

APPENDIX C

EXISTING TRAFFIC COUNTS & RAMP METER INFORMATION

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.01.EL CAMINO REAL VIA DE LA VALLE
Site Code : 00000000
Start Date : 5/13/2009
Page No : 11

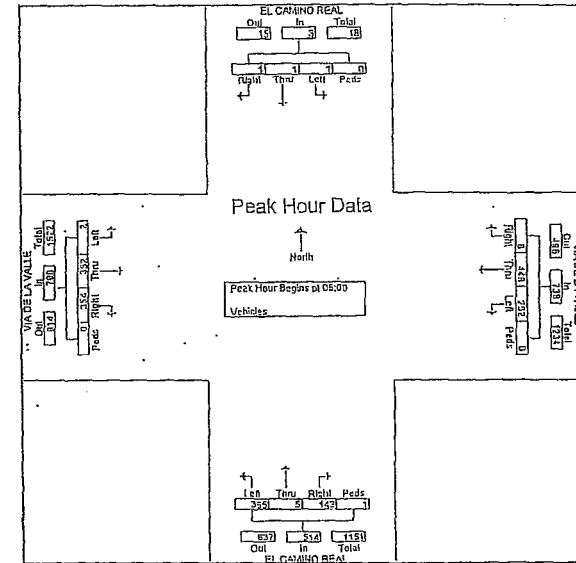
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.01.EL CAMINO REAL VIA DE LA VALLE
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Groups Priviled- Vehicles

Start Time	EL CAMINO REAL Southbound				VIA DE LA VALLE Westbound				EL CAMINO REAL Northbound				VIA DE LA VALLE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	0	0	0	36	79	0	0	48	0	12	0	0	68	41	1	285
07:15	0	5	1	3	327	79	0	1	79	0	16	0	0	69	62	0	462
07:30	0	9	0	0	100	119	0	0	91	0	35	1	0	81	87	0	523
07:45	0	0	0	0	78	98	0	0	93	0	43	2	0	75	91	1	481
Total	0	14	1	3	341	375	0	1	311	0	106	3	0	293	301	2	1751
08:00	0	0	0	0	74	98	0	0	72	0	39	0	1	88	91	0	463
08:15	0	1	0	0	74	111	1	0	79	3	33	0	0	82	100	0	484
08:30	0	0	0	0	72	130	0	0	118	2	27	1	0	87	89	0	526
08:45	1	0	1	0	62	109	7	0	96	0	44	0	1	95	74	0	490
Total	1	1	1	0	282	446	8	0	365	5	143	1	2	352	354	0	1903
*** BREAK ***																	
16:00	0	0	0	0	35	113	0	0	104	0	87	0	1	118	94	0	552
16:15	0	1	1	0	28	111	1	0	57	1	76	0	1	104	96	1	518
16:30	1	4	1	0	51	80	0	0	100	0	86	0	0	108	114	3	548
16:45	1	0	1	0	42	113	0	0	118	0	86	0	0	125	109	7	692
Total	2	5	3	0	156	417	1	0	419	1	335	0	2	455	413	11	2220
17:00	0	1	0	0	41	92	0	0	98	1	86	1	0	102	111	4	537
17:15	0	0	1	1	37	97	2	0	129	0	104	0	3	100	130	2	606
17:30	0	1	0	0	51	93	1	3	142	1	81	2	2	90	120	4	591
17:45	0	0	0	0	33	81	0	0	143	0	121	0	1	105	124	1	609
Total	0	2	1	1	162	363	5	3	512	2	392	3	6	397	485	11	2349
Grand Total	3	22	6	4	941	1603	12	4	1607	8	976	7	10	1497	1553	24	8277
Approch %	5.6	62.9	17.1	11.4	36.8	62.6	0.5	0.2	61.9	0.3	37.6	0.3	0.3	48.5	50.4	0.8	
Total %	0	0.3	0.1	0	11.4	19.4	0.1	0	19.4	0.1	11.8	0.1	0.1	18.1	18.8	0.3	

Start Time	EL CAMINO REAL Southbound				VIA DE LA VALLE Westbound				EL CAMINO REAL Northbound				VIA DE LA VALLE Eastbound				Int. Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
08:00	0	0	0	0	74	98	0	0	172	72	0	39	0	111	1	88	91	0	180	463
08:15	0	1	0	0	74	111	1	0	186	79	3	33	0	115	0	82	100	0	182	484
08:30	0	0	0	0	72	130	0	0	202	118	2	27	1	248	0	87	89	0	176	526
08:45	1	0	1	0	62	109	7	0	178	96	0	44	0	140	1	95	74	0	170	490
Total Volume	1	1	1	0	282	446	8	0	365	5	143	1	2	352	354	0	708	708	1903	
% Appr. Total	33.3	33.3	33.3	0	38.2	60.7	1.1	0	71	1	27.8	0.2	0.3	49.7	50	0				
PIEF	.250	.250	.250	.000	.375	.953	.867	.285	.000	.913	.773	.417	.813	.350	.868	.500	.926	.885	.600	.973



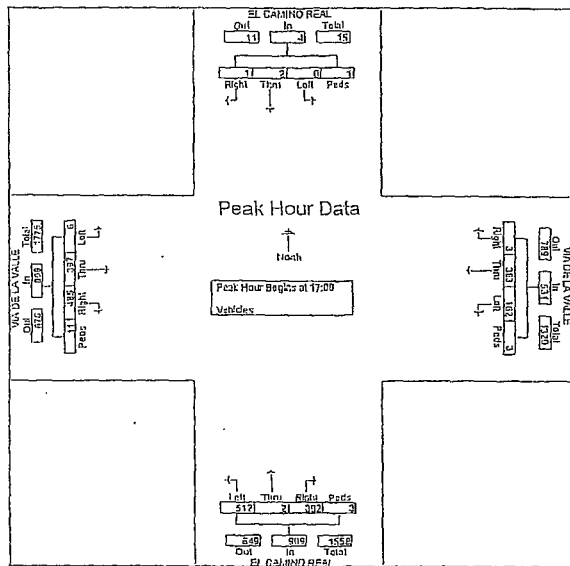
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.01.EL CAMINO REAL.VIA DE LA VALLE
Site Code : 00000000
Start Date : 5/13/2009
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.02.EL CAMINO REAL.SAN DIEGUITO RD
Site Code : 00000000
Start Date : 5/13/2009
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Start Time	EL CAMINO REAL Southbound				VIA DE LA VALLE Westbound				EL CAMINO REAL Northbound				VIA DE LA VALLE Eastbound				Int. Total					
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds						
Peak Hour Analysis From 17:00 to 17:45 - Peak 1 of 1	Peak Hour for Entire Intersection Begins at 17:00																					
17:00	0	1	0	0	1	41	92	0	0	133	98	1	86	1	186	0	102	111	4	217	537	
17:15	0	0	1	1	2	37	97	2	0	136	129	0	104	0	233	3	100	130	2	235	605	
17:30	0	1	0	0	1	51	93	1	3	148	142	1	81	2	226	2	90	120	4	216	591	
17:45	0	0	0	0	0	33	81	0	0	114	143	0	121	0	264	1	105	124	1	231	609	
Total Volume	0	2	1	1	4	162	363	3	3	531	512	2	392	3	909	6	397	485	11	890	2343	
App. Total	0	50	25	25	50	30.5	68.4	0.6	0.6	56.3	0.2	43.1	0.3	0.7	44.2	53.9	1.2					
PHF	.000	.500	.350	.250	.500	.791	.636	.375	.250	.897	.695	.500	.810	.375	.861	.500	.945	.933	.688	.956	.962	



Groups Printed - Vehicles

Start Time	EL CAMINO REAL Southbound				SAN DIEGUITO RD Westbound				EL CAMINO REAL Northbound				SAN DIEGUITO RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	38	41	0	1	41	0	48	0	0	14	36	2	0	0	0	1	234
07:15	40	138	0	1	79	0	67	0	0	45	39	0	0	0	0	3	413
07:30	53	144	0	2	108	0	82	2	0	60	51	1	0	0	0	2	505
07:45	59	97	0	0	91	0	71	0	0	30	79	1	0	0	0	2	450
Total	190	420	0	4	319	0	268	2	0	170	207	4	0	0	0	8	1592
08:00	72	71	0	0	93	0	68	2	0	37	60	2	0	0	0	0	405
08:15	97	92	0	1	94	0	78	2	0	42	85	2	0	0	0	0	493
08:30	67	70	0	0	95	0	100	1	0	46	64	1	0	0	0	1	445
08:45	56	69	0	5	87	0	75	3	0	49	70	4	0	0	0	5	423
Total	292	302	0	6	369	0	321	8	0	174	279	9	0	0	0	6	1766
*** BREAK ***																	
16:00	62	53	0	0	60	0	67	2	0	86	43	2	0	0	0	0	376
16:15	61	50	0	0	55	0	59	0	0	95	65	0	0	0	0	0	365
16:30	59	66	0	0	53	0	62	3	0	114	52	2	0	0	0	0	411
16:45	72	53	0	3	41	0	57	5	0	114	65	3	0	0	0	1	414
Total	254	222	0	3	209	0	245	10	0	411	224	7	0	0	0	1	1566
17:00	63	53	0	0	52	0	67	1	0	109	75	4	0	0	0	4	428
17:15	86	70	0	2	52	0	75	0	0	124	90	1	0	0	0	2	502
17:30	75	75	0	3	44	0	67	2	0	139	72	0	0	0	0	3	470
17:45	106	74	0	0	53	0	57	1	0	158	117	2	0	0	0	1	562
Total	332	272	0	5	201	0	256	4	0	521	354	7	0	0	0	10	1962
Grand Total	1068	1216	0	19	1098	0	1090	24	0	1276	1064	27	0	0	0	25	6906
Approach %	46.4	52.8	0	0.8	49.6	0	49.3	1.1	0	53.9	45	1.1	0	0	0	100	
Total %	15.5	17.6	0	0.3	15.9	0	15.6	0.3	0	18.5	15.4	0.4	0	0	0	0.4	

True Count
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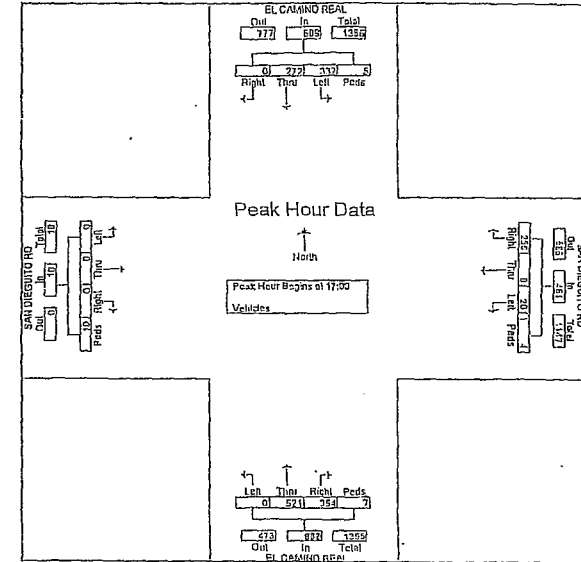
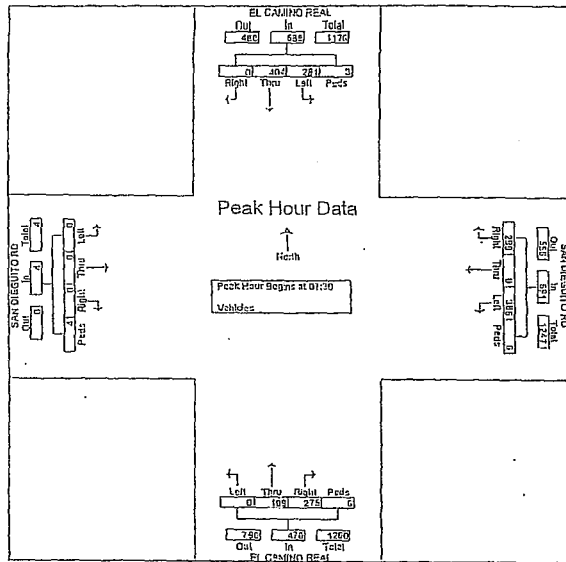
File Name : 8031.02.EL CAMINO REAL SAN DIEGUITO RD
Site Code : 00000000
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.02.EL CAMINO REAL SAN DIEGUITO RD
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Start Time	EL CAMINO REAL Southbound				SAN DIEGUITO RD Westbound				EL CAMINO REAL Northbound				SAN DIEGUITO RD Eastbound				In Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	53	144	0	2	139	108	0	81	2	192	0	60	51	1	112	0	0	0	2	2	585
07:45	59	97	0	0	156	91	0	71	0	162	0	50	79	1	130	0	0	0	2	2	450
08:00	72	71	0	0	143	93	0	68	2	163	0	51	60	2	99	0	0	0	0	0	405
08:15	97	92	0	1	190	54	0	76	2	174	0	42	68	2	129	0	0	0	0	0	493
Total Volume	281	404	0	3	688	386	0	299	6	691	0	189	275	6	470	0	0	0	4	4	1853
% App. Total	49.8	58.7	0	0.4	55.9	43.3	0.9	40.2	55.5	1.3	0	0	0	100	0	0	0	0	0	0	100
PHF	.724	.701	.000	.375	.864	.854	.000	.912	.750	.900	.000	.788	.809	.750	.904	.000	.000	.000	.500	.500	.917

Start Time	EL CAMINO REAL Southbound				SAN DIEGUITO RD Westbound				EL CAMINO REAL Northbound				SAN DIEGUITO RD Eastbound				In Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	63	53	0	0	116	52	0	67	1	120	0	109	75	4	188	0	0	0	4	4	428
17:15	86	70	0	2	158	52	0	75	0	127	0	124	50	1	215	0	0	0	2	2	502
17:30	75	75	0	3	153	44	0	67	3	119	0	120	72	0	201	0	0	0	3	3	470
17:45	108	74	0	0	182	53	0	47	1	101	0	150	117	2	278	0	0	0	1	1	552
Total Volume	332	272	0	5	609	201	0	256	4	461	0	521	354	7	882	0	0	0	10	10	1962
% App. Total	54.5	44.7	0	0.8	43.6	43.6	0	55.5	0.9	0	0	59.1	40.1	0.8	0	0	0	0	0	0	100
PHF	.769	.907	.000	.417	.837	.848	.000	.853	.500	.907	.000	.619	.756	.438	.793	.000	.000	.000	.625	.625	.873



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.03.EL CAMINO REAL.DERBY DOWNS RD
Site Code : 00000000
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.03.EL CAMINO REAL.DERBY DOWNS RD
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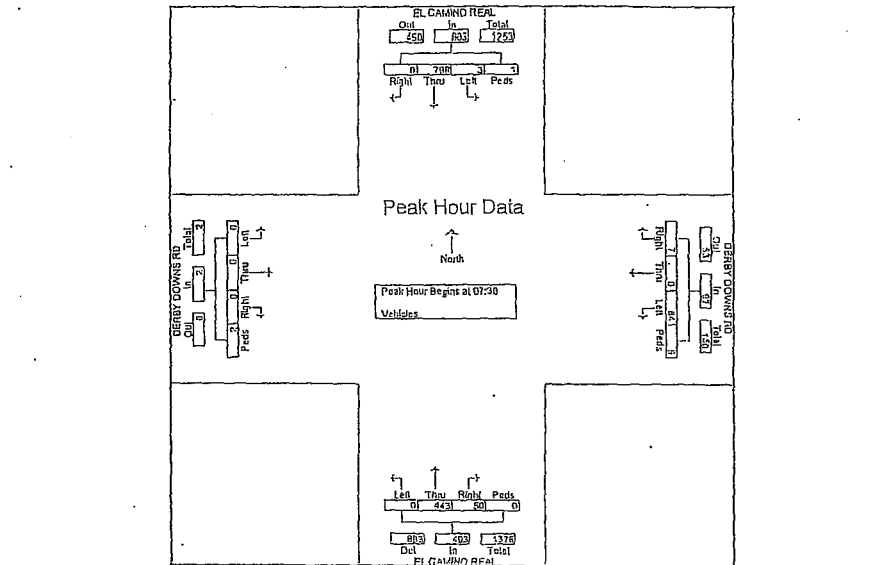
Groups Printed- Vehicles

Start Time	EL CAMINO REAL Southbound				DERBY DOWNS RD Westbound				EL CAMINO REAL Northbound				DERBY DOWNS RD Eastbound				Incl. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00	0	77	0	0	13	0	1	0	0	52	3	0	0	0	0	0	0	146
07:15	0	214	0	0	29	0	3	1	0	85	4	1	0	0	0	0	0	334
07:30	0	259	0	1	15	0	2	0	0	102	10	0	0	0	0	0	1	390
07:45	0	191	0	0	15	0	0	1	0	126	10	0	0	0	0	0	0	345
Total	0	741	0	1	67	0	5	2	0	367	27	1	0	0	0	0	4	1215
08:00	0	161	0	0	30	0	2	2	0	92	13	0	0	0	0	0	1	301
08:15	3	188	0	0	24	0	3	5	0	121	17	0	0	0	0	0	0	359
08:30	1	192	0	0	22	0	1	0	0	105	16	0	0	0	0	0	0	337
08:45	0	137	0	0	10	0	2	4	0	116	7	0	0	0	0	0	0	296
Total	4	688	0	0	86	0	8	9	0	434	53	0	0	0	0	0	1	1293

*** BREAK ***

16:00	1	104	0	0	10	0	0	1	0	193	13	0	0	0	0	0	0	262
16:15	1	116	0	0	8	0	2	0	0	175	16	0	0	0	0	0	0	318
16:30	1	110	0	0	11	0	3	4	0	159	25	0	0	0	0	0	0	313
16:45	1	107	0	0	13	0	1	1	0	176	23	0	0	0	0	0	1	323
Total	4	437	0	0	42	0	6	6	0	643	77	0	0	0	0	0	1	1216
17:00	1	103	0	0	13	0	1	5	0	157	23	0	0	0	0	0	0	303
17:15	3	122	0	0	12	0	1	2	0	221	23	0	0	0	0	0	0	349
17:30	1	125	0	0	16	0	1	1	0	221	32	0	0	0	0	0	2	399
17:45	3	120	0	0	22	0	3	1	0	237	30	0	0	0	0	0	0	416
Total	8	470	0	0	63	0	6	9	0	836	108	0	0	0	0	0	2	1502
Grand Total	16	2346	0	1	238	0	25	26	0	2280	265	1	0	0	0	0	8	5226
Approch %	0.7	99.3	0	0	83.5	0	3.1	8.4	0	89.6	10.4	0	0	0	0	0	100	
Total %	0.3	44.9	0	0	4.9	0	0.5	0.5	0	43.6	5.1	0	0	0	0	0	0.2	

Start Time	EL CAMINO REAL Southbound				DERBY DOWNS RD Westbound				EL CAMINO REAL Northbound				DERBY DOWNS RD Eastbound				Incl. Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:30	0	259	0	1	260	15	0	2	0	17	0	102	10	0	112	0	0	0	1	390
07:45	0	191	0	0	191	15	0	0	1	16	0	128	10	0	138	0	0	0	0	345
08:00	0	161	0	0	161	30	0	2	2	34	0	92	13	0	105	0	0	0	1	301
08:15	3	188	0	0	191	24	0	3	5	30	0	121	17	0	138	0	0	0	0	359
Total Vehicles	3	799	0	1	803	84	0	7	6	97	0	449	50	0	493	0	0	0	2	1395
% Appr. Total	0.4	99.5	0	0.1	100	86.6	0	7.2	6.2	10	0	89.9	10.1	0	100	0	0	0	100	
PHR	250	771	0	0	250	771	0	0	0	593	500	713	0	0	865	735	0	0	0	894



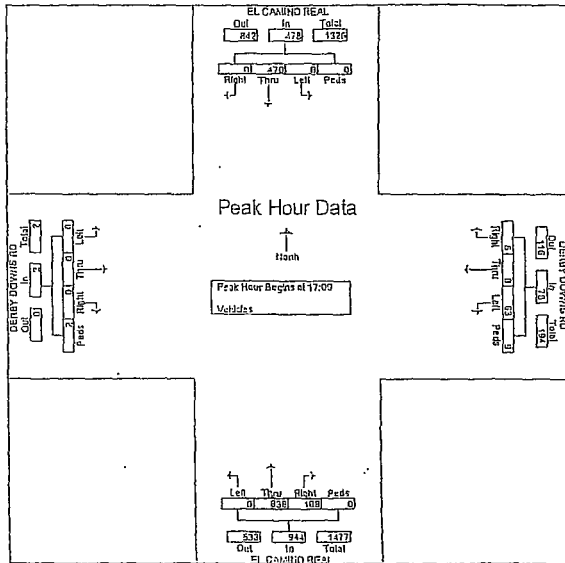
True Count
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San Diego, CA 92103

File Name : 9031.03.EL CAMINO REAL.DERBY DOWNS RD
Site Code : 00000000
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.04.EL CAMINO REAL.HALF MILE DR
Site Code : 00000000
Start Date : 5/12/2009
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Start Time	EL CAMINO REAL Southbound				DERBY DOWNS RD Westbound				EL CAMINO REAL Northbound				DERBY DOWNS RD Eastbound				Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
17:00	1	103	0	0	104	13	0	1	5	19	0	157	23	0	180	0	0	0	0	0	303
17:15	3	122	0	0	125	12	0	1	2	15	0	221	23	0	244	0	0	0	0	0	384
17:30	1	125	0	0	126	16	0	1	1	18	0	231	32	0	263	0	0	0	2	2	399
17:45	3	120	0	0	123	22	0	3	1	26	0	237	30	0	267	0	0	0	0	0	416
Total Volume	8	470	0	0	478	63	0	6	5	78	0	836	108	0	944	0	0	0	2	2	1502
% Appro Total	1.7	95.3	0	0	95.8	80.8	0	7.7	11.3	0	88.6	11.4	0	100	0	0	0	0	0	0	100
PHF	.667	.940	.000	.000	.948	.716	.000	.500	.450	.750	.000	.883	.844	.000	.884	.000	.000	.000	.250	.250	.903



Groups Printed - Vehicles

Start Time	EL CAMINO REAL Southbound				HALF MILE DR Westbound				EL CAMINO REAL Northbound				HALF MILE DR Eastbound				Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	12	87	3	1	9	5	8	0	1	51	5	2	3	0	1	1	190
07:15	54	138	25	1	5	7	39	4	2	44	3	2	3	29	0	2	358
07:30	58	156	72	1	16	16	49	1	1	64	7	0	3	85	6	0	535
07:45	48	155	6	5	12	11	40	3	0	77	4	1	5	9	5	1	382
Total	172	536	106	8	42	39	136	8	4	237	19	5	14	123	12	4	1465
08:00	30	167	7	0	17	19	23	4	2	76	1	3	3	5	3	1	361
08:15	24	171	19	1	9	36	37	1	3	83	1	3	12	12	5	3	420
08:30	18	158	6	1	16	7	32	0	0	81	4	1	4	6	5	0	339
08:45	13	149	5	1	14	4	25	0	6	92	4	1	7	6	5	2	334
Total	85	645	37	3	56	66	117	5	11	332	10	8	26	29	18	6	1454
*** BREAK ***																	
16:00	18	101	3	0	5	6	23	0	6	132	11	0	9	3	3	0	320
16:15	23	96	5	2	2	2	32	6	1	117	12	1	11	1	1	0	312
16:30	16	101	6	5	5	2	30	4	2	169	11	3	5	2	2	1	363
16:45	19	100	3	1	8	3	29	2	1	147	12	0	3	2	3	0	333
Total	76	598	17	8	20	13	114	12	10	564	46	4	28	8	9	1	1328
17:00	15	96	8	4	3	9	45	2	3	184	11	1	6	6	6	0	399
17:15	26	95	3	0	4	3	36	5	5	207	13	1	9	7	4	0	418
17:30	23	110	9	0	4	5	32	5	9	183	16	5	5	4	1	2	413
17:45	22	115	7	0	3	3	37	2	8	190	8	3	2	4	3	1	398
Total	86	416	27	4	14	20	150	14	25	754	48	10	22	21	14	3	1628
Grand Total	419	1995	187	23	132	138	517	39	50	1887	123	27	90	181	53	14	5875
Approach %	16	76	7.1	0.9	16	16.7	62.6	4.7	2.4	90.4	5.9	1.3	26.6	53.6	15.7	4.1	
Total %	7.1	34	3.2	0.4	2.2	2.3	8.8	0.7	0.9	32.1	2.1	0.5	1.5	3.1	0.9	0.2	

True Count
3401 First Ave #123
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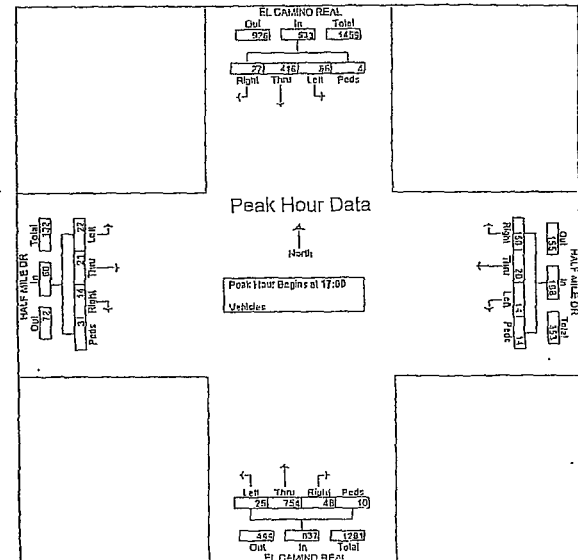
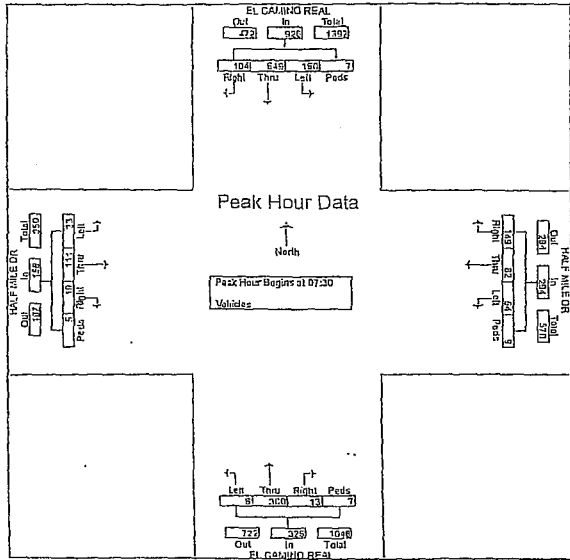
File Name : 9031.04.EL CAMINO REAL HALF MILE DR
Site Code : 00000000
Start Date : 5/12/2009
Page No : 2

True Count
3401 First Ave #123
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File Name : 9031.04.EL CAMINO REAL HALF MILE DR
Site Code : 00000000
Start Date : 5/12/2009
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Start Time	EL CAMINO REAL Southbound				HALF MILE DR Westbound				EL CAMINO REAL Northbound				HALF MILE DR Eastbound				Tot. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	58	156	72	1	257	16	16	49	1	82	1	64	7	0	72	3	85	6	0	94	535
07:45	48	155	6	5	214	12	11	40	3	66	0	77	4	1	82	5	9	5	1	20	352
08:00	30	167	7	0	204	17	19	23	4	63	2	75	1	3	82	3	5	3	1	12	361
08:15	24	171	19	1	215	9	36	37	1	83	3	83	1	3	90	12	12	5	1	32	420
Total Volume	160	649	104	7	920	54	82	149	9	294	6	300	13	7	326	23	111	19	5	158	1695
% App. Total	17.4	70.5	11.3	0.8		18.4	27.9	50.7	3.1		1.8	9.2	4	2.1		14.6	70.3	12	3.2		
PIF	.690	.949	.361	.350	.801	.794	.569	.760	.563	.886	.500	.904	.464	.583	.986	.479	.326	.792	.417	.420	.793

Start Time	EL CAMINO REAL Southbound				HALF MILE DR Westbound				EL CAMINO REAL Northbound				HALF MILE DR Eastbound				Tot. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	15	96	8	4	123	3	9	45	2	59	3	184	11	1	199	6	6	6	0	18	399
17:15	26	95	3	0	124	4	3	36	5	48	5	207	13	1	226	9	7	4	0	20	418
17:30	23	110	9	0	142	4	5	32	5	46	9	183	16	5	213	5	4	1	2	12	413
17:45	22	115	7	0	144	3	3	37	2	45	6	180	8	3	199	2	4	3	1	10	398
Total Volume	86	416	27	4	533	14	20	156	14	198	25	754	48	10	837	22	21	14	3	60	1628
% App. Total	16.1	78	5.1	0.8		7.1	10.1	25.8	7.1		3	90.1	5.7	1.2		36.7	35	23.3	5		
PIF	.827	.904	.750	.250	.925	.875	.556	.833	.700	.839	.604	.911	.750	.500	.926	.611	.750	.583	.375	.750	.974



True Count
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File Name : 9031.05.EL CAMINO REAL/QUARTER MILE DR
Site Code : 00000000
Start Date : 5/17/2009
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Groups Printed-Vehicles

Start Time	EL CAMINO REAL Southbound				QUARTER MILE DR Westbound				EL CAMINO REAL Northbound				QUARTER MILE DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	79	2	0	16	11	2	3	2	41	4	0	0	5	7	2	186
07:15	4	148	1	0	13	8	4	0	2	55	14	2	0	6	4	0	261
07:30	26	169	0	1	27	3	6	0	3	70	32	3	0	18	7	1	383
07:45	6	210	4	1	18	14	6	2	1	86	4	1	1	13	4	0	371
Total	46	625	7	2	76	36	18	5	3	255	54	6	1	42	22	3	1206
08:00	4	152	2	23	24	50	17	2	15	67	9	7	1	6	18	3	400
08:15	3	177	1	11	15	70	7	2	21	94	7	16	3	46	41	0	514
08:30	3	163	2	9	16	1	5	0	8	89	6	15	1	17	20	4	359
08:45	2	151	1	0	18	8	2	1	7	72	5	2	3	2	11	0	285
Total	12	613	6	43	73	129	31	5	51	322	27	40	8	71	90	7	1558

