.6	3.4	4.1	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	88	678	864	282	738	628	626	563	479	88	317	293
V/C Ratio(X)	0.77	0.70	0.78	0.73	0.45	0.04	0.84	0.30	0.85	0.77	0.31	0.33
Avail Cap(c_a), veh/h	199	690	874	386	738	628	850	920	782	199	669	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	24.2	15.9	39.9	19.7	16.5	35.2	23.8	29.2	41.8	32.4	32.5
Incr Delay (d2), s/veh	13.4	3.2	4.4	4.3	0.4	0.0	5.4	0.3	5.1	13.4	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	9.1	11.2	2.4	5.0	0.3	5.9	2.8	8.8	1.8	1.9	1.8
Lane Grp Delay (d), s/veh	55.3	27.4	20.3	44.2	20.1	16.5	40.6	24.1	34.4	55.3	32.9	33.1
Lane Grp LOS	E	C	C	D	C	B	D	C	C	E	C	C
Approach Vol, veh/h		1215			558			1102			261	
Approach Delay, s/veh		25.0			28.8			35.7			38.8	
Approach LOS		C			C			D			D	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.4	37.4		11.3	40.3		20.2	31.9		8.4	20.2	
Change Period (Y+Rc), s	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s	10.0	33.0		10.0	33.0		22.0	44.0		10.0	32.0	
Max Q Clear Time (g_c+I1), s	5.4	31.7		7.2	13.6		15.1	23.6		5.4	6.3	
Green Ext Time (p_c), s	0.0	0.7		0.2	7.7		1.1	3.3		0.0	3.5	

Intersection Summary												
HCM 2010 Ctrl Delay			30.6									
HCM 2010 LOS			C									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	250	260	440	350	10	370	5	0	20	5	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	2	1	0	1	1	1	1	1	0
Cap, veh/h	11	441	375	620	741	20	477	591	502	86	83	83
Arrive On Green	0.01	0.24	0.24	0.18	0.41	0.41	0.27	0.32	0.00	0.05	0.10	0.10
Sat Flow, veh/h	1774	1863	1583	3442	1805	49	1774	1863	1583	1774	856	856
Grp Volume(v), veh/h	6	287	299	506	0	413	425	6	0	23	0	12
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1854	1774	1863	1583	1774	0	1712
Q Serve(g_s), s	0.3	11.5	14.7	11.7	0.0	14.0	19.0	0.2	0.0	1.0	0.0	0.5
Cycle Q Clear(g_c), s	0.3	11.5	14.7	11.7	0.0	14.0	19.0	0.2	0.0	1.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	11	441	375	620	0	761	477	591	502	86	0	166
V/C Ratio(X)	0.54	0.65	0.80	0.82	0.00	0.54	0.89	0.01	0.00	0.27	0.00	0.07
Avail Cap(c_a), veh/h	215	541	460	916	0	807	751	1149	977	215	0	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.0	28.5	29.7	32.6	0.0	18.5	29.1	19.3	0.0	37.9	0.0	34.0
Incr Delay (d2), s/veh	35.7	2.0	7.9	3.7	0.0	0.7	8.4	0.0	0.0	1.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	5.2	6.1	5.0	0.0	5.6	9.5	0.1	0.0	0.5	0.0	0.2
Lane Grp Delay (d), s/veh	76.6	30.5	37.6	36.3	0.0	19.1	37.5	19.3	0.0	39.6	0.0	34.1
Lane Grp LOS	E	C	D	D		B	D	B		D		C
Approach Vol, veh/h		592			919			431			35	
Approach Delay, s/veh		34.5			28.6			37.3			37.7	
Approach LOS		C			C			D			D	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	4.5	24.6		18.9	38.9		26.2	31.2		8.0	13.0	
Change Period (Y+Rc), s	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s	10.0	24.0		22.0	36.0		35.0	51.0		10.0	26.0	
Max Q Clear Time (g_c+I1), s	2.3	16.7		13.7	16.0		21.0	2.2		3.0	2.5	
Green Ext Time (p_c), s	0.0	2.9		1.2	4.7		1.2	0.1		0.0	0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			32.4									
HCM 2010 LOS			C									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	130	80	530	110	70	160	100	330	80	160	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	2	1	0	1	1	1	1	1	0
Cap, veh/h	20	194	119	722	404	256	219	515	438	113	376	24
Arrive On Green	0.01	0.18	0.18	0.21	0.38	0.38	0.12	0.28	0.28	0.06	0.22	0.22
Sat Flow, veh/h	1774	1079	666	3442	1067	676	1774	1863	1583	1774	1734	110
Grp Volume(v), veh/h	11	0	228	576	0	196	174	109	359	87	0	185
Grp Sat Flow(s),veh/h/ln	1774	0	1745	1721	0	1743	1774	1863	1583	1774	0	1843
Q Serve(g_s), s	0.4	0.0	8.2	10.6	0.0	5.2	6.3	3.0	14.1	3.2	0.0	5.8
Cycle Q Clear(g_c), s	0.4	0.0	8.2	10.6	0.0	5.2	6.3	3.0	14.1	3.2	0.0	5.8
Prop In Lane	1.00		0.38	1.00		0.39	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	20	0	313	722	0	659	219	515	438	113	0	400
V/C Ratio(X)	0.56	0.00	0.73	0.80	0.00	0.30	0.80	0.21	0.82	0.77	0.00	0.46
Avail Cap(c_a), veh/h	213	0	604	1087	0	944	373	784	667	267	0	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	25.8	24.9	0.0	14.5	28.3	18.5	22.5	30.7	0.0	22.7
Incr Delay (d2), s/veh	22.7	0.0	3.2	2.5	0.0	0.2	6.5	0.2	4.9	10.7	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	3.4	4.3	0.0	1.9	3.1	1.3	5.3	1.7	0.0	2.6
Lane Grp Delay (d), s/veh	55.4	0.0	29.0	27.4	0.0	14.7	34.8	18.7	27.4	41.3	0.0	23.5
Lane Grp LOS	E		C	C		B	C	B	C	D		C
Approach Vol, veh/h		239			772			642			272	
Approach Delay, s/veh		30.2			24.2			27.9			29.2	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	4.7	16.9		18.0	30.1		12.2	23.4		8.2	19.4	
Change Period (Y+Rc), s	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	
Max Green Setting (Gmax), s	8.0	23.0		21.0	36.0		14.0	28.0		10.0	24.0	
Max Q Clear Time (g_c+I1), s	2.4	10.2		12.6	7.2		8.3	16.1		5.2	7.8	
Green Ext Time (p_c), s	0.0	1.7		1.4	2.2		0.2	2.3		0.1	2.6	

Intersection Summary			
HCM 2010 Ctrl Delay		26.9	
HCM 2010 LOS		C	

Notes

Intersection	
Intersection Delay, s/veh	24.1
Intersection LOS	C

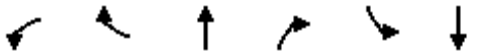
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	40	40	30	20	10	90	290	60	10	380	150
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	48	48	36	24	12	107	345	71	12	452	179
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	13.2	11.7	30.8	22.9
HCM LOS	B	B	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	20%	43%	50%	3%	0%
Vol Thru, %	66%	29%	33%	97%	0%
Vol Right, %	14%	29%	17%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	440	140	60	390	150
LT Vol	290	40	20	380	0
Through Vol	60	40	10	0	150
RT Vol	90	60	30	10	0
Lane Flow Rate	524	167	71	464	179
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.83	0.322	0.148	0.785	0.266
Departure Headway (Hd)	5.704	6.959	7.434	6.086	5.361
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	629	520	484	590	663
Service Time	3.796	4.966	5.445	3.882	3.157
HCM Lane V/C Ratio	0.833	0.321	0.147	0.786	0.27
HCM Control Delay	30.8	13.2	11.7	27.8	10.1
HCM Lane LOS	D	B	B	D	B
HCM 95th-tile Q	8.8	1.4	0.5	7.4	1.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	250	290	430	300	110	470
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1
Cap, veh/h	655	597	638	543	161	912
Arrive On Green	0.37	0.37	0.34	0.34	0.09	0.49
Sat Flow, veh/h	1774	1615	1863	1583	1774	1863
Grp Volume(v), veh/h	598	1	494	345	126	540
Grp Sat Flow(s),veh/h/ln	1774	1615	1863	1583	1774	1863
Q Serve(g_s), s	22.7	0.0	16.8	13.0	4.9	14.8
Cycle Q Clear(g_c), s	22.7	0.0	16.8	13.0	4.9	14.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	655	597	638	543	161	912
V/C Ratio(X)	0.91	0.00	0.77	0.64	0.78	0.59
Avail Cap(c_a), veh/h	875	797	814	692	250	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	14.1	20.9	19.6	31.6	13.0
Incr Delay (d2), s/veh	11.2	0.0	3.6	1.2	8.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	10.5	0.0	7.2	4.6	2.4	5.6
Lane Grp Delay (d), s/veh	32.5	14.1	24.4	20.8	40.0	13.6
Lane Grp LOS	C	B	C	C	D	B
Approach Vol, veh/h	599		839			666
Approach Delay, s/veh	32.4		23.0			18.6
Approach LOS	C		C			B

Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			29.3		10.4	39.7
Change Period (Y+Rc), s			5.0		4.0	5.0
Max Green Setting (Gmax), s			31.0		10.0	45.0
Max Q Clear Time (g_c+I1), s			18.8		6.9	16.8
Green Ext Time (p_c), s			5.5		0.1	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	180	60	50	520	590	80
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	0
Cap, veh/h	332	302	75	1167	819	111
Arrive On Green	0.19	0.19	0.04	0.63	0.51	0.51
Sat Flow, veh/h	1774	1615	1774	1863	1606	218
Grp Volume(v), veh/h	265	1	56	584	0	753
Grp Sat Flow(s),veh/h/ln	1774	1615	1774	1863	0	1824
Q Serve(g_s), s	7.6	0.0	1.7	9.1	0.0	18.5
Cycle Q Clear(g_c), s	7.6	0.0	1.7	9.1	0.0	18.5
Prop In Lane	1.00	1.00	1.00			0.12
Lane Grp Cap(c), veh/h	332	302	75	1167	0	930
V/C Ratio(X)	0.80	0.00	0.75	0.50	0.00	0.81
Avail Cap(c_a), veh/h	761	693	265	1633	0	1191
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	17.7	25.4	5.4	0.0	11.0
Incr Delay (d2), s/veh	4.4	0.0	13.7	0.3	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.2	0.0	0.9	2.4	0.0	6.5
Lane Grp Delay (d), s/veh	25.2	17.7	39.1	5.8	0.0	14.3
Lane Grp LOS	C	B	D	A		B
Approach Vol, veh/h	266			640	753	
Approach Delay, s/veh	25.2			8.7	14.3	
Approach LOS	C			A	B	

Timer						
Assigned Phs			5	2	6	
Phs Duration (G+Y+Rc), s			6.3	38.6	32.3	
Change Period (Y+Rc), s			4.0	5.0	5.0	
Max Green Setting (Gmax), s			8.0	47.0	35.0	
Max Q Clear Time (g_c+I1), s			3.7	11.1	20.5	
Green Ext Time (p_c), s			0.0	9.8	6.8	

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	50	40	10	10	40	70	20	280	10	50	100	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	49	12	12	49	85	24	341	12	61	122	49

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	731	670	146	695	689	348	171	0	0	354	0	0
Stage 1	268	268	-	396	396	-	-	-	-	-	-	-
Stage 2	463	402	-	299	293	-	-	-	-	-	-	-
Follow-up Headway	4	4	3	4	4	3	2	-	-	2	-	-
Pot Capacity-1 Maneuver	337	378	901	357	369	695	1406	-	-	1205	-	-
Stage 1	738	687	-	629	604	-	-	-	-	-	-	-
Stage 2	579	600	-	710	670	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	248	349	901	297	341	695	1406	-	-	1205	-	-
Mov Capacity-2 Maneuver	248	349	-	297	341	-	-	-	-	-	-	-
Stage 1	723	649	-	616	591	-	-	-	-	-	-	-
Stage 2	456	587	-	611	632	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24	16	0	2

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1406	-	-	306	477	1205	-	-
HCM Lane V/C Ratio	0.017	-	-	0.399	0.307	0.051	-	-
HCM Control Delay (s)	7.606	0	-	24.3	15.9	8.147	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.053	-	-	1.841	1.288	0.16	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	610	10	50	430	120	10	20	30	110	10	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	0	1	2	0	0	1	0	1	1	1
Cap, veh/h	554	1964	33	523	1510	420	134	145	171	420	383	325
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	827	3653	62	771	2808	780	125	707	832	1346	1863	1583
Grp Volume(v), veh/h	160	331	329	53	302	283	64	0	0	117	11	74
Grp Sat Flow(s),veh/h/ln	827	1863	1852	771	1863	1725	1663	0	0	1346	1863	1583
Q Serve(g_s), s	5.2	3.9	3.9	1.6	3.5	3.5	0.0	0.0	0.0	3.1	0.2	1.5
Cycle Q Clear(g_c), s	8.7	3.9	3.9	5.5	3.5	3.5	1.2	0.0	0.0	4.3	0.2	1.5
Prop In Lane	1.00		0.03	1.00		0.45	0.17		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	554	1002	996	523	1002	928	450	0	0	420	383	325
V/C Ratio(X)	0.29	0.33	0.33	0.10	0.30	0.31	0.14	0.00	0.00	0.28	0.03	0.23
Avail Cap(c_a), veh/h	981	1961	1950	920	1961	1817	1727	0	0	1491	1866	1586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	5.1	5.1	6.6	5.0	5.0	12.8	0.0	0.0	14.5	12.4	12.9
Incr Delay (d2), s/veh	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.0	0.0	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	1.2	1.2	0.2	1.1	1.1	0.4	0.0	0.0	1.0	0.1	0.5
Lane Grp Delay (d), s/veh	7.7	5.3	5.3	6.7	5.1	5.2	12.9	0.0	0.0	14.9	12.4	13.2
Lane Grp LOS	A	A	A	A	A	A	B			B	B	B
Approach Vol, veh/h		820			638			64			202	
Approach Delay, s/veh		5.7			5.3			12.9			14.1	
Approach LOS		A			A			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		25.9			25.9			13.0			13.0	
Change Period (Y+Rc), s		5.0			5.0			5.0			5.0	
Max Green Setting (Gmax), s		41.0			41.0			39.0			39.0	
Max Q Clear Time (g_c+I1), s		10.7			7.5			3.2			6.3	
Green Ext Time (p_c), s		10.2			10.5			1.0			1.0	

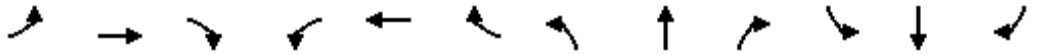
Intersection Summary												
HCM 2010 Ctrl Delay			6.8									
HCM 2010 LOS			A									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1050	180	200	260	290	830	140	200	110	350	570	920
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1141	196	217	283	315	0	152	217	120	380	620	0
Adj No. of Lanes	3	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1397	1166	522	390	578	259	235	912	284	478	1271	396
Arrive On Green	0.28	0.33	0.33	0.11	0.16	0.00	0.07	0.18	0.18	0.14	0.25	0.00
Sat Flow, veh/h	5003	3539	1583	3442	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	1141	196	217	283	315	0	152	217	120	380	620	0
Grp Sat Flow(s),veh/h/ln	1668	1770	1583	1721	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	16.9	3.1	8.5	6.3	6.5	0.0	3.4	2.9	5.3	8.5	8.3	0.0
Cycle Q Clear(g_c), s	16.9	3.1	8.5	6.3	6.5	0.0	3.4	2.9	5.3	8.5	8.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1397	1166	522	390	578	259	235	912	284	478	1271	396
V/C Ratio(X)	0.82	0.17	0.42	0.73	0.55	0.00	0.65	0.24	0.42	0.80	0.49	0.00
Avail Cap(c_a), veh/h	1732	2227	996	801	1826	817	498	2432	757	628	2624	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.7	18.9	20.7	34.0	30.5	0.0	36.1	27.9	28.9	33.1	25.5	0.0
Incr Delay (d2), s/veh	2.6	0.1	0.5	2.6	0.8	0.0	3.0	0.1	1.0	5.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	8.0	1.5	3.8	3.1	3.2	0.0	1.7	1.4	2.4	4.4	3.9	0.0
LnGrp Delay(d),s/veh	29.3	19.0	21.2	36.6	31.3	0.0	39.0	28.1	29.9	38.4	25.7	0.0
LnGrp LOS	C	B	C	D	C		D	C	C	D	C	
Approach Vol, veh/h		1554			598			489			1000	
Approach Delay, s/veh		26.9			33.8			31.9			30.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	19.3	13.5	31.2	9.9	24.9	26.7	18.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	14.5	38.0	18.5	50.0	11.5	41.0	27.5	41.0
Max Q Clear Time (g_c+I1), s	10.5	7.3	8.3	10.5	5.4	10.3	18.9	8.5
Green Ext Time (p_c), s	0.5	6.9	0.7	4.6	0.2	6.9	3.3	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1150	0	470	0	560	280	0	1240	130
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1409	0	341	0	609	0	0	1348	0
Adj No. of Lanes				2	0	1	0	3	1	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1707	0	762	0	1945	605	0	1945	605
Arrive On Green				0.48	0.00	0.48	0.00	0.38	0.00	0.00	0.38	0.00
Sat Flow, veh/h				3548	0	1583	0	5253	1583	0	5253	1583
Grp Volume(v), veh/h				1409	0	341	0	609	0	0	1348	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1695	1583	0	1695	1583
Q Serve(g_s), s				25.0	0.0	10.4	0.0	6.2	0.0	0.0	16.3	0.0
Cycle Q Clear(g_c), s				25.0	0.0	10.4	0.0	6.2	0.0	0.0	16.3	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1707	0	762	0	1945	605	0	1945	605
V/C Ratio(X)				0.83	0.00	0.45	0.00	0.31	0.00	0.00	0.69	0.00
Avail Cap(c_a), veh/h				2374	0	1059	0	2153	670	0	2153	670
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				16.4	0.0	12.6	0.0	15.9	0.0	0.0	19.0	0.0
Incr Delay (d2), s/veh				1.8	0.0	0.4	0.0	0.1	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln				12.6	0.0	4.6	0.0	2.9	0.0	0.0	7.8	0.0
LnGrp Delay(d),s/veh				18.1	0.0	13.0	0.0	16.0	0.0	0.0	19.9	0.0
LnGrp LOS				B		B		B			B	
Approach Vol, veh/h					1750			609			1348	
Approach Delay, s/veh					17.1			16.0			19.9	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		33.0				33.0		40.2
Change Period (Y+Rc), s		5.0				5.0		5.0
Max Green Setting (Gmax), s		31.0				31.0		49.0
Max Q Clear Time (g_c+I1), s		8.2				18.3		27.0
Green Ext Time (p_c), s		15.2				9.7		8.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Notes

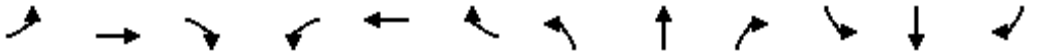
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	0	190	0	0	0	0	790	1290	0	1650	740
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h	54	0	207				0	859	0	0	1793	0
Adj No. of Lanes	1	0	1				0	3	1	0	3	1
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	286	0	255				0	3475	1082	0	3475	1082
Arrive On Green	0.16	0.00	0.16				0.00	0.68	0.00	0.00	0.68	0.00
Sat Flow, veh/h	1774	0	1583				0	5253	1583	0	5253	1583
Grp Volume(v), veh/h	54	0	207				0	859	0	0	1793	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1583	0	1695	1583
Q Serve(g_s), s	1.7	0.0	8.1				0.0	4.1	0.0	0.0	11.1	0.0
Cycle Q Clear(g_c), s	1.7	0.0	8.1				0.0	4.1	0.0	0.0	11.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	286	0	255				0	3475	1082	0	3475	1082
V/C Ratio(X)	0.19	0.00	0.81				0.00	0.25	0.00	0.00	0.52	0.00
Avail Cap(c_a), veh/h	413	0	369				0	4346	1353	0	4346	1353
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	23.3	0.0	26.0				0.0	3.9	0.0	0.0	5.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	8.5				0.0	0.0	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.9	0.0	4.1				0.0	1.9	0.0	0.0	5.0	0.0
LnGrp Delay(d),s/veh	23.7	0.0	34.6				0.0	3.9	0.0	0.0	5.1	0.0
LnGrp LOS	C		C					A			A	
Approach Vol, veh/h		261						859			1793	
Approach Delay, s/veh		32.3						3.9			5.1	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		49.0		15.4		49.0		
Change Period (Y+Rc), s		5.0		5.0		5.0		
Max Green Setting (Gmax), s		55.0		15.0		55.0		
Max Q Clear Time (g_c+I1), s		6.1		10.1		13.1		
Green Ext Time (p_c), s		34.5		0.4		30.9		