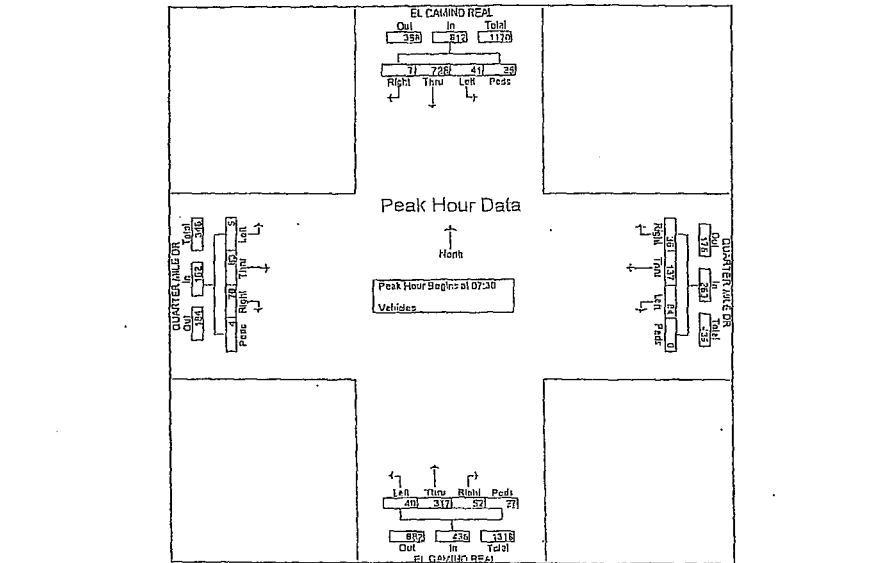
*** BREAK ***

16:00	3	108	1	0	12	3	3	0	16	154	14	1	1	8	4	2	330
16:15	2	108	0	0	4	9	3	2	10	147	17	3	2	4	7	1	319
16:30	5	94	0	0	9	10	10	0	8	181	19	3	2	4	5	0	350
16:45	6	107	0	1	7	6	7	0	15	210	14	0	2	11	13	0	399
Total	16	417	1	1	32	28	23	2	49	692	64	7	7	27	29	3	1398
17:00	8	110	1	0	6	4	6	0	11	187	19	0	4	6	8	1	372
17:15	6	95	1	1	10	5	4	4	8	234	20	0	0	10	10	2	420
17:30	4	116	8	1	9	11	4	2	13	223	25	0	2	12	11	3	459
17:45	4	116	0	3	15	9	5	1	14	237	30	3	1	13	3	1	455
Total	22	437	10	5	40	29	19	7	47	886	114	3	7	41	32	7	1706
Grand Total	96	2122	24	51	221	222	91	19	155	2155	259	56	23	181	173	20	5868
Approch %	4.2	92.5	1	2.2	40	40.1	16.5	3.4	5.9	82.1	9.9	2.1	5.8	45.6	43.6	5	
Total %	1.6	36.2	0.4	0.9	9.8	3.8	1.6	0.3	2.6	56.7	4.4	1	0.4	3.1	2.9	0.3	

True Count
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File Name : 9031.05.EL CAMINO REAL/QUARTER MILE DR
Site Code : 00000000
Start Date : 5/17/2009
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Start Time	EL CAMINO REAL Southbound				QUARTER MILE DR Westbound				EL CAMINO REAL Northbound				QUARTER MILE DR Eastbound				Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00	0	79	2	0	16	11	2	3	2	41	4	0	0	5	7	2	186	
07:15	4	148	1	0	13	8	4	0	2	55	14	2	0	6	4	0	261	
07:30	26	169	0	1	27	3	6	0	3	70	32	3	0	18	7	1	383	
07:45	6	210	4	1	18	14	6	2	1	86	4	1	1	13	4	0	371	
Total	46	625	7	2	76	36	18	5	3	255	54	6	1	42	22	3	1206	
08:00	4	152	2	23	24	50	17	2	15	67	9	7	1	6	18	3	400	
08:15	3	177	1	11	15	70	7	2	21	94	7	16	3	46	41	0	514	
08:30	3	163	2	9	16	1	5	0	8	89	6	15	1	17	20	4	359	
08:45	2	151	1	0	18	8	2	1	7	72	5	2	3	2	11	0	285	
Total	12	613	6	43	73	129	31	5	51	322	27	40	8	71	90	7	1558	
Total Volume	41	728	7	36	84	137	36	6	263	84	137	36	6	263	40	217	52	436
% Appr. Total	5	89.7	0.9	4.4	31.9	52.1	13.7	2.3	8.2	72.7	11.9	6.2	3.1	51.2	43.2	2.5		
PIFP	.366	.867	.416	.391	.919	.718	.489	.529	.750	.699	.576	.843	.405	.422	.730	.417	.451	.321



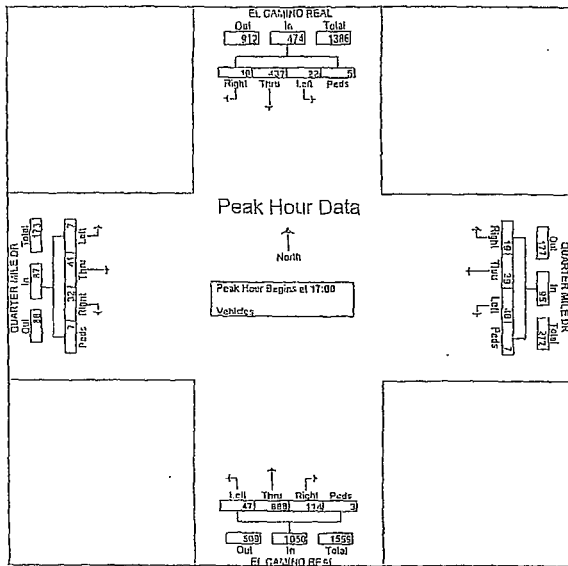
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 5031.05.EL.CAMINO.REAL.QUARTER.MILE.DR
Site Code : 00000000
Start Date : 5/7/2009
Page No : 3

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.15.MANGO.DR.DEL.MAR.HEIGHTS.RD
Site Code : 00000000
Start Date : 5/5/2009
Page No : 1

Start Time	EL CAMINO REAL Southbound				QUARTER MILE DR Westbound				EL CAMINO REAL Northbound				QUARTER MILE DR Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
17:00	8	110	1	0	119	6	4	6	0	16	12	187	19	0	218	4	6	8	1	19	372
17:15	6	95	1	1	103	10	5	4	4	23	8	234	30	0	272	0	10	10	2	22	420
17:30	4	116	8	1	132	9	11	4	2	26	13	228	35	0	276	2	12	11	3	28	459
17:45	4	116	0	3	123	15	9	5	1	30	14	237	30	3	284	1	13	3	1	18	455
Total Volume	22	437	10	5	474	40	29	19	7	95	47	886	114	3	1050	7	41	32	7	87	1706
App. Sat	4.6	92.2	2.1	1.1		42.1	30.5	20	7.4		4.5	84.4	10.9	0.3		8	47.1	36.8	0		
HF	.688	.942	.315	.417	.919	.667	.659	.781	.436	.702	.819	.835	.814	.250	.924	.438	.788	.727	.583	.277	.929



Groups Printed - Vehicles

Start Time	MANGO DR Southbound				DEL. MAR HEIGHTS RD Westbound				MANGO DR Northbound				DEL. MAR HEIGHTS RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	53	3	12	0	5	131	21	0	4	5	12	0	6	140	3	0	395
07:15	91	2	11	0	12	140	38	0	6	6	18	0	19	187	1	0	531
07:30	98	1	18	0	14	219	56	1	28	14	15	0	31	209	5	0	709
07:45	131	10	12	0	16	208	76	1	29	28	8	0	27	240	8	0	794
Total	373	16	53	0	47	698	191	2	67	53	53	0	83	776	17	0	2429
08:00	109	8	29	0	20	192	36	0	7	7	19	0	15	216	7	0	665
08:15	62	3	23	0	32	231	23	0	4	7	16	0	20	165	3	0	609
08:30	82	3	13	0	18	221	27	0	10	12	17	0	15	176	3	0	597
08:45	74	1	9	0	23	202	20	0	12	5	23	0	18	164	1	0	552
Total	347	15	74	0	93	846	106	0	33	31	75	0	68	721	14	0	2423
*** BREAK ***																	
16:00	91	5	28	0	27	177	37	0	4	9	6	0	30	196	3	0	613
16:15	88	6	26	0	31	222	41	0	2	10	7	0	25	196	5	0	639
16:30	104	11	33	0	30	185	47	1	7	15	7	0	31	176	2	0	649
16:45	101	8	28	0	26	202	48	0	8	9	10	0	21	185	7	0	653
Total	384	30	115	0	114	786	173	1	21	43	30	0	107	753	17	0	2574
17:00	84	8	29	0	24	177	44	0	8	8	13	0	34	199	5	0	633
17:15	109	10	29	0	26	191	48	0	8	9	7	0	20	205	5	0	667
17:30	91	7	27	0	24	229	51	0	11	4	6	0	46	213	3	0	712
17:45	88	10	45	0	36	277	35	0	13	10	14	0	24	200	3	0	755
Total	372	35	130	0	110	874	178	0	40	31	40	0	124	817	16	0	2767
Grand Total	1476	96	372	0	364	5204	648	3	161	158	198	0	382	3067	64	0	10193
Approach %	75.9	4.9	19.1	0	8.6	75.9	15.4	0.1	31.1	30.6	38.3	0	10.9	67.3	1.8	0	
Total %	14.5	0.9	3.6	0	5.6	31.4	6.4	0	1.6	1.5	1.9	0	3.7	30.1	0.6	0	

True Count
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San Diego, CA 92103

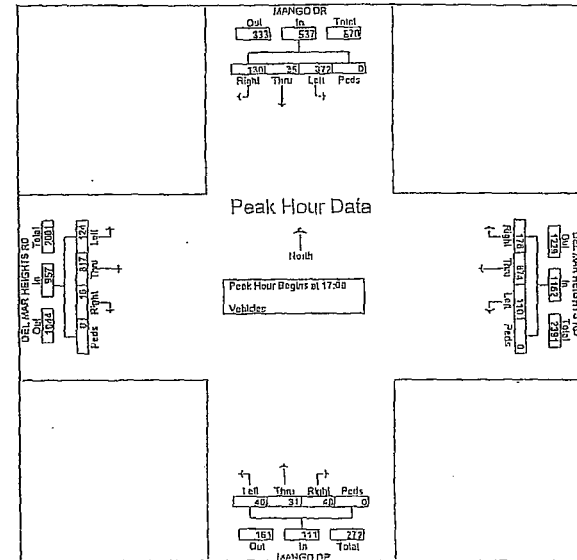
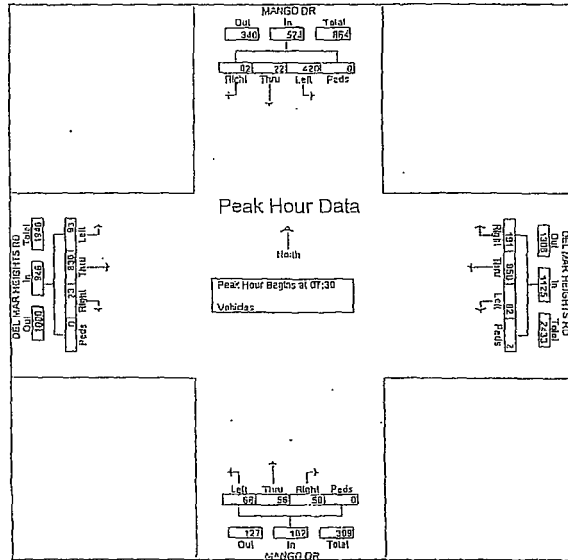
File Name : 9031.15.MANGO DR.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/5/2009
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True Count
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File Name : 9031.15.MANGO DR.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/5/2009
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Start Time	MANGO DR Southbound					DEL MAR HEIGHTS RD Westbound					MANGO DR Northbound					DEL MAR HEIGHTS RD Eastbound					Totals
	Left	Thru	Right	Peas	Acc/Tot	Left	Thru	Right	Peas	Acc/Tot	Left	Thru	Right	Peas	Acc/Tot	Left	Thru	Right	Peas	Acc/Tot	
Peak Hour Analysis From 07:00 to 07:14 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:00	98	1	18	0	117	14	219	50	1	290	26	14	13	0	57	31	209	5	0	245	709
07:15	131	10	12	0	153	16	208	76	1	301	29	20	8	0	65	27	240	8	0	275	794
08:00	109	8	29	0	146	20	192	36	0	246	7	7	19	0	33	15	216	7	0	238	665
09:15	82	3	23	0	108	32	231	23	0	356	4	7	16	0	27	20	165	3	0	188	609
Total Volume	420	22	82	0	524	62	850	191	2	1125	66	56	58	0	182	93	830	23	0	946	2777
% App. Total	80.2	4.2	15.6	0		7.3	75.6	17	0.2		37.4	30.8	31.9	0		9.8	87.7	2.4	0		
PHF	.802	.500	.707	.000	.856	.641	.920	.628	.500	.934	.586	.500	.761	.000	.700	.750	.863	.719	.000	.800	.874

Start Time	MANGO DR Southbound					DEL MAR HEIGHTS RD Westbound					MANGO DR Northbound					DEL MAR HEIGHTS RD Eastbound					Totals
	Left	Thru	Right	Peas	Acc/Tot	Left	Thru	Right	Peas	Acc/Tot	Left	Thru	Right	Peas	Acc/Tot	Left	Thru	Right	Peas	Acc/Tot	
Peak Hour Analysis From 12:00 to 12:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	84	8	29	0	121	24	177	44	0	245	8	8	13	0	29	34	199	5	0	238	633
17:15	109	10	29	0	148	26	191	48	0	265	8	9	7	0	24	20	205	5	0	230	607
17:30	91	7	27	0	125	24	229	51	0	304	11	4	6	0	21	16	213	3	0	262	712
17:45	88	10	45	0	143	36	277	35	0	348	13	10	14	0	37	24	200	3	0	227	755
Total Volume	372	35	130	0	537	110	874	178	0	1162	40	31	40	0	111	124	817	16	0	957	2707
% App. Total	69.9	6.5	24.2	0		9.5	75.2	15.3	0		36	27.9	35	0		13	85.4	1.7	0		
PHF	.853	.875	.722	.000	.907	.764	.789	.873	.000	.835	.769	.775	.714	.000	.750	.674	.959	.800	.000	.913	.916



True Count
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File Name : 9031.14.PORTOFINO DR.DEL MAR HEIGHTS RD
Site Code : 00000000
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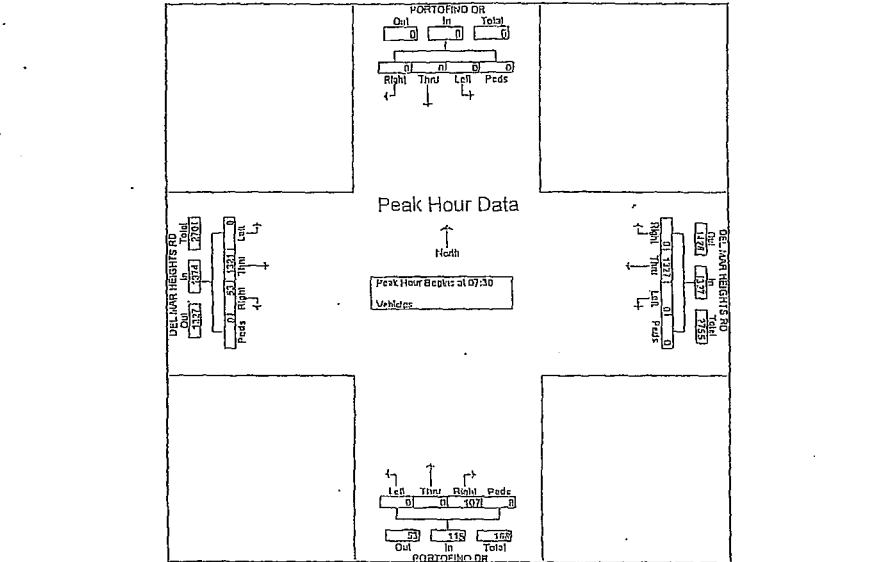
Groups Printed: Vehicles

Start Time	PORTOFINO DR Southbound				DEL MAR HEIGHTS RD Westbound				PORTOFINO DR Northbound				DEL MAR HEIGHTS RD Eastbound				Vol. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	0	0	2	0	190	0	0	0	0	11	0	0	187	4	0	394
07:15	0	0	0	0	0	274	0	0	0	0	28	0	0	272	12	0	536
07:30	0	0	0	0	0	363	0	0	0	0	32	0	0	333	9	0	737
07:45	0	0	0	0	0	370	0	0	0	0	26	2	0	387	18	0	803
Total	0	0	0	2	0	1147	0	0	0	0	97	2	0	1179	43	0	2470
08:00	0	0	0	0	0	262	0	0	0	0	20	5	0	342	16	0	645
08:15	0	0	0	0	0	332	0	0	0	0	29	1	0	259	10	0	633
08:30	0	0	0	0	0	303	0	0	0	0	19	0	0	269	7	0	592
08:45	0	0	0	0	0	281	0	0	0	0	15	3	0	253	5	0	557
Total	0	0	0	0	0	1178	0	0	0	0	83	9	0	1117	38	0	2425
*** BREAK ***																	
16:00	0	0	0	0	0	274	0	0	0	0	13	2	0	262	18	0	569
16:15	0	0	0	1	0	358	0	0	0	0	15	0	0	270	13	0	657
16:30	0	0	0	0	0	330	0	0	0	0	9	2	0	282	19	0	642
16:45	0	0	0	0	0	310	0	0	0	0	17	0	0	284	23	0	634
Total	0	0	0	1	0	1272	0	0	0	0	54	4	0	1098	73	0	2502
17:00	0	0	0	0	0	323	0	0	0	0	22	0	0	287	13	0	645
17:15	0	0	0	0	0	314	0	0	0	0	17	3	0	314	14	0	662
17:30	0	0	0	2	0	364	0	0	0	0	15	0	0	307	20	0	708
17:45	0	0	0	0	0	400	0	0	0	0	22	0	0	275	15	0	712
Total	0	0	0	2	0	1401	0	0	0	0	76	3	0	1183	62	0	2727
Grand Total	0	0	0	5	0	4998	0	0	0	0	310	18	0	4577	216	0	10124
Approch %	0	0	0	100	0	100	0	0	0	0	94.5	5.5	0	95.5	4.5	0	
Total %	0	0	0	0	0	49.4	0	0	0	0	3.1	0.2	0	45.2	2.1	0	

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File Name : 9031.14.PORTOFINO DR.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/5/2009
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Start Time	PORTOFINO DR Southbound				DEL MAR HEIGHTS RD Westbound				PORTOFINO DR Northbound				DEL MAR HEIGHTS RD Eastbound				Vol. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:30	0	0	0	0	0	363	0	0	0	363	0	0	32	0	32	0	333
07:45	0	0	0	0	0	370	0	0	0	370	0	0	26	2	28	0	307
08:00	0	0	0	0	0	262	0	0	0	262	0	0	20	5	25	0	342
08:15	0	0	0	0	0	332	0	0	0	332	0	0	29	1	30	0	259
Total Values	0	0	0	0	0	1327	0	0	0	1327	0	0	107	8	115	0	1321
52 App. Total	PEF	.000	.000	.000	.000	.000	.897	.000	.000	.897	.000	.000	.836	.400	.895	.000	.853
		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.236	.000	.848	.000	.877



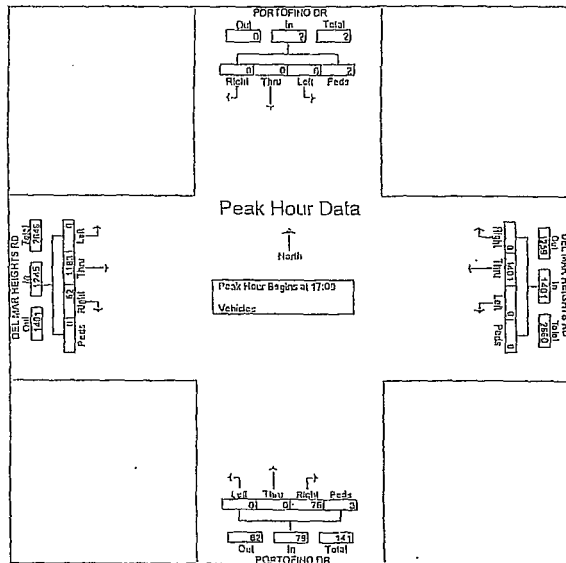
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8031.14.PORTOFINO DR.DEL MAR HEIGHTS RD
Site Code : 0000000
Start Date : 5/5/2009
Page No : 3

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8031.13.1 5 SB OFF-RAMP.DEL MAR HEIGHTS RD
Site Code : 0000000
Start Date : 5/5/2009
Page No : 1

Start Time	PORTOFINO DR Southbound				DEL MAR HEIGHTS RD Westbound				PORTOFINO DR Northbound				DEL MAR HEIGHTS RD Eastbound				In Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
17:00	0	0	0	0	0	323	0	0	323	0	0	22	0	22	0	287	13	0	300	645
17:15	0	0	0	0	0	314	0	0	314	0	0	17	3	20	0	314	14	0	328	662
17:30	0	0	0	2	2	0	364	0	364	0	0	15	0	15	0	307	20	0	327	708
17:45	0	0	0	0	2	0	400	0	400	0	0	22	0	22	0	275	15	0	290	712
Total Volume	0	0	0	2	2	0	1401	0	1401	0	0	76	3	79	0	1183	62	0	1245	2727
PEP	.000	.000	.000	.250	.250	.000	.876	.000	.876	.000	.000	.864	.250	.898	.000	.942	.775	.000	.949	.956



Start Time	1 5 SB OFF-RAMP Southbound				DEL MAR HEIGHTS RD Westbound				1 5 SB OFF-RAMP Northbound				DEL MAR HEIGHTS RD Eastbound				In Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:00	160	0	47	1	0	131	104	0	0	0	0	0	0	0	91	110	0	0	64	
07:15	223	0	73	0	0	175	147	0	0	0	0	0	0	0	165	124	0	0	907	
07:30	271	0	94	0	0	257	218	0	0	0	0	0	0	0	176	167	0	0	1203	
07:45	245	0	92	0	0	276	213	0	0	0	0	0	2	0	191	194	0	0	1213	
Total	899	0	306	1	0	839	682	0	0	0	0	2	0	0	623	615	0	0	3967	
08:00	170	0	61	0	0	205	172	0	0	0	0	2	0	0	175	188	0	0	973	
08:15	163	0	79	0	0	253	209	0	0	0	0	1	0	0	117	151	0	0	973	
08:30	182	0	63	0	0	239	220	0	0	0	0	0	0	0	145	151	0	0	1000	
08:45	185	0	78	0	0	203	177	0	0	0	0	1	0	0	143	128	0	0	915	
Total	700	0	281	0	0	900	778	0	0	0	0	4	0	0	580	618	0	0	3861	
*** BREAK ***																				
16:00	138	0	56	0	0	223	147	0	0	0	0	2	0	0	188	100	0	0	854	
16:15	170	0	74	1	0	279	127	1	0	0	0	0	0	0	192	87	0	0	931	
16:30	177	0	71	0	0	274	123	0	0	0	0	2	0	0	182	104	0	0	933	
16:45	182	0	53	1	0	258	114	0	0	0	0	0	0	0	219	91	0	0	918	
Total	667	0	254	2	0	1034	511	1	0	0	0	4	0	0	781	382	0	0	3616	
17:00	207	0	73	0	0	236	121	0	0	0	0	0	0	0	226	95	0	0	960	
17:15	218	0	60	0	0	273	121	0	0	0	0	3	0	0	217	113	0	0	1005	
17:30	241	0	76	0	0	281	122	0	0	0	0	0	0	0	218	109	1	0	1048	
17:45	183	0	81	0	0	343	119	0	0	0	0	0	0	0	212	90	0	0	1028	
Total	849	0	290	0	0	1133	483	0	0	0	0	3	0	0	875	407	1	0	4041	
Grand Total	3115	0	1131	3	0	3906	2454	1	0	0	0	13	0	0	2859	2022	1	0	15505	
Approx %	73.3	0	26.6	0.1	0	61.4	38.6	0	0	0	0	100	0	0	58.6	41.4	0	0		
Total %	20.1	0	7.3	0	0	25.2	15.8	0	0	0	0	0.1	0	0	18.4	13	0	0		

True Count
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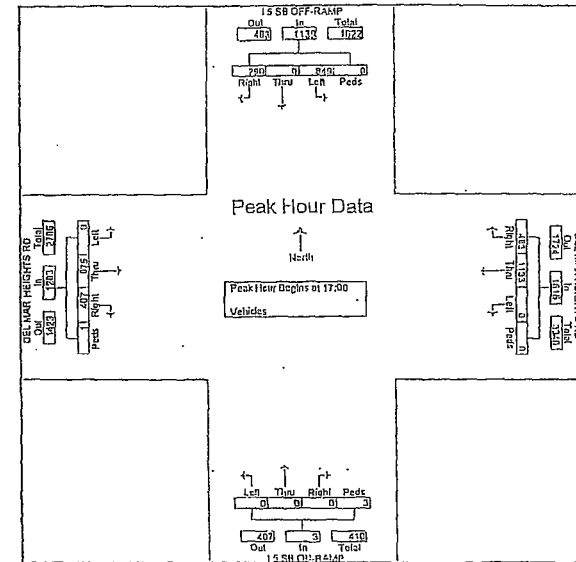
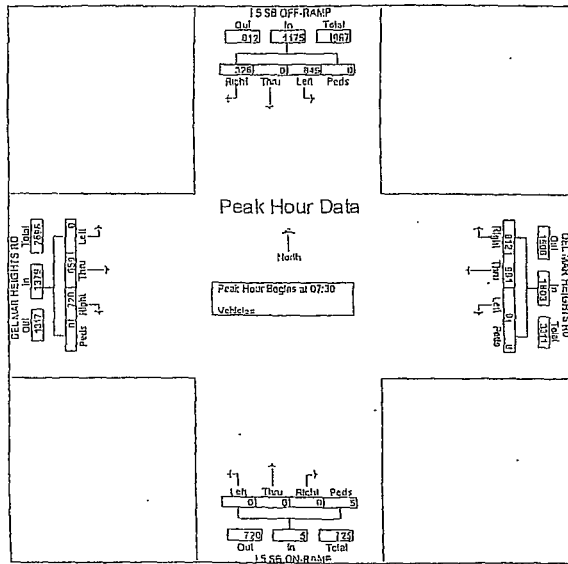
File Name : 9031.13.1 S SB OFF-RAMP.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/5/2009
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.13.1 S SB OFF-RAMP.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/5/2009
Page No : 3

Start Time	I 5 SB OFF-RAMP Southbound					DEL MAR HEIGHTS RD Westbound					I 5 SB ON-RAMP Northbound					DEL MAR HEIGHTS RD Eastbound					In Total
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis: From 07:30 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	271	0	54	0	325	0	257	218	0	475	0	0	0	0	0	0	176	187	0	363	1203
07:45	215	0	92	0	307	0	276	213	0	489	0	0	0	2	2	0	191	194	0	385	1233
08:00	170	0	61	0	231	0	205	172	0	377	0	0	0	2	2	0	175	188	0	363	975
08:15	163	0	79	0	242	0	253	209	0	462	0	0	0	1	1	0	117	151	0	268	973
Total Volume	849	0	326	0	1175	0	991	812	0	1803	0	0	0	5	5	0	659	720	0	1379	4362
15 Ann. Total	72.3	0	27.7	0	100	0	55	45	0	100	0	0	0	1.00	1.00	0	47.8	52.2	0	100	392
PHF	.783	.000	.867	.000	.805	.000	.898	.931	.000	.933	.000	.000	.000	.625	.625	.000	.863	.928	.000	.895	.899

Start Time	I 5 SB OFF-RAMP Southbound					DEL MAR HEIGHTS RD Westbound					I 5 SB ON-RAMP Northbound					DEL MAR HEIGHTS RD Eastbound					In Total
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis: From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	207	0	73	0	280	0	236	121	0	357	0	0	0	0	0	0	228	95	0	323	960
17:15	218	0	60	0	278	0	233	121	0	354	0	0	0	3	3	0	217	113	0	330	1085
17:30	241	0	76	0	317	0	281	122	0	403	0	0	0	0	0	0	218	109	1	328	1048
17:45	183	0	81	0	264	0	343	119	0	462	0	0	0	0	0	0	212	90	0	302	1028
Total Volume	849	0	290	0	1139	0	1133	483	0	1616	0	0	0	3	3	0	875	407	1	1283	4641
15 Ann. Total																					
PHF	.881	.000	.895	.000	.898	.000	.826	.990	.000	.874	.000	.000	.000	.250	.250	.000	.939	.900	.350	.972	.964



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 6031.12.1.5 NB OFF-RAMP.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/5/2009
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Groups Printed - Vehicles

Start Time	1.5 NB ON-RAMP Southbound				DEL MAR HEIGHTS RD Westbound				1.5 NB OFF-RAMP Northbound				DEL MAR HEIGHTS RD Eastbound				In Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	0	0	1	0	170	102	0	65	0	121	0	29	229	0	0	723
07:15	0	0	0	0	0	254	188	0	77	0	172	0	46	332	0	0	1071
07:30	0	0	0	0	0	388	181	0	102	0	189	0	58	380	0	1	1299
07:45	0	0	0	0	0	391	204	0	104	0	182	2	38	359	0	0	1300
Total	0	0	0	1	0	1203	675	0	348	0	670	2	191	1300	0	1	4393
08:00	0	0	0	0	0	290	237	0	66	0	183	2	62	285	0	0	1126
08:15	0	0	0	0	0	342	244	0	101	0	209	1	46	239	0	0	1182
08:30	0	0	0	0	0	347	205	0	101	0	205	0	32	262	0	0	1173
08:45	0	0	0	0	0	300	188	0	85	1	183	3	74	253	0	0	1087
Total	0	0	0	0	0	1279	874	0	353	1	781	6	234	1040	0	0	4568

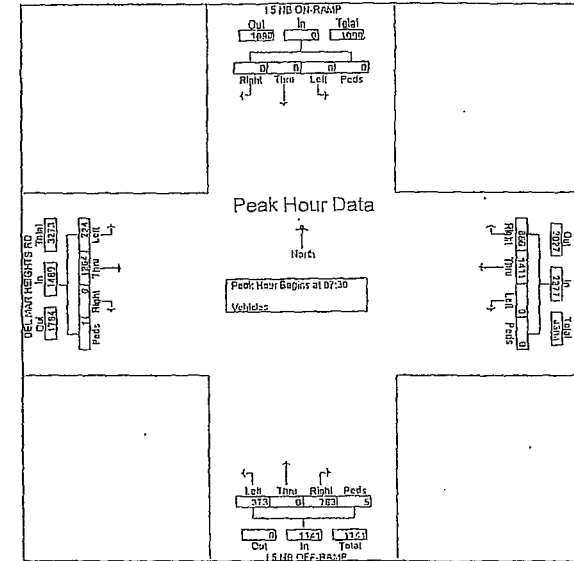
*** BREAK ***

16:00	0	0	0	0	0	237	159	0	126	1	130	1	66	258	0	0	978
16:15	0	0	0	1	0	271	172	0	140	0	138	0	67	287	0	0	1076
16:30	0	0	0	0	0	274	202	0	136	0	156	3	65	306	0	0	1142
16:45	0	0	0	1	0	201	187	0	156	0	152	0	64	311	0	0	1052
Total	0	0	0	2	0	983	700	0	558	1	576	4	262	1162	0	0	4248
17:00	0	0	0	0	0	254	221	0	126	0	156	0	68	381	0	0	1206
17:15	0	0	0	0	0	235	218	0	112	0	177	1	61	361	0	0	1195
17:30	0	0	0	0	0	267	193	1	148	1	197	1	58	382	0	0	1250
17:45	0	0	0	0	0	261	164	0	159	9	219	0	48	339	0	0	1239
Total	0	0	0	2	0	1017	796	1	615	10	749	2	235	1463	0	0	4890
Grand Total	0	0	0	5	0	4462	3045	1	1874	12	2776	14	924	4965	0	1	18099
Approch %	0	0	0	100	0	39.5	40.4	0	40.1	0.3	59.4	0.3	15.7	84.3	0	0	
Total %	0	0	0	0	0	24.8	16.3	0	10.4	0.1	15.3	0.1	5.1	27.4	0	0	

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File Name : 9031.12.1.5 NB OFF-RAMP.DEL MAR HEIGHTS RD
Site Code : 00000000
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Start Time	1.5 NB ON-RAMP Southbound				DEL MAR HEIGHTS RD Westbound				1.5 NB OFF-RAMP Northbound				DEL MAR HEIGHTS RD Eastbound				In Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:30	0	0	0	0	0	388	181	0	569	102	0	189	0	291	58	300	0	1	1299		
07:45	0	0	0	0	0	391	204	0	595	104	0	182	2	288	58	359	0	0	1300		
08:00	0	0	0	0	0	290	237	0	527	65	0	183	2	251	62	286	0	0	1126		
08:15	0	0	0	0	0	342	244	0	386	101	0	209	1	311	46	339	0	0	1182		
Total Volume	0	0	0	0	0	1411	865	0	2277	373	0	783	5	1141	224	1264	0	1	4907		
% Appr. Total	.000	.000	.000	.000	.000	.600	.901	.887	.600	.957	.897	.000	.913	.615	.917	.903	.832	.000	.250	.848	.944



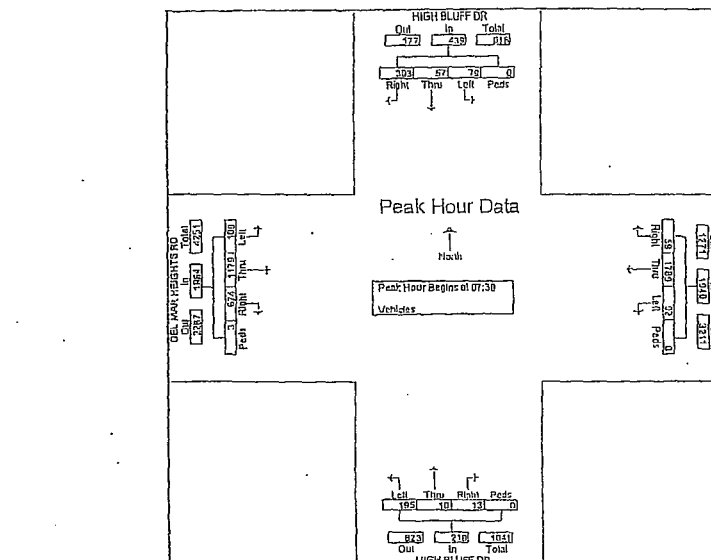
Groups Printed- Vehicles

Start Time	HIGH BLUFF DR Southbound				DEL MAR HEIGHTS RD Westbound				HIGH BLUFF DR Northbound				DEL MAR HEIGHTS RD Eastbound				Tot Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	5	6	44	0	5	242	0	0	22	3	1	0	16	234	102	0	683
07:15	5	9	64	0	10	232	5	0	30	2	0	0	16	323	99	7	904
07:30	14	22	94	0	12	436	2	0	59	1	3	0	21	352	132	3	1151
07:45	7	12	54	0	24	547	3	0	49	1	2	0	29	348	185	0	1261
Total	31	49	256	0	54	1557	10	0	160	7	6	0	84	1257	518	10	3999
08:00	12	14	73	0	27	349	16	0	47	7	5	0	18	246	177	0	991
08:15	45	9	82	0	29	457	38	0	40	1	3	0	40	233	180	0	1158
08:30	28	17	91	0	30	387	3	0	41	5	4	0	19	195	195	0	1015
08:45	12	14	60	0	30	373	4	0	46	5	3	0	18	234	192	0	991
Total	98	54	306	0	116	1566	61	0	174	18	15	0	95	908	744	0	4155

*** BREAK ***

16:00	6	0	23	0	6	312	11	0	109	11	15	0	56	345	47	0	943
16:15	3	6	35	0	10	266	4	0	111	4	11	0	40	330	52	0	872
16:30	6	4	21	0	3	236	7	0	101	10	25	0	51	378	48	0	880
16:45	9	6	21	0	6	253	7	0	130	20	29	0	47	379	47	0	954
Total	24	16	100	0	25	1057	29	0	451	45	80	0	194	1432	194	0	3647
17:00	8	5	17	0	6	268	8	0	192	10	39	0	60	497	52	0	1162
17:15	6	8	20	0	4	291	5	0	165	14	39	0	70	473	48	0	1143
17:30	6	5	13	0	3	277	9	0	120	22	35	0	54	442	65	0	1051
17:45	7	11	30	0	2	304	6	0	141	19	21	0	58	572	86	0	1257
Total	27	29	80	0	15	1140	38	0	618	65	134	0	242	1984	251	0	4613
Grand Total	180	148	742	0	210	5320	128	0	1403	135	235	0	615	5981	1707	10	16114
Approch %	16.8	13.8	69.3	0	5.7	94	2.3	0	79.1	7.6	13.3	0	7.5	70.5	21.6	0.1	
Total %	1.1	0.9	4.5	0	1.3	32.1	0.8	0	8.5	0.8	1.4	0	3.7	34	10.4	0.1	

Start Time	HIGH BLUFF DR Southbound				DEL MAR HEIGHTS RD Westbound				HIGH BLUFF DR Northbound				DEL MAR HEIGHTS RD Eastbound				Tot Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:30	14	22	94	0	130	12	436	2	0	450	59	1	3	0	63	21	352	132	3	508	1151
07:45	7	12	54	0	73	24	547	3	0	574	49	1	2	0	32	29	346	185	0	562	1261
08:00	12	14	73	0	99	27	349	16	0	392	47	7	5	0	59	18	246	177	0	441	991
08:15	46	9	82	0	137	29	457	38	0	324	40	1	3	0	41	40	383	180	0	433	1158
Total Volume	79	57	303	0	439	92	1789	59	0	1910	195	10	13	0	218	108	1199	674	3	1964	4561
% Appr. Total	4.9	6.8	80.6	0.00	8.01	7.9	81.8	3.88	0.00	8.45	8.26	3.57	6.50	0.00	8.65	6.75	8.37	9.11	2.50	8.74	9.04



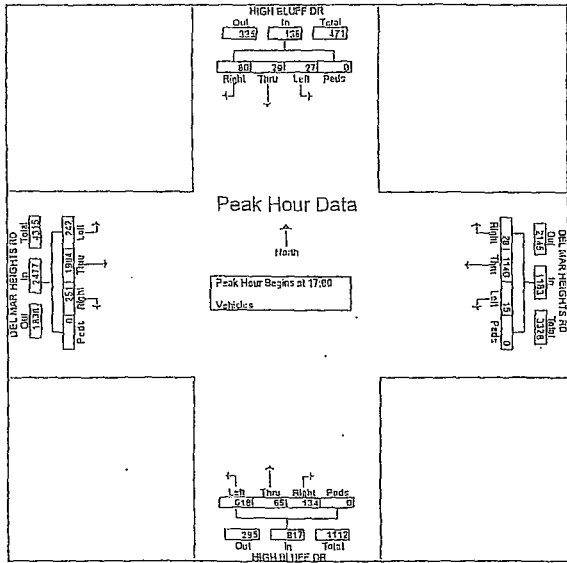
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.11-HIGH BLUFF DR.DEL MAR HEIGHTS RD
Site Code : 0000000
Start Date : 5/7/2009
Page No : 3

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.10-EL CAMINO REAL.DEL MAR HEIGHTS RD
Site Code : 0000000
Start Date : 5/7/2009
Page No : 1

Start Time	HIGH BLUFF DR Southbound				DEL MAR HEIGHTS RD Westbound				HIGH BLUFF DR Northbound				DEL MAR HEIGHTS RD Eastbound				No. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 12:00 to 13:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	8	5	17	0	30	6	263	8	0	282	192	10	39	0	241	60	497	52	0	609	1162
17:15	6	8	20	0	34	4	291	5	0	300	165	14	39	0	218	70	473	48	0	591	1143
17:30	6	5	13	0	24	3	277	9	0	289	120	22	35	0	177	54	442	65	0	561	1031
17:45	7	11	30	0	48	2	304	6	0	312	141	19	21	0	181	58	572	86	0	716	1257
Total Volume	27	29	80	0	136	15	1140	28	0	1183	618	65	134	0	817	242	1984	251	0	2477	4613
% App. Total																					
PHF	.844	.659	.667	.000	.708	.625	.938	.778	.000	.948	.805	.759	.859	.000	.848	.884	.867	.730	.000	.865	.917



Start Time	EL CAMINO REAL Southbound				DEL MAR HEIGHTS RD Westbound				EL CAMINO REAL Northbound				DEL MAR HEIGHTS RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Groups Printed - Vehicles																	
07:00	16	24	49	1	16	178	10	3	19	13	17	0	22	178	18	4	568
07:15	41	36	78	0	18	234	14	0	31	10	26	0	45	257	19	0	612
07:30	44	55	109	0	40	368	19	0	48	18	27	1	64	316	23	0	1132
07:45	54	69	115	0	51	303	14	0	65	17	15	1	58	234	45	1	1042
Total	158	164	351	1	125	1083	57	3	163	58	85	2	189	985	105	5	3554
*** BREAK ***																	
08:00	25	76	84	1	41	318	34	0	42	27	19	0	39	174	69	3	952
08:15	36	87	97	1	56	351	25	1	51	37	15	0	53	143	58	0	1014
08:30	37	68	87	0	41	329	23	0	49	34	16	1	53	134	58	1	931
08:45	31	54	106	2	32	199	12	0	41	35	17	0	46	140	56	0	771
Total	129	285	374	4	170	1197	94	1	183	133	67	1	191	591	241	4	3688
*** BREAK ***																	
16:00	39	28	63	1	11	184	40	1	61	62	31	0	72	207	70	0	850
16:15	25	32	59	1	30	157	28	0	50	60	21	3	103	150	72	1	832
16:30	33	28	44	7	22	157	29	0	36	61	45	0	101	234	74	0	871
16:45	39	41	52	0	25	176	34	0	68	92	42	0	112	233	60	0	974
Total	136	129	218	9	88	674	131	1	235	275	139	3	388	864	276	1	3567
17:00	41	35	39	2	31	181	39	0	61	94	43	0	87	343	94	2	1002
17:15	25	36	46	0	25	195	41	2	75	104	51	1	124	329	89	2	1145
17:30	35	46	51	0	23	186	52	0	62	105	73	0	97	285	57	2	1074
17:45	46	39	55	0	23	179	44	0	59	91	71	3	131	294	104	3	1232
Total	147	146	191	2	102	741	176	2	257	394	238	4	459	1351	344	9	4548
Grand Total	570	744	1134	19	485	3695	458	7	838	860	529	10	1207	3791	966	19	15332
Approch %	23.1	30.2	4.6	0.8	10.4	79.5	9.9	0.2	37.5	38.4	23.6	0.1	20.2	63.4	16.1	0.3	
Total %	3.7	4.9	7.4	0.1	3.2	24.1	3	0	5.5	5.6	3.5	0.1	7.9	24.7	6.3	0.1	

True Count
3401 First Ave #123
San Diego, CA 92103

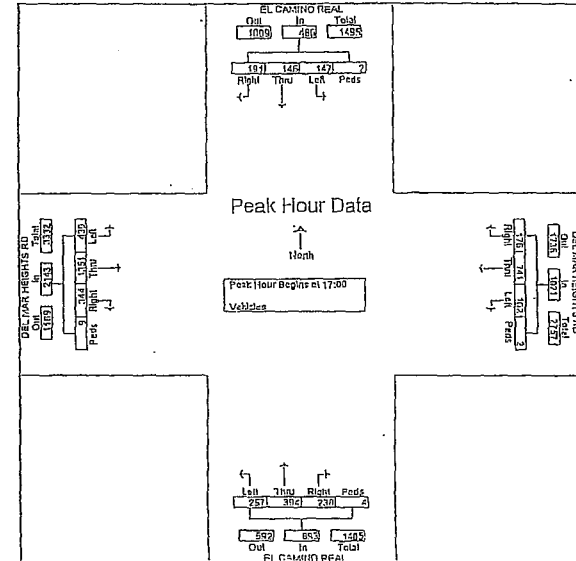
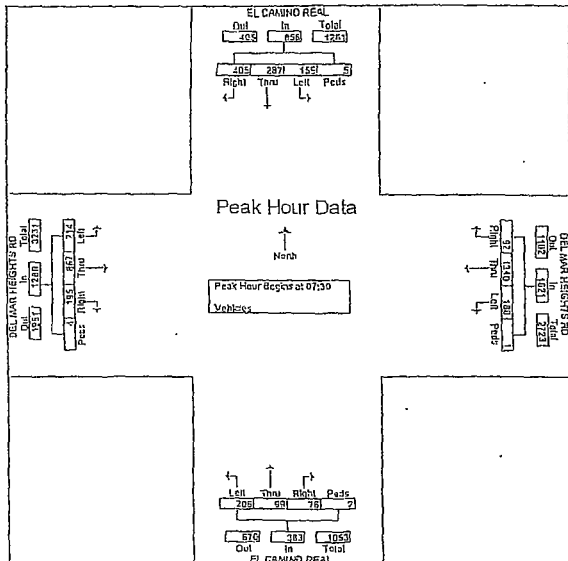
File Name : 9031.10.EL CAMINO REAL.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/7/2009
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.10.EL CAMINO REAL.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/7/2009
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Start Time	EL CAMINO REAL Southbound					DEL MAR HEIGHTS RD Westbound					EL CAMINO REAL Northbound					DEL MAR HEIGHTS RD Eastbound					In Total
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis From 07:00 to 07:30 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:00	41	55	109	0	208	40	368	19	0	427	18	18	27	1	94	64	316	23	0	403	1132
07:15	51	69	115	0	238	51	303	14	0	368	65	17	15	1	98	58	234	45	1	338	1042
08:00	25	76	84	1	186	41	318	34	0	393	42	27	19	0	88	39	174	69	3	285	952
08:15	36	87	97	4	224	56	351	25	1	433	51	37	15	0	103	53	143	58	0	254	1014
Total Volume	159	287	405	5	856	188	1340	92	1	1621	208	99	76	2	393	214	867	195	4	1280	4140
% Acc Total	73.6	82.5	88.0	31.9	89.9	83.9	91.0	67.6	25.0	93.6	79.2	66.9	70.4	50.0	83.0	83.6	68.6	70.7	33.3	70.4	91.4

Start Time	EL CAMINO REAL Southbound					DEL MAR HEIGHTS RD Westbound					EL CAMINO REAL Northbound					DEL MAR HEIGHTS RD Eastbound					In Total
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis From 12:00 to 12:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	41	35	39	2	117	31	181	39	0	251	61	94	43	0	158	87	343	94	2	526	1092
17:15	25	36	46	0	107	25	195	41	2	263	75	104	51	1	231	124	329	89	2	534	1145
17:30	35	46	51	0	132	23	186	54	0	261	62	105	73	0	240	97	285	57	2	441	1074
17:45	46	29	55	0	130	23	179	44	0	246	59	91	71	3	226	131	394	104	3	632	1232
Total Volume	147	146	191	2	486	102	741	176	2	1021	257	394	238	4	893	439	1351	344	9	2143	4543
% Acc Total	79.9	79.3	86.8	25.0	92.0	82.3	95.0	81.6	25.0	97.1	85.7	93.8	81.5	33.1	92.0	83.8	85.7	82.7	75.0	84.8	92.2



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San Diego, CA 92103

File Name : 9031.09.CARMEL COUNTRY RD.DEL MAR HEIGHTS RD
Site Code : 00000000
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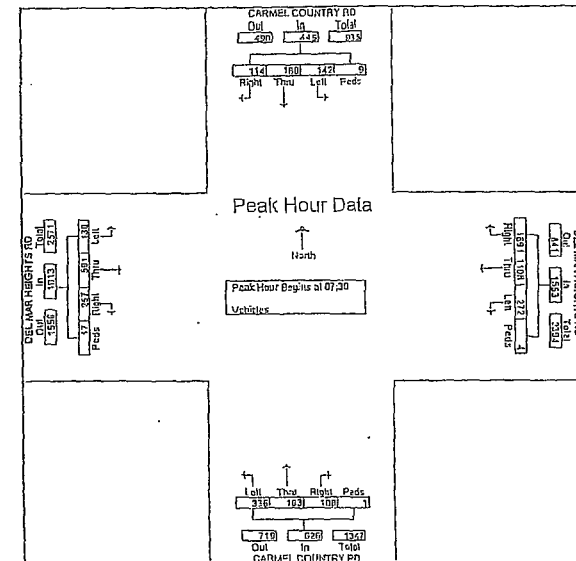
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.09.CARMEL COUNTRY RD.DEL MAR HEIGHTS RD
Site Code : 00000000
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Groups Printed - Vehicles

Start Time	CARMEL COUNTRY RD Southbound				DEL MAR HEIGHTS RD Westbound				CARMEL COUNTRY RD Northbound				DEL MAR HEIGHTS RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	12	18	10	0	8	130	9	1	60	6	6	1	16	126	51	3	465
07:15	18	21	16	1	29	206	12	2	49	17	26	3	36	182	51	6	675
07:30	34	38	36	1	75	257	16	1	93	63	40	0	73	221	54	0	1011
07:45	50	47	28	3	68	262	19	0	71	55	18	0	20	208	73	4	926
Total	114	124	98	5	180	875	56	4	273	131	99	4	145	737	229	13	3077
08:00	20	36	24	4	66	247	60	3	96	37	15	0	30	93	63	8	802
08:15	38	59	26	1	63	322	74	0	76	48	26	1	15	69	77	5	900
08:30	19	46	41	2	32	209	16	1	117	34	17	0	12	78	65	8	697
08:45	14	25	16	1	29	175	12	2	55	17	9	0	13	75	62	7	513
Total	91	166	107	8	190	954	162	6	344	136	67	1	70	315	267	28	2912
*** BREAK ***																	
15:00	13	18	29	0	14	105	16	1	76	36	14	3	33	156	99	6	620
16:15	19	29	27	0	21	131	16	5	81	49	33	4	15	193	86	1	710
16:30	20	18	15	1	28	141	19	0	50	45	30	2	21	198	81	6	685
16:45	18	35	15	0	23	116	26	1	77	44	31	1	21	178	95	5	686
Total	70	100	86	1	86	494	77	7	294	174	106	10	50	725	361	18	2701
17:00	21	29	20	2	21	152	18	1	78	39	27	0	21	263	127	6	825
17:15	17	30	22	3	27	113	15	1	77	31	28	1	22	254	86	4	731
17:30	16	21	22	0	12	156	27	0	75	43	59	4	22	250	119	2	818
17:45	24	44	34	0	20	108	12	1	84	54	41	1	18	302	113	5	861
Total	78	124	98	5	80	529	72	3	314	167	145	6	83	1069	445	17	3235
Grand Total	353	514	389	19	536	2852	367	20	1225	598	419	21	388	2846	1302	76	11925
Approach %	27.7	40.3	30.5	1.5	14.2	74.5	9.7	0.5	54.1	26.4	18.5	0.9	8.4	61.7	28.2	1.6	
Total %	3	4.3	3.3	0.2	4.5	23.9	3.1	0.2	10.3	5	3.5	0.2	3.3	23.9	10.9	0.6	

Start Time	CARMEL COUNTRY RD Southbound				DEL MAR HEIGHTS RD Westbound				CARMEL COUNTRY RD Northbound				DEL MAR HEIGHTS RD Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:30	34	38	36	1	109	75	257	16	1	349	93	63	49	0	205	73	221	54	0	348	1011
07:45	50	47	28	3	128	68	282	19	0	369	71	35	18	0	124	20	208	73	4	305	926
08:00	20	36	24	4	84	66	247	60	3	376	96	37	15	0	148	30	93	63	8	194	697
08:15	38	59	26	1	124	63	322	74	0	459	76	48	26	1	151	15	69	77	5	166	900
Total Volume	142	180	114	9	445	272	1108	169	4	1553	356	183	108	1	618	138	591	267	17	1013	3639
% Appro. Total	.710	.763	.792	.563	.869	.807	.860	.571	.333	.846	.875	.726	.551	.250	.766	.473	.669	.867	.531	.729	.900



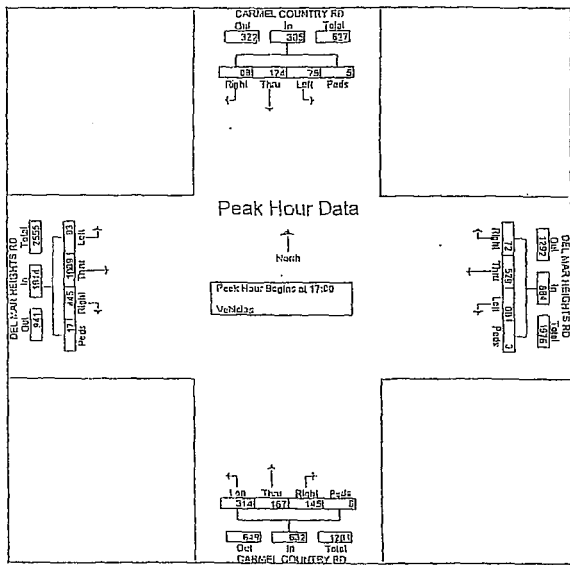
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.09.CARMEL COUNTRY RD.DEL MAR HEIGHTS RD
Site Code : 00000000
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True Count
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File Name : 8031.08.TORREY RIDGE DR.DEL MAR HEIGHTS RD
Site Code : 00000000
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Start Time	CARMEL COUNTRY RD Southbound				DEL MAR HEIGHTS RD Westbound				CARMEL COUNTRY RD Northbound				DEL MAR HEIGHTS RD Eastbound				In Total					
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds						
Peak Hour Analysis From 17:00 to 17:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 17:00																						
17:00	21	20	20	2	72	21	152	18	1	192	78	39	27	0	144	21	263	127	6	417	625	
17:15	17	30	23	3	72	27	113	15	1	156	77	31	28	1	137	22	254	86	4	366	731	
17:30	16	21	23	0	59	12	156	27	0	195	75	43	40	4	171	22	250	119	2	393	818	
17:45	24	44	34	0	102	20	108	12	1	141	84	54	41	1	180	18	302	113	5	428	861	
Total Volume	78	124	98	5	305	80	529	72	3	684	314	167	145	6	632	83	1069	445	17	1614	3235	
% App Total																						
PHF	.313	.705	.721	.417	.748	.741	.848	.667	.750	.877	.935	.773	.740	.375	.878	.943	.885	.876	.708	.921	.939	



Groups Printed: Vehicles

Start Time	TORREY RIDGE DR Southbound				DEL MAR HEIGHTS RD Westbound				TORREY RIDGE DR Northbound				DEL MAR HEIGHTS RD Eastbound				In Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	4	5	12	0	2	126	20	6	12	4	0	0	37	89	6	1	324
07:15	18	7	36	1	2	166	69	48	19	42	4	18	78	187	16	0	633
07:30	15	28	46	0	55	205	99	190	25	96	1	65	12	155	63	0	1117
07:45	17	25	35	1	15	237	32	26	17	10	1	0	47	220	25	1	716
Total	54	65	133	2	74	734	220	270	73	152	6	83	214	580	110	2	2792
08:00	4	0	4	3	7	385	10	4	16	3	5	1	9	128	6	0	587
08:15	4	1	4	0	8	397	9	1	25	1	2	1	5	119	6	0	583
08:30	5	1	5	0	2	200	1	0	26	2	5	0	8	97	10	0	362
08:45	1	0	1	1	1	210	4	2	13	1	1	0	7	89	4	0	335
Total	14	2	14	4	18	1192	24	7	80	7	13	2	29	433	28	0	1867
*** BREAK ***																	
16:00	7	2	12	0	1	124	2	1	11	4	2	1	13	157	12	0	340
16:15	2	0	11	1	2	127	5	3	9	2	2	2	14	146	8	1	335
16:30	5	1	9	1	0	146	5	2	9	1	7	2	21	183	10	0	402
16:45	2	2	8	3	4	146	8	1	10	4	6	1	11	221	24	0	451
Total	16	5	40	5	7	543	20	7	39	11	17	6	59	707	54	1	1537
17:00	6	1	8	2	1	152	9	3	7	2	7	0	21	241	24	0	484
17:15	10	2	11	0	1	144	5	3	8	5	10	1	10	296	27	0	533
17:30	4	1	7	2	2	154	7	1	10	4	4	0	7	279	17	0	499
17:45	7	4	4	0	4	151	1	0	11	3	10	3	10	350	37	0	575
Total	27	8	30	4	8	601	22	7	36	14	31	4	48	1146	105	0	2091
Grand Total	111	80	217	15	107	3070	286	291	225	184	67	95	370	2666	297	3	8257
Approach %	26.2	18.9	51.3	3.5	2.9	81.8	7.6	7.8	59.7	32.1	11.7	16.6	10.5	51.1	8.4	0.1	
Total %	1.3	1	2.6	0.2	1.3	37	3.5	3.5	2.8	2.2	0.8	1.1	4.5	34.6	3.6	0	

True Count
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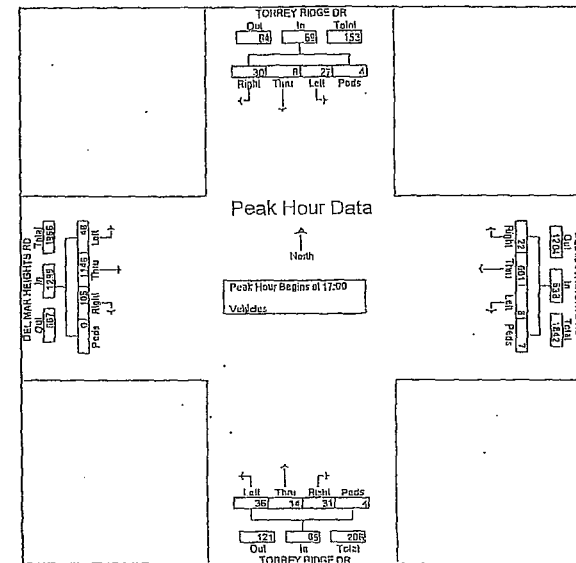
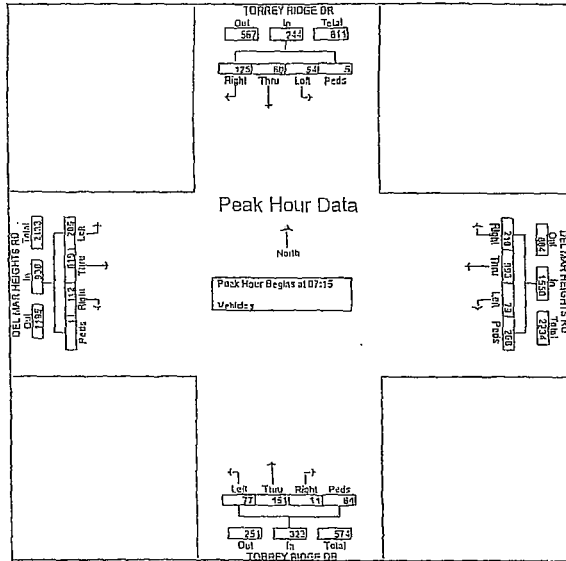
File Name : 9031.08.TORREY RIDGE DR.DEL MAR HEIGHTS RD
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True Count
3401 First Ave #123
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File Name : 9031.08.TORREY RIDGE DR.DEL MAR HEIGHTS RD
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Start Time	TORREY RIDGE DR Southbound					DEL MAR HEIGHTS RD Westbound					TORREY RIDGE DR Northbound					DEL MAR HEIGHTS RD Eastbound					
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis From 07:00 to 07:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	18	7	38	1	64	2	166	69	48	285	19	42	4	18	83	78	107	16	0	201	633
07:30	15	28	48	0	91	55	205	99	190	549	25	96	1	65	187	72	155	63	0	290	1117
07:45	17	25	35	1	78	15	237	32	26	310	17	10	1	0	28	47	139	25	1	302	718
08:00	8	0	4	1	11	7	385	10	4	406	16	3	5	1	25	9	128	8	0	145	587
Total Volume	54	60	125	3	244	79	993	210	268	1550	77	151	11	84	323	206	619	112	1	938	3055
% App Total	23.1	24.6	51.2	1.2		5.1	64.1	13.5	17.3		23.8	45.7	3.4	2.6		22	66	11.9	0.1		
PHF	.750	.576	.621	.417	.610	.359	.645	.530	.353	.706	.770	.393	.550	.323	.432	.660	.676	.444	.250	.776	.684

Start Time	TORREY RIDGE DR Southbound					DEL MAR HEIGHTS RD Westbound					TORREY RIDGE DR Northbound					DEL MAR HEIGHTS RD Eastbound					
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis From 17:00 to 17:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	6	1	8	2	17	1	152	9	3	165	7	2	7	0	16	21	241	24	0	286	484
17:15	10	2	11	0	23	1	144	5	3	153	8	5	10	1	24	10	296	27	0	333	533
17:30	4	1	7	2	14	2	154	7	1	164	10	4	4	0	18	7	279	17	0	303	499
17:45	7	4	4	0	15	4	151	1	0	156	11	3	10	3	27	10	330	37	0	377	575
Total Volume	27	8	30	4	69	8	601	22	7	638	36	14	31	4	85	48	1146	105	0	1299	2091
% App Total																					
PHF	.675	.500	.602	.500	.750	.500	.976	.611	.583	.967	.818	.700	.775	.333	.767	.571	.868	.709	.000	.861	.900



True Count
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File Name : 0031.07.LANSDALE DR.DEL MAR HEIGHTS RD
 Site Code : 00000000
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True Count
 3401 First Ave #123
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File Name : 0031.07.LANSDALE DR.DEL MAR HEIGHTS RD
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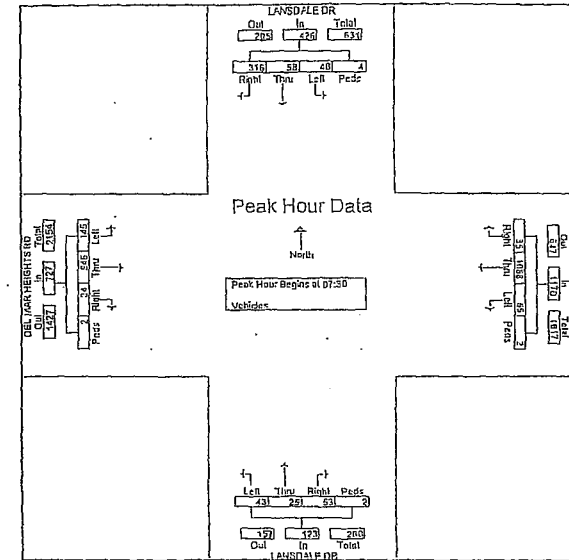
Groups Printed - Vehicles

Start Time	LANSDALE DR Southbound				DEL MAR HEIGHTS RD Westbound				LANSDALE DR Northbound				DEL MAR HEIGHTS RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	3	2	35	0	6	100	1	0	13	3	4	1	12	68	1	0	210
07:15	6	6	50	2	1	159	6	1	24	4	11	0	22	97	7	3	408
07:30	53	17	93	0	5	288	27	1	18	14	8	1	39	171	18	1	734
07:45	6	11	53	1	1	184	4	0	9	4	25	0	27	207	5	0	537
Total	48	36	240	3	13	731	38	2	64	25	48	2	100	543	31	4	1928
08:00	4	17	62	1	24	297	1	0	8	3	11	0	32	100	3	1	594
08:15	5	13	88	2	35	299	3	1	8	4	9	1	47	66	8	0	591
08:30	4	9	34	0	3	154	3	2	11	10	21	1	32	64	4	1	353
08:45	4	7	36	1	3	175	3	0	13	9	4	0	20	55	13	1	339
Total	17	41	240	4	65	925	10	3	40	26	45	2	131	287	28	3	1267