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Appendix E-11:
Technical Calculations
Cumulative Plus Project Mitigations –
Intersection Level of Service



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1230	1540	0	1110	820	0	0	0	350	0	60
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1900	1863	1863
Adj Flow Rate, veh/h	0	1337	0	0	1207	0				380	0	65
Adj No. of Lanes	0	2	1	0	3	1				0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	2229	997	0	3202	997				444	0	397
Arrive On Green	0.00	0.63	0.00	0.00	0.63	0.00				0.25	0.00	0.25
Sat Flow, veh/h	0	3632	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	1337	0	0	1207	0				380	0	65
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	17.1	0.0	0.0	8.8	0.0				15.5	0.0	2.4
Cycle Q Clear(g_c), s	0.0	17.1	0.0	0.0	8.8	0.0				15.5	0.0	2.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2229	997	0	3202	997				444	0	397
V/C Ratio(X)	0.00	0.60	0.00	0.00	0.38	0.00				0.86	0.00	0.16
Avail Cap(c_a), veh/h	0	2521	1128	0	3623	1128				860	0	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.4	0.0	0.0	6.8	0.0				27.1	0.0	22.2
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.1	0.0				1.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	8.3	0.0	0.0	4.1	0.0				7.8	0.0	1.1
LnGrp Delay(d),s/veh	0.0	8.7	0.0	0.0	6.9	0.0				29.0	0.0	22.3
LnGrp LOS		A			A					C		C
Approach Vol, veh/h		1337			1207						445	
Approach Delay, s/veh		8.7			6.9						28.0	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		52.7		23.2		52.7		
Change Period (Y+Rc), s		4.9		* 4.2		4.9		
Max Green Setting (Gmax), s		54.1		* 37		54.1		
Max Q Clear Time (g_c+I1), s		19.1		17.5		10.8		
Green Ext Time (p_c), s		28.7		1.5		34.2		

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	270	740	0	0	1270	660	590	0	510	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	293	804	0	0	1380	0	641	0	0			
Adj No. of Lanes	1	2	0	0	2	1	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	333	2377	0	0	1551	694	728	0	325			
Arrive On Green	0.19	0.67	0.00	0.00	0.44	0.00	0.21	0.00	0.00			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	3548	0	1583			
Grp Volume(v), veh/h	293	804	0	0	1380	0	641	0	0			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	12.3	7.4	0.0	0.0	27.4	0.0	13.4	0.0	0.0			
Cycle Q Clear(g_c), s	12.3	7.4	0.0	0.0	27.4	0.0	13.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	333	2377	0	0	1551	694	728	0	325			
V/C Ratio(X)	0.88	0.34	0.00	0.00	0.89	0.00	0.88	0.00	0.00			
Avail Cap(c_a), veh/h	360	2489	0	0	1608	720	785	0	350			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	30.2	5.3	0.0	0.0	19.7	0.0	29.4	0.0	0.0			
Incr Delay (d2), s/veh	19.4	0.0	0.0	0.0	6.1	0.0	10.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	7.8	3.6	0.0	0.0	14.5	0.0	7.5	0.0	0.0			
LnGrp Delay(d),s/veh	49.6	5.4	0.0	0.0	25.9	0.0	39.5	0.0	0.0			
LnGrp LOS	D	A			C		D					
Approach Vol, veh/h		1097			1380			641				
Approach Delay, s/veh		17.2			25.9			39.5				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		56.6			17.8	38.8		19.8
Change Period (Y+Rc), s		5.3			3.5	5.3		4.1
Max Green Setting (Gmax), s		53.7			15.5	34.7		16.9
Max Q Clear Time (g_c+I1), s		9.4			14.3	29.4		15.4
Green Ext Time (p_c), s		15.1			0.1	4.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

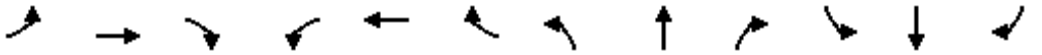
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	810	320	560	430	310	130	20	290	70	10	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	152	880	348	609	467	337	141	22	0	76	11	33
Adj No. of Lanes	1	1	1	2	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	689	586	698	468	337	180	164	139	129	110	94
Arrive On Green	0.11	0.37	0.37	0.20	0.46	0.46	0.10	0.09	0.00	0.07	0.06	0.06
Sat Flow, veh/h	1774	1863	1583	3442	1007	727	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	152	880	348	609	0	804	141	22	0	76	11	33
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1734	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	5.6	25.0	12.0	11.6	0.0	31.3	5.2	0.7	0.0	2.8	0.4	1.4
Cycle Q Clear(g_c), s	5.6	25.0	12.0	11.6	0.0	31.3	5.2	0.7	0.0	2.8	0.4	1.4
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	689	586	698	0	805	180	164	139	129	110	94
V/C Ratio(X)	0.79	1.28	0.59	0.87	0.00	1.00	0.78	0.13	0.00	0.59	0.10	0.35
Avail Cap(c_a), veh/h	341	689	586	713	0	805	315	855	727	446	993	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	21.3	17.2	26.1	0.0	18.1	29.6	28.4	0.0	30.3	30.1	30.5
Incr Delay (d2), s/veh	7.0	135.5	1.6	11.4	0.0	31.4	7.3	0.4	0.0	4.2	0.4	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.1	38.6	5.4	6.6	0.0	21.8	2.9	0.4	0.0	1.5	0.2	0.6
LnGrp Delay(d),s/veh	36.3	156.8	18.8	37.4	0.0	49.5	36.9	28.8	0.0	34.6	30.5	32.8
LnGrp LOS	D	F	B	D		D	D	C		C	C	C
Approach Vol, veh/h		1380			1413			163			120	
Approach Delay, s/veh		108.7			44.3			35.8			33.7	
Approach LOS		F			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	10.9	17.7	30.0	10.9	9.0	11.3	36.4
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	17.0	31.0	14.0	25.0	12.0	36.0	13.0	26.0
Max Q Clear Time (g_c+I1), s	4.8	2.7	13.6	27.0	7.2	3.4	7.6	33.3
Green Ext Time (p_c), s	0.1	0.2	0.1	0.0	0.1	0.2	0.2	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	72.3
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	450	370	50	610	230	510	170	140	200	230	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	33	489	0	54	663	250	554	185	152	217	250	54
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	1128	505	69	1167	522	725	377	320	278	525	235
Arrive On Green	0.03	0.32	0.00	0.04	0.33	0.33	0.21	0.20	0.20	0.16	0.15	0.15
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	3539	1583
Grp Volume(v), veh/h	33	489	0	54	663	250	554	185	152	217	250	54
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1770	1583
Q Serve(g_s), s	1.2	6.9	0.0	1.9	9.8	8.0	9.6	5.6	5.4	7.5	4.1	1.9
Cycle Q Clear(g_c), s	1.2	6.9	0.0	1.9	9.8	8.0	9.6	5.6	5.4	7.5	4.1	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1128	505	69	1167	522	725	377	320	278	525	235
V/C Ratio(X)	0.67	0.43	0.00	0.79	0.57	0.48	0.76	0.49	0.47	0.78	0.48	0.23
Avail Cap(c_a), veh/h	168	1729	774	252	1897	848	1410	998	848	643	1729	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	17.1	0.0	30.2	17.5	16.9	23.6	22.4	22.3	25.7	24.8	23.8
Incr Delay (d2), s/veh	14.5	0.3	0.0	17.6	0.4	0.7	1.7	1.0	1.1	4.7	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	3.4	0.0	1.3	4.9	3.5	4.7	3.0	2.4	4.0	2.1	0.9
LnGrp Delay(d),s/veh	45.1	17.3	0.0	47.9	18.0	17.6	25.3	23.4	23.4	30.5	25.4	24.3
LnGrp LOS	D	B		D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		522			967			891			521	
Approach Delay, s/veh		19.1			19.6			24.6			27.4	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	17.8	6.5	25.2	17.4	14.4	5.8	25.9
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	23.0	34.0	9.0	31.0	26.0	31.0	6.0	34.0
Max Q Clear Time (g_c+I1), s	9.5	7.6	3.9	8.9	11.6	6.1	3.2	11.8
Green Ext Time (p_c), s	0.5	3.3	0.0	9.1	1.8	3.3	0.0	9.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

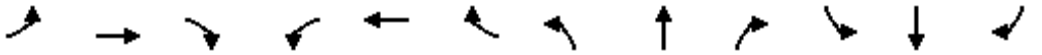
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	290	560	20	50	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	315	609	22	54	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	630	0	-	0	957	620
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	952	-	-	-	286	488
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	952	-	-	-	283	488
Mov Cap-2 Maneuver	-	-	-	-	404	-
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	715	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	952	-	-	-	432
HCM Lane V/C Ratio	0.011	-	-	-	0.201
HCM Control Delay (s)	8.8	-	-	-	15.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	210	130	240	200	150	30	690	40	50	350	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	43	228	141	261	217	163	33	750	43	54	380	11
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	493	305	426	452	340	110	980	56	68	875	25
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.06	0.29	0.29	0.04	0.25	0.25
Sat Flow, veh/h	999	1078	667	1009	989	743	1774	3403	195	1774	3513	102
Grp Volume(v), veh/h	43	0	369	261	0	380	33	390	403	54	191	200
Grp Sat Flow(s),veh/h/ln	999	0	1745	1009	0	1732	1774	1770	1828	1774	1770	1845
Q Serve(g_s), s	2.0	0.0	9.4	15.5	0.0	9.9	1.2	13.0	13.0	2.0	5.9	5.9
Cycle Q Clear(g_c), s	11.9	0.0	9.4	25.0	0.0	9.9	1.2	13.0	13.0	2.0	5.9	5.9
Prop In Lane	1.00		0.38	1.00		0.43	1.00		0.11	1.00		0.06
Lane Grp Cap(c), veh/h	416	0	798	426	0	792	110	510	527	68	441	460
V/C Ratio(X)	0.10	0.00	0.46	0.61	0.00	0.48	0.30	0.77	0.77	0.79	0.43	0.44
Avail Cap(c_a), veh/h	469	0	890	464	0	857	439	602	622	329	492	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	12.1	20.7	0.0	12.2	29.0	21.0	21.0	30.8	20.4	20.5
Incr Delay (d2), s/veh	0.1	0.0	0.4	2.1	0.0	0.5	1.5	4.9	4.8	18.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.6	0.0	4.6	4.5	0.0	4.7	0.6	7.0	7.2	1.3	2.9	3.1
LnGrp Delay(d),s/veh	16.5	0.0	12.5	22.8	0.0	12.7	30.5	26.0	25.8	49.1	21.1	21.1
LnGrp LOS	B		B	C		B	C	C	C	D	C	C
Approach Vol, veh/h		412			641			826			445	
Approach Delay, s/veh		12.9			16.8			26.1			24.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	23.6		34.6	9.0	21.1		34.6
Change Period (Y+Rc), s	4.0	5.0		* 5	5.0	* 5		5.0
Max Green Setting (Gmax), s	12.0	22.0		* 33	16.0	* 18		32.0
Max Q Clear Time (g_c+I1), s	4.0	15.0		13.9	3.2	7.9		27.0
Green Ext Time (p_c), s	0.0	3.6		6.0	0.0	4.6		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	320	160	890	570	550	750
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	348	174	967	620	598	815
Adj No. of Lanes	1	1	2	1	2	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	408	364	1285	575	706	2249
Arrive On Green	0.23	0.23	0.36	0.36	0.21	0.64
Sat Flow, veh/h	1774	1583	3632	1583	3442	3632
Grp Volume(v), veh/h	348	174	967	620	598	815
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1721	1770
Q Serve(g_s), s	14.0	7.1	17.8	27.0	12.4	8.1
Cycle Q Clear(g_c), s	14.0	7.1	17.8	27.0	12.4	8.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	408	364	1285	575	706	2249
V/C Ratio(X)	0.85	0.48	0.75	1.08	0.85	0.36
Avail Cap(c_a), veh/h	597	532	1285	575	833	2380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	24.8	20.7	23.7	28.4	6.4
Incr Delay (d2), s/veh	7.9	1.0	2.5	60.4	7.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.8	3.2	9.0	21.3	6.6	3.9
LnGrp Delay(d),s/veh	35.3	25.7	23.3	84.0	35.6	6.5
LnGrp LOS	D	C	C	F	D	A
Approach Vol, veh/h	522		1587			1413
Approach Delay, s/veh	32.1		47.0			18.8
Approach LOS	C		D			B

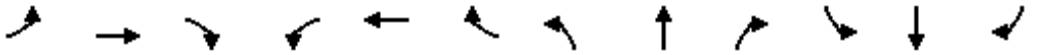
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	20.2	32.0				52.2		22.1
Change Period (Y+Rc), s	5.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	18.0	27.0				50.0		25.0
Max Q Clear Time (g_c+I1), s	14.4	29.0				10.1		16.0
Green Ext Time (p_c), s	0.8	0.0				20.2		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	530	200	850	770	10
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	576	217	924	837	11
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	616	788	267	1715	955	13
Arrive On Green	0.35	0.35	0.15	0.48	0.27	0.27
Sat Flow, veh/h	1774	1583	1774	3632	3670	47
Grp Volume(v), veh/h	11	576	217	924	414	434
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1770	1770	1854
Q Serve(g_s), s	0.2	17.1	7.0	10.8	13.3	13.3
Cycle Q Clear(g_c), s	0.2	17.1	7.0	10.8	13.3	13.3
Prop In Lane	1.00	1.00	1.00			0.03
Lane Grp Cap(c), veh/h	616	788	267	1715	472	495
V/C Ratio(X)	0.02	0.73	0.81	0.54	0.88	0.88
Avail Cap(c_a), veh/h	835	983	358	1903	476	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	11.8	24.5	10.7	20.9	20.9
Incr Delay (d2), s/veh	0.0	2.1	10.0	0.3	16.6	16.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	14.7	4.2	5.3	8.6	8.9
LnGrp Delay(d),s/veh	12.8	13.9	34.5	11.0	37.4	36.8
LnGrp LOS	B	B	C	B	D	D
Approach Vol, veh/h	587			1141	848	
Approach Delay, s/veh	13.9			15.4	37.1	
Approach LOS	B			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		33.8		25.7	13.0	20.9		
Change Period (Y+Rc), s		5.0		5.0	4.0	5.0		
Max Green Setting (Gmax), s		32.0		28.0	12.0	16.0		
Max Q Clear Time (g_c+I1), s		12.8		19.1	9.0	15.3		
Green Ext Time (p_c), s		10.2		1.6	0.2	0.6		

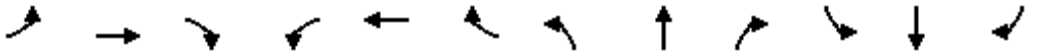
Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	310	1240	90	370	410	70	40	1430	660	190	820	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	1348	98	402	446	76	43	1554	717	207	891	152
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	984	1615	477	489	809	226	584	1884	781	279	1343	388
Arrive On Green	0.29	0.32	0.30	0.14	0.16	0.14	0.17	0.37	0.35	0.08	0.26	0.25
Sat Flow, veh/h	3442	5085	1575	3442	5085	1567	3442	5085	1577	3442	5085	1574
Grp Volume(v), veh/h	337	1348	98	402	446	76	43	1554	717	207	891	152
Grp Sat Flow(s),veh/h/ln	1721	1695	1575	1721	1695	1567	1721	1695	1577	1721	1695	1574
Q Serve(g_s), s	10.5	33.2	3.9	15.3	10.9	4.8	1.4	37.4	47.6	7.9	21.1	10.9
Cycle Q Clear(g_c), s	10.5	33.2	3.9	15.3	10.9	4.8	1.4	37.4	47.6	7.9	21.1	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	984	1615	477	489	809	226	584	1884	781	279	1343	388
V/C Ratio(X)	0.34	0.83	0.21	0.82	0.55	0.34	0.07	0.82	0.92	0.74	0.66	0.39
Avail Cap(c_a), veh/h	984	1733	514	790	2035	604	584	1884	781	280	1959	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	42.8	13.7	56.2	52.3	34.8	47.1	38.5	31.6	60.6	44.3	42.4
Incr Delay (d2), s/veh	0.1	3.7	0.3	1.6	0.9	1.3	0.0	3.3	16.1	8.9	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	5.0	16.2	1.7	7.4	5.2	2.2	0.7	18.0	28.0	4.1	10.0	4.8
LnGrp Delay(d),s/veh	38.2	46.5	14.0	57.9	53.2	36.1	47.1	41.8	47.7	69.6	45.2	43.5
LnGrp LOS	D	D	B	E	D	D	D	D	D	E	D	D
Approach Vol, veh/h		1783			924			2314			1250	
Approach Delay, s/veh		43.1			53.8			43.8			49.0	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	53.0	22.2	45.9	28.3	38.6	43.6	24.5
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	6.4	6.4	6.0	6.0
Max Green Setting (Gmax), s	10.0	46.6	30.0	43.0	5.6	48.6	20.0	51.0
Max Q Clear Time (g_c+I1), s	9.9	49.6	17.3	35.2	3.4	23.1	12.5	12.9
Green Ext Time (p_c), s	0.0	0.0	0.9	4.6	2.1	8.6	5.5	3.9

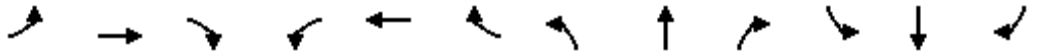
Intersection Summary	
HCM 2010 Ctrl Delay	46.1
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	550	1460	70	180	560	340	160	1250	330	540	1070	650
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	598	1587	76	196	609	370	174	1359	359	587	1163	707
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	1423	68	110	1220	546	98	903	404	232	1172	732
Arrive On Green	0.13	0.41	0.41	0.06	0.34	0.34	0.06	0.26	0.26	0.13	0.33	0.33
Sat Flow, veh/h	1774	3439	164	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	598	813	850	196	609	370	174	1359	359	587	1163	707
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	19.0	60.0	60.0	9.0	19.7	29.0	8.0	37.0	31.7	19.0	47.5	48.0
Cycle Q Clear(g_c), s	19.0	60.0	60.0	9.0	19.7	29.0	8.0	37.0	31.7	19.0	47.5	48.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	732	759	110	1220	546	98	903	404	232	1172	732
V/C Ratio(X)	2.57	1.11	1.12	1.78	0.50	0.68	1.78	1.50	0.89	2.53	0.99	0.97
Avail Cap(c_a), veh/h	232	732	759	110	1220	546	98	903	404	232	1172	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	42.5	42.5	68.0	37.6	40.6	68.5	54.0	52.0	63.0	48.3	37.9
Incr Delay (d2), s/veh	720.1	68.0	70.7	385.0	0.6	4.2	387.9	233.0	21.6	698.9	24.5	25.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	55.8	43.1	45.3	16.2	9.7	13.3	14.5	47.3	16.3	54.4	27.1	32.7
LnGrp Delay(d),s/veh	783.1	110.5	113.2	453.0	38.2	44.8	456.4	287.0	73.6	761.9	72.8	63.3
LnGrp LOS	F	F	F	F	D	D	F	F	E	F	E	E
Approach Vol, veh/h		2261			1175			1892			2457	
Approach Delay, s/veh		289.4			109.5			262.1			234.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	43.0	13.0	66.0	12.0	54.0	23.0	56.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	19.0	37.0	9.0	60.0	8.0	48.0	19.0	50.0
Max Q Clear Time (g_c+I1), s	21.0	39.0	11.0	62.0	10.0	50.0	21.0	31.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.3

Intersection Summary	
HCM 2010 Ctrl Delay	238.3
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	100	150	40	20	100	10	190	10	80	410	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	152	109	163	43	22	109	11	207	11	87	446	22
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	523	203	303	406	82	406	391	682	36	580	685	34
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1254	675	1010	1103	273	1351	921	1753	93	1158	1761	87
Grp Volume(v), veh/h	152	0	272	43	0	131	11	0	218	87	0	468
Grp Sat Flow(s),veh/h/ln	1254	0	1685	1103	0	1624	921	0	1846	1158	0	1847
Q Serve(g_s), s	3.4	0.0	4.3	1.1	0.0	2.0	0.3	0.0	2.6	1.8	0.0	6.7
Cycle Q Clear(g_c), s	5.4	0.0	4.3	5.4	0.0	2.0	7.0	0.0	2.6	4.4	0.0	6.7
Prop In Lane	1.00		0.60	1.00		0.83	1.00		0.05	1.00		0.05
Lane Grp Cap(c), veh/h	523	0	506	406	0	488	391	0	718	580	0	719
V/C Ratio(X)	0.29	0.00	0.54	0.11	0.00	0.27	0.03	0.00	0.30	0.15	0.00	0.65
Avail Cap(c_a), veh/h	847	0	942	691	0	908	662	0	1261	920	0	1262
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	9.4	11.7	0.0	8.6	10.9	0.0	6.8	8.4	0.0	8.0
Incr Delay (d2), s/veh	0.3	0.0	0.9	0.1	0.0	0.3	0.0	0.0	0.2	0.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	0.0	2.1	0.3	0.0	0.9	0.1	0.0	1.4	0.6	0.0	3.6
LnGrp Delay(d),s/veh	10.9	0.0	10.3	11.8	0.0	8.9	10.9	0.0	7.0	8.5	0.0	9.1
LnGrp LOS	B		B	B		A	B		A	A		A
Approach Vol, veh/h		424			174			229			555	
Approach Delay, s/veh		10.5			9.6			7.2			9.0	
Approach LOS		B			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		17.5		14.7		17.5		14.7
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		22.0		18.0		22.0		18.0
Max Q Clear Time (g_c+I1), s		9.0		7.4		8.7		7.4
Green Ext Time (p_c), s		3.5		2.3		3.6		2.3

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	1980	50	340	800	30	50	10	700	90	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	11	2152	54	370	870	33	54	11	761	98	11	11
Adj No. of Lanes	1	2	1	2	2	1	0	1	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	1573	704	421	1968	880	73	8	616	76	5	422
Arrive On Green	0.01	0.44	0.44	0.12	0.56	0.56	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	0	32	1583	0	17	1583
Grp Volume(v), veh/h	11	2152	54	370	870	33	65	0	761	109	0	11
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	32	0	1583	17	0	1583
Q Serve(g_s), s	0.6	40.0	1.8	9.5	13.0	0.9	0.0	0.0	24.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.6	40.0	1.8	9.5	13.0	0.9	24.0	0.0	24.0	24.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	0.83		1.00	0.90		1.00
Lane Grp Cap(c), veh/h	19	1573	704	421	1968	880	82	0	616	81	0	422
V/C Ratio(X)	0.58	1.37	0.08	0.88	0.44	0.04	0.80	0.00	1.24	1.35	0.00	0.03
Avail Cap(c_a), veh/h	217	1573	704	421	1968	880	82	0	616	81	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.3	25.0	14.4	38.8	11.8	9.1	41.9	0.0	27.5	43.6	0.0	24.4
Incr Delay (d2), s/veh	25.0	169.8	0.0	18.8	0.2	0.0	40.6	0.0	119.7	220.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	56.5	0.8	5.6	6.3	0.4	2.5	0.0	30.9	6.9	0.0	0.2
LnGrp Delay(d),s/veh	69.4	194.8	14.4	57.7	11.9	9.1	82.5	0.0	147.2	263.8	0.0	24.4
LnGrp LOS	E	F	B	E	B	A	F		F	F		C
Approach Vol, veh/h		2217			1273			826			120	
Approach Delay, s/veh		189.8			25.1			142.1			241.9	
Approach LOS		F			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.0	16.0	45.0		29.0	6.0	55.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		24.0	11.0	40.0		24.0	11.0	40.0
Max Q Clear Time (g_c+I1), s		26.0	11.5	42.0		26.0	2.6	15.0
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	135.1
HCM 2010 LOS	F

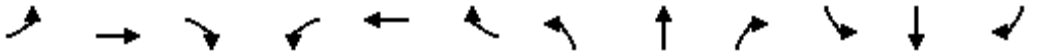
Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	240	550	340	130	600	20	370	320	80	60	560	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	261	598	0	141	652	0	402	348	0	65	609	76
Adj No. of Lanes	2	2	1	2	2	1	3	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	363	1099	492	223	956	428	610	1075	481	83	809	362
Arrive On Green	0.11	0.31	0.00	0.06	0.27	0.00	0.12	0.30	0.00	0.05	0.23	0.23
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	5003	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	261	598	0	141	652	0	402	348	0	65	609	76
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1668	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.4	10.2	0.0	2.9	12.0	0.0	5.6	5.5	0.0	2.6	11.7	1.9
Cycle Q Clear(g_c), s	5.4	10.2	0.0	2.9	12.0	0.0	5.6	5.5	0.0	2.6	11.7	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	1099	492	223	956	428	610	1075	481	83	809	362
V/C Ratio(X)	0.72	0.54	0.00	0.63	0.68	0.00	0.66	0.32	0.00	0.78	0.75	0.21
Avail Cap(c_a), veh/h	566	1357	607	377	1164	521	754	1260	564	194	1115	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	20.9	0.0	33.3	23.8	0.0	30.6	19.6	0.0	34.4	26.2	10.7
Incr Delay (d2), s/veh	2.7	0.4	0.0	2.9	1.2	0.0	1.5	0.2	0.0	14.5	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.7	5.0	0.0	1.5	6.1	0.0	2.7	2.7	0.0	1.6	5.9	0.9
LnGrp Delay(d),s/veh	34.3	21.3	0.0	36.2	25.1	0.0	32.1	19.8	0.0	48.9	28.2	11.0
LnGrp LOS	C	C		D	C		C	B		D	C	B
Approach Vol, veh/h		859			793			750			750	
Approach Delay, s/veh		25.3			27.1			26.4			28.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	27.2	9.7	27.7	13.9	21.7	12.7	24.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	26.0	8.0	28.0	11.0	23.0	12.0	24.0
Max Q Clear Time (g_c+I1), s	4.6	7.5	4.9	12.2	7.6	13.7	7.4	14.0
Green Ext Time (p_c), s	0.0	3.7	0.1	7.7	1.3	3.0	0.4	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	510	10	70	1130	80	10	20	120	210	20	90
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	65	554	11	76	1228	87	11	22	130	228	22	98
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	2137	956	561	2137	956	71	68	306	411	442	376
Arrive On Green	0.60	0.60	0.60	0.60	0.60	0.60	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	416	3539	1583	842	3539	1583	43	285	1288	1230	1863	1583
Grp Volume(v), veh/h	65	554	11	76	1228	87	163	0	0	228	22	98
Grp Sat Flow(s),veh/h/ln	416	1770	1583	842	1770	1583	1615	0	0	1230	1863	1583
Q Serve(g_s), s	7.1	4.6	0.2	2.9	13.2	1.4	0.0	0.0	0.0	5.3	0.6	3.2
Cycle Q Clear(g_c), s	20.3	4.6	0.2	7.6	13.2	1.4	5.3	0.0	0.0	10.7	0.6	3.2
Prop In Lane	1.00		1.00	1.00		1.00	0.07		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	278	2137	956	561	2137	956	444	0	0	411	442	376
V/C Ratio(X)	0.23	0.26	0.01	0.14	0.57	0.09	0.37	0.00	0.00	0.56	0.05	0.26
Avail Cap(c_a), veh/h	324	2530	1132	655	2530	1132	951	0	0	803	1036	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	5.9	5.0	7.6	7.6	5.2	20.3	0.0	0.0	22.3	18.5	19.5
Incr Delay (d2), s/veh	0.4	0.1	0.0	0.1	0.2	0.0	0.5	0.0	0.0	1.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	2.3	0.1	0.7	6.4	0.6	2.5	0.0	0.0	3.8	0.3	1.4
LnGrp Delay(d),s/veh	14.2	5.9	5.0	7.7	7.8	5.3	20.8	0.0	0.0	23.5	18.6	19.9
LnGrp LOS	B	A	A	A	A	A	C			C	B	B
Approach Vol, veh/h		630			1391			163			348	
Approach Delay, s/veh		6.8			7.6			20.8			22.2	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		19.9		43.0		19.9		43.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		35.0		45.0		35.0		45.0
Max Q Clear Time (g_c+I1), s		7.3		22.3		12.7		15.2
Green Ext Time (p_c), s		2.4		15.7		2.3		18.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	430	30	20	1120	90	40	10	20	130	5	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	98	467	33	22	1217	98	43	11	22	141	5	87
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	2180	975	625	2180	975	255	74	93	276	23	118
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	416	3539	1583	894	3539	1583	746	352	448	837	109	564
Grp Volume(v), veh/h	98	467	33	22	1217	98	76	0	0	233	0	0
Grp Sat Flow(s),veh/h/ln	416	1770	1583	894	1770	1583	1546	0	0	1510	0	0
Q Serve(g_s), s	10.3	3.3	0.5	0.6	11.5	1.4	0.0	0.0	0.0	6.0	0.0	0.0
Cycle Q Clear(g_c), s	21.7	3.3	0.5	4.0	11.5	1.4	2.1	0.0	0.0	8.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.57		0.29	0.61		0.37
Lane Grp Cap(c), veh/h	299	2180	975	625	2180	975	421	0	0	416	0	0
V/C Ratio(X)	0.33	0.21	0.03	0.04	0.56	0.10	0.18	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	328	2423	1084	687	2423	1084	904	0	0	904	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.8	4.8	4.3	5.7	6.4	4.5	18.6	0.0	0.0	20.9	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	1.6	0.2	0.2	5.5	0.6	1.0	0.0	0.0	3.5	0.0	0.0
LnGrp Delay(d),s/veh	13.4	4.9	4.3	5.7	6.6	4.5	18.8	0.0	0.0	22.1	0.0	0.0
LnGrp LOS	B	A	A	A	A	A	B			C		
Approach Vol, veh/h		598			1337			76			233	
Approach Delay, s/veh		6.3			6.5			18.8			22.1	
Approach LOS		A			A			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		16.9		40.1		16.9		40.1
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		31.0		39.0		31.0		39.0
Max Q Clear Time (g_c+I1), s		4.1		23.7		10.1		13.5
Green Ext Time (p_c), s		2.0		11.3		1.8		16.6

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

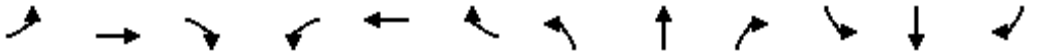
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	10	10	30	10	350	10	520	50	670	400	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	33	11	11	33	11	0	11	565	54	728	435	11
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	78	78	51	169	144	20	967	92	868	1895	48
Arrive On Green	0.03	0.09	0.09	0.03	0.09	0.00	0.01	0.30	0.30	0.25	0.54	0.54
Sat Flow, veh/h	1774	856	856	1774	1863	1583	1774	3266	311	3442	3528	89
Grp Volume(v), veh/h	33	0	22	33	11	0	11	306	313	728	218	228
Grp Sat Flow(s),veh/h/ln	1774	0	1712	1774	1863	1583	1774	1770	1808	1721	1770	1847
Q Serve(g_s), s	1.1	0.0	0.7	1.1	0.3	0.0	0.4	8.4	8.4	11.5	3.7	3.7
Cycle Q Clear(g_c), s	1.1	0.0	0.7	1.1	0.3	0.0	0.4	8.4	8.4	11.5	3.7	3.7
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	51	0	156	51	169	144	20	524	535	868	951	992
V/C Ratio(X)	0.65	0.00	0.14	0.65	0.06	0.00	0.55	0.58	0.59	0.84	0.23	0.23
Avail Cap(c_a), veh/h	124	0	940	127	1010	858	124	913	932	993	1300	1356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	23.9	27.5	23.8	0.0	28.1	17.1	17.1	20.3	7.0	7.0
Incr Delay (d2), s/veh	13.3	0.0	0.4	13.3	0.2	0.0	21.8	1.0	1.0	5.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.7	0.0	0.3	0.7	0.2	0.0	0.3	4.2	4.3	6.2	1.8	1.9
LnGrp Delay(d),s/veh	40.8	0.0	24.4	40.8	23.9	0.0	49.9	18.2	18.2	26.1	7.1	7.1
LnGrp LOS	D		C	D	C		D	B	B	C	A	A
Approach Vol, veh/h		55			44			630			1174	
Approach Delay, s/veh		34.2			36.6			18.7			18.9	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	21.9	6.1	10.2	5.1	35.7	6.1	10.2
Change Period (Y+Rc), s	4.5	5.0	4.5	* 5	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	16.5	29.5	4.1	* 31	4.0	42.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	13.5	10.4	3.1	2.7	2.4	5.7	3.1	2.3
Green Ext Time (p_c), s	1.0	6.5	0.0	0.1	0.0	7.8	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Notes

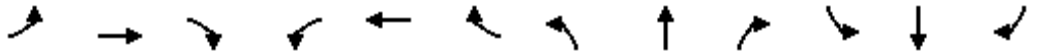
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	780	210	70	90	60	200	180	970	340	590	310	670
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	848	228	76	98	65	0	196	1054	370	641	337	0
Adj No. of Lanes	3	2	1	2	2	1	2	3	1	3	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1040	877	520	164	309	138	277	1676	597	839	2119	660
Arrive On Green	0.21	0.25	0.25	0.05	0.09	0.00	0.08	0.33	0.33	0.17	0.42	0.00
Sat Flow, veh/h	5003	3539	1583	3442	3539	1583	3442	5085	1583	5003	5085	1583
Grp Volume(v), veh/h	848	228	76	98	65	0	196	1054	370	641	337	0
Grp Sat Flow(s),veh/h/ln	1668	1770	1583	1721	1770	1583	1721	1695	1583	1668	1695	1583
Q Serve(g_s), s	14.8	4.7	3.1	2.6	1.6	0.0	5.1	16.1	17.4	11.2	3.8	0.0
Cycle Q Clear(g_c), s	14.8	4.7	3.1	2.6	1.6	0.0	5.1	16.1	17.4	11.2	3.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1040	877	520	164	309	138	277	1676	597	839	2119	660
V/C Ratio(X)	0.82	0.26	0.15	0.60	0.21	0.00	0.71	0.63	0.62	0.76	0.16	0.00
Avail Cap(c_a), veh/h	1338	1855	957	658	1584	709	545	2165	750	1447	2832	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.6	27.7	21.7	42.8	38.9	0.0	41.1	26.0	23.2	36.4	16.7	0.0
Incr Delay (d2), s/veh	3.1	0.2	0.1	3.5	0.3	0.0	3.3	0.4	1.1	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.1	2.3	1.4	1.3	0.8	0.0	2.5	7.6	7.8	5.3	1.8	0.0
LnGrp Delay(d),s/veh	37.7	27.9	21.8	46.2	39.2	0.0	44.4	26.4	24.2	37.9	16.7	0.0
LnGrp LOS	D	C	C	D	D		D	C	C	D	B	
Approach Vol, veh/h		1152			163			1620			978	
Approach Delay, s/veh		34.7			43.4			28.1			30.6	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	35.2	8.9	27.7	11.9	43.2	23.5	13.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	26.5	39.0	17.5	48.0	14.5	51.0	24.5	41.0
Max Q Clear Time (g_c+I1), s	13.2	19.4	4.6	6.7	7.1	5.8	16.8	3.6
Green Ext Time (p_c), s	2.2	10.8	0.2	2.3	0.3	15.5	2.2	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	31.3
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	990	0	1030	0	860	160	0	1300	50
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1431	0	739	0	935	0	0	1413	0
Adj No. of Lanes				2	0	1	0	3	1	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1876	0	837	0	1685	525	0	1685	525
Arrive On Green				0.53	0.00	0.53	0.00	0.33	0.00	0.00	0.33	0.00
Sat Flow, veh/h				3548	0	1583	0	5253	1583	0	5253	1583
Grp Volume(v), veh/h				1431	0	739	0	935	0	0	1413	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1695	1583	0	1695	1583
Q Serve(g_s), s				22.8	0.0	29.5	0.0	10.8	0.0	0.0	18.4	0.0
Cycle Q Clear(g_c), s				22.8	0.0	29.5	0.0	10.8	0.0	0.0	18.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1876	0	837	0	1685	525	0	1685	525
V/C Ratio(X)				0.76	0.00	0.88	0.00	0.55	0.00	0.00	0.84	0.00
Avail Cap(c_a), veh/h				2032	0	907	0	1705	531	0	1705	531
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				13.3	0.0	14.9	0.0	19.6	0.0	0.0	22.2	0.0
Incr Delay (d2), s/veh				1.6	0.0	9.7	0.0	0.4	0.0	0.0	3.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln				11.4	0.0	15.0	0.0	5.1	0.0	0.0	9.1	0.0
LnGrp Delay(d),s/veh				14.9	0.0	24.6	0.0	20.0	0.0	0.0	26.0	0.0
LnGrp LOS				B		C		B			C	
Approach Vol, veh/h					2170			935			1413	
Approach Delay, s/veh					18.2			20.0			26.0	
Approach LOS					B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		28.7				28.7		42.9
Change Period (Y+Rc), s		5.0				5.0		5.0
Max Green Setting (Gmax), s		24.0				24.0		41.0
Max Q Clear Time (g_c+I1), s		12.8				20.4		31.5
Green Ext Time (p_c), s		9.6				3.3		6.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

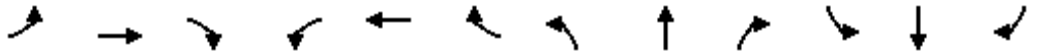
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	0	110	0	0	0	0	970	980	0	1460	830
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h	54	0	120				0	1054	0	0	1587	0
Adj No. of Lanes	1	0	1				0	3	1	0	3	1
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	236	0	211				0	3504	1091	0	3504	1091
Arrive On Green	0.13	0.00	0.13				0.00	0.69	0.00	0.00	0.69	0.00
Sat Flow, veh/h	1774	0	1583				0	5253	1583	0	5253	1583
Grp Volume(v), veh/h	54	0	120				0	1054	0	0	1587	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1583	0	1695	1583
Q Serve(g_s), s	1.5	0.0	4.0				0.0	4.6	0.0	0.0	7.9	0.0
Cycle Q Clear(g_c), s	1.5	0.0	4.0				0.0	4.6	0.0	0.0	7.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	236	0	211				0	3504	1091	0	3504	1091
V/C Ratio(X)	0.23	0.00	0.57				0.00	0.30	0.00	0.00	0.45	0.00
Avail Cap(c_a), veh/h	505	0	451				0	4434	1381	0	4434	1381
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	21.8	0.0	22.9				0.0	3.4	0.0	0.0	3.9	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.4				0.0	0.0	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	1.9				0.0	2.1	0.0	0.0	3.6	0.0
LnGrp Delay(d),s/veh	22.3	0.0	25.3				0.0	3.5	0.0	0.0	4.0	0.0
LnGrp LOS	C		C					A			A	
Approach Vol, veh/h		174						1054			1587	
Approach Delay, s/veh		24.3						3.5			4.0	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		43.7		12.5		43.7		
Change Period (Y+Rc), s		5.0		5.0		5.0		
Max Green Setting (Gmax), s		49.0		16.0		49.0		
Max Q Clear Time (g_c+I1), s		6.6		6.0		9.9		
Green Ext Time (p_c), s		30.6		0.3		28.8		