BREAK

16:00	5	11	20	1	8	90	5	0	8	16	7	0	35	141	10	0	357
16:15	0	2	27	4	5	101	9	1	9	12	3	0	21	113	11	0	318
16:30	3	5	33	0	2	107	5	0	5	10	7	1	36	149	13	0	376
16:45	3	6	39	4	9	117	5	3	5	12	10	1	48	144	5	0	411
Total	11	24	119	9	24	415	24	4	27	50	27	2	140	547	39	0	1462
17:00	9	9	43	3	2	107	5	1	15	8	4	0	48	201	17	0	470
17:15	5	10	42	0	6	106	4	0	4	15	11	0	63	142	15	2	525
17:30	3	7	40	2	7	111	7	1	12	11	8	3	54	205	11	1	483
17:45	6	6	34	0	6	115	8	0	10	11	11	4	72	253	20	0	556
Total	23	32	159	5	21	439	24	2	39	45	34	7	237	901	63	3	2034
Grand Total	99	133	758	21	123	2510	96	11	170	146	154	13	608	2278	161	10	7291
Approach %	9.8	13.2	75	2.1	4.5	91.6	4.5	0.4	35.2	30.2	31.9	2.7	19.9	74.5	5.3	0.3	
Total %	1.4	1.8	10.4	0.3	1.7	31.4	1.3	0.2	2.3	2	2.1	0.2	8.3	31.2	2.2	0.1	

Start Time	LANSDALE DR Southbound				DEL MAR HEIGHTS RD Westbound				LANSDALE DR Northbound				DEL MAR HEIGHTS RD Eastbound				Int. Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:30	55	17	93	0	5	288	27	1	18	14	8	1	39	171	18	1	734			
07:45	6	11	53	1	1	184	4	0	9	4	25	0	27	207	5	0	537			
08:00	4	17	62	1	24	297	1	0	8	3	11	0	32	100	3	1	594			
08:15	5	13	88	2	35	299	3	1	8	4	9	1	47	66	8	0	591			
Total Volume	40	56	316	4	65	1068	35	2	1170	43	25	53	2	123	145	546	34	2	727	
% App. Total	36.4	8.5	8.9	500	745	464	893	324	500	865	597	446	530	500	750	771	659	472	500	760
PHF																				



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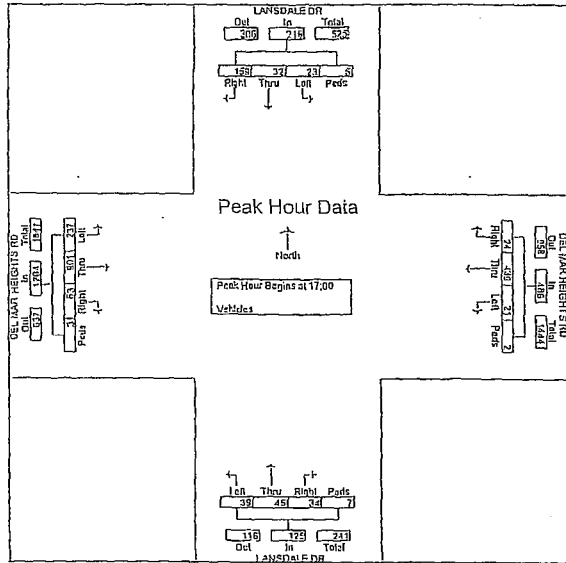
True Count
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File Name : 9031.06.CAR MEL CANYON RD.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/7/2009
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Start Time	LANSDALE DR Southbound				DEL MAR HEIGHTS RD Westbound				LANSDALE DR Northbound				DEL MAR HEIGHTS RD Eastbound				In Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
17:00	9	9	43	3	64	2	107	5	1	115	13	8	4	0	25	48	201	17	0	266	470
17:15	5	10	42	0	57	6	106	4	0	116	4	15	13	0	30	63	242	15	2	322	525
17:30	3	7	40	2	52	7	111	7	1	126	12	11	8	3	31	54	205	11	1	271	483
17:45	6	6	34	0	46	6	115	8	0	130	10	11	11	4	36	72	253	20	0	345	556
Total Values	23	32	159	5	219	31	439	24	2	486	39	45	34	7	125	237	901	63	3	1204	2034
% Area Total	10.5	14.6	72.6	2.3		4.3	50.3	4.9	0.4		31.2	36	27.2	5.6		19.7	34.8	5.2	0.2		
PHF	.639	.800	.924	.417	.855	.750	.954	.750	.500	.942	.750	.750	.773	.438	.868	.823	.890	.788	.375	.872	.915

Peak Hour Analysis From 17:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 17:00



Start Time	CARMEL CANYON RD Southbound				DEL MAR HEIGHTS RD Westbound				CARMEL CANYON RD Northbound				DEL MAR HEIGHTS RD Eastbound				In Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	0	0	0	18	69	0	1	21	0	32	2	0	82	8	0	233
07:15	0	0	0	0	38	109	0	0	69	0	23	0	0	90	21	0	350
07:30	0	0	0	0	78	197	0	0	141	0	54	0	0	165	47	0	662
07:45	0	0	0	0	101	173	0	2	44	0	131	0	0	216	25	0	692
Total	0	0	0	0	235	548	0	3	275	0	240	2	0	553	101	0	1957
08:00	0	0	0	0	129	309	0	0	29	0	83	1	0	102	21	0	674
08:15	0	0	0	0	77	288	0	0	35	0	64	3	0	60	26	0	553
08:30	0	0	0	0	54	164	0	1	38	0	40	0	0	72	26	0	395
08:45	0	0	0	0	45	135	0	0	24	0	48	0	0	41	17	0	310
Total	0	0	0	0	305	896	0	1	126	0	235	4	0	275	90	0	1932
*** BREAK ***																	
16:00	0	0	0	0	23	77	0	1	18	0	25	2	0	114	31	0	291
16:15	0	0	0	0	31	87	0	0	28	0	39	1	0	83	16	0	285
16:30	0	0	0	0	19	92	0	1	21	0	53	1	0	144	26	0	357
16:45	0	0	0	0	36	108	0	3	24	0	63	0	0	141	30	0	405
Total	0	0	0	0	109	364	0	5	91	0	180	4	0	482	103	0	1338
17:00	0	0	0	0	28	114	0	0	18	0	33	0	0	186	37	0	416
17:15	0	0	0	0	16	73	0	0	29	0	65	1	0	187	39	0	410
17:30	0	0	0	0	24	83	0	0	33	0	71	0	0	201	26	0	438
17:45	0	0	0	0	21	129	0	0	21	0	79	5	0	213	53	0	521
Total	0	0	0	0	89	399	0	0	101	0	248	6	0	787	155	0	1785
Grand Total	0	0	0	0	138	2207	0	9	593	0	903	16	0	2097	449	0	7012
Approach %	0	0	0	0	25	74.7	0	0.3	39.2	0	59.7	1.1	0	32.4	17.6	0	
Total %	0	0	0	0	10.5	31.5	0	0.1	8.5	0	12.9	0.2	0	29.9	6.4	0	

True Count
3401 First Ave #123
San Diego, CA 92103

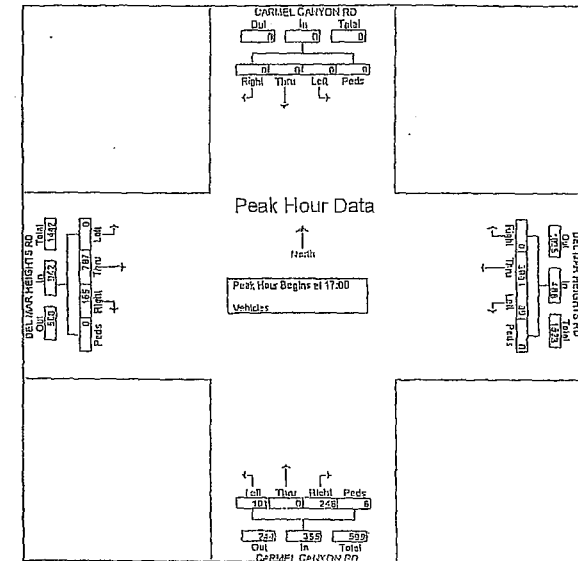
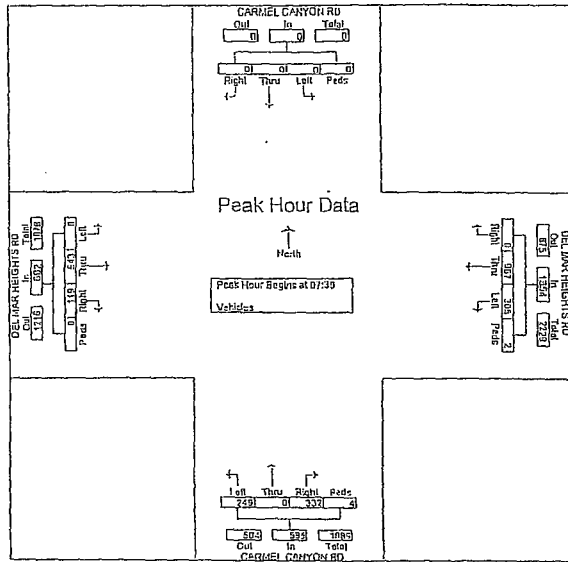
File Name : 9031.05.CAR MEL CANYON RD.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/7/2009
Page No : 2

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 8031.05.CAR MEL CANYON RD.DEL MAR HEIGHTS RD
Site Code : 00000000
Start Date : 5/7/2009
Page No : 3

Start Time	CARMEL CANYON RD Southbound				DEL MAR HEIGHTS RD Westbound				CARMEL CANYON RD Northbound				DEL MAR HEIGHTS RD Eastbound							
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
Peak Hour Analysis From 07:00 to 07:45 - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:30																				
07:30	0	0	0	0	78	197	0	0	275	141	0	54	0	195	0	165	47	0	211	682
07:45	0	0	0	0	101	173	0	2	276	44	0	131	0	175	0	216	25	0	241	672
08:00	0	0	0	0	129	309	0	0	436	29	0	83	1	113	0	102	21	0	123	674
08:15	0	0	0	0	77	288	0	0	365	35	0	64	3	102	0	60	26	0	86	553
Total Volume	0	0	0	0	385	857	0	2	1354	249	0	332	4	585	0	543	119	0	662	2601
% App. Total	0	0	0	0	23.4	71.4	0	0.1	42.6	0	0	56.8	0.7	0	0	82	18	0	82	1785
PHF	.000	.000	.000	.000	.746	.782	.000	.750	.773	.441	.000	.634	.333	.750	.000	.628	.633	.000	.637	.840

Start Time	CARMEL CANYON RD Southbound				DEL MAR HEIGHTS RD Westbound				CARMEL CANYON RD Northbound				DEL MAR HEIGHTS RD Eastbound							
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
Peak Hour Analysis From 12:00 to 12:45 - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 12:00																				
12:00	0	0	0	0	28	114	0	0	142	18	0	33	0	51	0	106	37	0	223	416
12:15	0	0	0	0	16	73	0	0	89	29	0	65	1	95	0	167	39	0	226	410
12:30	0	0	0	0	24	83	0	0	107	33	0	71	0	104	0	201	26	0	227	438
12:45	0	0	0	0	21	129	0	0	150	21	0	72	5	105	0	213	53	0	266	521
Total Volume	0	0	0	0	89	399	0	0	488	101	0	248	6	355	0	787	155	0	942	1785
% App. Total	0	0	0	0	18.2	81.8	0	0	28.5	0	0	69.0	1.7	0	0	83.5	16.5	0	83.5	1785
PHF	.000	.000	.000	.000	.795	.773	.000	.000	.813	.765	.000	.765	.300	.845	.000	.924	.731	.000	.885	.857



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.19.EL CAMINO REAL.MALL DRWY
Site Code : 0000000
Start Date : 5/5/2009
Page No : 1

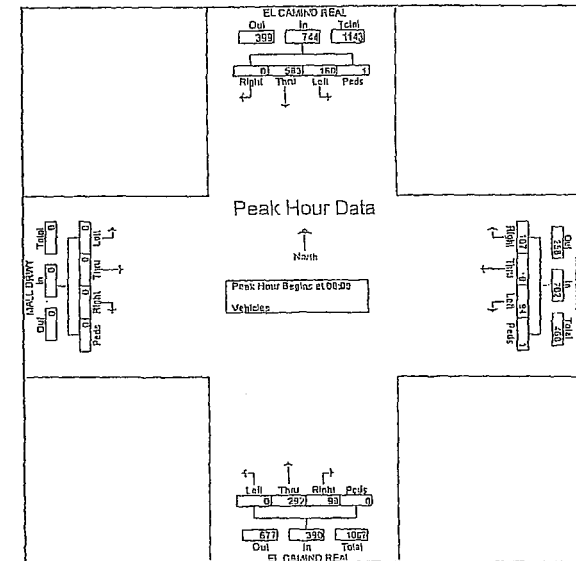
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.10.EL CAMINO REAL.MALL DRWY
Site Code : 0000000
Start Date : 5/5/2009
Page No : 2

Groups Printed- Vehicles

Start Time	EL CAMINO REAL Southbound				MALL DRWY Westbound				EL CAMINO REAL Northbound				MALL DRWY Eastbound				In Total
	Left	Thru	Right	Peak	Left	Thru	Right	Peak	Left	Thru	Right	Peak	Left	Thru	Right	Peak	
07:00	21	44	0	0	6	0	6	2	0	47	7	0	0	0	0	0	133
07:15	13	79	0	0	11	0	10	0	0	62	24	0	0	0	0	0	199
07:30	12	112	0	0	16	0	13	4	0	90	15	0	0	0	0	0	262
07:45	20	139	0	1	18	0	10	0	0	77	6	0	0	0	0	0	271
Total	66	374	0	1	51	0	39	6	0	276	52	0	0	0	0	0	865
08:00	43	152	0	1	20	0	23	0	0	71	19	0	0	0	0	0	329
08:15	36	195	0	0	18	0	34	1	0	82	22	0	0	0	0	0	388
08:30	44	131	0	0	24	0	27	0	0	76	28	0	0	0	0	0	330
08:45	37	105	0	0	32	0	23	0	0	63	29	0	0	0	0	0	289
Total	160	583	0	1	94	0	107	1	0	292	98	0	0	0	0	0	1336
*** BREAK ***																	
16:00	50	71	0	0	23	0	48	2	0	114	50	0	0	0	0	0	358
16:15	49	73	0	0	24	0	50	0	0	102	36	2	0	0	0	0	336
16:30	56	58	0	0	14	0	49	3	0	118	43	3	0	0	0	0	374
16:45	74	70	0	0	49	0	63	2	0	127	43	1	0	0	0	0	429
Total	229	272	0	0	140	0	210	7	0	461	172	6	0	0	0	0	1497
17:00	59	65	0	0	60	0	77	7	0	140	53	4	0	0	0	0	465
17:15	77	100	0	0	42	0	32	5	0	163	37	0	0	0	0	0	476
17:30	77	63	0	0	35	0	45	1	0	169	39	0	0	0	0	0	429
17:45	73	90	0	3	51	0	74	12	0	147	34	0	0	0	0	0	484
Total	286	318	0	3	188	0	248	25	0	619	163	4	0	0	0	0	1854
Grand Total	741	1547	0	5	473	0	604	39	0	1648	485	10	0	0	0	0	5552
Approach %	32.3	67.5	0	0.2	43.4	0	54.1	3.5	0	76.9	22.6	0.5	0	0	0	0	
Total %	13.3	27.9	0	0.1	8.5	0	10.9	0.7	0	29.7	8.7	0.2	0	0	0	0	

Start Time	EL CAMINO REAL Southbound				MALL DRWY Westbound				EL CAMINO REAL Northbound				MALL DRWY Eastbound				In Total			
	Left	Thru	Right	Peak	Left	Thru	Right	Peak	Left	Thru	Right	Peak	Left	Thru	Right	Peak				
08:00	43	152	0	1	196	20	0	23	0	43	0	71	19	0	90	0	0	0	0	329
08:15	36	195	0	0	233	18	0	34	1	53	0	82	22	0	104	0	0	0	0	388
08:30	44	131	0	0	175	24	0	27	0	51	0	76	28	0	104	0	0	0	0	330
08:45	37	105	0	0	142	32	0	23	0	55	0	63	29	0	92	0	0	0	0	289
Total Vehicle	160	583	0	1	744	94	0	107	1	202	0	292	98	0	390	0	0	0	0	1336
% App. Total	21.5	78.4	0	0.1	46.5	0	53	0.5	0	74.9	25.1	0	0	0	0	0	0	0	0	
PHF	0.09	0.747	0.00	0.230	0.05	0.734	0.00	0.187	0.250	0.19	0.00	0.200	0.145	0.00	0.338	0.00	0.000	0.000	0.000	0.61



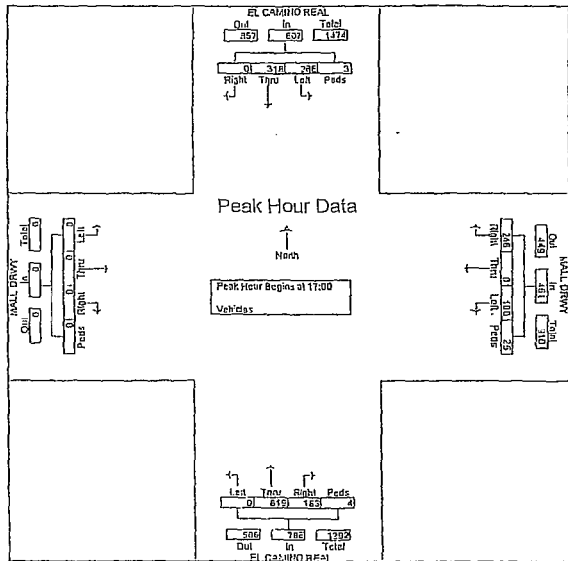
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.19.EL CAMINO REAL.MALL.DRWY
Site Code : 00000000
Start Date : 5/5/2009
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.20.CAR MEL COUNTRY RD.TOWNGATE DR
Site Code : 00000000
Start Date : 5/7/2009
Page No : 1

Start Time	EL CAMINO REAL Southbound				MALL DRWY Westbound				EL CAMINO REAL Northbound				MALL DRWY Eastbound				Int. Total					
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds						
Peak Hour Analysis From 17:00 to 17:45 - Peak 7 of 7																						
Peak Hour for Entire Intersection Begins at 17:00																						
17:00	59	65	0	0	124	60	0	77	7	144	0	140	53	4	197	0	0	0	0	0	0	465
17:15	77	100	0	0	177	42	0	52	5	99	0	163	37	0	200	0	0	0	0	0	0	476
17:30	77	63	0	0	140	35	0	45	1	81	0	169	39	0	208	0	0	0	0	0	0	429
17:45	73	90	0	3	166	51	0	74	72	137	0	147	34	0	181	0	0	0	0	0	0	484
Total Volume	286	318	0	3	607	188	0	248	25	461	0	619	163	4	786	0	0	0	0	0	0	1854
H.App. Total	47.1	52.4	0	0.5	40.8	0	0	53.8	5.4	0	0	78.8	20.7	0.5	0	0	0	0	0	0	0	0
PHF	0.29	0.29	0.00	0.250	0.67	0.83	0.00	0.805	0.521	0.800	0.000	0.916	0.769	0.250	0.945	0.000	0.000	0.000	0.000	0.000	0.000	0.558



Start Time	CARMEL COUNTRY RD Southbound				MCGUIRE DR Westbound				CARMEL COUNTRY RD Northbound				TOWNGATE DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Groups Printed - Vehicles																	
07:00	11	49	5	0	4	15	24	2	8	42	0	2	6	5	9	1	181
07:15	20	75	10	0	3	12	31	1	9	65	6	1	13	16	8	6	226
07:30	11	119	25	1	12	45	67	3	13	114	9	8	31	23	16	1	496
07:45	21	149	27	1	4	34	34	1	21	85	2	3	26	13	19	2	442
Total	63	392	67	2	23	106	156	7	51	305	17	14	76	57	52	10	1399
*** BRDAX ***																	
08:00	28	105	27	1	11	37	33	10	24	105	3	24	24	16	26	11	485
08:15	30	101	63	11	16	61	28	8	30	107	2	58	48	25	31	21	640
08:30	21	78	45	12	14	57	54	10	36	67	0	40	52	29	37	13	565
08:45	16	82	13	8	3	13	30	7	17	68	1	4	17	7	16	4	305
Total	95	366	148	32	44	168	145	35	107	347	6	126	141	77	110	49	1896
16:00	34	116	19	0	2	9	29	2	21	76	1	1	18	21	39	0	363
16:15	44	118	17	5	1	13	25	2	25	80	0	5	22	11	26	10	404
16:30	37	79	16	9	1	15	22	2	25	97	2	5	31	23	32	7	405
16:45	39	90	15	5	1	11	21	0	29	106	4	3	20	18	28	8	398
Total	154	403	67	19	5	48	97	6	100	359	7	14	91	73	125	25	1593
17:00	48	144	23	1	2	12	28	0	25	100	0	0	22	17	39	4	465
17:15	30	101	18	5	5	9	30	2	30	90	3	5	35	20	45	5	434
17:30	49	113	14	5	3	18	32	3	22	138	4	1	30	38	50	2	522
17:45	55	135	13	2	4	15	25	5	36	124	3	2	23	30	38	9	519
Total	182	493	68	13	14	54	115	10	113	452	10	8	110	105	173	20	1940
Grand Total	494	1654	350	65	86	376	513	58	371	1464	40	162	418	312	460	104	6928
Approach %	19.3	64.5	13.7	2.6	8.3	36.4	49.7	5.6	18.2	71.9	2	8	32.3	24.1	35.5	8	
Total %	7.1	23.9	5.1	1	1.2	5.4	7.4	0.8	5.4	21.1	0.6	2.3	6	4.5	6.6	1.5	

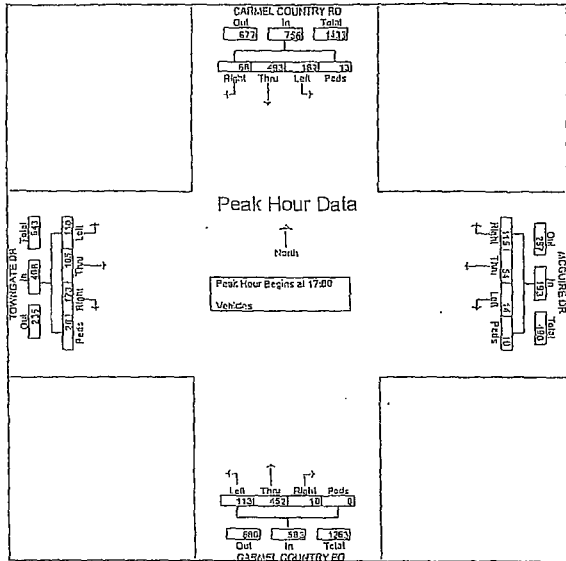
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.20.CAR MEL COUNTRY RD.TOWNGATE DR
Site Code : 00000000
Start Date : 6/7/2009
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.16.EL CAMINO REAL.TOWNGATE DR
Site Code : 00000000
Start Date : 5/5/2009
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Start Time	CARMEL COUNTRY RD Southbound				MC GUIRE DR Westbound				CARMEL COUNTRY RD Northbound				TOWNGATE DR Eastbound				Incl. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	48	144	23	1	216	2	12	28	0	42	25	100	0	0	125	22	17	39	4	82	465
17:15	30	101	18	5	154	5	9	30	2	46	30	90	3	5	128	35	20	46	5	106	434
17:30	49	113	14	5	181	3	38	32	3	56	22	139	4	1	165	30	38	50	2	120	522
17:45	55	135	13	3	205	4	15	25	5	49	36	124	3	2	165	23	30	38	2	100	519
Total Volume	182	493	68	13	756	14	54	115	10	193	113	452	10	8	583	110	105	173	20	408	1940
% App. Total	24.1	65.2	9	1.7		7.3	28	59.6	5.2		19.4	77.5	1.7	1.4		27	25.7	42.4	4.9		
PIE	.827	.836	.739	.690	.875	.709	.750	.898	.500	.862	.785	.819	.625	.400	.883	.786	.691	.865	.556	.850	.929



Start Time	EL CAMINO REAL Southbound				TOWNGATE DR Westbound				EL CAMINO REAL Northbound				TOWNGATE DR Eastbound				Incl. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Groups Printed - Vehicles																	
07:00	3	43	8	0	25	0	10	3	5	42	9	0	0	0	0	1	150
07:15	6	70	6	1	33	2	12	0	4	74	28	0	0	0	1	1	238
07:30	8	59	13	0	63	1	14	0	3	91	32	0	0	0	0	2	326
07:45	11	126	7	0	69	3	19	0	4	66	15	2	0	0	1	1	314
Total	28	338	34	1	191	6	55	3	16	273	84	2	0	0	1	4	1036
08:00	51	93	15	0	54	9	26	0	5	45	19	1	13	22	3	1	357
08:15	48	93	34	0	39	30	29	1	3	35	9	0	23	45	2	1	392
08:30	30	124	10	2	64	3	30	0	2	59	9	0	2	0	1	2	338
08:45	14	124	8	0	61	4	13	1	3	69	14	0	1	0	1	1	314
Total	143	434	67	2	218	46	98	2	13	208	51	1	39	67	7	5	1401
BREAK																	
16:00	16	71	1	0	32	1	29	2	2	109	37	0	1	0	5	0	306
16:15	31	90	0	0	49	0	15	1	0	119	35	0	1	3	5	2	351
16:30	17	63	0	0	45	0	9	0	2	117	32	1	3	2	2	1	294
16:45	19	95	0	0	32	1	8	0	0	126	45	0	3	1	3	0	332
Total	83	319	1	0	158	2	61	3	4	471	149	1	8	6	14	3	1283
17:00	21	93	0	0	39	0	19	1	0	149	48	0	4	2	5	2	383
17:15	21	88	1	0	23	0	25	5	3	104	55	0	2	3	4	2	426
17:30	26	92	1	0	44	0	15	1	3	153	44	1	4	0	1	4	389
17:45	26	96	0	0	34	0	18	0	1	173	53	2	1	1	0	1	407
Total	94	369	2	0	140	0	78	7	7	669	200	3	11	6	10	9	1605
Grand Total	348	1460	104	3	707	54	292	15	40	1621	484	7	58	79	32	21	5325
Approach %	18.2	76.2	5.4	0.2	66.2	5.1	21.3	1.4	1.9	75.3	22.5	0.3	30.5	41.6	16.8	11.1	
Total %	6.5	27.4	2	0.1	15.3	1	5.5	0.3	0.8	30.4	9.1	0.1	1.1	1.5	0.6	0.4	

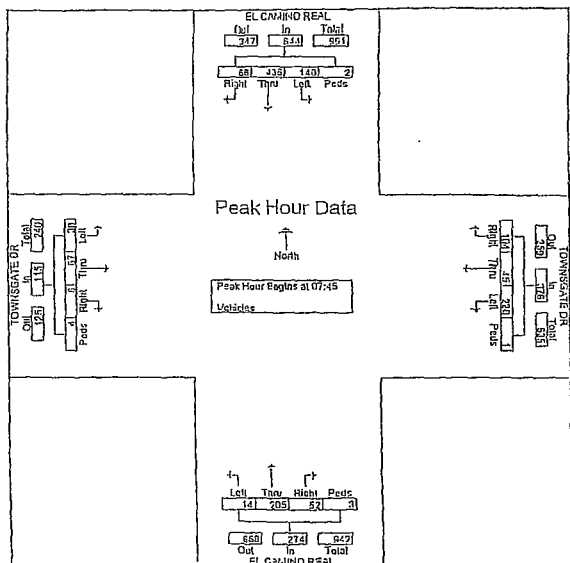
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.18.EL CAMINO REAL TOWNSGATE DR
Site Code : 00000000
Start Date : 5/5/2009
Page No : 2

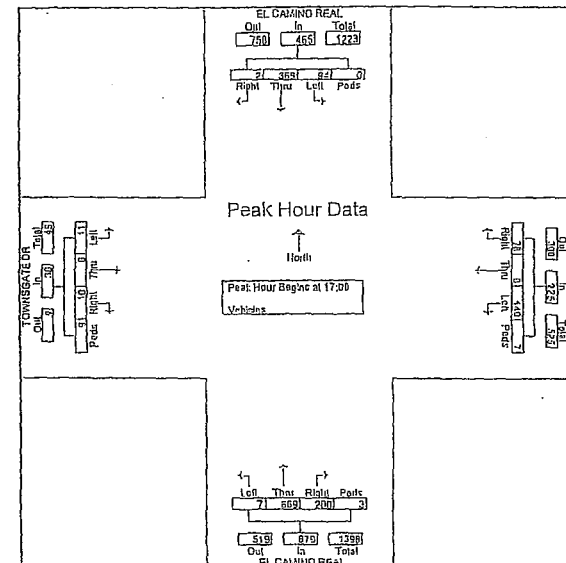
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.18.EL CAMINO REAL TOWNSGATE DR
Site Code : 00000000
Start Date : 5/5/2009
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Start Time	EL CAMINO REAL Southbound				TOWNSGATE DR Westbound				EL CAMINO REAL Northbound				TOWNSGATE DR Eastbound				In Total	Out Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds						
Peak Hour Analysis From 07:00 to 07:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 07:45																						
07:45	11	126	7	0	144	69	3	19	0	91	4	66	15	2	87	0	0	0	0	0	322	
08:00	51	93	15	0	159	54	9	26	0	89	5	45	19	1	70	13	22	3	1	39	357	
08:15	48	93	34	0	175	39	30	29	1	99	3	35	9	0	47	23	45	2	1	71	392	
08:30	30	124	10	2	166	64	3	30	0	97	2	59	9	0	70	2	0	1	2	5	338	
Total Volume	140	436	66	2	644	226	45	104	1	376	14	205	52	3	274	38	67	6	4	115	1409	
% App. Total	21.7	67.7	10.2	0.3		35.1	12	31.7	0.3		5.1	31.5	19	1.1		3.3	58.2	3.4	3.5			
PHF	.68	.85	.48	.10	.928	.219	.37	.867	.356	.549	.700	.711	.684	.375	.387	.413	.372	.500	.310	.405	.809	



Start Time	EL CAMINO REAL Southbound				TOWNSGATE DR Westbound				EL CAMINO REAL Northbound				TOWNSGATE DR Eastbound				In Total	Out Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds						
Peak Hour Analysis From 17:00 to 17:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 17:00																						
17:00	21	93	0	0	114	39	0	19	1	59	0	149	48	0	197	4	2	5	2	13	383	
17:15	21	88	1	0	110	23	0	25	5	53	3	194	55	0	252	2	3	4	2	11	426	
17:30	26	92	1	0	119	44	0	15	1	60	3	153	44	1	201	4	0	1	4	9	389	
17:45	26	96	0	0	122	34	0	19	0	53	1	172	53	2	229	1	1	0	1	3	407	
Total Volume	94	369	2	0	465	140	0	78	7	225	7	669	200	3	679	11	6	10	9	36	1605	
% App. Total	20.7	79.4	0.4	0		37.2	0	34.7	3.1		0.9	76.1	22.8	0.3		30.6	16.7	27.8	2.5			
PHF	.904	.861	.500	.000	.951	.785	.000	.780	.358	.938	.583	.961	.592	.375	.812	.688	.500	.500	.561	.692	.947	