Intersection Summary	
HCM 2010 Ctrl Delay	5.1
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1030	560	0	2380	390	0	0	0	650	0	240
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1900	1863	1863
Adj Flow Rate, veh/h	0	1073	0	0	2479	0				677	0	250
Adj No. of Lanes	0	2	1	0	3	1				0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2				2	2	2
Cap, veh/h	0	1893	847	0	2720	847				556	0	496
Arrive On Green	0.00	0.53	0.00	0.00	0.53	0.00				0.31	0.00	0.31
Sat Flow, veh/h	0	3632	1583	0	5253	1583				1774	0	1583
Grp Volume(v), veh/h	0	1073	0	0	2479	0				677	0	250
Grp Sat Flow(s),veh/h/ln	0	1770	1583	0	1695	1583				1774	0	1583
Q Serve(g_s), s	0.0	12.1	0.0	0.0	26.5	0.0				18.8	0.0	7.7
Cycle Q Clear(g_c), s	0.0	12.1	0.0	0.0	26.5	0.0				18.8	0.0	7.7
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1893	847	0	2720	847				556	0	496
V/C Ratio(X)	0.00	0.57	0.00	0.00	0.91	0.00				1.22	0.00	0.50
Avail Cap(c_a), veh/h	0	1894	847	0	2722	847				556	0	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	9.3	0.0	0.0	12.7	0.0				20.6	0.0	16.8
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	5.2	0.0				113.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	5.9	0.0	0.0	13.5	0.0				26.6	0.0	3.4
LnGrp Delay(d),s/veh	0.0	9.8	0.0	0.0	17.9	0.0				134.1	0.0	17.1
LnGrp LOS		A			B					F		B
Approach Vol, veh/h		1073			2479						927	
Approach Delay, s/veh		9.8			17.9						102.5	
Approach LOS		A			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		37.0		23.0		37.0		
Change Period (Y+Rc), s		4.9		* 4.2		4.9		
Max Green Setting (Gmax), s		32.1		* 19		32.1		
Max Q Clear Time (g_c+I1), s		14.1		20.8		28.5		
Green Ext Time (p_c), s		17.6		0.0		3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1030	1190	0	0	660	260	170	0	640	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1863	1863	1863			
Adj Flow Rate, veh/h	1120	1293	0	0	717	0	185	0	0			
Adj No. of Lanes	1	2	0	0	2	1	2	0	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1053	3004	0	0	798	357	251	0	112			
Arrive On Green	0.59	0.85	0.00	0.00	0.23	0.00	0.07	0.00	0.00			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	3548	0	1583			
Grp Volume(v), veh/h	1120	1293	0	0	717	0	185	0	0			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1774	0	1583			
Q Serve(g_s), s	69.5	10.2	0.0	0.0	23.0	0.0	6.0	0.0	0.0			
Cycle Q Clear(g_c), s	69.5	10.2	0.0	0.0	23.0	0.0	6.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	1053	3004	0	0	798	357	251	0	112			
V/C Ratio(X)	1.06	0.43	0.00	0.00	0.90	0.00	0.74	0.00	0.00			
Avail Cap(c_a), veh/h	1053	3014	0	0	807	361	1240	0	553			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	23.8	2.1	0.0	0.0	44.0	0.0	53.3	0.0	0.0			
Incr Delay (d2), s/veh	46.2	0.0	0.0	0.0	12.5	0.0	1.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	47.2	4.9	0.0	0.0	12.6	0.0	3.0	0.0	0.0			
LnGrp Delay(d),s/veh	70.0	2.1	0.0	0.0	56.6	0.0	54.9	0.0	0.0			
LnGrp LOS	F	A			E		D					
Approach Vol, veh/h		2413			717			185				
Approach Delay, s/veh		33.7			56.6			54.9				
Approach LOS		C			E			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		104.7			73.0	31.7		12.4
Change Period (Y+Rc), s		5.3			3.5	5.3		4.1
Max Green Setting (Gmax), s		99.7			69.5	26.7		40.9
Max Q Clear Time (g_c+I1), s		12.2			71.5	25.0		8.0
Green Ext Time (p_c), s		14.0			0.0	1.3		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	39.8
HCM 2010 LOS	D

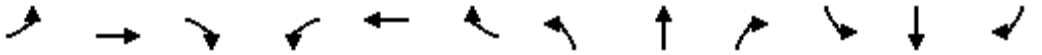
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	500	250	480	510	150	430	20	720	360	30	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	87	543	272	522	554	163	467	22	0	391	33	185
Adj No. of Lanes	1	1	1	2	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	571	485	557	563	166	470	308	262	415	250	213
Arrive On Green	0.06	0.31	0.31	0.16	0.41	0.41	0.26	0.17	0.00	0.23	0.13	0.13
Sat Flow, veh/h	1774	1863	1583	3442	1384	407	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	87	543	272	522	0	717	467	22	0	391	33	185
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1791	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	6.6	38.8	19.6	20.4	0.0	53.8	35.7	1.4	0.0	29.4	2.1	15.6
Cycle Q Clear(g_c), s	6.6	38.8	19.6	20.4	0.0	53.8	35.7	1.4	0.0	29.4	2.1	15.6
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	571	485	557	0	729	470	308	262	415	250	213
V/C Ratio(X)	0.80	0.95	0.56	0.94	0.00	0.98	0.99	0.07	0.00	0.94	0.13	0.87
Avail Cap(c_a), veh/h	157	589	501	557	0	729	470	452	384	444	425	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	46.2	39.5	56.3	0.0	39.8	49.8	47.9	0.0	51.2	51.8	57.6
Incr Delay (d2), s/veh	17.2	25.2	1.3	23.6	0.0	29.1	39.8	0.1	0.0	27.8	0.2	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.8	23.9	8.7	11.5	0.0	32.4	22.6	0.7	0.0	17.7	1.1	7.5
LnGrp Delay(d),s/veh	80.1	71.4	40.8	79.9	0.0	69.0	89.6	48.0	0.0	79.0	52.1	68.7
LnGrp LOS	F	E	D	E		E	F	D		E	D	E
Approach Vol, veh/h		902			1239			489			609	
Approach Delay, s/veh		63.0			73.6			87.8			74.4	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.8	27.5	26.0	46.6	40.0	23.3	12.3	60.3
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	34.0	33.0	22.0	43.0	36.0	31.0	12.0	53.0
Max Q Clear Time (g_c+I1), s	31.4	3.4	22.4	40.8	37.7	17.6	8.6	55.8
Green Ext Time (p_c), s	0.4	0.9	0.0	0.8	0.0	0.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	72.9
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	700	630	50	490	160	370	280	60	170	290	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	42	729	0	52	510	167	385	292	62	177	302	31
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	1166	522	66	1182	529	530	432	367	234	742	332
Arrive On Green	0.03	0.33	0.00	0.04	0.33	0.33	0.15	0.23	0.23	0.13	0.21	0.21
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	1863	1583	1774	3539	1583
Grp Volume(v), veh/h	42	729	0	52	510	167	385	292	62	177	302	31
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1863	1583	1774	1770	1583
Q Serve(g_s), s	1.6	11.6	0.0	1.9	7.5	5.2	7.1	9.5	2.1	6.4	4.9	1.1
Cycle Q Clear(g_c), s	1.6	11.6	0.0	1.9	7.5	5.2	7.1	9.5	2.1	6.4	4.9	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	58	1166	522	66	1182	529	530	432	367	234	742	332
V/C Ratio(X)	0.73	0.63	0.00	0.79	0.43	0.32	0.73	0.68	0.17	0.76	0.41	0.09
Avail Cap(c_a), veh/h	240	1646	736	240	1646	736	1239	978	831	585	1752	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	18.9	0.0	31.8	17.3	16.5	26.9	23.3	20.5	27.9	22.8	21.2
Incr Delay (d2), s/veh	16.1	0.6	0.0	18.6	0.2	0.3	1.9	1.9	0.2	5.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	5.8	0.0	1.3	3.7	2.3	3.5	5.1	0.9	3.5	2.4	0.5
LnGrp Delay(d),s/veh	48.1	19.4	0.0	50.4	17.5	16.9	28.8	25.2	20.7	32.9	23.1	21.4
LnGrp LOS	D	B		D	B	B	C	C	C	C	C	C
Approach Vol, veh/h		771			729			739			510	
Approach Delay, s/veh		21.0			19.7			26.7			26.4	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	20.4	6.5	27.0	14.3	19.0	6.2	27.3
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Green Setting (Gmax), s	22.0	35.0	9.0	31.0	24.0	33.0	9.0	31.0
Max Q Clear Time (g_c+I1), s	8.4	11.5	3.9	13.6	9.1	6.9	3.6	9.5
Green Ext Time (p_c), s	0.4	3.9	0.0	8.4	1.2	4.0	0.0	9.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	810	600	50	20	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	880	652	54	22	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	707	0	-	0	1625	679
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	946	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	891	-	-	-	113	452
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	377	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	891	-	-	-	109	452
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	363	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	891	-	-	-	285
HCM Lane V/C Ratio	0.037	-	-	-	0.114
HCM Control Delay (s)	9.2	-	-	-	19.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	340	40	80	430	100	100	510	320	180	700	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	370	43	87	467	109	109	554	348	196	761	22
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	615	71	289	549	128	160	606	381	242	1182	34
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.09	0.29	0.29	0.14	0.34	0.34
Sat Flow, veh/h	834	1639	190	969	1461	341	1774	2089	1312	1774	3513	102
Grp Volume(v), veh/h	11	0	413	87	0	576	109	469	433	196	383	400
Grp Sat Flow(s),veh/h/ln	834	0	1829	969	0	1803	1774	1770	1631	1774	1770	1845
Q Serve(g_s), s	0.9	0.0	12.9	5.6	0.0	20.7	4.2	18.1	18.1	7.6	13.0	13.0
Cycle Q Clear(g_c), s	21.6	0.0	12.9	18.5	0.0	20.7	4.2	18.1	18.1	7.6	13.0	13.0
Prop In Lane	1.00		0.10	1.00		0.19	1.00		0.80	1.00		0.06
Lane Grp Cap(c), veh/h	170	0	687	289	0	677	160	513	473	242	596	621
V/C Ratio(X)	0.06	0.00	0.60	0.30	0.00	0.85	0.68	0.91	0.91	0.81	0.64	0.64
Avail Cap(c_a), veh/h	199	0	750	323	0	739	427	526	484	401	596	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	17.8	25.3	0.0	20.3	31.2	24.2	24.3	29.6	19.9	19.9
Incr Delay (d2), s/veh	0.2	0.0	1.2	0.6	0.0	8.8	5.0	20.3	21.7	6.4	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	6.6	1.5	0.0	11.9	2.3	11.6	10.9	4.1	6.7	6.9
LnGrp Delay(d),s/veh	30.3	0.0	19.0	25.9	0.0	29.1	36.2	44.6	45.9	36.0	22.2	22.1
LnGrp LOS	C		B	C		C	D	D	D	D	C	C
Approach Vol, veh/h		424			663			1011			979	
Approach Delay, s/veh		19.3			28.6			44.2			25.0	
Approach LOS		B			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.7	25.5		31.5	10.4	28.8		31.5
Change Period (Y+Rc), s	4.0	5.0		5.0	4.0	5.0		5.0
Max Green Setting (Gmax), s	16.0	21.0		29.0	17.0	20.0		29.0
Max Q Clear Time (g_c+I1), s	9.6	20.1		23.6	6.2	15.0		22.7
Green Ext Time (p_c), s	0.3	0.4		2.9	0.2	3.7		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	31.3
HCM 2010 LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	540	590	1090	480	190	1070
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	587	641	1185	522	207	1163
Adj No. of Lanes	1	1	2	1	2	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	649	579	1362	609	291	1828
Arrive On Green	0.37	0.37	0.38	0.38	0.08	0.52
Sat Flow, veh/h	1774	1583	3632	1583	3442	3632
Grp Volume(v), veh/h	587	641	1185	522	207	1163
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1583	1721	1770
Q Serve(g_s), s	26.6	31.0	26.3	25.7	5.0	20.1
Cycle Q Clear(g_c), s	26.6	31.0	26.3	25.7	5.0	20.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	649	579	1362	609	291	1828
V/C Ratio(X)	0.91	1.11	0.87	0.86	0.71	0.64
Avail Cap(c_a), veh/h	649	579	1377	616	487	2045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	26.9	24.1	23.9	37.8	14.8
Incr Delay (d2), s/veh	16.3	70.4	6.3	11.4	3.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	16.0	24.8	13.9	13.1	2.5	9.8
LnGrp Delay(d),s/veh	41.8	97.3	30.4	35.4	41.0	15.3
LnGrp LOS	D	F	C	D	D	B
Approach Vol, veh/h	1228		1707			1370
Approach Delay, s/veh	70.8		31.9			19.2
Approach LOS	E		C			B

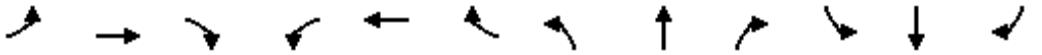
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.2	37.6				48.8		36.0
Change Period (Y+Rc), s	4.0	5.0				5.0		5.0
Max Green Setting (Gmax), s	12.0	33.0				49.0		31.0
Max Q Clear Time (g_c+I1), s	7.0	28.3				22.1		33.0
Green Ext Time (p_c), s	0.3	4.4				20.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	10	280	590	1090	980	10
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	304	641	1185	1065	11
Adj No. of Lanes	1	1	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	252	828	675	2719	1248	13
Arrive On Green	0.14	0.14	0.38	0.77	0.35	0.35
Sat Flow, veh/h	1774	1583	1774	3632	3682	37
Grp Volume(v), veh/h	11	304	641	1185	525	551
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1770	1770	1856
Q Serve(g_s), s	0.5	11.4	35.2	11.7	27.7	27.7
Cycle Q Clear(g_c), s	0.5	11.4	35.2	11.7	27.7	27.7
Prop In Lane	1.00	1.00	1.00			0.02
Lane Grp Cap(c), veh/h	252	828	675	2719	615	645
V/C Ratio(X)	0.04	0.37	0.95	0.44	0.85	0.85
Avail Cap(c_a), veh/h	512	1059	741	2888	634	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	14.2	30.2	4.1	30.4	30.4
Incr Delay (d2), s/veh	0.1	0.3	20.6	0.1	10.7	10.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	12.6	21.0	5.6	15.3	15.9
LnGrp Delay(d),s/veh	37.3	14.4	50.8	4.2	41.1	40.7
LnGrp LOS	D	B	D	A	D	D
Approach Vol, veh/h	315			1826	1076	
Approach Delay, s/veh	15.2			20.6	40.9	
Approach LOS	B			C	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		82.2		18.3	42.3	39.9		
Change Period (Y+Rc), s		5.0		4.0	4.0	5.0		
Max Green Setting (Gmax), s		82.0		29.0	42.0	36.0		
Max Q Clear Time (g_c+I1), s		13.7		13.4	37.2	29.7		
Green Ext Time (p_c), s		25.1		0.9	1.0	5.3		

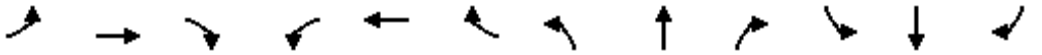
Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	200	620	40	660	1480	220	20	1140	550	90	1460	360
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	217	674	43	717	1609	239	22	1239	598	98	1587	391
Adj No. of Lanes	2	3	1	2	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	1352	397	740	1488	642	90	1410	943	139	1402	599
Arrive On Green	0.05	0.27	0.25	0.21	0.42	0.41	0.03	0.40	0.38	0.04	0.40	0.38
Sat Flow, veh/h	3442	5085	1574	3442	3539	1577	3442	3539	1577	3442	3539	1577
Grp Volume(v), veh/h	217	674	43	717	1609	239	22	1239	598	98	1587	391
Grp Sat Flow(s),veh/h/ln	1721	1695	1574	1721	1770	1577	1721	1770	1577	1721	1770	1577
Q Serve(g_s), s	7.0	16.7	2.7	30.8	62.6	12.9	0.9	48.3	36.6	4.2	59.0	30.4
Cycle Q Clear(g_c), s	7.0	16.7	2.7	30.8	62.6	12.9	0.9	48.3	36.6	4.2	59.0	30.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	1352	397	740	1488	642	90	1410	943	139	1402	599
V/C Ratio(X)	1.34	0.50	0.11	0.97	1.08	0.37	0.24	0.88	0.63	0.71	1.13	0.65
Avail Cap(c_a), veh/h	162	1352	397	740	1488	642	116	1436	955	139	1402	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	46.2	31.2	58.0	43.2	20.7	71.1	41.5	19.5	70.6	45.0	38.0
Incr Delay (d2), s/veh	189.1	0.4	0.2	25.5	48.7	0.5	0.5	6.8	1.7	13.1	68.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	7.6	7.9	1.3	17.3	40.7	5.7	0.4	24.9	16.4	2.3	42.2	13.8
LnGrp Delay(d),s/veh	260.0	46.7	31.3	83.5	91.9	21.2	71.6	48.2	21.1	83.7	113.7	41.0
LnGrp LOS	F	D	C	F	F	C	E	D	C	F	F	D
Approach Vol, veh/h		934			2565			1859			2076	
Approach Delay, s/veh		95.5			82.9			39.8			98.6	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	62.3	35.0	42.6	9.3	62.0	12.0	65.6
Change Period (Y+Rc), s	4.0	6.4	4.0	6.0	6.4	6.4	6.0	6.0
Max Green Setting (Gmax), s	5.0	57.0	31.0	36.6	4.0	55.6	6.0	59.6
Max Q Clear Time (g_c+I1), s	6.2	50.3	32.8	18.7	2.9	61.0	9.0	64.6
Green Ext Time (p_c), s	0.0	5.6	0.0	5.2	1.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.1
HCM 2010 LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	660	870	40	400	1720	520	150	1020	210	450	1500	310
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	717	946	43	435	1870	565	163	1109	228	489	1630	337
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	904	41	416	1318	590	61	976	437	159	1172	721
Arrive On Green	0.12	0.26	0.26	0.23	0.37	0.37	0.03	0.28	0.28	0.09	0.33	0.33
Sat Flow, veh/h	1774	3448	157	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	717	486	503	435	1870	565	163	1109	228	489	1630	337
Grp Sat Flow(s),veh/h/ln	1774	1770	1835	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	18.0	38.0	38.0	34.0	54.0	50.5	5.0	40.0	17.7	13.0	48.0	21.4
Cycle Q Clear(g_c), s	18.0	38.0	38.0	34.0	54.0	50.5	5.0	40.0	17.7	13.0	48.0	21.4
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	464	481	416	1318	590	61	976	437	159	1172	721
V/C Ratio(X)	3.26	1.05	1.05	1.05	1.42	0.96	2.66	1.14	0.52	3.07	1.39	0.47
Avail Cap(c_a), veh/h	220	464	481	416	1318	590	61	976	437	159	1172	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.5	53.5	53.5	55.5	45.5	44.4	70.0	52.5	44.4	66.0	48.5	27.3
Incr Delay (d2), s/veh	1026.7	54.6	53.9	56.6	193.0	27.2	793.5	73.9	2.0	950.0	181.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	71.6	25.6	26.4	23.2	61.7	26.4	15.9	29.5	8.0	48.3	52.9	9.5
LnGrp Delay(d),s/veh	1090.2	108.1	107.4	112.1	238.5	71.6	863.5	126.4	46.4	1016.0	229.9	28.3
LnGrp LOS	F	F	F	F	F	E	F	F	D	F	F	C
Approach Vol, veh/h		1706			2870			1500			2456	
Approach Delay, s/veh		520.7			186.5			194.3			358.7	
Approach LOS		F			F			F			F	

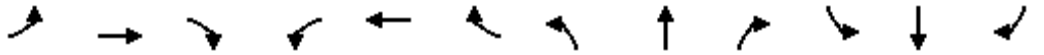
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	46.0	38.0	44.0	9.0	54.0	22.0	60.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	40.0	34.0	38.0	5.0	48.0	18.0	54.0
Max Q Clear Time (g_c+I1), s	15.0	42.0	36.0	40.0	7.0	50.0	20.0	56.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	304.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	60	10	10	180	110	20	580	110	90	320	230
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	43	65	11	11	196	120	22	630	120	98	348	250
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	403	68	433	281	172	396	845	161	304	560	403
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1059	1553	263	1318	1083	663	817	1522	290	709	1010	725
Grp Volume(v), veh/h	43	0	76	11	0	316	22	0	750	98	0	598
Grp Sat Flow(s),veh/h/ln	1059	0	1816	1318	0	1746	817	0	1812	709	0	1735
Q Serve(g_s), s	2.1	0.0	1.7	0.4	0.0	8.8	1.0	0.0	16.9	6.6	0.0	12.6
Cycle Q Clear(g_c), s	10.9	0.0	1.7	2.1	0.0	8.8	13.6	0.0	16.9	23.5	0.0	12.6
Prop In Lane	1.00		0.14	1.00		0.38	1.00		0.16	1.00		0.42
Lane Grp Cap(c), veh/h	235	0	471	433	0	453	396	0	1006	304	0	963
V/C Ratio(X)	0.18	0.00	0.16	0.03	0.00	0.70	0.06	0.00	0.75	0.32	0.00	0.62
Avail Cap(c_a), veh/h	314	0	607	531	0	583	428	0	1076	332	0	1030
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	15.4	16.2	0.0	18.0	12.8	0.0	9.1	18.0	0.0	8.1
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.0	0.0	2.5	0.1	0.0	2.7	0.6	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.6	0.0	0.9	0.1	0.0	4.5	0.2	0.0	9.1	1.3	0.0	6.3
LnGrp Delay(d),s/veh	23.3	0.0	15.6	16.3	0.0	20.6	12.8	0.0	11.8	18.6	0.0	9.2
LnGrp LOS	C		B	B		C	B		B	B		A
Approach Vol, veh/h		119			327			772			696	
Approach Delay, s/veh		18.4			20.4			11.8			10.5	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.9		19.0		34.9		19.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		32.0		18.0		32.0		18.0
Max Q Clear Time (g_c+I1), s		18.9		12.9		25.5		10.8
Green Ext Time (p_c), s		7.5		1.1		4.4		1.4

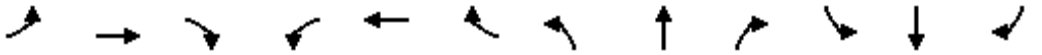
Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	1220	40	490	2040	90	20	10	330	40	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	10	1258	41	505	2103	93	21	10	340	41	10	10
Adj No. of Lanes	1	2	1	2	2	1	0	1	1	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	18	1457	652	638	2078	930	70	20	658	75	10	365
Arrive On Green	0.01	0.41	0.41	0.19	0.59	0.59	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	0	89	1583	0	45	1583
Grp Volume(v), veh/h	10	1258	41	505	2103	93	31	0	340	51	0	10
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	89	0	1583	45	0	1583
Q Serve(g_s), s	0.5	28.2	1.4	12.2	51.0	2.2	0.0	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s	0.5	28.2	1.4	12.2	51.0	2.2	20.0	0.0	0.0	20.0	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	0.68		1.00	0.80		1.00
Lane Grp Cap(c), veh/h	18	1457	652	638	2078	930	90	0	658	85	0	365
V/C Ratio(X)	0.57	0.86	0.06	0.79	1.01	0.10	0.34	0.00	0.52	0.60	0.00	0.03
Avail Cap(c_a), veh/h	82	1589	711	638	2078	930	90	0	658	85	0	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.8	23.3	15.4	33.8	17.9	7.9	30.6	0.0	18.9	39.4	0.0	25.9
Incr Delay (d2), s/veh	26.0	4.9	0.0	6.7	22.7	0.0	2.3	0.0	0.7	11.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	14.6	0.6	6.3	31.1	1.0	0.8	0.0	6.2	1.5	0.0	0.2
LnGrp Delay(d),s/veh	68.9	28.2	15.5	40.5	40.7	7.9	32.8	0.0	19.6	50.4	0.0	25.9
LnGrp LOS	E	C	B	D	F	A	C		B	D		C
Approach Vol, veh/h		1309			2701			371			61	
Approach Delay, s/veh		28.1			39.5			20.7			46.4	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		25.0	21.1	40.8		25.0	5.9	56.0
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		20.0	16.0	39.0		20.0	4.0	51.0
Max Q Clear Time (g_c+I1), s		22.0	14.2	30.2		22.0	2.5	53.0
Green Ext Time (p_c), s		0.0	1.8	5.6		0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	700	390	90	650	20	980	550	140	50	570	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	133	714	0	92	663	0	1000	561	0	51	582	204
Adj No. of Lanes	2	2	1	2	2	1	3	2	1	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	819	366	156	766	342	1270	1541	689	65	771	345
Arrive On Green	0.06	0.23	0.00	0.05	0.22	0.00	0.25	0.44	0.00	0.04	0.22	0.22
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	5003	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	133	714	0	92	663	0	1000	561	0	51	582	204
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1668	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.0	15.4	0.0	2.1	14.4	0.0	14.8	8.5	0.0	2.3	12.2	7.0
Cycle Q Clear(g_c), s	3.0	15.4	0.0	2.1	14.4	0.0	14.8	8.5	0.0	2.3	12.2	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	819	366	156	766	342	1270	1541	689	65	771	345
V/C Ratio(X)	0.64	0.87	0.00	0.59	0.87	0.00	0.79	0.36	0.00	0.79	0.76	0.59
Avail Cap(c_a), veh/h	303	819	366	303	801	359	1385	1692	757	156	1024	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	29.4	0.0	37.2	30.0	0.0	27.6	15.1	0.0	38.0	29.1	16.2
Incr Delay (d2), s/veh	3.3	10.1	0.0	3.5	9.6	0.0	2.9	0.1	0.0	18.8	2.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.5	8.7	0.0	1.1	8.0	0.0	7.1	4.2	0.0	1.4	6.2	3.6
LnGrp Delay(d),s/veh	39.8	39.5	0.0	40.8	39.6	0.0	30.5	15.2	0.0	56.8	31.4	17.8
LnGrp LOS	D	D		D	D		C	B		E	C	B
Approach Vol, veh/h		847			755			1561			837	
Approach Delay, s/veh		39.6			39.7			25.0			29.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	39.6	8.6	23.4	25.2	22.3	9.8	22.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	38.0	7.0	18.0	22.0	23.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	4.3	10.5	4.1	17.4	16.8	14.2	5.0	16.4
Green Ext Time (p_c), s	0.0	9.3	0.1	0.4	3.4	3.1	0.1	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	1270	10	100	680	150	10	20	60	110	10	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	128	1351	11	106	723	160	11	21	64	117	11	64
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	2465	1103	324	2465	1103	80	61	147	322	251	214
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	626	3539	1583	398	3539	1583	92	452	1088	1307	1863	1583
Grp Volume(v), veh/h	128	1351	11	106	723	160	96	0	0	117	11	64
Grp Sat Flow(s),veh/h/ln	626	1770	1583	398	1770	1583	1633	0	0	1307	1863	1583
Q Serve(g_s), s	5.8	11.1	0.1	10.6	4.6	2.0	0.0	0.0	0.0	0.7	0.3	2.2
Cycle Q Clear(g_c), s	10.4	11.1	0.1	21.7	4.6	2.0	3.1	0.0	0.0	3.8	0.3	2.2
Prop In Lane	1.00		1.00	1.00		1.00	0.11		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	509	2465	1103	324	2465	1103	288	0	0	322	251	214
V/C Ratio(X)	0.25	0.55	0.01	0.33	0.29	0.15	0.33	0.00	0.00	0.36	0.04	0.30
Avail Cap(c_a), veh/h	548	2685	1201	349	2685	1201	1016	0	0	917	1099	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.4	4.4	2.7	9.7	3.4	3.0	23.6	0.0	0.0	23.8	22.3	23.1
Incr Delay (d2), s/veh	0.3	0.2	0.0	0.6	0.1	0.1	0.7	0.0	0.0	0.7	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	5.3	0.1	1.2	2.2	0.9	1.5	0.0	0.0	1.8	0.2	1.0
LnGrp Delay(d),s/veh	5.7	4.6	2.8	10.3	3.5	3.1	24.2	0.0	0.0	24.5	22.4	23.9
LnGrp LOS	A	A	A	B	A	A	C			C	C	C
Approach Vol, veh/h		1490			989			96			192	
Approach Delay, s/veh		4.7			4.2			24.2			24.2	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		13.0		46.3		13.0		46.3
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		35.0		45.0		35.0		45.0
Max Q Clear Time (g_c+I1), s		5.1		13.1		5.8		23.7
Green Ext Time (p_c), s		1.2		24.5		1.2		17.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	1240	40	20	610	120	50	10	10	150	5	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	120	1348	43	22	663	130	54	11	11	163	5	76
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	293	1466	656	124	1466	656	528	108	93	504	30	203
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	681	3539	1583	387	3539	1583	993	243	209	943	68	457
Grp Volume(v), veh/h	120	1348	43	22	663	130	76	0	0	244	0	0
Grp Sat Flow(s),veh/h/ln	681	1770	1583	387	1770	1583	1446	0	0	1469	0	0
Q Serve(g_s), s	10.8	25.2	1.1	3.8	9.5	3.7	0.0	0.0	0.0	5.5	0.0	0.0
Cycle Q Clear(g_c), s	20.2	25.2	1.1	29.0	9.5	3.7	1.9	0.0	0.0	7.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.71		0.14	0.67		0.31
Lane Grp Cap(c), veh/h	293	1466	656	124	1466	656	728	0	0	736	0	0
V/C Ratio(X)	0.41	0.92	0.07	0.18	0.45	0.20	0.10	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	293	1466	656	124	1466	656	728	0	0	736	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.1	19.4	12.3	33.2	14.8	13.1	11.4	0.0	0.0	12.8	0.0	0.0
Incr Delay (d2), s/veh	0.9	9.7	0.0	0.7	0.2	0.1	0.3	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.1	14.1	0.5	0.4	4.6	1.6	0.9	0.0	0.0	3.4	0.0	0.0
LnGrp Delay(d),s/veh	23.0	29.0	12.4	33.9	15.0	13.2	11.7	0.0	0.0	14.0	0.0	0.0
LnGrp LOS	C	C	B	C	B	B	B			B		
Approach Vol, veh/h		1511			815			76			244	
Approach Delay, s/veh		28.1			15.2			11.7			14.0	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		36.0		34.0		36.0		34.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		31.0		29.0		31.0		29.0
Max Q Clear Time (g_c+I1), s		3.9		27.2		9.4		31.0
Green Ext Time (p_c), s		2.0		1.7		1.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	50	10	770	10	540	60	430	610	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	11	11	54	11	0	11	587	65	467	663	33
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	20	70	70	75	210	179	20	1159	128	452	1649	82
Arrive On Green	0.01	0.08	0.08	0.04	0.11	0.00	0.01	0.36	0.36	0.13	0.48	0.48
Sat Flow, veh/h	1774	856	856	1774	1863	1583	1774	3214	355	3442	3432	171
Grp Volume(v), veh/h	11	0	22	54	11	0	11	323	329	467	342	354
Grp Sat Flow(s),veh/h/ln	1774	0	1712	1774	1863	1583	1774	1770	1800	1721	1770	1833
Q Serve(g_s), s	0.3	0.0	0.6	1.5	0.3	0.0	0.3	7.1	7.1	6.5	6.2	6.2
Cycle Q Clear(g_c), s	0.3	0.0	0.6	1.5	0.3	0.0	0.3	7.1	7.1	6.5	6.2	6.2
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.20	1.00		0.09
Lane Grp Cap(c), veh/h	20	0	140	75	210	179	20	638	649	452	851	881
V/C Ratio(X)	0.55	0.00	0.16	0.72	0.05	0.00	0.55	0.51	0.51	1.03	0.40	0.40
Avail Cap(c_a), veh/h	143	0	1090	143	1167	992	143	1055	1073	452	1144	1185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	21.1	23.4	19.6	0.0	24.3	12.4	12.4	21.5	8.3	8.3
Incr Delay (d2), s/veh	21.1	0.0	0.5	12.1	0.1	0.0	21.1	0.6	0.6	51.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	0.0	0.3	1.0	0.1	0.0	0.3	3.5	3.6	6.2	3.0	3.1
LnGrp Delay(d),s/veh	45.5	0.0	21.7	35.5	19.7	0.0	45.5	13.0	13.0	72.6	8.6	8.6
LnGrp LOS	D		C	D	B		D	B	B	F	A	A
Approach Vol, veh/h		33			65			663			1163	
Approach Delay, s/veh		29.6			32.8			13.5			34.3	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	22.8	6.6	9.0	5.1	28.8	5.1	10.6
Change Period (Y+Rc), s	4.5	5.0	4.5	* 5	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	29.5	4.0	* 32	4.0	32.0	4.0	31.0
Max Q Clear Time (g_c+I1), s	8.5	9.1	3.5	2.6	2.3	8.2	2.3	2.3
Green Ext Time (p_c), s	0.0	8.8	0.0	0.1	0.0	9.4	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	830	120	250	440	290	660	170	370	200	360	850	930
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	902	130	272	478	315	0	185	402	217	391	924	0
Adj No. of Lanes	3	2	1	2	2	1	2	3	1	3	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1155	767	467	600	567	254	269	1418	718	557	1586	494
Arrive On Green	0.23	0.22	0.22	0.17	0.16	0.00	0.08	0.28	0.28	0.11	0.31	0.00
Sat Flow, veh/h	5003	3539	1583	3442	3539	1583	3442	5085	1583	5003	5085	1583
Grp Volume(v), veh/h	902	130	272	478	315	0	185	402	217	391	924	0
Grp Sat Flow(s),veh/h/ln	1668	1770	1583	1721	1770	1583	1721	1695	1583	1668	1695	1583
Q Serve(g_s), s	14.7	2.6	12.7	11.6	7.1	0.0	4.5	5.4	7.5	6.5	13.3	0.0
Cycle Q Clear(g_c), s	14.7	2.6	12.7	11.6	7.1	0.0	4.5	5.4	7.5	6.5	13.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1155	767	467	600	567	254	269	1418	718	557	1586	494
V/C Ratio(X)	0.78	0.17	0.58	0.80	0.56	0.00	0.69	0.28	0.30	0.70	0.58	0.00
Avail Cap(c_a), veh/h	1871	1792	926	1169	1670	747	574	2224	969	1123	2517	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.3	27.7	26.1	34.4	33.6	0.0	39.0	24.5	15.1	37.2	25.1	0.0
Incr Delay (d2), s/veh	1.2	0.1	1.2	2.5	0.9	0.0	3.1	0.1	0.2	1.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.9	1.3	5.7	5.7	3.6	0.0	2.3	2.5	3.3	3.1	6.2	0.0
LnGrp Delay(d),s/veh	32.5	27.8	27.2	36.8	34.5	0.0	42.1	24.6	15.3	38.8	25.5	0.0
LnGrp LOS	C	C	C	D	C		D	C	B	D	C	
Approach Vol, veh/h		1304			793			804			1315	
Approach Delay, s/veh		30.9			35.9			26.1			29.5	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	29.2	19.7	23.8	11.3	32.1	24.6	18.9
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	19.5	38.0	29.5	44.0	14.5	43.0	32.5	41.0
Max Q Clear Time (g_c+I1), s	8.5	9.5	13.6	14.7	6.5	15.3	16.7	9.1
Green Ext Time (p_c), s	1.1	11.9	1.6	4.1	0.3	11.8	3.4	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.5
HCM 2010 LOS	C

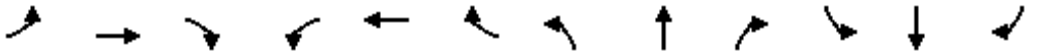
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1070	0	860	0	760	60	0	2080	140
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1408	0	603	0	826	0	0	2189	0
Adj No. of Lanes				2	0	1	0	3	1	0	3	1
Peak Hour Factor				0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1499	0	669	0	2298	716	0	2298	716
Arrive On Green				0.42	0.00	0.42	0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h				3548	0	1583	0	5253	1583	0	5253	1583
Grp Volume(v), veh/h				1408	0	603	0	826	0	0	2189	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1695	1583	0	1695	1583
Q Serve(g_s), s				30.3	0.0	28.3	0.0	8.5	0.0	0.0	33.0	0.0
Cycle Q Clear(g_c), s				30.3	0.0	28.3	0.0	8.5	0.0	0.0	33.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1499	0	669	0	2298	716	0	2298	716
V/C Ratio(X)				0.94	0.00	0.90	0.00	0.36	0.00	0.00	0.95	0.00
Avail Cap(c_a), veh/h				1515	0	676	0	2299	716	0	2299	716
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				22.0	0.0	21.4	0.0	14.3	0.0	0.0	21.0	0.0
Incr Delay (d2), s/veh				11.6	0.0	15.2	0.0	0.1	0.0	0.0	9.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln				17.1	0.0	15.1	0.0	3.9	0.0	0.0	17.3	0.0
LnGrp Delay(d),s/veh				33.6	0.0	36.7	0.0	14.4	0.0	0.0	30.9	0.0
LnGrp LOS				C		D		B			C	
Approach Vol, veh/h					2011			826			2189	
Approach Delay, s/veh					34.5			14.4			30.9	
Approach LOS					C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		41.0				41.0		38.6
Change Period (Y+Rc), s		5.0				5.0		5.0
Max Green Setting (Gmax), s		36.0				36.0		34.0
Max Q Clear Time (g_c+I1), s		10.5				35.0		32.3
Green Ext Time (p_c), s		22.9				1.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



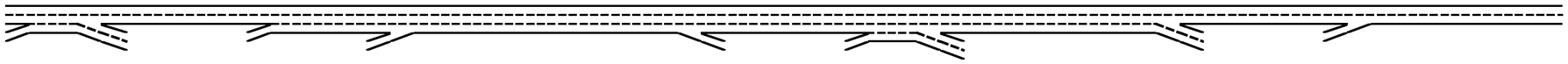
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	0	160	0	0	0	0	720	1140	0	1980	1170
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h	109	0	174				0	783	0	0	2152	0
Adj No. of Lanes	1	0	1				0	3	1	0	3	1
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	255	0	228				0	3610	1124	0	3610	1124
Arrive On Green	0.14	0.00	0.14				0.00	0.71	0.00	0.00	0.71	0.00
Sat Flow, veh/h	1774	0	1583				0	5253	1583	0	5253	1583
Grp Volume(v), veh/h	109	0	174				0	783	0	0	2152	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1695	1583	0	1695	1583
Q Serve(g_s), s	3.8	0.0	7.2				0.0	3.6	0.0	0.0	14.6	0.0
Cycle Q Clear(g_c), s	3.8	0.0	7.2				0.0	3.6	0.0	0.0	14.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	255	0	228				0	3610	1124	0	3610	1124
V/C Ratio(X)	0.43	0.00	0.76				0.00	0.22	0.00	0.00	0.60	0.00
Avail Cap(c_a), veh/h	519	0	463				0	4090	1274	0	4090	1274
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	26.7	0.0	28.2				0.0	3.4	0.0	0.0	5.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	5.3				0.0	0.0	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.0	0.0	3.5				0.0	1.7	0.0	0.0	6.6	0.0
LnGrp Delay(d),s/veh	27.8	0.0	33.4				0.0	3.4	0.0	0.0	5.2	0.0
LnGrp LOS	C		C					A			A	
Approach Vol, veh/h		283						783			2152	
Approach Delay, s/veh		31.3						3.4			5.2	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		53.5		14.8		53.5		
Change Period (Y+Rc), s		5.0		5.0		5.0		
Max Green Setting (Gmax), s		55.0		20.0		55.0		
Max Q Clear Time (g_c+I1), s		5.6		9.2		16.6		
Green Ext Time (p_c), s		39.3		0.7		32.0		

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

Appendix E-12:
Technical Calculations
Cumulative Plus Project Mitigations –
Freeway & Highway Level of Service