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.21.CARMEL COUNTRY RD.CARMEL CREEK RD
Site Code : 00000000
Start Date : 5/5/2009
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.21.CARMEL COUNTRY RD.CARMEL CREEK RD
Site Code : 00000000
Start Date : 5/5/2009
Page No : 2

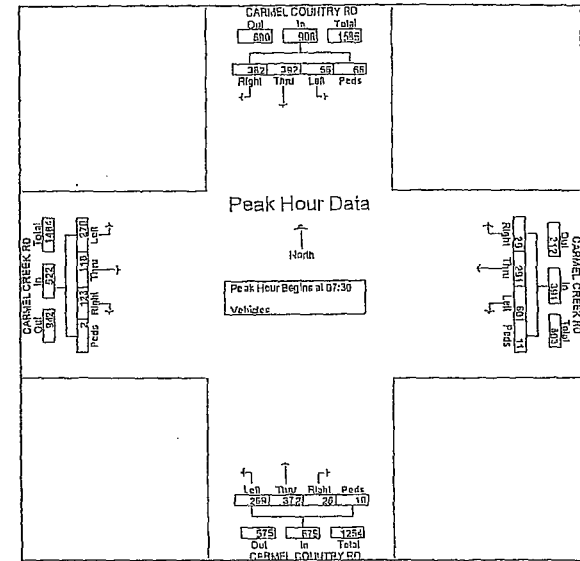
Groups Printed - Vehicles

Start Time	CARMEL COUNTRY RD Southbound				CARMEL CREEK RD Westbound				CARMEL COUNTRY RD Northbound				CARMEL CREEK RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	4	51	21	0	4	32	0	3	10	32	8	1	18	9	4	2	199
07:15	5	49	31	1	13	48	5	0	16	44	5	1	46	30	10	3	307
07:30	7	85	71	8	11	64	5	1	30	80	5	2	46	43	11	0	467
07:45	8	98	91	1	20	65	4	2	74	86	7	0	40	14	36	2	536
Total	24	283	214	10	48	209	12	6	130	242	25	4	150	96	51	7	1511
08:00	16	93	119	24	14	57	7	3	114	119	9	7	105	25	48	0	760
08:15	35	116	101	33	15	105	15	5	51	87	7	1	88	36	38	0	733
08:30	6	82	56	0	18	76	13	3	12	74	4	2	33	12	20	0	411
08:45	3	61	38	0	5	42	6	1	20	55	2	0	34	12	11	3	292
Total	60	352	314	57	52	280	41	12	197	335	22	10	260	85	117	3	2197

*** BREAK ***

16:00	5	62	52	9	8	24	5	0	12	72	8	2	55	35	18	1	388
16:15	5	75	41	2	5	17	1	0	14	77	12	0	40	41	11	1	342
16:30	7	70	55	0	13	24	13	0	8	61	12	0	49	31	25	2	370
16:45	9	84	57	2	8	34	6	1	30	56	14	1	68	87	31	0	458
Total	26	311	205	13	34	99	25	1	54	266	46	3	212	174	85	4	1558
17:00	9	107	52	0	10	20	4	0	32	82	13	0	72	62	34	3	500
17:15	5	85	62	0	8	31	7	2	24	79	7	0	64	64	25	2	465
17:30	5	84	52	1	7	25	1	0	19	100	12	0	70	60	31	2	469
17:45	6	105	55	2	7	23	5	0	19	83	7	0	78	51	33	1	473
Total	25	381	221	3	32	99	17	2	94	344	39	0	284	237	123	8	1909
Grand Total	135	1327	934	83	166	687	95	21	475	1157	132	17	906	592	376	22	7175
Approach %	5.4	51.1	38.2	3.3	17.1	70.9	9.9	2.2	28.2	65.5	7.3	0.9	47.8	51.2	19.8	1.2	
Total %	1.9	18.5	13.3	1.2	2.3	9.6	1.3	0.5	6.6	16.5	1.8	0.2	12.6	8.3	5.2	0.3	

Start Time	CARMEL COUNTRY RD Southbound				CARMEL CREEK RD Westbound				CARMEL COUNTRY RD Northbound				CARMEL CREEK RD Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:30	7	85	71	6	171	11	64	3	1	79	30	80	5	2	117	46	43	11	0	100	467
07:45	8	98	91	1	198	20	65	4	2	91	74	86	7	0	167	40	14	26	1	82	538
08:00	16	93	119	24	252	14	57	7	3	81	114	119	9	7	249	135	25	48	0	178	760
08:15	35	216	101	33	285	15	105	75	5	140	51	67	7	1	146	83	36	38	0	162	733
Total	66	392	381	66	906	60	291	29	11	391	269	372	28	10	670	279	118	123	2	522	2498
% App. Total	7.3	41.3	42.2	7.3	153	74.4	7.4	2.8	12.3	39.6	51.6	4.1	1.5	23.4	21.6	23.6	0.4				
PHF	.471	.445	.883	.500	.725	.760	.693	.483	.550	.698	.580	.782	.778	.377	.662	.664	.686	.641	.350	.733	.822



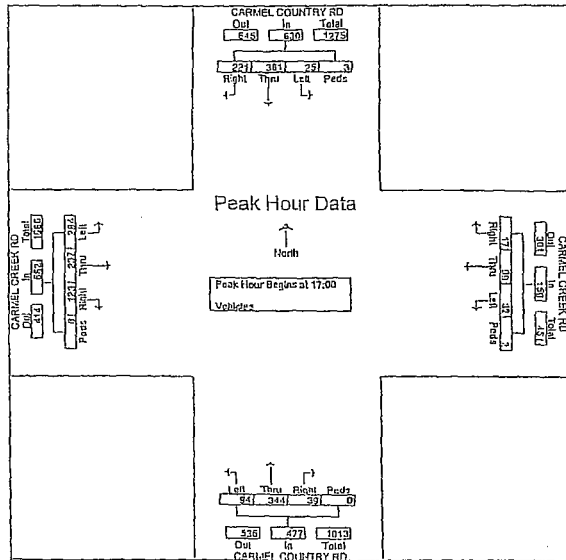
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.21.CARMEL COUNTRY RD.CARMEL CREEK RD
Site Code : 00000000
Start Date : 5/5/2009
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.17.EL CAMINO REAL.HIGH BLUFF DR
Site Code : 00000000
Start Date : 5/5/2009
Page No : 1

Start Time	CARMEL COUNTRY RD Southbound				CARMEL CREEK RD Westbound				CARMEL COUNTRY RD Northbound				CARMEL CREEK RD Eastbound				In Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
17:00	9	187	52	0	160	30	20	4	0	31	33	82	13	0	127	72	62	34	3	171	500
17:15	5	85	62	0	152	8	31	7	2	48	24	79	7	0	110	64	64	25	2	155	465
17:30	5	84	52	1	142	7	25	1	0	33	19	100	12	0	131	70	60	31	2	163	469
17:45	6	105	55	2	168	7	23	5	0	35	19	83	7	0	109	78	51	33	1	163	475
Total Volume	25	381	221	3	630	32	99	17	2	150	94	344	39	0	477	284	237	123	8	652	1909
% Appr Total	4	60.5	35.1	0.5	-	21.3	66	11.3	1.3	-	19.7	72.1	8.2	0	-	13.6	36.3	13.9	1.2	-	-
PHF	694	850	871	375	938	800	798	607	250	781	734	860	759	000	910	910	926	504	667	563	955



Start Time	EL CAMINO REAL Southbound				HIGH BLUFF DR Westbound				EL CAMINO REAL Northbound				HIGH BLUFF DR Eastbound				In Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	8	71	7	0	11	26	8	1	28	36	4	0	0	20	27	1	248
07:15	3	125	25	0	35	47	23	0	40	72	5	0	1	24	30	0	430
07:30	13	245	26	0	16	51	17	1	48	77	7	0	2	23	52	0	578
07:45	18	221	26	0	22	65	16	0	61	39	4	0	16	48	61	0	600
Total	42	662	84	0	84	190	64	2	177	224	20	0	19	115	172	1	1856
08:00	14	192	27	0	32	60	19	0	55	54	7	0	9	20	57	0	515
08:15	23	202	28	2	24	44	12	2	48	72	11	0	3	19	73	1	564
08:30	15	171	25	2	16	43	11	1	68	42	7	0	5	36	58	0	502
08:45	15	144	30	0	20	51	9	1	75	60	9	0	7	25	60	1	507
Total	67	709	110	4	94	195	50	4	246	228	34	0	24	100	248	2	2116
*** BREAK ***																	
16:00	24	121	21	0	26	44	19	0	62	139	19	0	15	89	45	0	624
16:15	28	132	18	0	26	46	21	0	67	132	22	0	11	90	54	0	647
16:30	32	122	16	0	22	43	30	0	49	163	14	0	12	92	57	0	652
16:45	38	131	14	0	31	47	17	0	59	172	10	0	22	107	72	0	720
Total	122	506	69	0	105	180	67	0	237	606	65	0	60	378	228	0	2643
17:00	40	76	10	0	34	37	18	1	74	155	32	0	23	103	79	0	662
17:15	31	123	17	0	18	48	26	0	49	265	23	0	7	74	80	1	762
17:30	19	111	6	0	29	57	30	0	74	229	20	1	21	49	88	2	716
17:45	23	154	10	0	15	46	18	1	61	295	17	1	21	45	68	0	726
Total	113	464	43	0	96	168	92	2	258	945	92	2	72	271	315	3	2936
Grand Total	344	2341	306	4	379	736	293	8	918	2003	211	2	175	864	963	6	9553
Approach %	11.5	78.2	10.2	0.1	26.8	52	20.7	0.6	29.3	63.9	6.7	0.1	8.7	43	48	0.3	-
Total %	3.6	24.5	3.2	0	4	7.7	3.1	0.1	9.6	21	2.2	0	1.8	9	10.1	0.1	-

True Count
3401 First Ave #123
San Diego, CA 92103

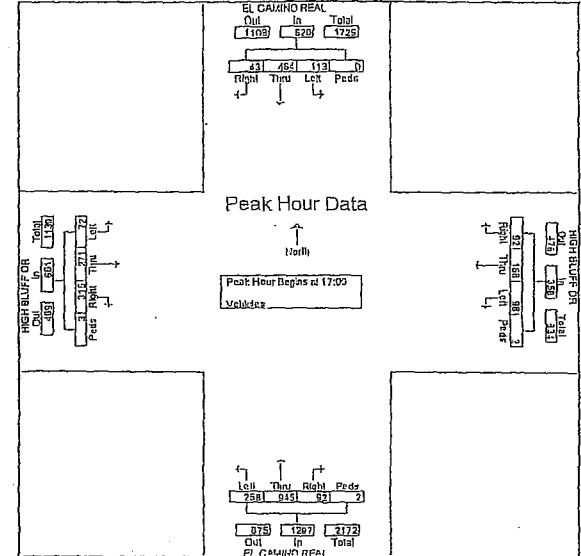
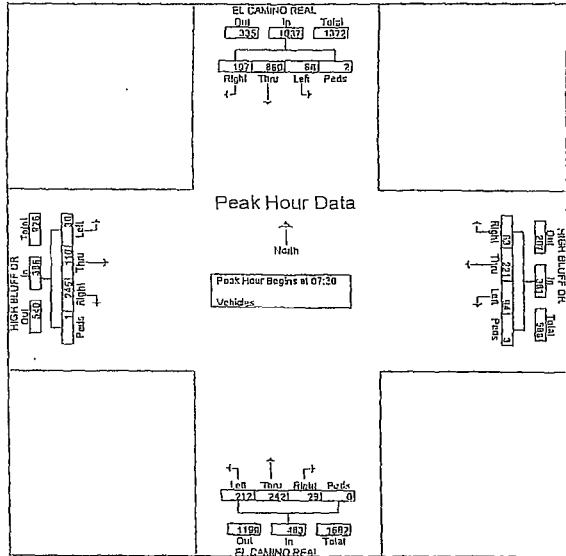
File Name : 9031.17.EL CAMINO REAL-HIGH BLUFF DR
Site Code : 00000000
Start Date : 5/5/2009
Page No : 2

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.17.EL CAMINO REAL-HIGH BLUFF DR
Site Code : 00000000
Start Date : 5/5/2009
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Start Time	EL CAMINO REAL Southbound					HIGH BLUFF DR Westbound					EL CAMINO REAL Northbound					HIGH BLUFF DR Eastbound					Vol Total
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis From 07:00 to 07:30 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	13	249	26	0	288	16	51	17	1	85	48	77	7	0	132	2	23	52	0	77	578
07:45	18	221	26	0	265	32	66	16	0	104	61	39	4	0	104	16	48	63	0	127	600
08:00	14	192	27	0	233	32	60	18	0	110	55	54	7	0	116	9	20	57	0	86	545
08:15	23	202	28	2	255	24	44	12	2	82	48	72	11	0	131	3	19	73	1	96	564
Total Volume	68	860	107	2	1037	94	221	63	3	381	212	242	29	0	483	30	110	245	1	386	2287
% App. Total	6.6	82.9	10.3	0.2		24.7	58	16.5	0.8		43.9	50.1	6	0		7.8	28.5	63.5	0.3		
PHF	.739	.874	.955	.250	.913	.734	.837	.875	.375	.856	.869	.786	.619	.000	.915	.469	.573	.839	.250	.760	.933

Start Time	EL CAMINO REAL Southbound					HIGH BLUFF DR Westbound					EL CAMINO REAL Northbound					HIGH BLUFF DR Eastbound					Vol Total
	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	Left	Thru	Right	Peds	Acc Total	
Peak Hour Analysis From 12:00 to 12:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00																					
12:00	40	76	30	0	146	34	37	18	1	90	74	155	31	0	261	23	303	79	0	205	682
12:15	31	123	37	0	171	38	48	26	0	92	49	265	23	0	337	7	74	80	1	162	762
12:30	19	111	6	0	136	29	37	30	0	96	74	229	10	1	324	21	49	88	2	160	716
12:45	23	154	10	0	187	15	46	18	1	80	61	296	17	1	375	21	45	68	0	134	776
Total Volume	113	464	43	0	620	96	168	92	2	358	258	945	92	2	1297	72	271	315	3	661	2936
% App. Total	18.2	24.8	6.9	0		26.8	46.9	25.7	0.6		19.9	72.9	7.1	0.3		10.9	41	47.2	0.5		
PHF	.706	.753	.672	.000	.839	.766	.823	.767	.500	.931	.872	.792	.719	.500	.855	.783	.658	.695	.375	.806	.946



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.15.CARMEL VISTA RD.HIGH BLUFF DR
Site Code : 00000000
Sheet Date : 5/5/2009
Page No : 1

True Count
3401 First Ave #123
San Diego, CA 92103

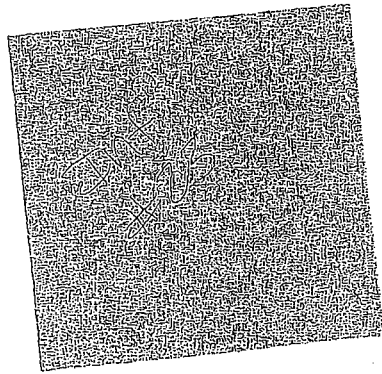
File Name : 9031.15.CARMEL VISTA RD.HIGH BLUFF DR
Site Code : 00000000
Sheet Date : 5/5/2009
Page No : 2

Groups Printed: Vehicles

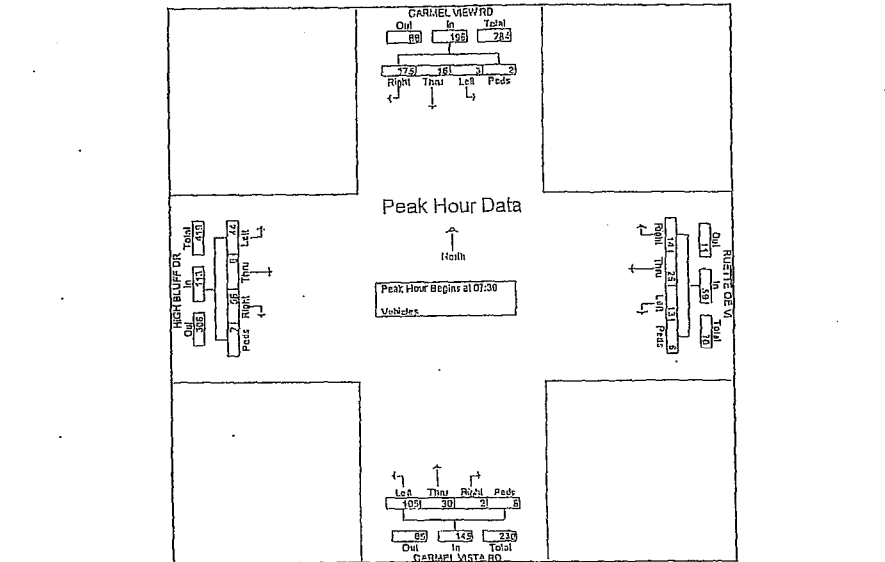
Start Time	CARMEL VIEW RD Southbound				RUETTE DE VI Westbound				CARMEL VISTA RD Northbound				HIGH BLUFF DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	4	16	0	0	4	1	3	15	5	0	2	8	1	9	1	69
07:15	0	2	36	2	1	12	2	5	21	4	1	1	11	2	9	2	111
07:30	0	1	30	0	5	7	4	1	25	9	1	2	10	1	13	5	114
07:45	2	9	49	2	4	5	8	1	27	12	0	3	18	2	22	1	165
Total	2	16	131	4	10	28	15	10	88	30	2	8	47	6	53	9	459
08:00	1	3	57	0	1	7	1	0	23	5	0	1	7	1	14	1	122
08:15	0	3	39	0	3	7	1	4	30	4	1	2	9	2	7	0	112
08:30	0	2	36	0	3	7	2	3	31	1	0	0	8	5	13	3	114
08:45	0	4	48	1	0	2	2	2	14	0	0	0	14	4	7	0	98
Total	1	12	180	1	7	23	6	9	98	10	1	3	38	12	41	4	446

*** BREAK ***

16:00	1	3	22	0	3	5	0	0	9	2	2	0	32	5	23	1	108
16:15	1	2	24	1	2	0	2	1	14	2	1	0	31	3	20	0	104
16:30	1	2	21	0	1	5	2	3	18	2	1	1	36	2	23	0	118
16:45	0	2	22	1	1	2	1	6	20	3	4	1	40	6	28	0	137
Total	3	9	89	2	7	12	5	10	61	9	8	2	139	16	94	1	467
17:00	0	2	17	2	1	4	2	3	19	4	1	0	48	10	45	0	158
17:15	2	1	29	3	0	1	1	3	24	10	2	0	54	3	22	2	157
17:30	0	2	18	5	2	4	0	5	27	7	1	0	36	5	30	4	151
17:45	1	3	23	1	0	5	2	2	15	4	4	1	37	7	14	0	119
Total	3	8	87	11	3	14	5	17	85	25	8	1	175	26	111	6	585
Grand Total	9	45	487	18	27	77	31	46	332	74	19	14	399	60	299	20	1957
Approch %	1.6	8.1	87.1	3.2	14.9	42.5	17.1	25.4	75.6	16.9	4.3	3.2	51.3	7.7	38.4	2.6	
Total %	0.5	2.3	24.9	0.9	1.4	3.9	1.6	2.4	17	3.8	1	0.7	20.4	3.1	15.3	1	



Start Time	CARMEL VIEW RD Southbound				RUETTE DE VI Westbound				CARMEL VISTA RD Northbound				HIGH BLUFF DR Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:30	0	1	30	0	5	7	4	1	17	25	9	1	2	37	10	1	13	5	29	114	
07:45	2	9	49	2	4	5	8	1	18	27	12	0	3	42	18	2	22	1	43	165	
08:00	1	3	57	0	1	7	1	0	9	23	5	0	1	29	7	1	14	1	23	122	
08:15	0	3	39	0	3	7	1	4	15	30	4	1	2	37	9	2	7	0	18	112	
Total	3	16	175	2	13	26	14	6	59	105	30	2	8	145	44	6	56	7	113	513	
% Appr. Total	1.5	8.2	89.3	1	22	44.1	23.7	10.2	72.4	30.7	1.4	5.5	38.9	5.3	49.6	6.2					
PHF	.375	.444	.768	.250	.790	.650	.929	.438	.375	.819	.875	.625	.500	.667	.863	.611	.750	.636	.380	.657	.777



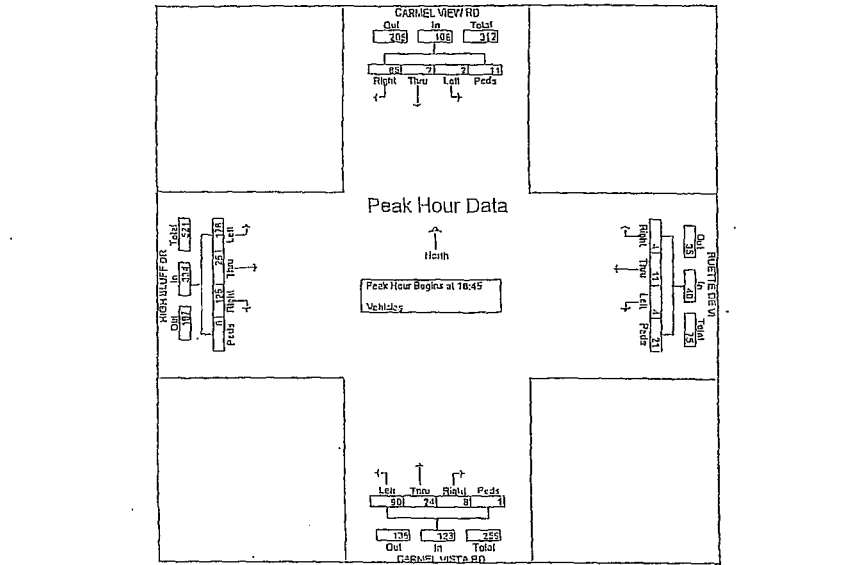
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.16.CARMEL VISTA RD.HIGH BLUFF DR
Site Code : 0000000
Start Date : 5/5/2009
Page No : 3

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.27.CARMEL CREEK RD.CARMEL GROVE RD
Site Code : 0000000
Start Date : 4/30/2009
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Start Time	CARMEL VIEW RD Southbound					RUETTE DE VI Westbound					CARMEL VISTA RD Northbound					HIGH BLUFF DR Eastbound					
	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	
16:45	0	2	21	1	25	1	2	1	6	10	20	3	4	1	28	40	6	24	0	74	137
17:00	0	2	17	2	21	1	4	2	3	10	19	4	1	0	24	48	10	45	0	103	158
17:15	2	1	29	3	35	0	1	1	3	5	24	10	2	0	36	54	3	22	2	81	157
17:30	0	2	18	5	25	2	4	0	9	15	21	7	1	0	35	36	6	30	4	76	151
Total Volume	2	7	86	11	106	4	11	4	21	40	90	24	8	1	123	178	25	125	6	334	603
% App. Total	1.9	6.6	81.1	10.4		10	27.5	10	52.5		73.2	19.5	6.5	0.8		53.3	7.5	37.4	1.8		
PHF	.250	.875	.741	.590	.757	.500	.588	.500	.583	.667	.833	.600	.500	.350	.854	.624	.625	.694	.375	.811	.954



Groups Printed - Vehicles

Start Time	CARMEL CREEK RD Southbound				CARMEL GROVE RD Westbound				CARMEL CREEK RD Northbound				CARMEL GROVE RD Eastbound			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
07:00	1	63	7	0	29	1	0	0	5	22	8	3	8	3	25	1
07:15	0	122	12	0	27	7	0	0	3	47	12	2	27	5	23	1
07:30	2	169	26	1	36	9	1	0	8	57	16	0	20	16	35	2
07:45	5	195	35	9	63	17	11	1	5	79	42	13	18	59	26	2
Total	8	590	80	10	155	34	12	1	27	205	78	18	73	83	109	6
08:00	8	389	49	5	72	29	11	0	5	71	15	10	8	11	29	7
08:15	0	202	30	0	28	6	1	0	9	57	8	0	6	3	26	3
08:30	0	161	14	1	23	7	2	4	8	46	6	0	8	1	27	1
08:45	3	123	18	2	25	8	1	1	8	42	7	1	17	3	19	5
Total	11	675	111	8	148	50	15	5	30	216	36	11	39	18	101	16
*** BREAK ***																
16:00	2	77	16	2	9	8	4	0	25	120	17	1	18	3	26	4
16:15	0	75	10	0	16	7	3	1	25	114	24	0	11	5	15	0
16:30	1	66	13	1	12	3	1	1	20	86	25	4	14	7	14	2
16:45	2	85	19	1	9	4	3	0	31	136	33	3	14	3	25	2
Total	5	303	58	4	46	22	11	2	101	468	99	8	61	18	80	8
17:00	1	72	19	0	20	4	3	1	27	174	40	1	29	13	16	0
17:15	0	66	18	4	12	7	2	2	31	202	27	2	25	9	14	5
17:30	2	89	26	1	10	9	1	0	28	153	41	0	36	15	26	6
17:45	3	94	19	0	13	6	3	2	22	131	26	1	26	12	14	2
Total	6	321	82	5	55	26	9	5	108	520	134	4	116	50	70	13
Grand Total	30	1849	331	27	404	132	47	13	266	1609	347	41	289	169	360	43
Approach %	1.3	82.7	14.8	1.2	67.8	22.1	7.9	2.2	11.8	71.1	15.3	1.8	33.6	19.6	41.8	5
Total %	0.5	31	5.6	0.5	6.8	2.2	0.8	0.2	4.5	27	5.8	0.7	4.9	2.8	6	0.7

True Count
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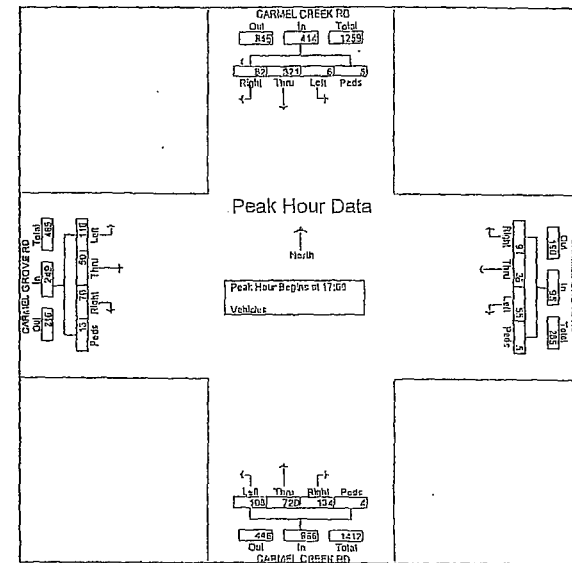
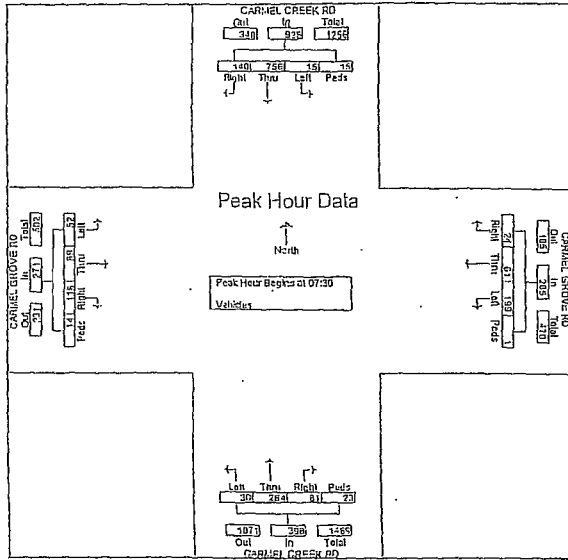
File Name : 9031.27.CARMEL CREEK RD.CARMEL GROVE RD
Site Code : 00000000
Start Date : 4/30/2009
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True Count
3401 First Ave #123
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File Name : 9031.27.CARMEL CREEK RD.CARMEL GROVE RD
Site Code : 00000000
Start Date : 4/30/2009
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Start Time	CARMEL CREEK RD Southbound					CARMEL GROVE RD Westbound					CARMEL CREEK RD Northbound					CARMEL GROVE RD Eastbound					
	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	
Peak Hour Analysis from 07:30 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	2	169	26	1	198	36	9	1	0	46	8	57	16	0	81	20	16	35	2	73	398
07:45	5	196	35	9	245	63	17	11	1	92	8	79	42	13	142	18	59	26	2	105	584
08:00	8	139	49	5	251	72	29	11	0	112	5	71	15	10	101	8	11	29	7	55	519
08:15	0	202	30	0	232	28	6	1	0	35	9	57	8	0	74	6	3	26	3	38	379
Total Volume	15	756	140	15	926	199	61	24	1	285	30	264	81	23	398	52	89	116	14	271	1880
% App Total	1.6	81.6	15.1	1.6	69.8	31.4	8.3	0.4	7.5	66.3	20.4	5.8	19.2	32.3	42.8	5.2					
PIF	.469	.936	.714	.417	.922	.691	.526	.345	.250	.636	.833	.873	.482	.442	.701	.650	.377	.829	.500	.645	.803

Start Time	CARMEL CREEK RD Southbound					CARMEL GROVE RD Westbound					CARMEL CREEK RD Northbound					CARMEL GROVE RD Eastbound					
	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	Left	Thru	Right	Peds	Total	
Peak Hour Analysis from 17:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	1	72	19	0	92	20	4	3	1	28	27	174	40	1	242	29	13	16	0	58	420
17:15	0	66	18	4	88	12	7	2	1	23	31	202	27	2	262	25	9	14	5	53	426
17:30	2	89	26	1	118	10	9	1	0	20	28	163	41	0	232	26	16	26	6	84	454
17:45	3	94	19	0	116	13	6	3	2	24	22	181	26	1	230	26	12	14	2	54	424
Total Volume	6	371	82	5	414	55	26	9	5	95	108	720	134	4	966	116	50	70	13	249	1724
% App Total	1.4	72.5	19.8	1.2	57.9	27.4	9.5	5.3	11.2	74.5	19.9	0.4	46.6	20.1	28.1	5.2					
PIF	.500	.854	.708	.313	.677	.688	.722	.750	.625	.848	.671	.691	.817	.500	.922	.806	.781	.673	.542	.741	.919