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



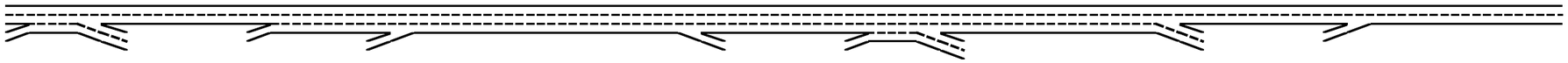
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment													
Type	Weave	Basic	Basic	Merge	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	2,770	1,420	1,150	1,500	1,020	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length				1,260								600	
Decel Length						175							
Mainline Volume	3,840	3,510	3,510	4,250	4,560	4,560	3,460	3,460	3,320	3,320	2,380	2,380	2,910
On Ramp Volume	390		740	310				930				530	
Off Ramp Volume	720					1,100		1,070		940			
Express Lane Volume													
EL On Ramp Volume													
EL Off Ramp Volume													
Calculate Flow Rate in General Purpose Lanes (GP)													
GP Volume (vph)	4,230	3,510	4,250	4,560	4,560	4,560	3,460	4,390	3,320	3,320	2,380	2,910	2,910
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	3	2	3	3	3	3	3	4	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978	0.978
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	4,553	3,778	4,574	4,908	4,908	4,908	3,724	4,725	3,573	3,573	2,562	3,132	3,132
GP Flow (pcphpl)	1,518	1,889	1,525	1,636	1,636	1,636	1,241	1,181	1,191	1,191	1,281	1,566	1,566
Calculate Speed in General Purpose Lanes													
Lane Width (ft)													
Shoulder Width													
TRD													
f_{LW}													
f_{LC}													
Calculated FFS													
Measured FFS													
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes													
v/c ratio	0.65	0.80	0.65	0.70	0.70	0.70	0.53	0.50	0.51	0.51	0.55	0.67	0.67
Speed (mph)	64.8	61.6	64.8	64.2	64.2	64.2	65.0	65.0	65.0	65.0	65.0	64.6	64.6
Density (pcphpl)	23.4	30.7	23.5	25.5	25.5	25.5	19.1	18.2	18.3	18.3	19.7	24.2	24.2
LOS	C	D	C	C	C	C	C	C	C	C	C	C	C
Calculate Operations for Entering GP Lanes													
GP_{IN} Vol (pcph)	4,125		3,762	4,568		4,908		3,712				2,544	
GP_{IN} Cap (pcph)	4,700		4,700	7,050		7,050		7,050				4,700	
GP_{IN} v/c ratio	0.88		0.80	0.65		0.70		0.53				0.54	
Calculate Operations for Exiting GP Lanes													
GP_{OUT} Vol (pcph)	3,762			4,908		3,739		3,545		2,531		3,132	
GP_{OUT} Cap (pcph)	4,700			7,050		7,050		7,050		4,700		4,700	
GP_{OUT} v/c ratio	0.80			0.70		0.53		0.50		0.54		0.67	

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



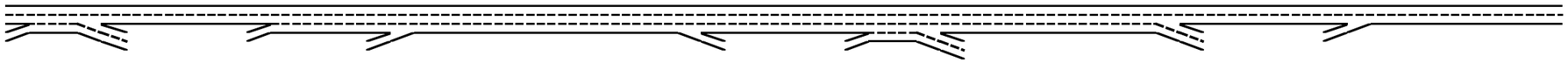
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Flow Rate in Express Lanes (EL)													
Calculate Speed in Express Lanes													
Calculate Operations in Express Lanes													
Calculate On Ramp Flow Rate													
On Volume (vph)	390		740	310				930				530	
PHF	0.92		0.92	0.92				0.95				0.92	
Total Lanes	1		1	1				1				1	
Terrain	Level		Level	Level				Level				Level	
Grade %	0.0%		0.0%	0.0%				0.0%				0.0%	
Grade Length (mi)	0.00		0.00	0.00				0.00				0.00	
Truck & Bus %	2.0%		2.0%	2.0%				7.0%				4.0%	
RV %	0.0%		0.0%	0.0%				0.0%				0.0%	
E_T	1.5		1.5	1.5				1.5				1.5	
E_R	1.2		1.2	1.2				1.2				1.2	
f_{HV}	0.990		0.990	0.990				0.966				0.980	
f_P	1.00		1.00	1.00				1.00				1.00	
On Flow (pcph)	428		812	340				1,013				588	
On Flow (pcphpl)	428		812	340				1,013				588	
Calculate On Ramp Roadway Operations													
On Ramp Type	Right		Right	Right				Right				Right	
On Ramp Speed (mph)	45		25	45				45				45	
On Ramp Cap (pcph)	2,100		1,900	2,100				2,100				2,100	
On Ramp v/c ratio	0.20		0.43	0.16				0.48				0.28	
Calculate Off Ramp Flow Rate													
Off Volume (vph)	720					1,100		1,070		940			
PHF	0.92					0.95		0.92		0.92			
Total Lanes	2					1		2		2			
Terrain	Level					Level		Level		Level			
Grade %	0.0%					0.0%		0.0%		0.0%			
Grade Length (mi)	0.00					0.00		0.00		0.00			
Truck & Bus %	2.0%					2.0%		3.0%		4.0%			
RV %	0.0%					0.0%		0.0%		0.0%			
E_T	1.5					1.5		1.5		1.5			
E_R	1.2					1.2		1.2		1.2			
f_{HV}	0.990					0.990		0.985		0.980			
f_P	1.00					1.00		1.00		1.00			
Off Flow (pcph)	790					1,169		1,180		1,042			
Off Flow (pcphpl)	395					1,169		590		521			
Calculate Off Ramp Roadway Operations													
Off Ramp Type						Right		Right		Right			
Off Ramp Speed						45		45		45			
Off Ramp Cap (pcph)						2,100		4,200		4,200			
Off Ramp v/c ratio						0.56		0.28		0.25			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-La													
Up Type						On							
Up Distance						4,020							
Up Flow (pcph)						340							
Down Type						No							
Down Distance													
Down Flow (pcph)													

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



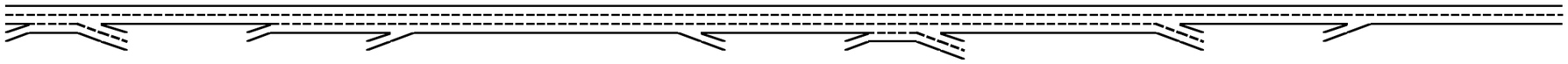
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Merge Influence Area Operations													
Effective v_P (pcph)				4,568								2,544	
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FM} (Eqn 13-3)				0.613								0.594	
P_{FM} (Eqn 13-4)													
P_{FM} (Eqn 13-5)													
P_{FM}				0.613								1.000	
v_{12} (pcph)				2,799								2,544	
v_3 (pcph)				1,769									
v_{34} (pcph)													
v_{12a} (pcph)				2,799								2,544	
v_{R12a} (pcph)				3,139								3,132	
Merge Speed Index				0.30								0.36	
Merge Area Speed				58.2								56.8	
Outer Lanes Volume				1,769									
Outer Lanes Speed				60.4									
Segment Speed				59.0								56.8	
Merge v/c ratio				0.68								0.68	
Merge Density				21.9								25.9	
Merge LOS				C								C	
Calculate Diverge Influence Area Operations													
Effective v_P (pcph)						4,908							
Up Ramp L_{EQ}						3,582							
Down Ramp L_{EQ}													
P_{FD} (Eqn 13-9)						0.584							
P_{FD} (Eqn 13-10)						0.577							
P_{FD} (Eqn 13-11)													
P_{FD}						0.584							
v_{12} (pcph)						3,351							
v_3 (pcph)						1,557							
v_{34} (pcph)													
v_{12a} (pcph)						3,351							
Diverge Speed Index						0.40							
Diverge Area Speed						55.7							
Outer Lanes Volume						1,557							
Outer Lanes Speed						69.1							
Segment Speed						59.4							
Diverge v/c ratio						0.76							
Diverge Density						31.5							
Diverge LOS						D							

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



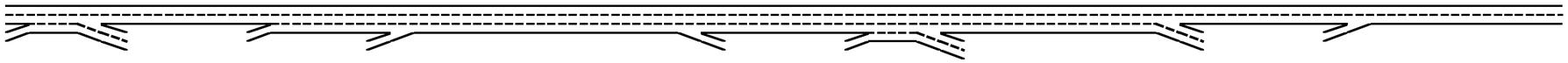
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments													
On to Off Volume (vph)	98							93					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							7.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.966					
f_P	1.00							1.00					
On to Off Flow (pcph)	104							120					
Calculate On Ramp to Mainline Flow Rate for Weave Segments													
On to ML Volume (vph)	293							837					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.985					
f_P	1.00							1.00					
On to ML Flow (pcph)	313							1,062					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments													
ML to Off Volume (vph)	623							977					
PHF	0.95							0.83					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
ML to Off Flow (pcph)	675							1,195					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for													
GP to GP Volume (vph)	3,218							2,483					
PHF	0.95							0.825					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
GP to GP Flow (pcph)	3,488							3,055					

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



Key

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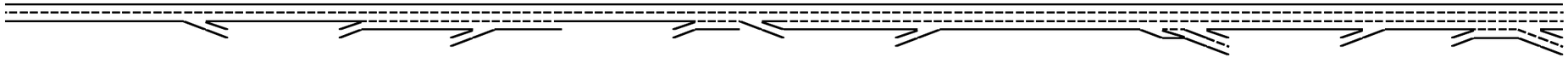
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations													
Weave Type	One-sided							One-sided					
Weave Length	1,770							1,680					
Segment Lanes	3							4					
Weave Lanes	2							3					
Weave Flow (pcph)	987							2,257					
Non-Weave Flow	3,593							3,175					
Segment Flow	4,580							5,432					
Max Weave Length	4,696							5,289					
Length Check	OK							OK					
Ideal Weave Capacity	2,126							2,074					
f_{HV}	0.972							0.985					
f_P	0.999							0.997					
Capacity Condition 1	6,195							8,146					
Capacity Condition 2	10,811							8,272					
Weave v/c ratio	0.72							0.65					
Interchange Density								0.666666667					
Lane Changes On to ML													
Lane Changes ML to Off													
Lane Changes On to Off													
Min Lane Change Rate								0					
Weave LC Rate								493					
Non-Weave LC Rate 1								794					
Non-Weave LC Rate 2								2,397					
Non-Weave LC Rate 3								-1,534					
Segment LC Rate								1,287					
Weave Intensity Factor								0.183					
Weave Speed								57.3					
Non-Weave Speed								58.5					
Segment Speed								58.0					
Weave Density								23.4					
Weave LOS								C					
Summarize Segment Operations													
Segment v/c ratio	0.72	0.80	0.65	0.68	0.70	0.76	0.53	0.65	0.51	0.51	0.55	0.68	0.67
Segment Density		30.7	23.5	21.9	25.5	31.5	19.1	23.4	18.3	18.3	19.7	25.9	24.2
Segment LOS		D	C	C	C	D	C	C	C	C	C	C	C
Over Capacity													

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key

<> Express Lane (HOV)

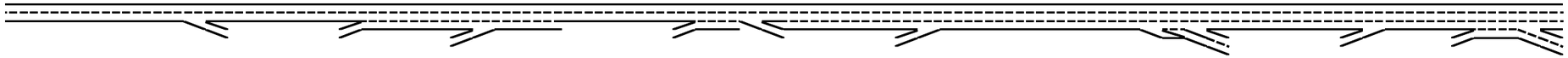
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Define Freeway Segment														
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic	Diverge	Basic	Merge	Weave
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	2,210	1,500	1,830	690	3,344
Accel Length					720				450				400	
Decel Length		150									1,500			
Mainline Volume	2,830	2,830	2,420	2,420	3,240	4,780	4,780	4,535	4,535	5,245	5,245	4,135	4,135	4,695
On Ramp Volume				820	1,540		885		710				560	20
Off Ramp Volume		410					1,130				1,110			660
Express Lane Volume														
EL On Ramp Volume														
EL Off Ramp Volume														
Calculate Flow Rate in General Purpose Lanes (GP)														
GP Volume (vph)	2,830	2,830	2,420	3,240	4,780	4,780	5,665	4,535	5,245	5,245	5,245	4,135	4,695	4,715
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	2	3	3	3	3	3	3	3	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_p	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,009	3,009	2,573	3,445	5,082	5,082	6,023	4,821	5,576	5,576	5,576	4,396	4,992	5,013
GP Flow (pcphpl)	1,504	1,504	1,286	1,148	1,694	2,541	2,008	1,607	1,859	1,859	1,859	1,465	1,664	1,253
Calculate Speed in General Purpose Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calculated FFS														
Measured FFS														
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes														
v/c ratio	0.64	0.64	0.55	0.49	0.72	1.08	0.85	0.68	0.79	0.79	0.79	0.62	0.71	0.53
Speed (mph)	64.8	64.8	65.0	65.0	63.8	-	59.8	64.4	62.0	62.0	62.0	64.9	64.0	65.0
Density (pcphpl)	23.2	23.2	19.8	17.7	26.6	-	33.6	25.0	30.0	30.0	30.0	22.6	26.0	19.3
LOS	C	C	C	B	D	F	D	C	D	D	D	C	C	C
Calculate Operations for Entering GP Lanes														
GP_{IN} Vol (pcph)		3,009		2,544	3,391		5,051		4,797		5,576		4,377	4,991
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		7,050		7,050		7,050	7,050
GP_{IN} v/c ratio		0.64		0.54	0.48		1.07		0.68		0.79		0.62	0.71
Calculate Operations for Exiting GP Lanes														
GP_{OUT} Vol (pcph)		2,556			5,082		4,770		5,576		4,358		4,992	4,288
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		7,050		7,050		7,050	7,050
GP_{OUT} v/c ratio		0.54			0.72		1.01		0.79		0.62		0.71	0.61

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Mitigated Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



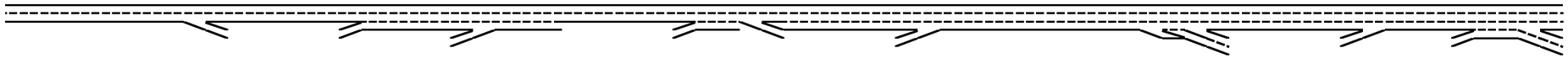
Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Flow Rate in Express Lanes (EL)														
EL Volume (vph)														
PHF														
Express Lanes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrain														
Grade %														
Grade Length (mi)														
Truck & Bus %														
RV %														
E_T	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5					1.5
E_R	1.2	1.2	1.2	1.2	1.2		1.2	1.2	1.2					1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990		0.990	0.990	0.990					0.990
f_p														
EL Flow (pcph)														
EL Flow (pcphpl)														
Calculate Speed in Express Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calc'd FFS														
Measured FFS														
FFS														
Calculate Operations in Express Lanes														
EL_{IN} v/c ratio														
Calculate On Ramp Flow Rate														
On Volume (vph)				820	1,540		885		710				560	20
PHF				0.92	0.92		0.92		0.92				0.92	0.92
Total Lanes				1	1		1		1				1	1
Terrain				Level	Level		Level		Level				Level	Level
Grade %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
Grade Length (mi)				0.00	0.00		0.00		0.00				0.00	0.00
Truck & Bus %				2.0%	2.0%		2.0%		2.0%				2.0%	3.0%
RV %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
E_T				1.5	1.5		1.5		1.5				1.5	1.5
E_R				1.2	1.2		1.2		1.2				1.2	1.2
f_{HV}				0.990	0.990		0.990		0.990				0.990	0.985
f_p				1.00	1.00		1.00		1.00				1.00	1.00
On Flow (pcph)				900	1,691		972		779				615	22
On Flow (pcphpl)				900	1,691		972		779				615	22
Calculate On Ramp Roadway Operations														
On Ramp Type				Right	Right		Right		Right				Right	Right
On Ramp Speed (mph)				25	45		45		25				25	45
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900				1,900	2,100
On Ramp v/c ratio				0.47	0.81		0.46		0.41				0.32	0.01
Calculate Off Ramp Flow Rate														
Off Volume (vph)		410					1,130				1,110			660
PHF		0.92					0.92				0.92			0.92
Total Lanes		1					1				2			2
Terrain		Level					Level				Level			Level
Grade %		0.0%					0.0%				0.0%			0.0%
Grade Length (mi)		0.00					0.00				0.00			0.00
Truck & Bus %		3.0%					4.0%				2.0%			2.0%
RV %		0.0%					0.0%				0.0%			0.0%

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Mitigated Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



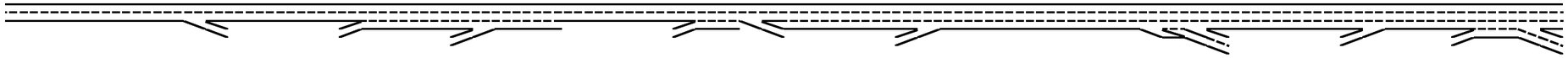
Key

<> Express Lane (HOV)

No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
E_T		1.5					1.5				1.5			1.5
E_R		1.2					1.2				1.2			1.2
f_{HV}		0.985					0.980				0.990			0.990
f_p		1.00					1.00				1.00			1.00
Off Flow (pcph)		452					1,253				1,219			725
Off Flow (pcphpl)		452					1,253				609			362
Calculate Off Ramp Roadway Operations														
Off Ramp Type		Right					Right				Right			Right
Off Ramp Speed		45					45				45			45
Off Ramp Cap (pcph)		2,100					2,100				4,200			4,200
Off Ramp v/c ratio		0.22					0.60				0.29			0.17
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps														
Up Type					On				Off				No	
Up Distance					1,000				1,120					
Up Flow (pcph)					900				1,253					
Down Type					No				No				No	
Down Distance														
Down Flow (pcph)														
Calculate Merge Influence Area Operations														
Effective v_p (pcph)					3,391				4,797				4,377	
Up Ramp L_{EQ}					1,359				298					
Down Ramp L_{EQ}														
P_{FM} (Eqn 13-3)					0.598				0.590				0.589	
P_{FM} (Eqn 13-4)									0.642					
P_{FM} (Eqn 13-5)														
P_{FM}					0.598				0.590				0.589	
v_{12} (pcph)					2,027				2,831				2,577	
v_3 (pcph)					1,364				1,966				1,800	
v_{34} (pcph)														
v_{12a} (pcph)					2,027				2,831				2,577	
v_{R12a} (pcph)					3,717				3,610				3,191	
Merge Speed Index					0.42				0.44				0.40	
Merge Area Speed					55.4				54.8				55.9	
Outer Lanes Volume					1,364				1,966				1,800	
Outer Lanes Speed					61.9				59.7				60.3	
Segment Speed					57.0				56.5				57.4	
Merge v/c ratio					0.81				0.78				0.69	
Merge Density					29.2				30.5				27.6	
Merge LOS					D				D				C	
Calculate Diverge Influence Area Operations														
Effective v_p (pcph)		3,009									5,576			
Up Ramp L_{EQ}														
Down Ramp L_{EQ}														
P_{FD} (Eqn 13-9)		0.664									0.565			
P_{FD} (Eqn 13-10)														
P_{FD} (Eqn 13-11)														
P_{FD}		1.000									0.450			
v_{12} (pcph)		3,009									3,180			
v_3 (pcph)											2,397			
v_{34} (pcph)														
v_{12a} (pcph)		3,009									3,186			
Diverge Speed Index		0.34									0.41			
Diverge Area Speed		57.2									55.6			
Outer Lanes Volume											2,390			
Outer Lanes Speed											65.9			
Segment Speed		57.2									59.6			

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key

<> Express Lane (HOV)

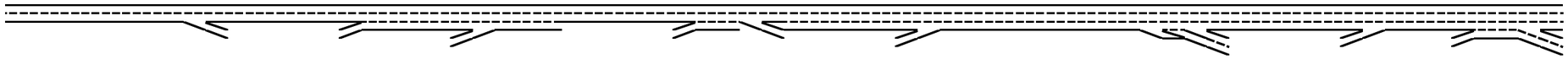
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Diverge v/c ratio		0.68									0.72			
Diverge Density		28.8									18.2			
Diverge LOS		D									B			
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments														
On to Off Volume (vph)							89							50
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_p							1.00							1.00
On to Off Flow (pcph)							95							53
Calculate On Ramp to Mainline Flow Rate for Weave Segments														
On to ML Volume (vph)							797							-30
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_p							1.00							1.00
On to ML Flow (pcph)							851							-32
Calculate Mainline to Off Ramp Flow Rate for Weave Segments														
ML to Off Volume (vph)							1,042							610
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_p							1.00							1.00
ML to Off Flow (pcph)							1,238							661
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments														
GP to GP Volume (vph)							3,739							4,085
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_p							1.00							1.00
GP to GP Flow (pcph)							4,442							4,429

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Mitigated Conditions
Time Period: AM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



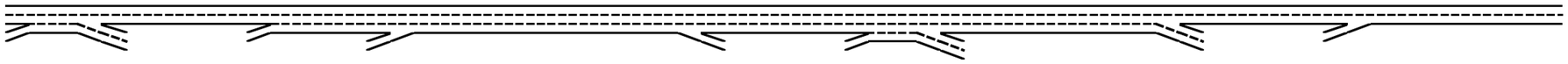
Key

<> Express Lane (HOV)

No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Weave Segment Operations														
Weave Type							One-sided							One-sided
Weave Length							2,050							2,344
Segment Lanes							1							4
Weave Lanes							2							2
Weave Flow (pcph)							2,089							629
Non-Weave Flow							4,537							4,482
Segment Flow							6,625							5,112
Max Weave Length							5,748							3,765
Length Check							OK							OK
Ideal Weave Capacity							2,067							2,241
f_{HV}							0.989							0.971
f_P							0.998							1.000
Capacity Condition 1							2,041							8,705
Capacity Condition 2							7,518							18,930
Weave v/c ratio							3.21							0.57
Interchange Density														
Lane Changes On to ML														
Lane Changes ML to Off														
Lane Changes On to Off														
Min Lane Change Rate														
Weave LC Rate														
Non-Weave LC Rate 1														
Non-Weave LC Rate 2														
Non-Weave LC Rate 3														
Segment LC Rate														
Weave Intensity Factor														
Weave Speed														
Non-Weave Speed														
Segment Speed														
Weave Density														
Weave LOS														
Summarize Segment Operations														
Segment v/c ratio	0.64	0.68	0.55	0.49	0.81	1.08	3.21	0.68	0.78	0.79	0.72	0.62	0.69	0.57
Segment Density	23.2	28.8	19.8	17.7	29.2	-	-	25.0	30.5	30.0	18.2	22.6	27.6	
Segment LOS	C	D	C	B	D	F	F	C	D	D	B	C	C	
Over Capacity						Segment GP Lanes	In GP Lanes Out GP Lanes Weave							

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



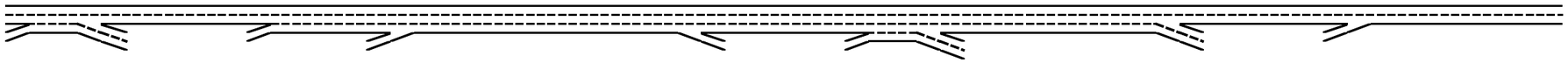
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Define Freeway Segment													
Type	Weave	Basic	Basic	Merge	Basic	Diverge	Basic	Weave	Basic	Basic	Basic	Merge	Basic
Length (ft)	2,770	1,420	1,150	1,500	1,020	1,500	2,590	2,680	900	1,500	2,870	1,500	8,600
Accel Length				1,260								600	
Decel Length						175							
Mainline Volume	4,150	3,980	3,980	5,000	5,200	5,200	4,390	4,390	4,090	4,090	2,140	2,140	2,950
On Ramp Volume	170		1,020	200				1,290				810	
Off Ramp Volume	340					810		1,590		1,950			
Express Lane Volume													
EL On Ramp Volume													
EL Off Ramp Volume													
Calculate Flow Rate in General Purpose Lanes (GP)													
GP Volume (vph)	4,320	3,980	5,000	5,200	5,200	5,200	4,390	5,680	4,090	4,090	2,140	2,950	2,950
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	3	2	3	3	3	3	3	4	3	3	2	2	2
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988	0.988
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	4,602	4,240	5,326	5,539	5,539	5,539	4,677	6,051	4,357	4,357	2,280	3,143	3,143
GP Flow (pcphpl)	1,534	2,120	1,775	1,846	1,846	1,846	1,559	1,513	1,452	1,452	1,140	1,571	1,571
Calculate Speed in General Purpose Lanes													
Lane Width (ft)													
Shoulder Width													
TRD													
f_{LW}													
f_{LC}													
Calculated FFS													
Measured FFS													
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes													
v/c ratio	0.65	0.90	0.76	0.79	0.79	0.79	0.66	0.64	0.62	0.62	0.49	0.67	0.67
Speed (mph)	64.7	57.7	63.0	62.2	62.2	62.2	64.6	64.8	65.0	65.0	65.0	64.6	64.6
Density (pcphpl)	23.7	36.8	28.2	29.7	29.7	29.7	24.1	23.3	22.4	22.4	17.5	24.3	24.3
LOS	C	E	D	D	D	D	C	C	C	C	B	C	C
Calculate Operations for Entering GP Lanes													
GP_{IN} Vol (pcph)	4,414		4,201	5,319		5,539		4,672				2,244	
GP_{IN} Cap (pcph)	4,700		4,700	7,050		7,050		7,050				4,700	
GP_{IN} v/c ratio	0.94		0.89	0.75		0.79		0.66				0.48	
Calculate Operations for Exiting GP Lanes													
GP_{OUT} Vol (pcph)	4,229			5,539		4,678		4,359		2,195		3,143	
GP_{OUT} Cap (pcph)	4,700			7,050		7,050		7,050		4,700		4,700	
GP_{OUT} v/c ratio	0.90			0.79		0.66		0.62		0.47		0.67	

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



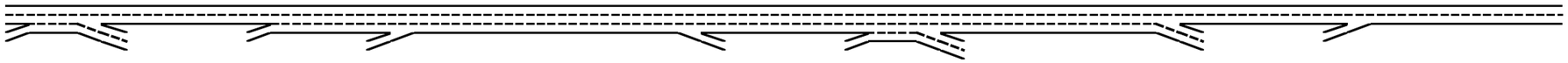
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Flow Rate in Express Lanes (EL)													
Calculate Speed in Express Lanes													
Calculate Operations in Express Lanes													
Calculate On Ramp Flow Rate													
On Volume (vph)	170		1,020	200				1,290				810	
PHF	0.92		0.92	0.92				0.95				0.92	
Total Lanes	1		1	1				1				1	
Terrain	Level		Level	Level				Level				Level	
Grade %	0.0%		0.0%	0.0%				0.0%				0.0%	
Grade Length (mi)	0.00		0.00	0.00				0.00				0.00	
Truck & Bus %	3.0%		3.0%	3.0%				3.0%				4.0%	
RV %	0.0%		0.0%	0.0%				0.0%				0.0%	
E_T	1.5		1.5	1.5				1.5				1.5	
E_R	1.2		1.2	1.2				1.2				1.2	
f_{HV}	0.985		0.985	0.985				0.985				0.980	
f_P	1.00		1.00	1.00				1.00				1.00	
On Flow (pcph)	188		1,125	221				1,378				898	
On Flow (pcphpl)	188		1,125	221				1,378				898	
Calculate On Ramp Roadway Operations													
On Ramp Type	Right		Right	Right				Right				Right	
On Ramp Speed (mph)	45		25	45				45				45	
On Ramp Cap (pcph)	2,100		1,900	2,100				2,100				2,100	
On Ramp v/c ratio	0.09		0.59	0.11				0.66				0.43	
Calculate Off Ramp Flow Rate													
Off Volume (vph)	340					810		1,590		1,950			
PHF	0.92					0.95		0.954		0.92			
Total Lanes	2					1		2		2			
Terrain	Level					Level		Level		Level			
Grade %	0.0%					0.0%		0.0%		0.0%			
Grade Length (mi)	0.00					0.00		0.00		0.00			
Truck & Bus %	2.0%					2.0%		3.0%		4.0%			
RV %	0.0%					0.0%		0.0%		0.0%			
E_T	1.5					1.5		1.5		1.5			
E_R	1.2					1.2		1.2		1.2			
f_{HV}	0.990					0.990		0.985		0.980			
f_P	1.00					1.00		1.00		1.00			
Off Flow (pcph)	373					861		1,692		2,162			
Off Flow (pcphpl)	187					861		846		1,081			
Calculate Off Ramp Roadway Operations													
Off Ramp Type	Right					Right		Right		Right			
Off Ramp Speed	45					45		45		45			
Off Ramp Cap (pcph)	4,200					2,100		4,200		4,200			
Off Ramp v/c ratio	0.09					0.41		0.40		0.51			
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-La													
Up Type						On							
Up Distance						4,020							
Up Flow (pcph)						221							
Down Type						No							
Down Distance													
Down Flow (pcph)													

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



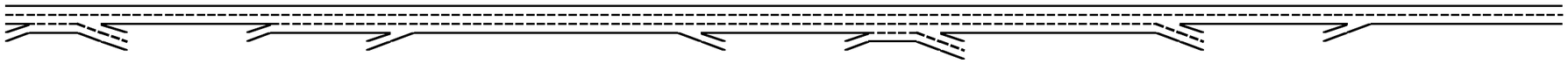
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Merge Influence Area Operations													
Effective v_P (pcph)				5,319								2,244	
Up Ramp L_{EQ}													
Down Ramp L_{EQ}													
P_{FM} (Eqn 13-3)				0.613								0.594	
P_{FM} (Eqn 13-4)													
P_{FM} (Eqn 13-5)													
P_{FM}				0.613								1.000	
v_{12} (pcph)				3,259								2,244	
v_3 (pcph)				2,060									
v_{34} (pcph)													
v_{12a} (pcph)				3,259								2,244	
v_{R12a} (pcph)				3,480								3,143	
Merge Speed Index				0.33								0.36	
Merge Area Speed				57.3								56.8	
Outer Lanes Volume				2,060									
Outer Lanes Speed				59.4									
Segment Speed				58.1								56.8	
Merge v/c ratio				0.76								0.68	
Merge Density				24.6								25.8	
Merge LOS				C								C	
Calculate Diverge Influence Area Operations													
Effective v_P (pcph)						5,539							
Up Ramp L_{EQ}						1,660							
Down Ramp L_{EQ}													
P_{FD} (Eqn 13-9)						0.582							
P_{FD} (Eqn 13-10)						0.534							
P_{FD} (Eqn 13-11)													
P_{FD}						0.582							
v_{12} (pcph)						3,583							
v_3 (pcph)						1,956							
v_{34} (pcph)													
v_{12a} (pcph)						3,583							
Diverge Speed Index						0.38							
Diverge Area Speed						56.4							
Outer Lanes Volume						1,956							
Outer Lanes Speed						67.6							
Segment Speed						59.9							
Diverge v/c ratio						0.81							
Diverge Density						33.5							
Diverge LOS						D							

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



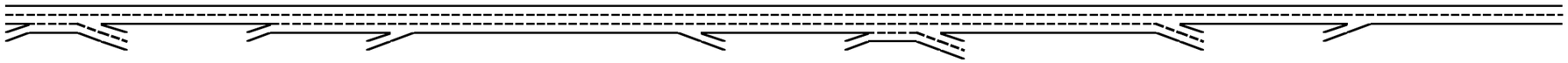
Key

<> Express Lane (HOV)

No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments													
On to Off Volume (vph)	43							129					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							7.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.966					
f_P	1.00							1.00					
On to Off Flow (pcph)	45							167					
Calculate On Ramp to Mainline Flow Rate for Weave Segments													
On to ML Volume (vph)	128							1,161					
PHF	0.95							0.8					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	3.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.985							0.985					
f_P	1.00							1.00					
On to ML Flow (pcph)	136							1,473					
Calculate Mainline to Off Ramp Flow Rate for Weave Segments													
ML to Off Volume (vph)	298							1,461					
PHF	0.95							0.83					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
ML to Off Flow (pcph)	323							1,787					
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for													
GP to GP Volume (vph)	3,853							2,929					
PHF	0.95							0.825					
Terrain	Level							Level					
Grade %	0.0%							0.0%					
Grade Length (mi)	0.00							0.00					
Truck & Bus %	6.0%							3.0%					
RV %	0.0%							0.0%					
E_T	1.5							1.5					
E_R	1.2							1.2					
f_{HV}	0.971							0.985					
f_P	1.00							1.00					
GP to GP Flow (pcph)	4,177							3,604					

Location	8	9	10	11	12	13	14	15	16	17	18	19	20



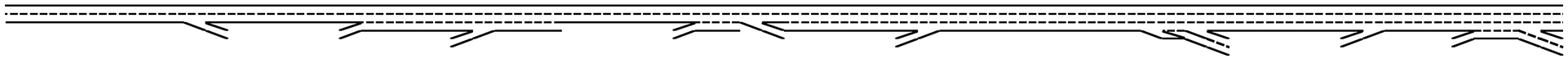
Key
<> Express Lane (HOV)
No Trucks

Name	Sunset Slip On-Ramp to Whitney Ranch Pkwy Off	Whitney Ranch Pkwy off to on-ramp	Whitney Ranch Pkwy Loop On-ramp	Whitney Ranch Pkwy Slip On-ramp	Whitney Ranch Pkwy to Twelve Bridges	Twelve Bridges Off-Ramp	Twelve Bridges Off to On-Ramp	Twelve Bridges On to Lincoln Off-Ramp	Lincoln Blvd Off to Ferrari Ranch Rd	Ferrari Ranch Rd Off-Ramp	Ferrari Ranch Rd Off to On-Ramp	Ferrari Ranch Rd On-Ramp	Ferrari Ranch Rd to Nelson Ln
Calculate Weave Segment Operations													
Weave Type	One-sided							One-sided					
Weave Length	1,770							1,680					
Segment Lanes	3							4					
Weave Lanes	2							3					
Weave Flow (pcph)	459							3,260					
Non-Weave Flow	4,222							3,770					
Segment Flow	4,681							7,030					
Max Weave Length	3,520							5,839					
Length Check	OK							OK					
Ideal Weave Capacity	2,216							2,032					
f_{HV}	0.971							0.985					
f_P	1.000							0.997					
Capacity Condition 1	6,456							7,979					
Capacity Condition 2	23,778							7,410					
Weave v/c ratio	0.70							0.93					
Interchange Density								0.666666667					
Lane Changes On to ML													
Lane Changes ML to Off													
Lane Changes On to Off													
Min Lane Change Rate								0					
Weave LC Rate								493					
Non-Weave LC Rate 1								917					
Non-Weave LC Rate 2								2,530					
Non-Weave LC Rate 3								-1,261					
Segment LC Rate								1,409					
Weave Intensity Factor								0.197					
Weave Speed								56.8					
Non-Weave Speed								56.6					
Segment Speed								56.7					
Weave Density								31.0					
Weave LOS								D					
Summarize Segment Operations													
Segment v/c ratio	0.70	0.90	0.76	0.76	0.79	0.81	0.66	0.93	0.62	0.62	0.49	0.68	0.67
Segment Density		36.8	28.2	24.6	29.7	33.5	24.1	31.0	22.4	22.4	17.5	25.8	24.3
Segment LOS		E	D	C	D	D	C	D	C	C	B	C	C
Over Capacity													

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Mitigated Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
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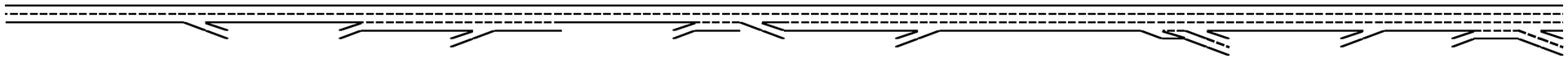
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Define Freeway Segment														
Type	Basic	Diverge	Basic	Basic	Merge	Basic	Weave	Basic	Merge	Basic	Diverge	Basic	Merge	Weave
Length (ft)	8,330	1,500	1,800	1,000	1,500	870	3,050	1,120	1,500	2,210	1,500	1,830	690	3,344
Accel Length					720				450				400	
Decel Length		150									1,500			
Mainline Volume	3,440	3,440	2,550	2,550	2,940	3,500	3,500	4,320	4,320	5,160	5,160	3,910	3,910	4,690
On Ramp Volume				390	560		1,680		840				780	80
Off Ramp Volume		890					860				1,250			550
Express Lane Volume														
EL On Ramp Volume														
EL Off Ramp Volume														
Calculate Flow Rate in General Purpose Lanes (GP)														
GP Volume (vph)	3,440	3,440	2,550	2,940	3,500	3,500	5,180	4,320	5,160	5,160	5,160	3,910	4,690	4,770
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
GP Lanes	2	2	2	3	3	2	3	3	3	3	3	3	3	4
Terrain	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
Grade %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grade Length (mi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck & Bus %	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
RV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
E_T	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
E_R	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990	0.990
f_P	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GP Flow (pcph)	3,657	3,657	2,711	3,126	3,721	3,721	5,507	4,593	5,486	5,486	5,486	4,157	4,986	5,071
GP Flow (pcphpl)	1,829	1,829	1,356	1,042	1,240	1,861	1,836	1,531	1,829	1,829	1,829	1,386	1,662	1,268
Calculate Speed in General Purpose Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calculated FFS														
Measured FFS														
FFS Curve	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Calculate Operations in General Purpose Lanes														
v/c ratio	0.78	0.78	0.58	0.44	0.53	0.79	0.78	0.65	0.78	0.78	0.78	0.59	0.71	0.54
Speed (mph)	62.4	62.4	65.0	65.0	65.0	62.0	62.3	64.8	62.4	62.4	62.4	65.0	64.0	65.0
Density (pcphpl)	29.3	29.3	20.9	16.0	19.1	30.0	29.5	23.6	29.3	29.3	29.3	21.3	26.0	19.5
LOS	D	D	C	B	C	D	D	C	D	D	D	C	C	C
Calculate Operations for Entering GP Lanes														
GP_{IN} Vol (pcph)		3,657		2,698	3,106		3,654		4,564		5,486		4,130	4,983
GP_{IN} Cap (pcph)		4,700		4,700	7,050		4,700		7,050		7,050		7,050	7,050
GP_{IN} v/c ratio		0.78		0.57	0.44		0.78		0.65		0.78		0.59	0.71
Calculate Operations for Exiting GP Lanes														
GP_{OUT} Vol (pcph)		2,680			3,721		4,563		5,486		4,114		4,986	4,467
GP_{OUT} Cap (pcph)		4,700			7,050		4,700		7,050		7,050		7,050	7,050
GP_{OUT} v/c ratio		0.57			0.53		0.97		0.78		0.58		0.71	0.63

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Mitigated Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



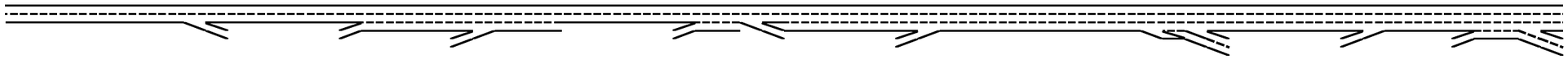
Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Flow Rate in Express Lanes (EL)														
EL Volume (vph)														
PHF														
Express Lanes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrain														
Grade %														
Grade Length (mi)														
Truck & Bus %														
RV %														
E_T	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5					1.5
E_R	1.2	1.2	1.2	1.2	1.2		1.2	1.2	1.2					1.2
f_{HV}	0.990	0.990	0.990	0.990	0.990		0.990	0.990	0.990					0.990
f_P														
EL Flow (pcph)														
EL Flow (pcphpl)														
Calculate Speed in Express Lanes														
Lane Width (ft)														
Shoulder Width														
TRD														
f_{LW}														
f_{LC}														
Calc'd FFS														
Measured FFS														
FFS														
Calculate Operations in Express Lanes														
EL_{IN} v/c ratio														
Calculate On Ramp Flow Rate														
On Volume (vph)				390	560		1,680		840				780	80
PHF				0.92	0.92		0.92		0.92				0.92	0.92
Total Lanes				1	1		1		1				1	1
Terrain				Level	Level		Level		Level				Level	Level
Grade %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
Grade Length (mi)				0.00	0.00		0.00		0.00				0.00	0.00
Truck & Bus %				2.0%	2.0%		3.0%		2.0%				2.0%	2.0%
RV %				0.0%	0.0%		0.0%		0.0%				0.0%	0.0%
E_T				1.5	1.5		1.5		1.5				1.5	1.5
E_R				1.2	1.2		1.2		1.2				1.2	1.2
f_{HV}				0.990	0.990		0.985		0.990				0.990	0.990
f_P				1.00	1.00		1.00		1.00				1.00	1.00
On Flow (pcph)				428	615		1,853		922				856	88
On Flow (pcphpl)				428	615		1,853		922				856	88
Calculate On Ramp Roadway Operations														
On Ramp Type				Right	Right		Right		Right				Right	Right
On Ramp Speed (mph)				25	45		45		25				25	45
On Ramp Cap (pcph)				1,900	2,100		2,100		1,900				1,900	2,100
On Ramp v/c ratio				0.23	0.29		0.88		0.49				0.45	0.04
Calculate Off Ramp Flow Rate														
Off Volume (vph)		890					860				1,250			550
PHF		0.92					0.92				0.92			0.92
Total Lanes		1					1				2			2
Terrain		Level					Level				Level			Level
Grade %		0.0%					0.0%				0.0%			0.0%
Grade Length (mi)		0.00					0.00				0.00			0.00