True Count
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File Name : 9031.33.1-5 SB RAMPS.CARMEL VALLEY RD.ppt
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True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.33.1-5 SB RAMPS.CARMEL VALLEY RD.ppt
Site Code : 00000000
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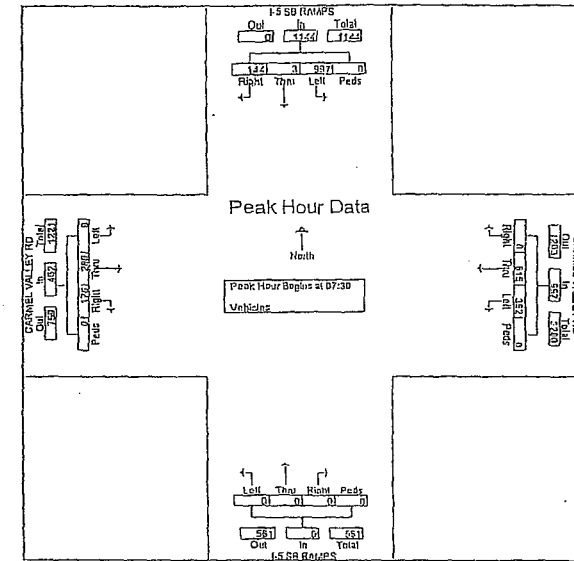
Groups Printed- Vehicles

Start Time	I-5 SB RAMPS Southbound				CARMEL VALLEY RD Westbound				I-5 SB RAMPS Northbound				CARMEL VALLEY RD Eastbound				In Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	149	0	23	1	55	81	0	0	0	0	0	0	0	37	33	0	379
07:15	192	1	25	0	84	122	0	0	0	0	0	0	0	40	43	0	507
07:30	256	0	33	0	91	134	0	0	0	0	0	0	0	64	42	0	621
07:45	303	2	36	0	103	171	0	0	0	0	0	0	0	94	50	0	759
Total	500	3	117	1	334	508	0	0	0	0	0	0	0	235	168	0	2266
08:00	245	0	41	0	93	155	0	0	0	0	0	0	0	68	41	0	648
08:15	193	1	24	0	89	155	0	0	0	0	0	0	0	60	43	0	575
08:30	180	0	26	1	126	141	0	0	0	0	0	0	0	70	41	0	585
08:45	174	0	39	0	118	129	0	0	0	0	0	0	0	58	30	0	548
Total	792	1	140	1	431	580	0	0	0	0	0	0	0	256	155	0	2356

*** BREAK ***

16:00	216	0	19	0	148	100	0	0	0	0	0	0	0	125	33	0	641
16:15	206	0	13	0	112	112	0	0	0	0	0	0	0	141	32	0	616
16:30	211	0	12	0	150	154	0	0	0	0	0	1	0	112	37	0	677
16:45	210	0	16	0	130	198	0	0	0	0	0	0	0	138	34	0	726
Total	843	0	60	0	540	584	0	0	0	0	0	1	0	516	136	0	2660
17:00	209	1	17	0	162	177	0	0	0	0	0	0	1	127	35	0	729
17:15	220	0	22	0	168	205	0	0	0	0	0	0	0	187	45	0	847
17:30	167	0	12	0	135	232	0	0	0	0	0	0	0	165	29	0	800
17:45	219	0	22	0	139	197	0	0	0	0	0	0	0	131	28	0	736
Total	835	1	73	0	604	851	0	0	0	0	0	0	1	610	137	0	3112
Grand Total	3370	5	390	2	1909	2503	0	0	0	0	0	1	1	1617	596	0	10394
Approach %	89.5	0.1	10.4	0.1	43.3	56.7	0	0	0	0	0	0	0	73	26.9	0	
Total %	32.4	0	3.8	0	18.4	24.1	0	0	0	0	0	0	0	15.6	5.7	0	

Start Time	I-5 SB RAMPS Southbound				CARMEL VALLEY RD Westbound				I-5 SB RAMPS Northbound				CARMEL VALLEY RD Eastbound				In Total					
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds						
07:30	256	0	33	0	289	92	134	0	0	226	0	0	0	0	0	0	64	42	0	106	621	
07:45	303	2	36	0	341	103	171	0	0	274	0	0	0	0	0	0	94	50	0	144	759	
08:00	245	0	41	0	286	98	155	0	0	253	0	0	0	0	0	0	68	41	0	109	648	
08:15	193	1	34	0	228	89	155	0	0	244	0	0	0	0	0	0	60	43	0	103	575	
Total Volume	997	3	144	0	1144	382	615	0	0	997	0	0	0	0	0	0	286	176	0	462	2603	
% Appr. Total	87.2	0.3	12.6	0		38.3	61.7	0	0		0	0	0	0	0	0	61.9	36.1	0			
PHF	.823	.373	.878	.000	.839	.917	.699	.000	.030	.910	.000	.000	.000	.000	.000	.000	.000	.761	.860	.000	.802	.857



True Count
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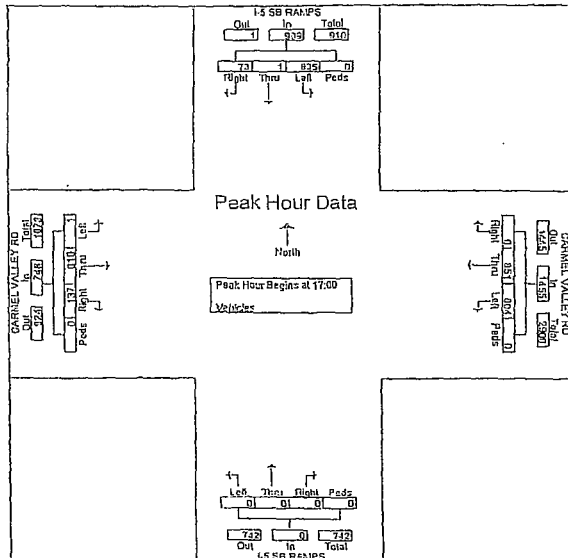
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Site Code : 00000000
Start Date : 5/21/2009
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File Name : 0031.32.1-5 NB RAMP.SB RAMP.CARMEL VALLEY RD
Site Code : 00000000
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Start Time	I-5 SB RAMP Southbound				CARMEL VALLEY RD Westbound				I-5 SB RAMP Northbound				CARMEL VALLEY RD Eastbound				In Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
Peak Hour Analysis From 17:00 to 17:45 - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 17:00																				
17:00	209	1	17	0	227	162	177	0	0	339	0	0	0	0	1	127	35	0	163	729
17:15	220	0	22	0	242	168	205	0	0	373	0	0	0	0	0	187	45	0	232	847
17:30	187	0	12	0	199	135	272	0	0	407	0	0	0	0	0	165	29	0	194	800
17:45	215	0	22	0	241	139	197	0	0	336	0	0	0	0	0	131	28	0	159	736
Total Volume	835	1	73	0	909	604	851	0	0	1455	0	0	0	0	1	610	137	0	748	3112
% App. Total	91.2	0.1	8.0	0	99.3	64.5	89.5	0	0	155.2	0	0	0	0	0.1	81.6	18.3	0	81.6	311.2
PIF	949	250	830	000	939	599	722	000	000	894	000	000	000	000	250	816	761	000	886	919

Groups Printed - Vehicles

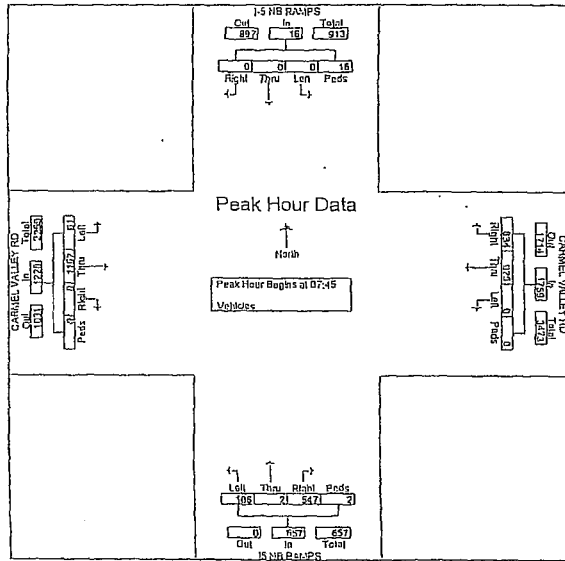
Start Time	I-5 NB RAMP Southbound				CARMEL VALLEY RD Westbound			I-5 NB RAMP Northbound			CARMEL VALLEY RD Eastbound			In Total					
	Left	Thru	Right	Peds	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Peds				
*** BREAK ***																			
16:00	0	0	0	3	0	207	188	0	45	0	70	2	24	335	0	0	0	0	874
16:15	0	0	0	3	0	178	184	0	59	2	75	2	23	322	0	0	0	0	848
16:30	0	0	0	4	0	217	171	0	80	2	115	3	24	284	0	0	0	0	909
16:45	0	0	0	2	0	246	189	0	110	3	121	4	27	343	0	0	0	0	1045
Total	0	0	0	12	0	648	732	0	294	7	381	11	98	1284	0	0	0	0	3667
17:00	0	0	0	1	0	263	208	0	105	1	148	2	20	345	0	0	0	0	1093
17:15	0	0	0	3	0	247	198	0	107	2	188	2	35	364	0	0	0	0	1146
17:30	0	0	0	3	0	247	165	0	108	1	154	8	36	328	0	0	0	0	1070
17:45	0	0	0	2	0	210	182	0	112	2	177	2	32	318	0	0	0	0	1032
Total	0	0	0	9	0	967	780	0	439	7	667	21	123	1355	0	0	0	0	4568
Grand Total	0	0	0	51	0	3429	3179	2	950	17	2047	43	335	4761	0	0	0	0	14814
Approach %	0	0	0	100	0	51.9	48.1	0	31.1	0.5	67	1.4	6.6	93.4	0	0	0	0	0
Total %	0	0	0	0.3	0	23.1	21.5	0	6.4	0.1	13.8	0.3	2.3	32.1	0	0	0	0	0



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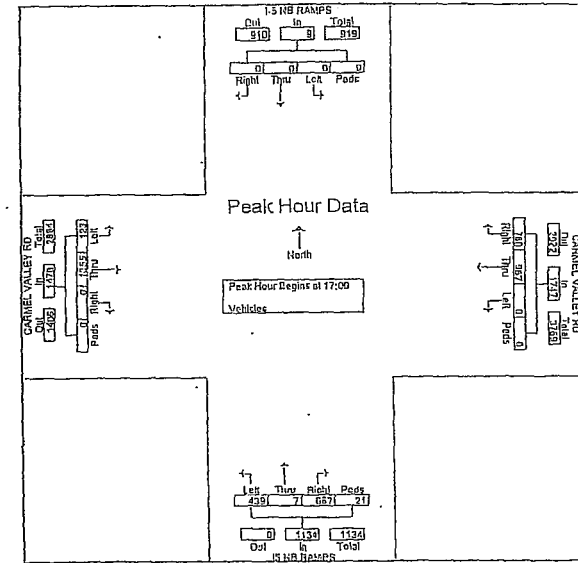
Start Time	I-5 NB RAMPS Southbound				CARMEL VALLEY RD Westbound				I-5 NB RAMPS Northbound				CARMEL VALLEY RD Eastbound								
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 07:20 to 07:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	0	0	0	3	3	0	237	200	0	437	26	1	130	1	158	9	370	0	0	370	977
08:00	0	0	0	2	2	0	217	204	0	421	29	0	124	0	153	13	306	0	0	319	895
08:15	0	0	0	5	5	0	227	225	0	452	27	1	164	1	193	16	241	0	0	257	907
08:30	0	0	0	6	6	0	244	205	0	449	24	0	129	0	153	23	250	0	0	273	881
Total Volume	0	0	0	16	16	0	925	834	0	1759	106	2	547	2	657	61	1167	0	0	1228	3660
% App. Total	0	0	0	100	100	0	57.6	47.4	0	16.1	0.3	0.3	31.3	0.3	3.9	5	9.5	0	0	0	0
PHF	.000	.000	.000	.667	.667	.000	.948	.927	.000	.973	.114	.500	.511	.500	.511	.663	.789	.000	.000	.710	.937



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Start Time	I-5 NB RAMPS Southbound				CARMEL VALLEY RD Westbound				I-5 NB RAMPS Northbound				CARMEL VALLEY RD Eastbound								
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 17:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	0	0	0	1	1	0	263	208	0	471	105	1	148	2	256	20	345	0	0	365	1093
17:15	0	0	0	3	3	0	247	198	0	445	107	2	188	2	299	35	364	0	0	399	1134
17:30	0	0	0	3	3	0	247	185	0	432	108	1	154	8	271	36	328	0	0	364	1074
17:45	0	0	0	2	2	0	210	189	0	399	110	3	172	9	308	32	318	0	0	350	1059
Total Volume	0	0	0	9	9	0	967	780	0	1747	439	7	667	21	1134	123	1355	0	0	1478	4368
% App. Total	0	0	0	100	100	0	55.4	44.6	0	17.47	38.7	0.6	58.8	1.9	1.9	8.3	91.7	0	0	0	0
PHF	.000	.000	.000	.750	.750	.000	.919	.938	.000	.927	.627	.583	.887	.881	.920	.854	.931	.000	.000	.928	.953



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File Name : 9031.29.EL CAMINO REAL-VALLEY CENTRE DR
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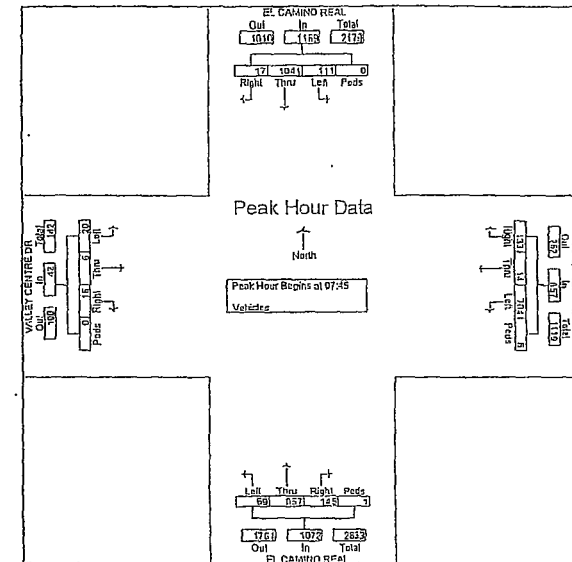
Groups Printed- Vehicles

Start Time	EL CAMINO REAL Southbound				VALLEY CENTRE DR Westbound				EL CAMINO REAL Northbound				VALLEY CENTRE DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	9	32	2	0	29	0	6	1	20	107	23	2	9	5	1	0	306
07:15	20	127	2	0	86	3	23	0	22	185	28	0	4	1	2	0	503
07:30	16	246	6	1	151	1	29	1	26	214	23	1	6	1	1	0	723
07:45	43	289	1	0	182	3	19	1	26	201	48	1	9	0	7	0	830
Total	88	754	11	1	448	7	77	3	94	707	127	4	28	7	11	0	2362
08:00	16	240	3	0	197	5	38	0	17	198	25	0	5	2	2	0	748
08:15	31	228	7	0	167	5	37	0	10	240	40	0	3	3	0	0	771
08:30	21	284	6	0	158	1	39	5	16	218	32	0	3	1	7	0	791
08:45	27	210	3	0	141	1	29	0	11	243	40	0	2	2	8	0	717
Total	95	962	19	0	663	12	143	5	54	899	137	0	13	8	17	0	3027

*** BREAK ***

16:00	103	122	113	10	2	13	28	8	57	144	64	21	2	23	5	0	695
16:15	26	211	22	0	5	27	11	0	8	256	8	16	5	14	6	0	635
16:30	79	154	33	0	23	0	1	0	37	157	65	0	0	10	1	0	580
16:45	31	252	6	0	96	14	8	0	9	183	32	0	19	7	4	0	661
Total	239	739	174	10	126	54	48	8	91	740	169	37	26	54	16	0	2551
17:00	19	271	9	0	110	5	17	0	5	152	52	0	5	7	5	0	657
17:15	36	226	5	0	63	6	20	3	24	159	32	0	10	10	1	0	595
17:30	31	391	9	0	158	6	28	1	24	271	65	1	14	8	9	1	1037
17:45	47	413	2	0	145	5	27	0	23	292	65	0	9	5	13	0	1045
Total	153	1301	25	0	476	22	92	4	75	874	214	1	38	30	28	1	3334
Grand Total	575	3776	239	11	1713	95	360	20	314	3220	642	42	105	99	72	1	11274
Approach %	12.5	82.2	5	0.2	78.3	4.3	16.5	0.9	7.4	76.3	15.2	1	37.9	35.7	26	0.4	
Total %	5.1	33.5	2	0.1	15.2	0.8	3.2	0.2	2.8	28.6	5.7	0.4	0.9	0.9	0.6	0	

Start Time	EL CAMINO REAL Southbound				VALLEY CENTRE DR Westbound				EL CAMINO REAL Northbound				VALLEY CENTRE DR Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:45	43	289	1	0	182	3	19	1	205	26	201	48	1	276	9	0	7	0	16	830	
08:00	16	240	3	0	259	5	38	0	240	17	198	25	0	240	5	2	2	0	9	748	
08:15	31	228	7	0	266	5	37	0	209	10	240	40	0	290	3	3	0	0	6	771	
08:30	21	284	6	0	311	1	39	5	203	16	218	32	0	266	3	1	7	0	11	791	
Total Volume	111	1041	17	0	1169	704	14	133	6	857	69	857	145	1	1072	20	6	16	0	42	3140
% App. Total	19.1	27.6	0.5	0.0	28.7	1.9	3.7	0.2	2.3	23.3	1.4	21.6	0.4	27.6	3.5	1.6	4.4	0.0	1.5	1.3	1.3



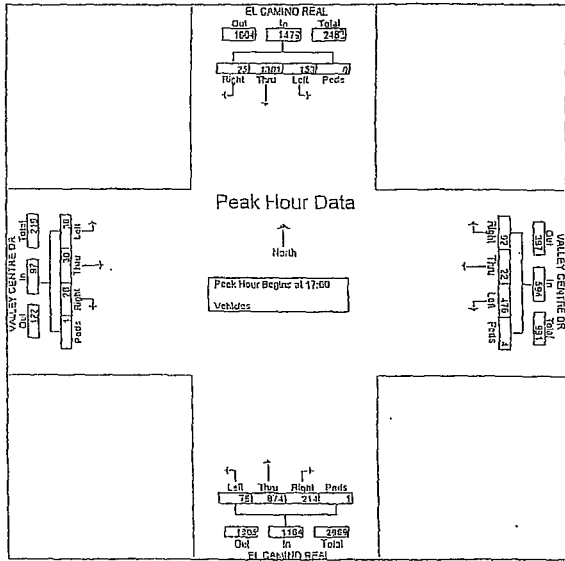
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.29.EL.CAMINO.REAL.VALLEY.CENTRE.DR
Site Code : 00000000
Start Date : 4/30/2009
Page No : 3

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.31.EL.CAMINO.REAL.SR.56.EB.OFF-RAMP
Site Code : 00000000
Start Date : 4/30/2009
Page No : 1

Start Time	EL CAMINO REAL Southbound				VALLEY CENTRE DR Westbound				EL CAMINO REAL Northbound				VALLEY CENTRE DR Eastbound								
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	19	271	9	0	299	110	5	17	0	132	5	152	52	0	209	5	7	5	0	17	647
17:15	36	226	3	0	267	83	6	20	3	92	24	159	32	0	215	10	10	1	0	21	595
17:30	51	391	9	0	451	158	6	25	1	193	24	271	65	1	361	14	8	9	3	32	1037
17:45	47	413	2	0	462	145	5	27	0	177	22	291	65	0	378	9	5	13	0	27	1045
Total Volume	153	1201	25	0	1479	476	22	92	4	594	75	674	214	1	1164	38	20	28	1	97	3324
% App. Total																					
PHF	.750	.788	.694	.000	.808	.753	.917	.821	.333	.769	.781	.748	.823	.250	.758	.679	.750	.538	.250	.758	.798



Groups Printed - Vehicles

Start Time	EL CAMINO REAL Southbound				SR 56 EB ON-RAMP Westbound				EL CAMINO REAL Northbound				SR 56 EB OFF-RAMP Eastbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	14	81	0	0	0	0	0	2	0	46	19	1	89	152	27	1	432
07:15	14	104	0	0	0	0	0	1	0	82	28	0	145	162	54	3	593
07:30	16	153	0	0	0	0	0	6	0	81	47	1	134	204	64	2	708
07:45	32	178	0	0	0	0	0	3	0	90	61	1	160	258	59	2	844
Total	76	516	0	0	0	0	0	12	0	299	155	3	528	776	204	8	2577
08:00	33	168	0	0	0	0	0	4	0	88	42	2	157	253	67	1	835
08:15	30	177	0	0	0	0	0	4	0	87	42	2	138	181	55	0	716
08:30	30	181	0	0	0	0	0	7	0	82	28	5	149	157	45	1	685
08:45	27	194	0	0	0	0	0	1	0	95	30	2	147	149	63	2	730
Total	120	720	0	0	0	0	0	16	0	352	142	11	591	740	250	4	2946
*** BREAK ***																	
16:00	67	98	0	0	0	0	0	2	0	129	70	1	102	238	15	2	724
16:15	67	85	0	0	0	0	0	0	0	143	81	1	98	267	11	2	735
16:30	63	101	0	0	0	0	0	2	0	116	95	2	102	242	24	1	778
16:45	52	107	0	0	0	0	0	2	0	147	91	4	104	253	16	8	784
Total	249	391	0	0	0	0	0	6	0	565	337	8	406	1000	66	13	3041
17:00	51	168	0	0	0	0	0	1	0	197	115	0	116	270	22	4	944
17:15	40	111	0	0	0	0	0	5	0	180	93	0	127	205	30	0	791
17:30	45	123	0	0	0	0	0	2	0	217	56	2	120	258	18	8	859
17:45	57	148	0	0	0	0	0	1	9	198	81	2	129	256	23	4	899
Total	193	550	0	0	0	0	0	9	9	792	385	4	492	989	93	16	3523
Grand Total	638	2177	0	0	0	0	0	43	0	2008	1019	26	2017	3505	613	41	12087
Approch %	22.7	77.3	0	0	0	0	0	100	0	65.8	33.4	0.9	32.7	56.8	9.9	0.7	
Total %	5.3	18	0	0	0	0	0	0.4	0	16.6	8.4	0.2	16.7	20	5.1	0.3	

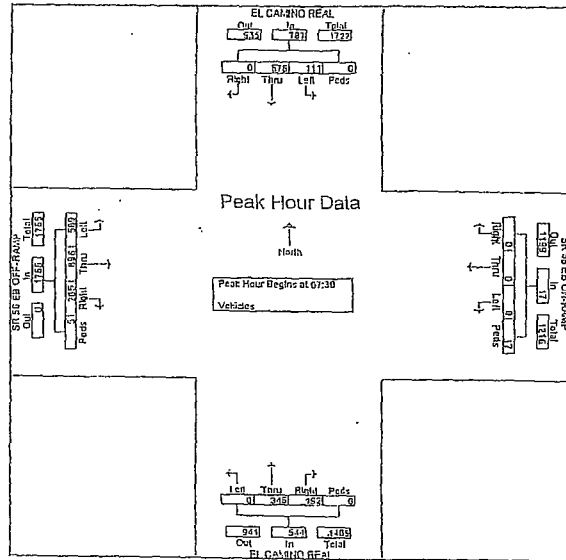
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.31.EL.GAMINO.REAL.SR.56.EB.OFF-RAMP
Site Code : 00000000
Start Date : 4/30/2009
Page No : 2

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.28.CARMEL.VIEW.RD.VALLEY.CENTRE.DR
Site Code : 00000000
Start Date : 4/30/2009
Page No : 1

Start Time	EL GAMINO REAL Southbound					SR 56 EB ON-RAMP Westbound					EL GAMINO REAL Northbound					SR 56 EB OFF-RAMP Eastbound					In Total
	Left	Thru	Right	Peak	Sum Total	Left	Thru	Right	Peak	Sum Total	Left	Thru	Right	Peak	Sum Total	Left	Thru	Right	Peak	Sum Total	
Peak Hour Analysis From 07:00 to 07:16 - Peak 1 of 4																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	16	153	0	0	169	0	0	0	6	6	0	81	47	1	129	134	204	64	2	404	708
07:45	32	178	0	0	210	0	0	0	3	3	0	90	61	1	152	160	258	59	2	479	844
08:00	33	168	0	0	201	0	0	0	4	4	0	85	42	2	132	157	253	87	1	498	835
08:15	30	177	0	0	207	0	0	0	4	4	0	87	42	2	131	138	181	55	0	374	716
Total Values	111	676	0	0	787	0	0	0	17	17	0	346	192	6	544	589	896	265	5	1155	3103
% App. Total	14.1	85.9	0	0	787	0	0	0	100	100	0	63.6	25.3	1.1	54.4	53.6	51.1	19.1	0.3		
PHF	.841	.949	.000	.000	.937	.000	.000	.000	.703	.703	.000	.961	.787	.750	.895	.920	.868	.761	.625	.281	.919



Groups Printed - Vehicles

Start Time	CARMEL VIEW RD Southbound				VALLEY CENTRE DR Westbound				N/A Northbound				VALLEY CENTRE DR Eastbound				In Total
	Left	Thru	Right	Peak	Left	Thru	Right	Peak	Left	Thru	Right	Peak	Left	Thru	Right	Peak	
07:00	10	0	12	2	0	39	2	0	0	0	0	0	4	37	0	0	105
07:15	16	0	17	2	0	76	3	0	0	0	0	0	5	46	0	0	165
07:30	19	0	25	4	0	76	4	0	0	0	0	0	1	41	0	1	171
07:45	37	0	38	3	0	90	2	0	0	0	0	0	5	67	0	0	242
Total	82	0	92	11	0	281	11	0	0	0	0	0	15	191	0	1	684
08:00	23	0	32	1	0	131	10	0	0	0	0	0	3	45	0	0	245
08:15	13	0	23	1	0	104	6	0	0	0	0	0	2	43	0	0	192
08:30	21	0	19	3	0	99	6	0	0	0	0	0	6	46	0	3	203
08:45	16	0	18	1	0	99	4	0	0	0	0	0	6	44	0	0	186
Total	73	0	92	6	0	433	26	0	0	0	0	0	17	178	0	3	628
*** BREAK ***																	
16:00	13	0	8	3	0	83	14	0	0	0	0	0	7	33	0	0	221
16:15	8	0	14	0	0	94	17	0	0	0	0	0	10	71	0	0	214
16:30	4	0	10	0	0	92	12	0	0	0	0	0	9	78	0	0	205
16:45	5	0	6	3	0	70	12	0	0	0	0	0	11	82	0	1	191
Total	30	0	38	6	0	339	55	0	0	0	0	0	37	324	0	1	633
17:00	12	0	13	13	0	93	30	0	0	0	0	0	20	97	0	1	279
17:15	5	0	11	4	0	84	17	0	0	0	0	0	11	97	0	0	229
17:30	7	0	9	3	0	76	17	0	0	0	0	0	18	96	0	0	268
17:45	6	0	13	11	0	94	30	0	0	0	0	0	17	89	0	0	260
Total	30	0	46	33	0	347	94	0	0	0	0	0	66	379	0	1	996
Grand Total	215	0	268	56	0	1400	186	0	0	0	0	0	135	1072	0	9	3341
Approach %	39.9	0	49.7	10.4	0	68.3	11.7	0	0	0	0	0	11.1	88.2	0	0.1	
Total %	6.4	0	8	1.7	0	41.9	5.6	0	0	0	0	0	4	32.1	0	0.1	

True Count
3401 First Ave #123
San Diego, CA 92103

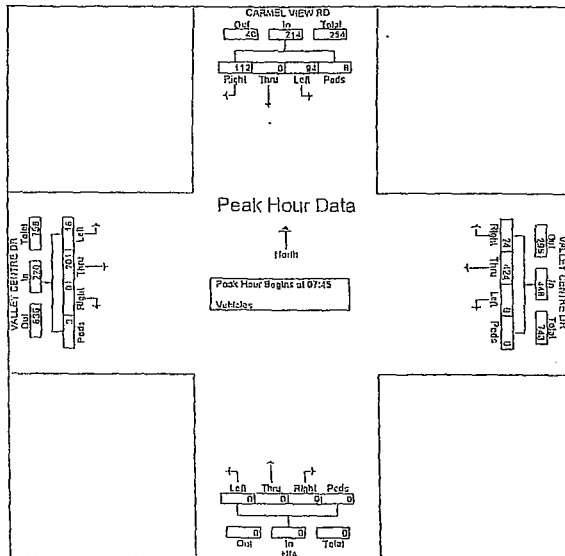
File Name : 9031.28.CARMEL VIEW RD,VALLEY CENTRE DR
Site Code : 00000000
Start Date : 4/30/2009
Page No : 2

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.30.EL CAMINO REAL,SR 56 WB OFF-RAMP
Site Code : 00000000
Start Date : 4/30/2009
Page No : 1

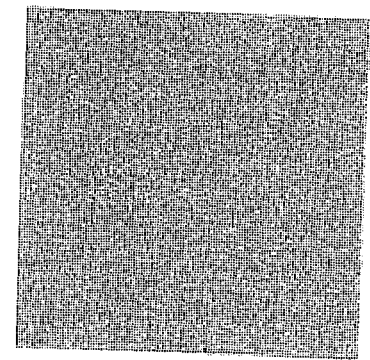
Start Time	CARMEL VIEW RD Southbound				VALLEY CENTRE DR Westbound				N/A Northbound				VALLEY CENTRE DR Eastbound				Int. Total			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds				
07:45	37	0	38	3	0	90	2	0	92	0	0	0	0	5	67	0	0	72	242	
08:00	23	0	32	1	56	0	131	10	141	0	0	0	0	3	45	0	0	48	245	
08:15	13	0	23	1	37	0	104	6	110	0	0	0	0	2	43	0	0	45	192	
08:30	21	0	19	3	43	0	99	6	105	0	0	0	0	6	46	0	3	55	203	
Total Volume	94	0	112	8	214	0	424	24	448	0	0	0	0	16	201	0	3	210	882	
% Acc. Total	43.9	0	52.3	3.7	0	94.6	5.4	0	0	0	0	0	0	7.3	91.4	0	1.4	0	0	
PHF	.635	.000	.737	.607	.636	.000	.809	.600	.800	.794	.000	.000	.000	.000	.667	.750	.000	.750	.764	.000

Peak Hour Analysis From 07:30 to 08:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:45