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Mitigated Conditions
Time Period: PM Peak Hour

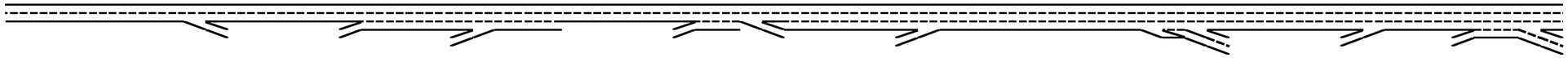
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Truck & Bus %		2.0%					2.0%				2.0%			2.0%
RV %		0.0%					0.0%				0.0%			0.0%
E_T		1.5					1.5				1.5			1.5
E_R		1.2					1.2				1.2			1.2
f_{HV}		0.990					0.990				0.990			0.990
f_P		1.00					1.00				1.00			1.00
Off Flow (pcph)		977					944				1,372			604
Off Flow (pcphpl)		977					944				686			302
Calculate Off Ramp Roadway Operations														
Off Ramp Type		Right					Right				Right			Right
Off Ramp Speed		45					45				45			45
Off Ramp Cap (pcph)		2,100					2,100				4,200			4,200
Off Ramp v/c ratio		0.47					0.45				0.33			0.14
Determine Adjacent Ramp for Three-Lane Mainline Segments with One-Lane Ramps														
Up Type					On				Off				No	
Up Distance					1,000				1,120					
Up Flow (pcph)					428				944					
Down Type					No				No				No	
Down Distance														
Down Flow (pcph)														
Calculate Merge Influence Area Operations														
Effective v_P (pcph)					3,106				4,564				4,130	
Up Ramp L_{EQ}					1,067				279					
Down Ramp L_{EQ}														
P_{FM} (Eqn 13-3)					0.598				0.590				0.589	
P_{FM} (Eqn 13-4)									0.643					
P_{FM} (Eqn 13-5)														
P_{FM}					0.598				0.590				0.589	
v_{12} (pcph)					1,856				2,693				2,431	
v_3 (pcph)					1,250				1,871				1,699	
v_{34} (pcph)														
v_{12a} (pcph)					1,856				2,693				2,431	
v_{R12a} (pcph)					2,471				3,615				3,288	
Merge Speed Index					0.30				0.44				0.41	
Merge Area Speed					58.0				54.8				55.7	
Outer Lanes Volume					1,250				1,871				1,699	
Outer Lanes Speed					62.3				60.1				60.7	
Segment Speed					59.4				56.5				57.3	
Merge v/c ratio					0.54				0.79				0.71	
Merge Density					20.0				30.4				28.2	
Merge LOS					B				D				D	

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key

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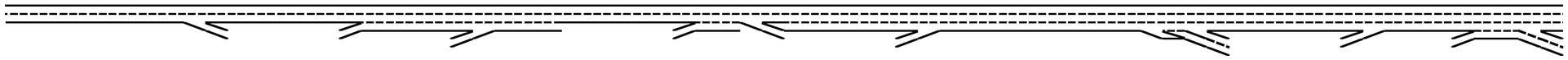
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
Calculate Diverge Influence Area Operations														
Effective v_P (pcph)		3,657									5,486			
Up Ramp L_{EQ}														
Down Ramp L_{EQ}														
P_{FD} (Eqn 13-9)		0.624									0.560			
P_{FD} (Eqn 13-10)														
P_{FD} (Eqn 13-11)														
P_{FD}		1.000									0.450			
v_{12} (pcph)		3,657									3,223			
v_3 (pcph)											2,262			
v_{34} (pcph)														
v_{12a} (pcph)		3,657									3,223			
Diverge Speed Index		0.39									0.42			
Diverge Area Speed		56.1									55.3			
Outer Lanes Volume											2,262			
Outer Lanes Speed											66.4			
Segment Speed		56.1									59.4			
Diverge v/c ratio		0.83									0.73			
Diverge Density		34.4									18.5			
Diverge LOS		D									B			
Calculate On Ramp to Off Ramp Flow Rate for Weave Segments														
On to Off Volume (vph)							168							50
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_P							1.00							1.00
On to Off Flow (pcph)							179							53
Calculate On Ramp to Mainline Flow Rate for Weave Segments														
On to ML Volume (vph)							1,512							30
PHF							0.95							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							3.0%							3.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.985							0.985
f_P							1.00							1.00
On to ML Flow (pcph)							1,615							32
Calculate Mainline to Off Ramp Flow Rate for Weave Segments														
ML to Off Volume (vph)							692							500
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5

Project: Village 5 SP
Freeway Corridor: SB SR-65

2025 Cumulative Plus Project
Mitigated Conditions
Time Period: PM Peak Hour

Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14



Key
<> Express Lane (HOV)
No Trucks

Name	Nelson Ln to Ferrari Ranch Rd	Ferrari Ranch Rd Off-ramp	Ferrari Ranch Rd Off to On Ramp	Ferrari Ranch Rd Loop On Ramp	Ferrari Ranch Rd Direct On Ramp	Ferrari Ranch Rd to Lincoln Blvd	Lincoln Blvd On Ramp to Twelve Bridges Off	Twelve Bridges Off to On Ramp	Twelve Bridges Loop On Ramp	Twelve Bridges to Placer Pkwy	Placer Pkwy off-ramp	Placer Pkwy off to on-ramp	Placer Pkwy Loop on-ramp	Placer Pkwy On to Sunset Blvd Off-Ramp
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_p							1.00							1.00
ML to Off Flow (pcph)							822							542
Calculate General Purpose Lanes to General Purpose Lanes Flow Rate for Weave Segments														
GP to GP Volume (vph)							2,808							4,190
PHF							0.85							0.95
Terrain							Level							Level
Grade %							0.0%							0.0%
Grade Length (mi)							0.00							0.00
Truck & Bus %							2.0%							6.0%
RV %							0.0%							0.0%
E_T							1.5							1.5
E_R							1.2							1.2
f_{HV}							0.990							0.971
f_p							1.00							1.00
GP to GP Flow (pcph)							3,337							4,543
Calculate Weave Segment Operations														
Weave Type							One-sided							One-sided
Weave Length							2,050							2,344
Segment Lanes							1							4
Weave Lanes							2							2
Weave Flow (pcph)							2,438							574
Non-Weave Flow							3,516							4,596
Segment Flow							5,954							5,170
Max Weave Length							6,787							3,647
Length Check							OK							OK
Ideal Weave Capacity							1,988							2,250
f_{HV}							0.989							0.971
f_p							0.996							1.000
Capacity Condition 1							1,957							8,740
Capacity Condition 2							5,772							20,986
Weave v/c ratio							3.00							0.57
Interchange Density														
Lane Changes On to ML														
Lane Changes ML to Off														
Lane Changes On to Off														
Min Lane Change Rate														
Weave LC Rate														
Non-Weave LC Rate 1														
Non-Weave LC Rate 2														
Non-Weave LC Rate 3														
Segment LC Rate														
Weave Intensity Factor														
Weave Speed														
Non-Weave Speed														
Segment Speed														
Weave Density														
Weave LOS														
Summarize Segment Operations														
Segment v/c ratio	0.78	0.83	0.58	0.44	0.54	0.79	3.00	0.65	0.79	0.78	0.73	0.59	0.71	0.57
Segment Density	29.3	34.4	20.9	16.0	20.0	30.0	-	23.6	30.4	29.3	18.5	21.3	28.2	
Segment LOS	D	D	C	B	B	D	F	C	D	D	B	C	D	
Over Capacity							Weave							

Leisch Method for Weaving Analysis

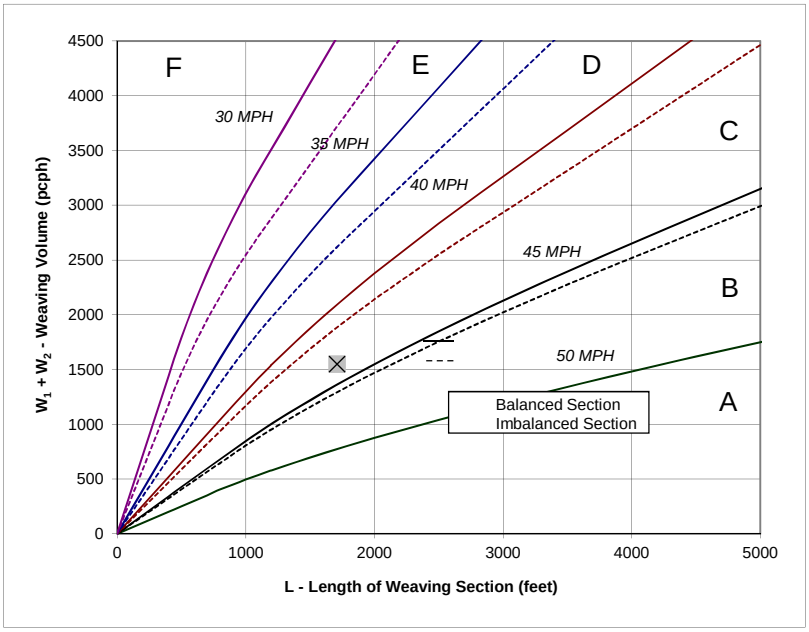
Data Input

Number of Entering Mainline Lanes	N_b	3
Number of Lanes in Weaving Section	N	4
Length of Weaving Section (feet)	L	1,710

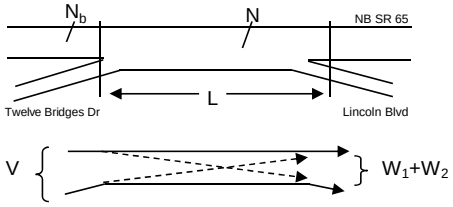
Project Information

Project	Village 5 SP EIR
Scenario	Cumulative Plus Project Mitigated
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	4,390	Volume (vph)*	698	Volume (vph)*	838
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	4,434	Volume (pcph)	704	Volume (pcph)	846



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) 43.7
4. Weaving Intensity Factor (k) 2.14
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] 1,308
6. Level of Service (LOS) C

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

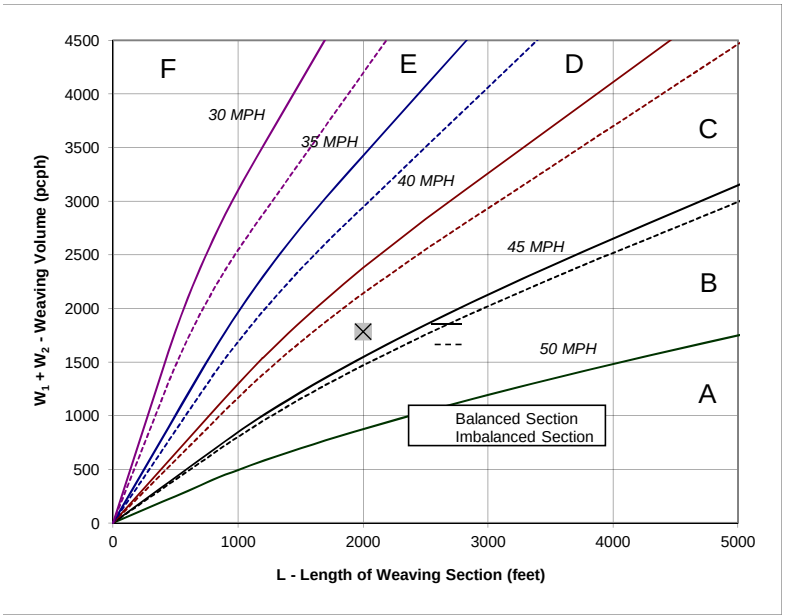
Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

Data Input		
Number of Entering Mainline Lanes	N_b	3
Number of Lanes in Weaving Section	N	4
Length of Weaving Section (feet)	L	2,000

Project Information	
Project	Village 5 SP EIR
Scenario	Cumulative Plus Project Mitigated
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,655	Volume (vph)*	761	Volume (vph)*	1,006
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,712	Volume (pcph)	769	Volume (pcph)	1,016



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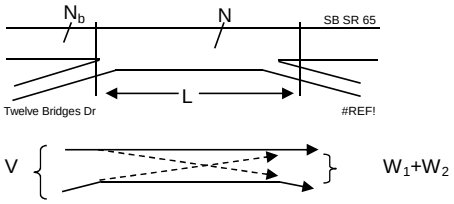


Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	N
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**40 MPH** and **45 MPH**
If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.	
3. Interpolated Weaving Speed (S_w, mph)	42.6
4. Weaving Intensity Factor (k)	2.27
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,671
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

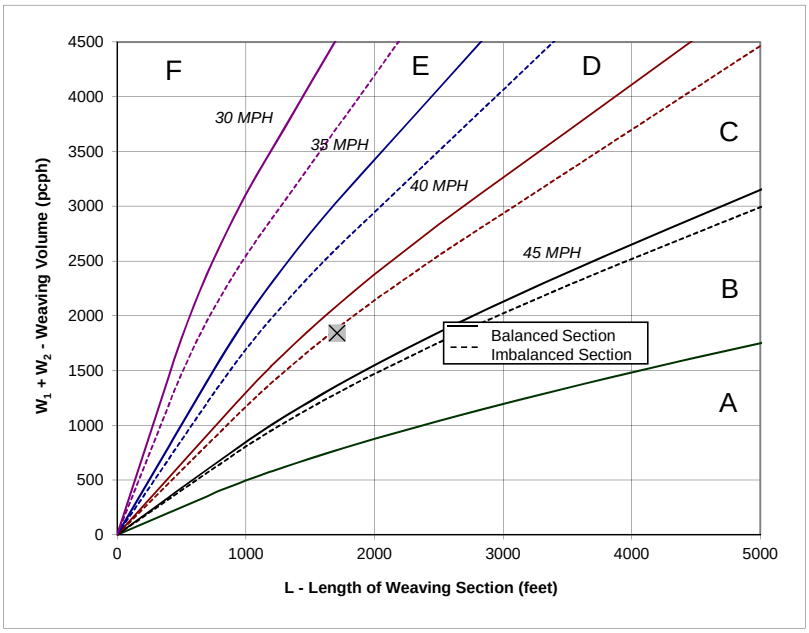
Data Input

Number of Entering Mainline Lanes	N_b	3
Number of Lanes in Weaving Section	N	4
Length of Weaving Section (feet)	L	1,710

Project Information

Project	Village 5 SP EIR
Scenario	Cumulative Plus Project Mitigated
Freeway	NB SR 65
On-ramp	Twelve Bridges Dr
Off-ramp	Lincoln Blvd

Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,680	Volume (vph)*	761	Volume (vph)*	1,061
Truck Percentage	4%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,794	Volume (pcph)	769	Volume (pcph)	1,072



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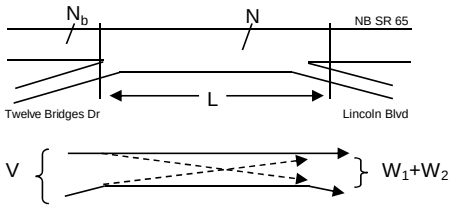


Capacity Analysis

1. Is the weaving section balanced (Y / N)? **Y**
   [If optional exit lane, then "Y". Otherwise "N".]
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?
   40 MPH and **45 MPH**
   If below the 50 MPH curve, out of the realm of weaving.
   If left of the 30 MPH curve, LOS is F.
3. Interpolated Weaving Speed (S_w, mph) **41.7**
4. Weaving Intensity Factor (k) **2.37**
5. Service Volume (SV, pcph)
   SV = (1/N)*[V + (k - 1)*min(W_1, W_2)] **1,711**
6. Level of Service (LOS) **E**

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections* , Jack E. Leisch & Associates, September 1983.

Leisch Method for Weaving Analysis

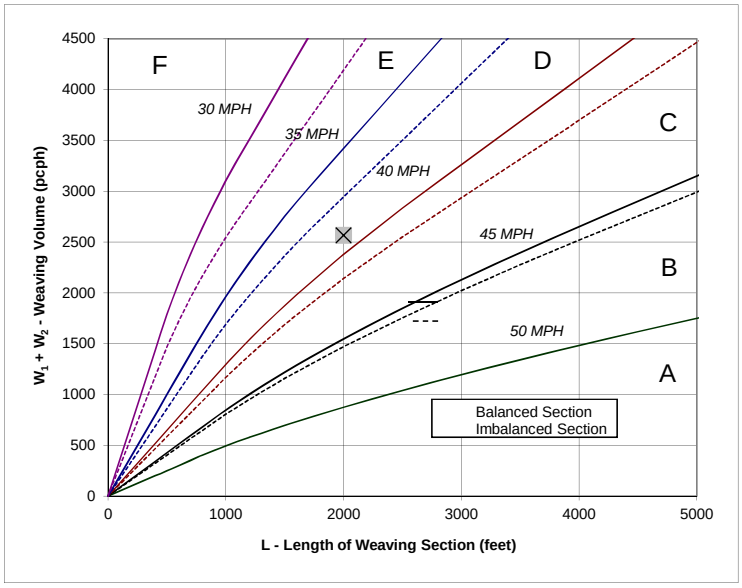
Data Input

Number of Entering Mainline Lanes	N_b	3
Number of Lanes in Weaving Section	N	4
Length of Weaving Section (feet)	L	2,000

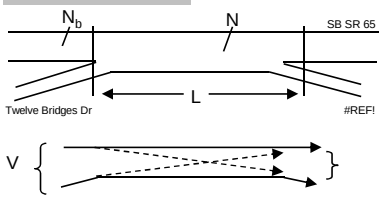
Total Weaving Section (V)		On-ramp to Mainline (W_1)		Mainline to Off-ramp (W_2)	
Volume (vph)*	5,180	Volume (vph)*	1,680	Volume (vph)*	860
Truck Percentage	2%	Truck Percentage	2%	Truck Percentage	2%
PCE for Trucks	1.5	PCE for Trucks	1.5	PCE for Trucks	1.5
Volume (pcph)	5,232	Volume (pcph)	1,697	Volume (pcph)	869

Project Information

Project	Village 5 SP EIR
Scenario	Cumulative Plus Project Mitigated
Freeway	SB SR 65
On-ramp	Lincoln Blvd
Off-ramp	Twelve Bridges Dr



Figure



Capacity Analysis

1. Is the weaving section balanced (Y / N)? [If optional exit lane, then "Y". Otherwise "N".]	N
2. In the Weaving Speed Chart to the left, which two speed curves is the black "x" between?	**35 MPH** and **40 MPH**
If below the 50 MPH curve, out of the realm of weaving. If left of the 30 MPH curve, LOS is F.	
3. Interpolated Weaving Speed (S_w, mph)	37.4
4. Weaving Intensity Factor (k)	2.75
5. Service Volume (SV, pcph) SV = (1/N)*[V + (k - 1)*min(W_1, W_2)]	1,688
6. Level of Service (LOS)	E

The LOS in the chart above refers to the capacity of weaving traffic only; through and ramp to ramp traffic is not included.

* Note: **Do not adjust by a Peak Hour Factor (PHF).** The methodology incorporates the PHF in the Service Volume tables.

Source: *Completion of Procedures for Analysis and Design of Traffic Weaving Sections*, Jack E. Leisch & Associates, September 1983.