Groups Printed - Vehicles

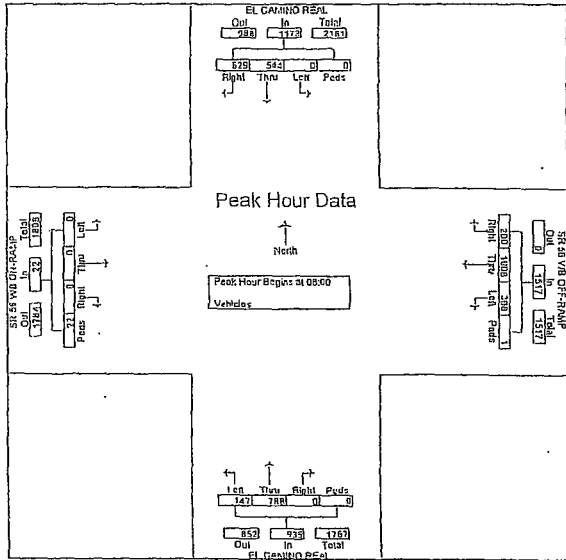
Start Time	EL CAMINO REAL Southbound				SR 56 WB OFF-RAMP Westbound				EL CAMINO REAL Northbound				SR 56 WB ON-RAMP Eastbound				Int. Total	
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds		
07:00	0	46	82	1	51	250	53	3	25	115	0	0	0	0	0	0	0	626
07:15	0	66	105	0	65	299	56	1	26	178	0	0	0	0	0	0	0	798
07:30	0	112	123	0	64	254	38	2	34	190	0	0	0	0	0	0	0	873
07:45	0	130	176	0	75	238	37	0	60	193	0	0	0	0	0	0	0	920
Total	0	354	465	1	255	1041	124	6	145	681	0	0	0	0	0	0	0	3167
08:00	0	128	155	0	62	225	32	0	35	196	0	0	0	0	0	0	0	816
08:15	0	135	162	0	82	282	51	0	37	195	0	0	0	0	0	0	0	950
08:30	0	145	156	0	78	265	61	0	34	186	0	0	0	0	0	0	0	938
08:45	0	136	156	0	86	235	56	1	41	211	0	0	0	0	0	0	0	923
Total	0	544	629	0	308	1006	200	1	147	788	0	0	0	0	0	0	0	3617
*** BREAK ***																		
16:00	0	150	179	0	17	142	23	0	65	171	0	0	0	0	0	0	0	748
16:15	0	138	159	0	25	177	21	2	66	167	0	0	0	0	0	0	0	756
16:30	0	134	153	0	18	164	36	0	68	185	0	0	0	0	0	0	0	760
16:45	0	147	184	0	29	186	32	0	68	191	0	0	0	0	0	0	0	843
Total	0	569	675	0	89	669	112	2	267	714	0	0	0	0	0	0	0	3107
17:00	0	154	192	0	45	191	27	0	91	228	0	0	0	0	0	0	0	937
17:15	0	148	173	2	32	216	45	0	95	239	0	0	0	0	0	0	0	955
17:30	0	152	194	0	40	216	38	2	93	259	0	0	0	0	0	0	0	1001
17:45	0	137	185	2	49	184	60	0	62	238	0	0	0	0	0	0	0	924
Total	0	591	744	4	166	807	170	2	341	964	0	0	0	0	0	0	0	3817
Grand Total	0	2058	2534	.5	618	3525	666	11	900	3147	0	0	0	0	0	0	0	13738
Approach %	0	44.8	55.1	0.1	16.3	70.2	13.3	0.2	22.2	77.8	0	0	0	0	0	0	0	100
Total %	0	15	18.4	0	6	25.7	4.8	0.1	6.6	22.9	0	0	0	0	0	0	0	0.5



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.30.EL CAMINO REAL.SR 56 WB OFF-RAMP
Site Code : 00000000
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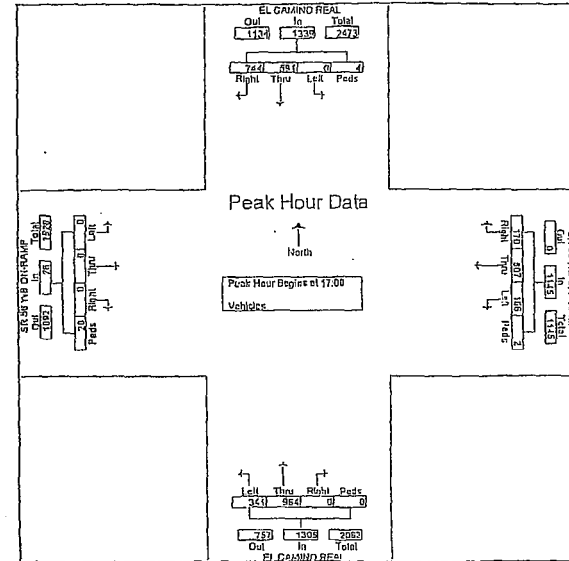
Start Time	EL CAMINO REAL Southbound				SR 56 WB OFF-RAMP Westbound				EL CAMINO REAL Northbound				SR 56 WB ON-RAMP Eastbound				Tot				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	128	155	0	283	62	225	32	0	319	35	196	0	0	231	0	0	0	3	3	836
08:15	0	135	162	0	297	52	282	51	0	415	37	195	0	0	232	0	0	0	6	6	950
08:30	0	145	156	0	301	78	266	61	0	405	34	186	0	0	220	0	0	0	11	11	938
08:45	0	136	156	0	292	86	235	56	1	378	41	211	0	0	252	0	0	0	1	1	923
Total Volume	0	544	629	0	1173	308	1003	200	1	1517	147	788	0	0	935	0	0	0	22	22	3647
% App Total																					
PIF	.000	.938	.971	.000	.974	.895	.894	.820	.250	.914	.895	.934	.000	.000	.928	.000	.000	.000	.458	.458	.960



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.30.EL CAMINO REAL.SR 56 WB OFF-RAMP
Site Code : 00000000
Start Date : 4/30/2009
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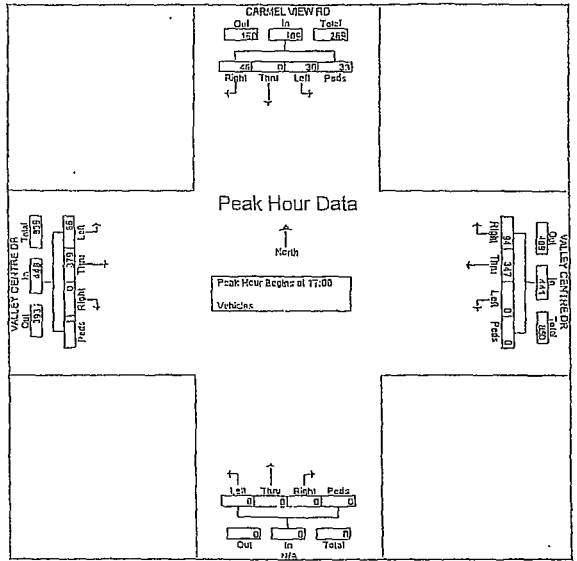
Start Time	EL CAMINO REAL Southbound				SR 56 WB OFF-RAMP Westbound				EL CAMINO REAL Northbound				SR 56 WB ON-RAMP Eastbound				Tot				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
Peak Hour Analysis From 17:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	0	154	192	0	346	45	191	27	0	263	91	228	0	0	319	0	0	0	9	9	937
17:15	0	148	173	2	323	32	216	45	0	293	95	239	0	0	334	0	0	0	5	5	955
17:30	0	152	194	0	346	40	216	32	2	290	93	259	0	0	352	0	0	0	7	7	1001
17:45	0	137	185	2	324	49	184	60	0	293	62	238	0	0	300	0	0	0	7	7	924
Total Volume	0	591	744	4	1339	166	807	170	2	1145	341	964	0	0	1305	0	0	0	28	28	3017
% App Total	0	44.1	56.6	0.3	44.5	20.5	14.8	0.2	0.2	26.1	73.9	0	0	0	0	0	0	0	100		
PIF	.000	.939	.939	.000	.967	.847	.934	.708	.250	.967	.657	.931	.000	.000	.927	.000	.000	.000	.778	.778	.953



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.28.CARMEL VIEW RD,VALLEY CENTRE DR
Site Code : 00000000
Start Date : 4/30/2009
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Start Time	CARMEL VIEW RD Southbound				VALLEY CENTRE DR Westbound				N/A Northbound				VALLEY CENTRE DR Eastbound				Int. Total		
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
Peak Hour Analysis From 17:00 to 17:45 - Page 1 of 1	Peak Hour for Entire Intersection Begins at 17:00																		
17:00	12	0	13	36	0	93	30	0	123	0	0	0	0	20	97	0	1	118	279
17:15	5	0	11	4	20	0	84	17	0	101	0	0	0	11	97	0	0	108	229
17:30	7	0	5	5	21	0	76	17	0	93	0	0	0	18	96	0	0	114	228
17:45	6	0	13	11	30	0	94	30	0	124	0	0	0	17	89	0	0	106	260
Total Volume	30	0	46	33	109	0	347	94	0	441	0	0	0	66	379	0	1	446	996
% App. Total	27.5	0	42.2	30.3		0	78.7	21.3	0		0	0	0	14.8	85	0	0.2		
PIIF	.625	.000	.885	.635	.717	.000	.923	.783	.000	.899	.000	.000	.000	.825	.977	.000	.250	.945	.692



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 0031.26.CARMEL CREEK RD,SR 56 WB ON AND OFF-RAMPS
Site Code : 00000000
Start Date : 4/30/2009
Page No : 1

Groups Printed- Vehicles

Start Time	CARMEL CREEK RD Southbound				SR 56 WB ON AND OFF-RAMPS Westbound				CARMEL CREEK RD Northbound				VALLEY CENTRE DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	74	18	22	0	5	58	11	0	45	32	22	0	6	27	19	0	339
07:15	178	15	29	0	14	83	5	0	62	54	27	0	5	31	22	5	530
07:30	274	32	38	0	22	74	37	0	75	63	26	0	17	39	38	1	736
07:45	277	77	53	0	106	108	25	3	100	120	101	0	15	82	60	0	1127
Total	803	142	142	0	147	323	78	3	282	269	176	0	43	179	139	6	2732
08:00	263	46	60	0	24	109	11	2	65	68	45	0	26	61	24	2	806
08:15	236	28	47	2	5	71	24	4	76	58	37	3	7	32	20	0	670
08:30	231	18	41	0	10	98	20	10	49	49	29	0	9	38	30	0	652
08:45	153	19	32	0	15	72	38	6	37	52	31	0	6	55	36	0	571
Total	923	111	180	2	54	350	93	22	247	217	142	3	48	185	110	2	2702
*** BREAK ***																	
16:00	87	32	30	0	7	33	19	2	69	107	21	0	21	59	58	1	546
16:15	52	39	20	0	11	34	26	2	81	104	27	0	24	47	65	0	532
16:30	70	21	22	0	6	47	32	0	59	105	25	0	20	72	70	1	550
16:45	69	39	23	0	7	36	20	0	77	154	19	0	25	54	69	1	593
Total	278	131	95	0	31	150	97	4	286	470	92	0	90	232	262	3	2221
17:00	50	34	33	1	7	36	15	1	64	176	36	0	29	86	57	2	657
17:15	64	12	22	0	9	43	34	1	82	212	31	0	25	79	62	2	676
17:30	53	39	42	0	9	37	18	0	84	174	21	0	26	63	80	1	647
17:45	97	20	30	0	6	41	29	2	82	234	23	0	27	56	61	0	708
Total	264	105	127	1	31	157	96	4	312	796	111	0	107	284	290	5	2690
Grand Total	2210	489	544	3	263	980	364	33	1127	1762	521	3	288	881	801	16	10345
Approach %	68.7	14.8	16.5	0.1	16	59.8	22.2	2	33	51.6	15.3	0.1	14.5	44.4	40.3	0.6	
Total %	21.9	4.7	5.3	0	2.5	9.5	3.5	0.3	10.9	17	5	0	2.8	8.5	7.7	0.2	

True Count
3401 First Ave #123
San Diego, CA 92103

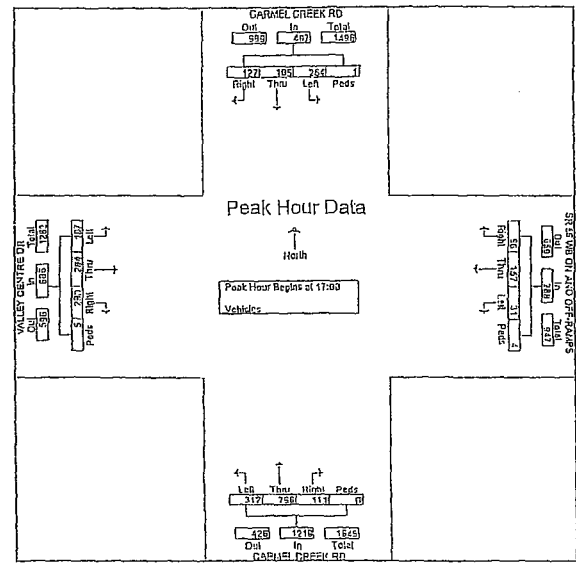
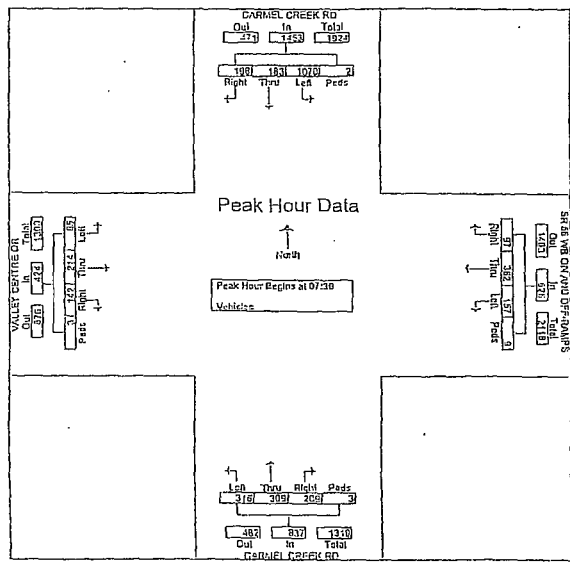
File Name : 9031.26.CARMEL CREEK RD.SR 56 WB ON AND OFF-RAMPS
Site Code : 00000000
Start Date : 4/30/2009
Page No : 2

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.26.CARMEL CREEK RD.SR 56 WB ON AND OFF-RAMPS
Site Code : 00000000
Start Date : 4/30/2009
Page No : 3

Start Time	CARMEL CREEK RD Southbound				SR 56 WB ON AND OFF-RAMPS Westbound				CARMEL CREEK RD Northbound				VALLEY CENTRE DR Eastbound				In Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:30	274	32	38	0	344	22	74	37	0	133	75	63	26	0	164	17	39	38	1	95	736
07:45	277	77	53	0	407	106	168	25	3	242	300	170	101	0	321	15	82	60	0	157	1127
08:00	263	46	60	0	369	24	109	11	2	146	65	68	45	0	178	26	61	24	2	113	806
08:15	256	28	47	2	333	5	71	24	4	104	76	58	37	3	174	7	32	20	0	59	670
Total Volume	1070	183	198	2	1453	157	362	97	9	625	315	309	209	3	837	65	214	142	3	424	3339
% App. Total																					
PIIF	.966	.594	.875	.250	.803	.370	.330	.655	.563	.646	.790	.644	.517	.250	.652	.625	.652	.592	.375	.675	.741

Start Time	CARMEL CREEK RD Southbound				SR 56 WB ON AND OFF-RAMPS Westbound				CARMEL CREEK RD Northbound				VALLEY CENTRE DR Eastbound				In Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
17:00	50	34	33	1	118	7	36	15	1	59	64	176	36	0	276	29	86	87	1	204	657
17:15	64	12	22	0	98	9	43	34	1	87	82	212	31	0	325	25	79	62	2	168	678
17:30	53	39	42	0	134	9	37	18	0	64	84	174	21	0	275	26	63	80	1	170	647
17:45	97	20	30	0	147	6	41	29	2	78	57	234	23	0	332	27	50	61	0	144	708
Total Volume	264	105	127	1	497	31	157	90	4	268	312	796	111	0	1219	107	284	290	5	656	2650
% App. Total	53.1	21.1	25.6	0.2	49.7	10.8	31.5	33.3	1.4	25.6	65.3	9.1	0	15.6	41.4	42.3	0.7				
PIIF	.680	.673	.756	.250	.843	.861	.913	.706	.500	.828	.929	.850	.771	.000	.899	.922	.826	.833	.625	.841	.950



True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.23.CARMEL COUNTRY RD.SR 56 WB ON AND OFF-RAMPS
Site Code : 00000000
Start Date : 4/30/2009
Page No : 1

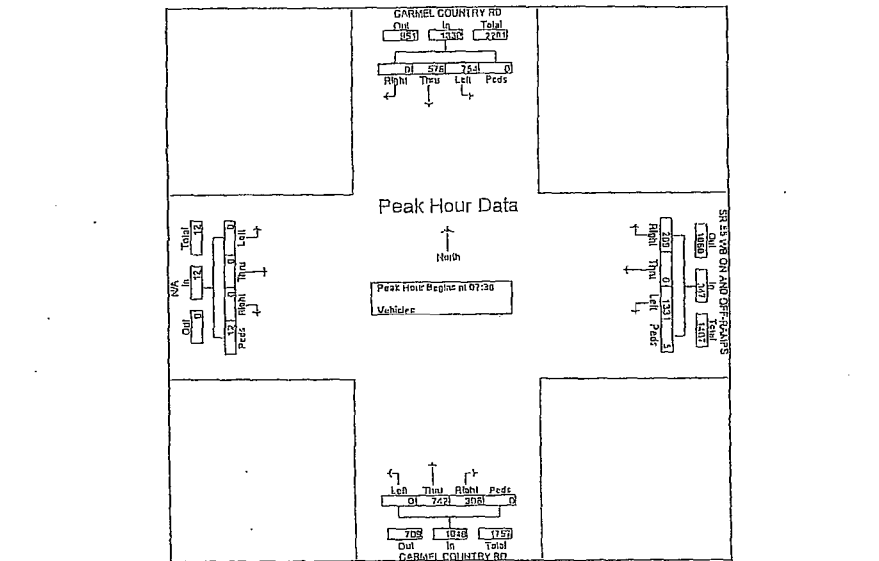
Groups Printed: Vehicles

Start Time	CARMEL COUNTRY RD Southbound				SR 56 WB ON AND OFF-RAMPS Westbound				CARMEL COUNTRY RD Northbound				N/A Eastbound				Tot Totl
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	104	45	0	0	26	0	26	0	0	71	60	0	0	0	0	0	334
07:15	120	58	0	0	27	0	51	1	0	132	56	0	0	0	0	1	446
07:30	175	129	0	0	25	0	61	1	0	237	74	0	0	0	0	3	725
07:45	192	165	0	0	25	0	57	2	0	220	108	0	0	0	0	3	772
Total	591	397	0	0	103	0	195	5	0	680	298	0	0	0	0	8	2277
08:00	223	174	0	0	46	0	55	1	0	153	68	0	0	0	0	3	723
08:15	164	108	0	0	37	0	35	1	0	112	56	0	0	0	0	3	517
08:30	169	88	0	0	23	0	30	0	0	86	55	0	0	0	0	5	456
08:45	132	59	0	0	23	0	35	2	0	112	69	0	0	0	0	4	436
Total	688	429	0	0	129	0	156	4	0	463	248	0	0	0	0	15	2132
*** BREAK ***																	
16:00	55	101	0	0	25	0	57	1	0	151	87	0	0	0	0	1	456
16:15	47	79	0	0	21	0	43	0	0	133	53	0	0	0	0	3	390
16:30	51	88	0	0	22	0	36	0	0	140	51	0	0	0	0	3	391
16:45	57	103	0	0	32	0	54	1	0	146	51	0	0	0	0	2	446
Total	210	362	0	0	100	0	190	2	0	599	222	0	0	0	0	9	1685
17:00	77	103	0	0	36	0	48	3	0	147	35	0	0	0	0	3	452
17:15	66	99	0	0	29	0	70	2	0	152	43	0	0	0	0	0	461
17:30	49	122	0	0	33	0	61	1	0	161	65	0	0	0	0	3	495
17:45	77	148	0	0	49	0	63	0	0	161	47	0	0	0	0	3	547
Total	269	472	0	0	147	0	241	6	0	621	190	0	0	0	0	9	1955
Grand Total	1758	1660	0	0	479	0	782	17	0	2354	958	0	0	0	0	41	8049
Approach %	51.4	48.6	0	0	57.5	0	61.2	1.3	0	71.1	28.9	0	0	0	0	100	
Total %	21.8	20.6	0	0	6	0	9.7	0.2	0	29.2	11.9	0	0	0	0	0.5	

True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.23.CARMEL COUNTRY RD.SR 56 WB ON AND OFF-RAMPS
Site Code : 00000000
Start Date : 4/30/2009
Page No : 2

Start Time	CARMEL COUNTRY RD Southbound					SR 56 WB ON AND OFF-RAMPS Westbound					CARMEL COUNTRY RD Northbound					N/A Eastbound					Tot Totl
	Left	Thru	Right	Peds	Accident	Left	Thru	Right	Peds	Accident	Left	Thru	Right	Peds	Accident	Left	Thru	Right	Peds	Accident	
07:30	175	129	0	0	304	25	0	61	1	87	0	257	74	0	331	0	0	0	3	3	725
07:45	192	165	0	0	337	25	0	57	2	84	0	220	108	0	328	0	0	0	3	3	772
08:00	223	174	0	0	397	46	0	55	1	102	0	153	68	0	221	0	0	0	3	3	723
08:15	164	108	0	0	272	37	0	36	1	74	0	112	56	0	168	0	0	0	3	3	517
Total	754	576	0	0	1330	133	0	209	5	347	0	742	305	0	1045	0	0	0	12	12	2737
Total Volume	56.7	43.3	0	0	38.3	0	60.2	1.4	0	70.8	29.2	0	0	0	100	0	0	0	100	0	100
PIF	845	828	000	000	838	723	000	857	625	850	000	722	708	000	792	000	000	000	1.023	1.023	0.84



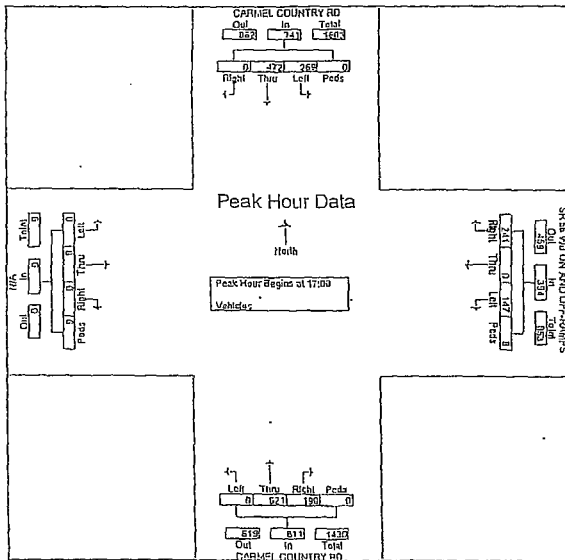
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.23.CARMEL COUNTRY RD.SR 56 WB OH AND OFF-RAMPS
Site Code : 00000000
Start Date : 4/30/2009
Page No : 3

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 9031.24.CARMEL COUNTRY RD.SR 56 EB RAMPS
Site Code : 00000000
Start Date : 4/30/2009
Page No : 1

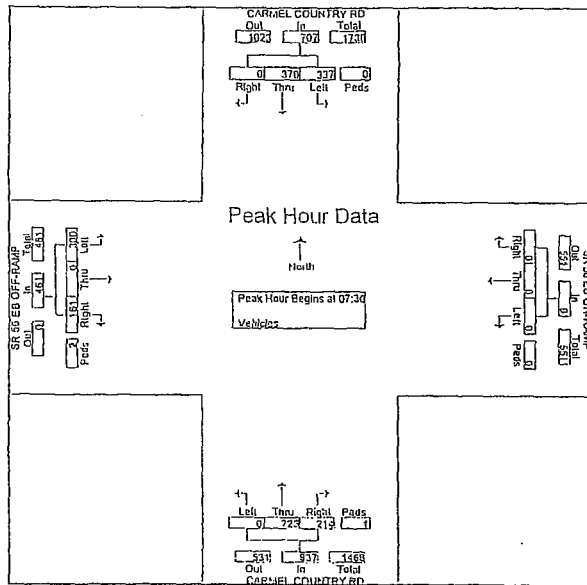
Start Time	CARMEL COUNTRY RD Southbound				SR 56 WB OH AND OFF-RAMPS Westbound				CARMEL COUNTRY RD Northbound				N/A Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
17:00	77	103	0	0	180	36	0	48	3	87	0	147	35	0	182	0	0	0	3	3	452
17:15	66	99	0	0	165	29	0	70	2	101	0	152	43	0	195	0	0	0	0	0	461
17:30	49	122	0	0	171	33	0	61	1	95	0	161	65	0	226	0	0	0	3	3	495
17:45	77	348	0	0	225	49	0	62	0	111	0	161	47	0	208	0	0	0	3	3	547
Total Volume	269	472	0	0	741	147	0	241	6	394	0	621	190	0	811	0	0	0	9	9	1955
% App. Total	36.3	63.7	0	0	74.3	37.3	0	61.2	1.5	33.4	0	26.6	23.4	0	100	0	0	0	100	0	0
WVF	.873	.797	.000	.000	.823	.750	.000	.861	.500	.887	.000	.964	.731	.000	.897	.000	.000	.000	.750	.750	.894



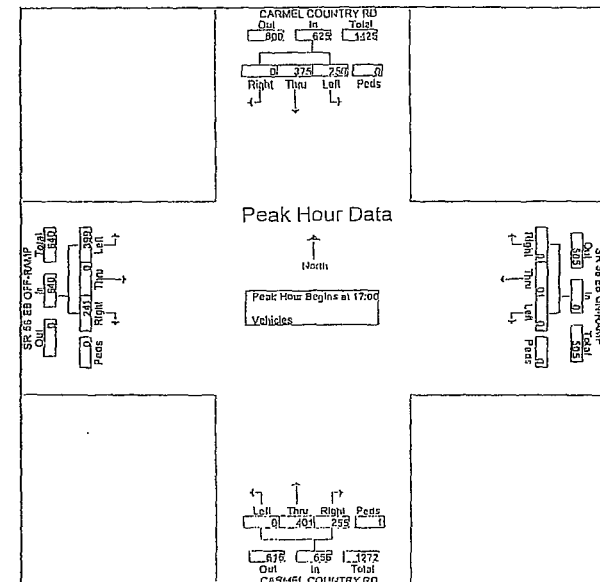
Groups Printed - Vehicles

Start Time	CARMEL COUNTRY RD Southbound				SR 56 EB OH-RAMP Westbound				CARMEL COUNTRY RD Northbound				SR 56 EB OFF-RAMP Eastbound				Int. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:00	28	50	0	0	0	0	0	0	0	104	16	0	42	0	25	0	265				
07:15	38	45	0	0	0	0	0	0	0	144	18	0	46	0	31	0	322				
07:30	73	71	0	0	0	0	0	0	0	249	31	0	81	0	25	0	530				
07:45	105	98	0	0	0	0	0	0	0	184	71	0	112	0	54	2	626				
Total	244	264	0	0	0	0	0	0	0	681	136	0	281	0	135	2	1743				
08:00	94	117	0	0	0	0	0	0	0	163	77	0	56	0	35	0	542				
08:15	65	84	0	0	0	0	0	0	0	127	35	1	51	0	47	0	410				
08:30	53	54	0	0	0	0	0	0	0	96	34	0	48	0	37	0	322				
08:45	45	54	0	0	0	0	0	0	0	132	26	0	50	0	40	0	347				
Total	257	309	0	0	0	0	0	0	0	518	172	1	205	0	159	0	1621				
*** BREAK ***																					
16:00	44	85	0	0	0	0	0	0	0	127	29	0	91	0	45	0	421				
16:15	45	59	0	0	0	0	0	0	0	110	40	0	113	0	36	0	405				
16:30	36	76	0	0	0	0	0	0	0	74	36	0	116	0	51	1	300				
16:45	47	83	0	0	0	0	0	0	0	87	50	0	107	0	58	0	432				
Total	172	303	0	0	0	0	0	0	0	398	155	0	427	0	192	1	1648				
17:00	57	78	0	0	0	0	0	0	0	85	47	0	92	0	56	0	415				
17:15	44	71	0	0	0	0	0	0	0	87	66	0	109	0	63	0	440				
17:30	71	96	0	0	0	0	0	0	0	119	73	1	97	0	56	0	513				
17:45	78	130	0	0	0	0	0	0	0	110	69	0	101	0	66	0	554				
Total	250	375	0	0	0	0	0	0	0	401	255	1	399	0	241	0	1922				
Grand Total	923	1251	0	0	0	0	0	0	0	1998	718	2	1312	0	727	3	6934				
Approach %	42.5	57.5	0	0	0	0	0	0	0	73.5	26.4	0.1	64.3	0	35.6	0.1					
Total %	13.3	18	0	0	0	0	0	0	0	28.8	10.4	0	18.9	0	10.5	0					

Start Time	CARMEL COUNTRY RD Southbound					SR 56 EB ON-RAMP Westbound					CARMEL COUNTRY RD Northbound					SR 56 EB OFF-RAMP Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	73	71	0	0	144	0	0	0	0	0	0	249	31	0	280	21	0	25	0	106	530
07:45	105	98	0	0	203	0	0	0	0	0	0	184	71	0	255	113	0	54	2	168	626
08:00	94	117	0	0	211	0	0	0	0	0	0	163	77	0	240	56	0	35	0	91	542
08:15	65	84	0	0	149	0	0	0	0	0	0	127	35	1	163	51	0	47	0	98	410
Total Volume	337	370	0	0	707	0	0	0	0	0	0	723	214	1	938	300	0	161	2	463	2108
% App. Total	47.7	52.3	0	0		0	0	0	0		0	77.1	22.8	0.1		64.8	0	34.8	0.4		
PIIF	.802	.791	.000	.000	.638	.000	.000	.000	.000	.000	.000	.726	.693	.250	.838	.670	.000	.745	.250	.689	.842



Start Time	CARMEL COUNTRY RD Southbound					SR 56 EB ON-RAMP Westbound					CARMEL COUNTRY RD Northbound					SR 56 EB OFF-RAMP Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 to 12:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	57	78	0	0	135	0	0	0	0	0	0	85	47	0	132	92	0	56	0	148	415
17:15	44	71	0	0	115	0	0	0	0	0	0	87	66	0	153	109	0	63	0	172	410
17:30	71	96	0	0	167	0	0	0	0	0	0	119	73	1	193	97	0	56	0	153	513
17:45	78	130	0	0	208	0	0	0	0	0	0	110	69	0	179	101	0	66	0	167	554
Total Volume	250	375	0	0	625	0	0	0	0	0	0	401	255	1	657	399	0	241	0	640	1922
% App. Total	40	60	0	0		0	0	0	0		0	61	38.8	0.2		62.3	0	37.7	0		
PIIF	.801	.721	.000	.000	.751	.000	.000	.000	.000	.000	.000	.842	.873	.250	.851	.915	.000	.913	.000	.930	.867



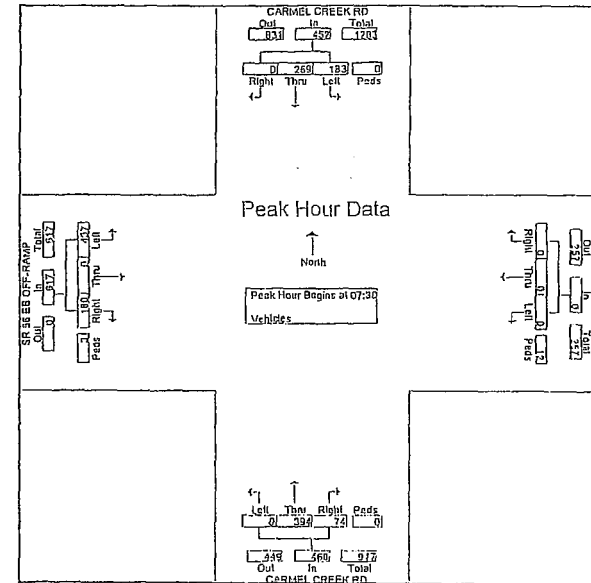
Groups Printed-Vehicles

Start Time	CARMEL CREEK RD Southbound				SR 56 EB ON-RAMP Westbound				CARMEL CREEK RD Northbound				SR 56 EB OFF-RAMP Eastbound				Incl. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	31	21	0	0	0	0	0	0	0	31	4	0	63	0	17	2	169
07:15	33	38	0	0	0	0	0	2	0	41	9	0	95	0	26	2	246
07:30	35	49	0	0	0	0	0	0	0	65	7	0	118	0	20	1	304
07:45	66	154	0	0	0	0	0	5	0	115	26	0	117	0	104	0	582
Total	165	262	0	0	0	0	0	7	0	252	46	0	393	0	176	5	1306
08:00	45	45	0	0	0	0	0	3	0	135	29	0	101	0	32	1	391
08:15	37	21	0	0	0	0	0	4	0	79	12	0	101	0	15	1	270
08:30	40	16	0	0	0	0	0	3	0	74	9	0	86	0	10	0	238
08:45	44	26	0	0	0	0	0	4	0	80	7	0	75	0	8	2	246
Total	166	108	0	0	0	0	0	14	0	368	57	0	363	0	65	4	1145

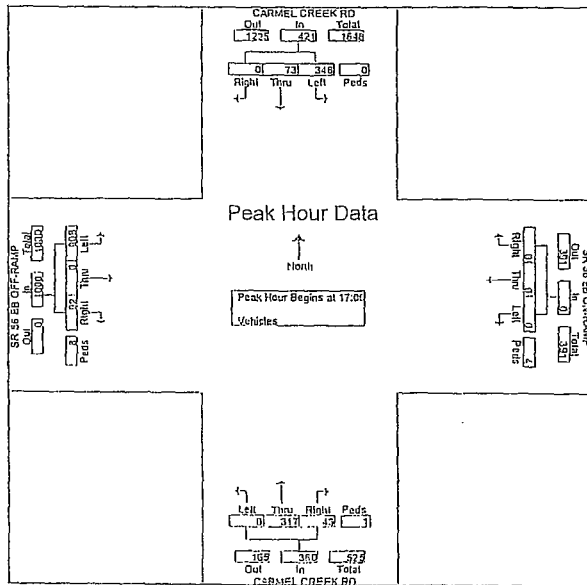
*** BREAK ***

16:00	80	27	0	0	0	0	0	0	0	47	7	0	142	0	19	4	326
16:15	72	26	0	0	0	0	0	2	0	51	6	0	162	0	24	0	343
16:30	77	22	0	0	0	0	0	0	0	58	9	0	125	0	25	2	318
16:45	82	26	0	0	0	0	0	0	0	55	5	0	184	0	37	2	391
Total	311	101	0	0	0	0	0	2	0	211	27	0	613	0	105	8	1378
17:00	118	22	0	0	0	0	0	1	0	89	9	0	209	0	32	2	482
17:15	85	14	0	0	0	0	0	1	0	87	22	1	221	0	14	4	448
17:30	71	23	0	0	0	0	0	1	0	76	5	0	237	0	23	1	437
17:45	74	14	0	0	0	0	0	2	0	65	7	0	241	0	23	1	427
Total	348	73	0	0	0	0	0	4	0	317	43	1	908	0	92	8	1794
Grand Total	990	544	0	0	0	0	0	27	0	1148	173	1	2277	0	438	25	5623
Approach %	64.5	35.5	0	0	0	0	0	100	0	86.8	13.1	0.1	83.1	0	16	0.9	
Total %	17.6	9.7	0	0	0	0	0	0.5	0	20.4	3.1	0	40.5	0	7.8	0.4	

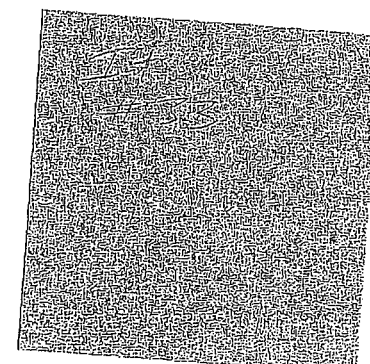
Start Time	CARMEL CREEK RD Southbound				SR 56 EB ON-RAMP Westbound				CARMEL CREEK RD Northbound				SR 56 EB OFF-RAMP Eastbound				Incl. Total				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds					
07:30	35	49	0	0	84	0	0	0	0	0	65	7	0	72	118	0	29	1	148	304	
07:45	66	154	0	0	220	0	0	0	5	5	0	115	26	0	141	117	0	104	0	211	587
08:00	45	45	0	0	90	0	0	0	3	3	0	135	29	0	164	101	0	32	1	134	391
08:15	37	21	0	0	58	0	0	0	4	4	0	79	12	0	91	101	0	15	1	117	270
Total	183	269	0	0	452	0	0	0	12	12	0	394	74	0	468	437	0	180	3	620	1552
% App. Total	40.5	59.5	0	0	0	0	0	0	100		0	84.2	15.8	0		70.5	0	29	0.5		
PHF	.693	.437	.000	.000	.514	.000	.000	.000	.600	.600	.000	.730	.638	.000	.713	.926	.000	.433	.750	.701	.661



Start Time	CARMEL CREEK RD Southbound				SR 56 EB ON-RAMP Westbound				CARMEL CREEK RD Northbound				SR 56 EB OFF-RAMP Eastbound				Int. Total			
	Left	Thru	Right	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru		Right	Peds	App. Total
Peak Hour for Entire Intersection Begins at 17:00																				
17:00	118	22	0	140	0	0	0	1	1	0	87	9	0	98	209	0	32	2	243	482
17:15	85	14	0	99	0	0	0	0	0	0	37	32	1	110	221	0	14	4	239	448
17:30	71	23	0	94	0	0	0	1	1	0	76	5	0	81	237	0	23	1	261	437
17:45	74	14	0	88	0	0	0	2	2	0	65	7	0	72	241	0	23	1	265	427
Total	318	73	0	421	0	0	0	4	4	0	317	43	1	361	908	0	92	8	1008	1794
Volume % App. Total	82.7	17.3	0	0	0	0	0	100	0	87.3	11.9	0.3	0	90.1	0	0	9.1	0.8		
PHF	.737	.793	.000	.752	.000	.000	.000	.500	.500	.000	.890	.250	.820	.942	.000	.719	.500	.951		.930



Start Time	CARMEL CANYON RD Southbound				CARMEL COUNTRY RD Westbound				DEL MAR TRAIL Northbound				CARMEL COUNTRY RD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Groups Printed - Vehicles																	
07:00	80	9	12	1	15	34	42	0	2	0	12	1	7	66	7	1	289
07:15	97	14	15	2	24	76	81	0	9	4	22	1	8	74	12	0	439
07:30	160	39	31	0	46	104	131	0	10	16	40	3	10	100	10	1	709
07:45	163	48	50	0	66	88	108	0	15	32	93	0	20	144	8	0	635
Total	500	110	108	3	151	302	362	0	36	52	167	5	45	292	37	2	2212
08:00	187	28	58	2	22	143	53	0	15	5	61	0	21	130	9	0	734
08:15	113	24	39	0	7	87	43	1	8	11	42	3	35	104	6	1	524
08:30	126	14	11	3	16	63	40	0	4	11	30	2	12	98	3	3	436
08:45	111	7	16	1	15	76	56	0	4	12	18	2	8	76	4	0	405
Total	537	73	124	6	60	369	192	1	31	39	151	7	76	408	22	4	2100
*** BREAK ***																	
16:00	54	22	9	0	40	80	98	0	8	17	13	1	14	96	13	2	459
16:15	46	16	19	0	26	91	78	0	12	17	16	5	10	68	15	1	419
16:30	46	10	12	0	19	81	76	0	11	14	14	3	20	83	6	3	398
16:45	54	11	14	0	18	90	93	0	5	16	14	1	21	83	14	2	436
Total	200	59	54	0	103	342	337	0	36	64	57	8	65	330	49	6	1712
17:00	60	12	14	3	22	86	88	0	9	27	25	0	23	94	7	1	469
17:15	56	14	14	1	32	93	97	0	8	27	13	0	40	95	8	2	500
17:30	51	15	20	1	21	94	91	0	15	48	35	3	26	96	7	2	516
17:45	63	11	17	0	16	103	74	0	11	25	22	1	38	122	8	1	474
Total	230	52	65	5	91	376	400	0	44	128	104	4	127	407	30	6	2069
Grand Total	1467	294	351	14	405	1389	1291	1	147	283	479	24	313	1537	138	20	8153
Approx %	69	13.8	16.5	0.7	13.1	45	41.8	0	15.8	30.3	51.3	2.6	15.6	76.5	6.9	1	
Total %	18	3.6	4.3	0.2	5	17	15.8	0	1.8	3.5	5.9	0.3	3.8	18.9	1.7	0.2	



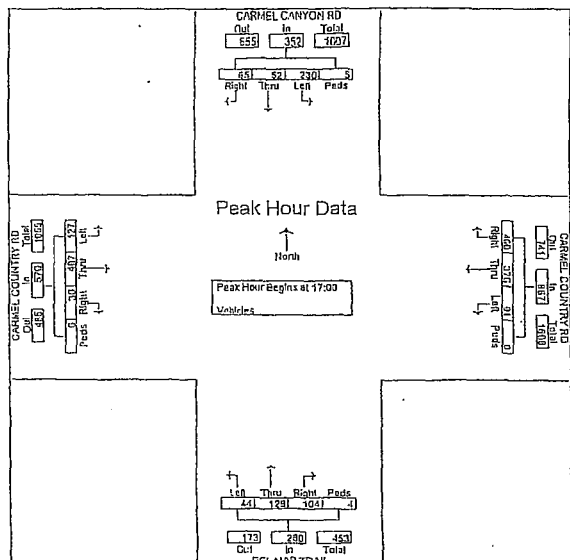
True Count
3401 First Ave #123
San Diego, CA 92103

File Name : 9031.22.CARMEL COUNTRY RD.DEL MAR TRAIL
Site Code : 00000000
Start Date : 4/30/2009
Page No : 3

MetroCount Traffic Executive
Event Counts

Start Time	CARMEL CANYON RD					GARMEL COUNTRY RD					DEL MAR TRAIL					CARMEL COUNTRY RD					Tot
	Left	Thru	Right	Peaks	Vol	Left	Thru	Right	Peaks	Vol	Left	Thru	Right	Peaks	Vol	Left	Thru	Right	Peaks	Vol	
17:00	60	12	14	3	89	22	86	88	0	196	9	27	23	0	59	23	84	7	1	125	469
17:15	56	14	14	1	85	32	93	97	0	222	8	27	13	0	48	40	95	8	2	145	500
17:30	51	35	20	1	87	21	91	91	0	206	16	48	35	3	102	26	96	7	2	131	526
17:45	63	11	17	0	91	16	101	124	0	243	11	26	33	1	71	38	122	8	1	169	574
Total Volume	230	52	65	5	352	91	376	400	0	867	44	128	104	4	280	127	407	30	6	570	2069
% App. Total	61.3	14.8	16.5	1.4		10.5	43.4	46.1	0		15.7	45.7	37.1	1.4		22.3	71.4	5.3	1.1		
PHF	0.913	0.807	0.813	0.17	0.67	0.711	0.913	0.865	0.000	0.921	0.688	0.67	0.743	0.373	0.666	0.794	0.834	0.938	0.750	0.813	0.901

Peak Hour for Entire Intersection Begins at 17:00



EventCount-1213 - English (ENU)

Datasets: [9031.01] EL CAMINO REAL (VIA DE LA VALLE-SAN DIEGUITO RD) NORTHBOUND
 Site: 1 - North bound. - Added to totals. (1)
 Input A: 0 - Unused or unknown. - Excluded from totals. (0)
 Input B: 18:38 Wednesday, April 29, 2009 => 8:28 Sunday, May 03, 2009
 Survey Duration: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.01.N03May2009.ECO (Base)
 File: V289W1MS MC56-L5 [MC55] (c)Microcam 19Oct04
 Identifier: Event Count
 Algorithm: Axle sensors - Separate (Count)
 Data type:

Profile: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Filter time: TC Default Profile
 Name: Count events divided by two.
 Scheme: Non metric (ft, mi, ft/s, mph, lb, ton)
 Units: Events = 7406 / 16642 (44.50%)
 In profile:

* Thursday, April 30, 2009=7406, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
11	0	0	0	4	35	127	415	521	366	371	455	493	435	646	650	550	020	502	330	101	134	86	21
2	1	3	0	0	5	16	40	118	62	36	102	149	95	113	155	163	155	116	130	51	34	23	0
3	3	4	0	1	7	27	81	160	86	83	116	116	132	125	156	165	233	171	07	60	35	25	6
3	2	1	0	1	6	14	127	124	91	65	110	117	117	191	161	157	209	127	59	13	28	10	4
3	2	0	0	2	17	40	131	139	107	107	138	111	107	208	178	173	132	117	58	27	33	16	3

AM Peck 0800 - 0900 (641), AM PHF=0.85

151579

MetroCount Traffic Executive
Event Counts

EventCount-1214 -- English (ENU)

Datasets:

Site: [9031.01] EL CAMINO REAL (VIA DE LA VALLE-SAN DIEGUITO RD) SOUTHBOUND
 Input A: 3 - South bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 18:40 Wednesday, April 29, 2009 => 8:28 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.01.S03May2009.EC0 (Regular)
 Identifier: S1339PHE MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 8174 / 16910 (43.23%)

^ Thursday, April 30, 2009=8173, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
13	10	2	4	10	54	227	714	607	475	420	454	511	495	612	651	611	638	570	373	296	205	57	65
4	1	0	1	2	1	32	119	157	116	101	118	123	126	158	144	135	162	158	93	87	65	29	19
2	1	1	0	2	16	47	112	152	102	93	89	125	126	151	171	152	177	143	116	58	51	23	10
3	2	1	3	2	14	50	223	139	131	129	111	109	131	162	141	137	150	130	90	59	51	17	13
1	3	0	0	6	23	88	200	159	126	97	132	130	109	101	182	151	119	139	71	82	35	21	15

AM Peak 0715 - 0815 (751), AM PHF=0.84

MetroCount Traffic Executive
Event Counts

EventCount-1215 -- English (ENU)

Datasets:

Site: [9031.02] EL CAMINO REAL (SAN DIEGUITO RD-SEA COUNTRY LN) NORTHBOUND
 Input A: 2 - North bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 19:04 Wednesday, April 29, 2009 => 8:41 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.02.E03May2009.EC0 (Regular)
 Identifier: T5411WJP MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 7036 / 16033 (43.88%)

* Thursday, April 30, 2009=7036, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
9	5	5	9	9	45	145	393	411	359	292	390	456	371	703	590	608	790	561	353	226	150	93	22
1	0	2	0	1	5	11	48	109	66	76	82	115	89	110	116	117	160	130	110	66	35	17	8
0	3	1	0	3	9	30	91	132	83	69	96	122	83	110	141	139	219	170	86	69	41	23	6
5	1	1	1	1	14	49	129	94	103	76	97	123	97	215	151	214	121	01	51	32	21	6	
3	1	1	0	3	18	55	125	109	107	69	125	96	102	268	152	171	177	132	56	40	17	12	2

AM Peak 0730 - 0830 (495), AM PHF=0.84

13/915

MetroCount Traffic Executive
Event Counts

EventCount-1216 -- English (ENU)

Datasets:

Site: [9031.02] EL CAMINO REAL (SAN DIEGUITO RD-SEA COUNTRY LN) SOUTHBOUND
 Input A: 4 - South bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 19:02 Wednesday, April 29, 2009 => 0:41 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.02.W03May2009.EC0 (Base)
 Identifier: V286M0GP MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 6880 / 15283 (45.02%)

* Thursday, April 30, 2009=6880, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
10	8	2	9	0	43	170	825	817	417	370	302	235	225	285	553	427	464	450	271	179	138	74	47
4	3	1	1	2	5	27	106	165	105	07	92	106	107	144	218	114	115	123	77	48	46	21	16
2	1	0	2	2	6	29	217	145	103	101	89	87	104	139	117	105	125	133	73	54	32	14	12
1	1	1	1	1	9	41	271	171	113	96	104	111	99	117	119	94	121	203	64	30	11	15	9
3	3	0	5	3	23	70	228	136	96	86	99	132	85	153	139	111	163	91	57	39	29	21	10

AM Peak 0716 - 0816 (814), AM PHF=0.81

MetroCount Traffic Executive
Event Counts

EventCount-1217 -- English (ENU)

Datasets:

Site: [9031.03] EL CAMINO REAL (DERBY DOWNS RD-HALF MILE DR) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 19:24 Wednesday, April 29, 2009 => 8:39 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.03.03May2009.EC0 (Regular)
 Identifier: T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 15334 / 34166 (44.88%)

* Thursday, April 30, 2009=7735, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
51	7	6	10	10	47	156	225	274	388	325	444	471	414	477	400	581	680	610	395	265	192	105	73
4	3	3	0	1	5	15	52	129	70	82	98	122	106	119	166	159	213	177	142	83	53	39	9
3	1	1	1	3	10	30	98	138	105	77	92	118	106	127	176	162	232	175	100	76	51	26	6
4	2	1	3	4	15	60	134	105	102	90	106	127	97	251	166	160	231	132	85	50	39	21	6
3	1	1	6	2	17	51	137	102	113	76	145	104	125	100	170	180	201	146	63	48	59	16	4

AM Peak 0730 - 0830 (530), AM PHF=0.87

15333

MetroCount Traffic Executive
Event Counts

EventCount-1218 -- English (ENU)

Datasets:

Site: [9031.03] EL CAMINO REAL (DERBY DOWNS RD-HALF MILE DR) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 19:24 Wednesday, April 29, 2009 => 8:39 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.03.03May2009.EC0 (Regular)
 Identifier: T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 15334 / 34166 (44.88%)

* Thursday, April 30, 2009=7590, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
30	9	2	6	12	15	23	30	41	47	62	72	83	95	107	121	136	151	167	184	201	219	237	255
4	4	1	1	3	5	20	112	190	107	113	93	113	122	145	166	156	131	119	80	53	51	25	18
1	1	0	3	5	8	32	220	177	122	115	103	99	122	150	163	117	139	350	83	72	35	17	10
2	1	1	1	1	12	50	305	194	136	107	114	117	115	171	142	100	134	99	67	39	33	17	9
3	3	0	1	3	20	72	247	353	105	88	103	124	98	171	149	126	128	105	61	34	33	23	7

AM Peak 0715 - 0315 (96%), AM PHF=0.79

MetroCount Traffic Executive
Event Counts

EventCount-1219 -- English (ENU)

Datasets:

Site: [9031.04] EL CAMINO REAL (HALF MILE DR-QUARTER MILE DR) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 19:43 Wednesday, April 29, 2009 => 8:37 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.04.03May2009.EC0 (Regular)
 Identifier: S1079HOH MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 13445 / 29633 (45.37%)

* Thursday, April 30, 2009=6552, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
16	11	7	11	9	41	127	309	354	344	288	403	391	295	519	525	607	744	571	346	216	191	305	29
4	6	3	0	1	4	12	47	88	30	10	87	94	93	107	126	133	180	152	115	68	44	41	10
4	1	1	1	3	9	27	82	100	101	80	81	110	90	122	121	146	158	140	91	67	55	26	7
4	2	2	3	2	13	41	89	76	80	72	106	101	91	119	130	155	208	107	81	59	38	21	8
3	2	1	1	3	15	47	91	90	53	65	119	89	111	145	148	173	170	112	59	56	55	17	4

AM Peak 1130 - 1230 (42%), AM PHF=0.90

15516

MetroCount Traffic Executive
Event Counts

EventCount-1220 -- English (ENU)

Datasets:

Site: [9031.04] EL CAMINO REAL (HALF MILE DR-QUARTER MILE DR) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 19:43 Wednesday, April 29, 2009 => 8:37 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.04.03May2009.EC0 (Regular)
 Identifier: S1079HQH MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 15980 / 35105 (45.52%)

* Thursday, April 30, 2009=6964, 15 minute drops

0200	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
11	10	2	6	14	49	261	653	653	251	339	398	450	460	500	570	437	402	431	272	161	136	76	42
4	1	1	3	8	38	99	178	103	96	62	133	125	134	150	124	125	127	80	43	42	20	18	-
1	1	0	3	5	7	40	127	148	127	122	110	82	121	128	130	106	117	129	70	52	32	15	8
2	2	1	1	4	16	52	205	169	127	95	119	110	115	160	121	58	124	84	63	38	35	18	9
4	3	0	1	4	18	71	221	158	101	86	107	125	95	158	113	109	116	91	55	25	27	23	7

AM Peak 0730 - 0830 (75%), AM PHF=0.85

MetroCount Traffic Executive
Event Counts

EventCount-1223 -- English (ENU)

Datasets:

Site: [9031.05] EL CAMINO REAL (QUARTER MILE DR-DEL MAR HEIGHTS RD) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 20:07 Wednesday, April 29, 2009 => 8:36 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.05.03May2009.EC0 (Regular)
 Identifier: S014F2C8 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 14826 / 33616 (44.40%)

* Thursday, April 30, 2009=7500, 15 minute drops

0200	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
16	15	10	11	11	46	139	350	400	274	306	424	479	424	574	592	678	671	661	424	302	232	138	41
5	7	4	0	1	5	14	48	102	70	72	102	115	98	122	110	113	203	181	125	80	57	51	32
5	3	2	1	4	11	28	55	131	113	84	81	126	93	113	140	119	211	169	108	67	62	38	12
4	3	2	3	3	13	44	110	76	83	83	112	130	103	152	145	163	223	150	102	60	40	26	10
2	2	2	7	3	17	53	105	91	88	67	129	100	130	159	167	193	207	111	79	69	65	21	8

AM Peak 1145 - 1245 (50%), AM PHF=0.65

14826
14825

MetroCount Traffic Executive
Event Counts

EventCount-1222 -- English (ENU)

Datasets:

Site: [9031.05] EL CAMINO REAL (QUARTER MILE DR-DEL MAR HEIGHTS RD) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 20:07 Wednesday, April 29, 2009 => 8:36 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.05.03May2009.ECO (Regular)
 Identifier: S014F2C9 MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, fUs, mph, lb, ton)
 In profile: Events = 14926 / 33615 (44.40%)

* Thursday, April 30, 2009=7425, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
35	33	1	7	39	58	232	668	814	513	497	311	274	451	627	579	458	495	451	263	176	160	82	43
6	3	0	1	4	7	44	105	213	123	306	72	142	111	134	165	123	116	116	78	49	39	23	19
2	2	0	4	7	12	40	136	209	137	138	105	84	118	135	113	122	112	126	66	50	34	14	8
3	3	1	1	2	17	61	196	215	137	95	124	118	114	168	126	103	127	114	65	43	37	21	9
1	3	0	1	6	22	87	231	176	116	95	110	130	98	150	145	110	130	95	55	31	30	24	7

AM Peak 0745 - 0845 (86%), AM P116=0.24

MetroCount Traffic Executive
Event Counts

EventCount-1225 -- English (ENU)

Datasets:

Site: [9031.06] DEL MAR HEIGHTS RD (CARMEL CANYON RD-LANDSDALE DR) EASTBOUND
 Input A: 4 - West bound. - Excluded from totals. (0)
 Input B: 2 - East bound. - Added to totals. (1)
 Survey Duration: 20:20 Wednesday, May 13, 2009 => 7:53 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.06.16May2009.ECO (Regular)
 Identifier: T5450FAN MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, fUs, mph, lb, ton)
 In profile: Events = 15189 / 26820 (56.63%)

* Thursday, May 14, 2009=7583, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
21	13	5	1	0	20	147	701	403	274	219	218	395	368	653	735	715	954	678	327	257	191	122	53
0	3	0	0	0	1	19	111	146	87	52	63	109	73	111	179	166	164	211	130	66	66	44	16
7	6	4	0	0	2	34	112	87	71	57	78	82	96	111	211	134	242	298	87	63	39	27	10
4	2	0	0	0	4	33	186	89	60	56	76	96	115	218	172	162	257	129	85	70	46	24	10
2	2	1	1	0	13	61	292	87	76	54	109	108	54	219	113	161	271	130	95	58	40	17	11

AM Peak 0715 - 0815 (73%), AM P116=0.63

15/188

MetroCount Traffic Executive
Event Counts

EventCount-1224 -- English (ENU)

Datasets:
 Site: [9031.06] DEL MAR HEIGHTS RD (CARMEL CANYON RD-LANSDALE DR) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 2 - East bound. - Excluded from totals. (0)
 Survey Duration: 20:20 Wednesday, May 13, 2009 => 7:53 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.06.16May2009.EC0 (Regular)
 Identifier: T5450FAN MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 15189 / 26820 (56.63%)

* Thursday, May 14, 2009=7593, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
12	5	5	4	7	18	104	595	990	407	307	358	360	343	740	697	490	328	480	408	191	99	83	34
6	0	2	0	3	3	29	139	302	135	81	93	103	80	161	132	103	142	130	120	46	31	22	9
0	1	0	0	1	7	33	150	282	81	71	81	59	74	219	191	101	113	141	99	71	31	8	9
0	1	2	0	0	11	51	344	358	81	66	91	53	62	192	223	124	113	92	98	41	22	11	10
6	3	1	0	3	15	81	242	162	110	89	53	74	127	176	141	122	160	125	91	33	15	12	6

AIA Peak 0730 - 0800 (1250), AIA PHF=0.02

MetroCount Traffic Executive
Event Counts

EventCount-1227 -- English (ENU)

Datasets:
 Site: [9031.07] DEL MAR HEIGHTS RD (LANSDALE DR-TORREY RIDGE RD) EASTBOUND
 Input A: 4 - West bound. - Excluded from totals. (0)
 Input B: 2 - East bound. - Added to totals. (1)
 Survey Duration: 20:37 Wednesday, May 13, 2009 => 7:51 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.07.16May2009.EC0 (Base)
 Identifier: V280CRV3 MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 19072 / 33666 (56.65%)

* Thursday, May 14, 2009=9453, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
29	18	5	3	0	20	119	720	487	362	285	409	563	508	883	919	780	1115	855	545	261	200	164	76
11	4	1	1	0	1	19	124	152	87	64	88	163	110	157	223	131	218	157	100	90	58	26	-
8	6	3	0	0	2	33	115	115	80	74	101	121	134	153	210	172	300	233	133	76	66	50	21
6	5	0	1	0	4	32	226	113	91	79	90	142	141	242	223	211	294	180	131	99	61	32	15
4	3	1	1	0	13	85	255	100	104	89	126	137	123	271	196	206	310	215	122	94	63	24	14

AIA Peak 0745 - 0815 (747), AIA PHF=0.73

19071

MetroCount Traffic Executive
Event Counts

EventCount-1226 - English (ENU)

Datasets:

Site: [9031.07] DEL MAR HEIGHTS RD (LANDSDALE DR-TORREY RIDGE RD) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 2 - East bound. - Excluded from totals. (0)
 Survey Duration: 20:37 Wednesday, May 13, 2009 => 7:51 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.07.16May2009.EC0 (Base)
 Identifier: V280CRV3 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 19072 / 33666 (56.65%)

* Thursday, May 14, 2009=9610, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
12	5	4	3	10	52	249	310	310	515	457	502	495	472	884	822	607	677	608	463	264	127	71	50
5	1	1	0	3	6	43	119	440	165	129	119	133	115	185	167	121	197	160	130	71	35	31	11
0	1	0	4	2	10	43	254	255	100	97	132	134	105	253	224	193	148	102	122	96	37	19	16
0	1	2	0	0	15	58	367	215	114	111	127	130	108	230	256	119	118	113	108	57	29	17	13
7	2	1	0	5	31	104	312	197	133	121	124	90	114	195	175	184	184	153	103	56	26	13	30

AM Peak 0730 - 0830 (1474), AM PHF=0.84

MetroCount Traffic Executive
Event Counts

EventCount-1230 - English (ENU)

Datasets:

Site: [9031.08] DEL MAR HEIGHTS RD (TORREY RIDGE RD-CARMEL COUNTRY RD) EASTBOUND
 Input A: 4 - West bound. - Excluded from totals. (0)
 Input B: 2 - East bound. - Added to totals. (1)
 Survey Duration: 20:49 Wednesday, May 13, 2009 => 7:50 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.08.16May2009.EC0 (Regular)
 Identifier: R519P5FV NIC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 21659 / 38476 (56.29%)

* Thursday, May 14, 2009=10899, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
37	20	6	4	1	24	209	1049	507	411	314	463	675	556	862	1015	836	1232	953	626	429	311	198	81
15	6	1	1	0	2	21	106	128	104	80	97	161	116	158	223	203	247	315	182	121	103	65	29
12	6	3	1	1	2	40	205	132	93	80	103	105	152	225	305	184	307	217	155	86	78	62	26
7	5	0	1	0	4	50	364	127	100	82	105	183	149	226	254	237	341	200	149	121	71	42	16
3	3	2	1	0	16	98	294	120	106	52	158	142	139	295	233	212	336	151	110	101	65	29	20

AM Peak 0700 - 0800 (1049), AM PHF=0.72

21/658

MetroCount Traffic Executive
Event Counts

EventCount-1220 - English (ENU)

Datasets:
 Site: [9031.08] DEL MAR HEIGHTS RD (TORREY RIDGE RD-CARMEL COUNTRY RD) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 2 - East bound. - Excluded from totals. (0)
 Survey Duration: 20:19 Wednesday, May 13, 2009 => 7:50 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.08.16May2009.EC0 (Regular)
 Identifier: R513P5FW MC56-L6 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 21659 / 38476 (56.29%)

* Thursday, May 14, 2009=10759, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
16	7	5	3	13	64	266	1119	1285	1467	1555	1650	1803	1880	1925	2111	2237	2322	2398	185	87	59		
7	2	1	0	4	7	45	159	197	171	151	142	219	121	180	200	131	206	165	156	83	67	34	16
2	1	0	1	4	11	48	262	387	119	115	142	141	133	213	227	155	165	189	136	95	44	15	17
1	2	3	2	0	18	65	369	244	133	125	145	171	107	351	201	136	181	124	115	84	41	20	15
6	2	2	2	5	26	110	338	217	144	134	139	121	150	258	184	202	185	159	111	56	33	18	11

AM Peak 0730 - 0830 (1522), AM PHF=0.87

MetroCount Traffic Executive
Event Counts

EventCount-1232 - English (ENU)

Datasets:
 Site: [9031.09] DEL MAR HEIGHTS RD (CARMEL COUNTRY RD-EL CAMINO REAL) EASTBOUND
 Input A: 4 - West bound. - Excluded from totals. (0)
 Input B: 2 - East bound. - Added to totals. (1)
 Survey Duration: 21:12 Wednesday, May 13, 2009 => 7:47 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.09.16May2009.EC0 (Regular)
 Identifier: R5098KCT MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 32674 / 59507 (54.91%)

* Thursday, May 14, 2009=18724, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
50	30	18	7	6	75	301	1266	678	653	633	710	1074	918	1556	1945	1649	2163	1316	1314	876	228	355	161
23	9	7	0	0	5	31	216	185	178	153	154	238	193	253	416	475	528	555	350	240	201	116	75
14	8	4	1	4	14	60	282	166	156	150	195	327	241	395	561	392	501	412	328	203	168	102	55
6	7	2	1	0	20	71	431	181	168	157	151	275	235	410	538	441	503	417	202	235	139	73	31
7	6	5	5	2	25	139	337	167	157	173	220	214	249	538	430	394	545	331	254	192	120	64	29

AM Peak 0700 - 0800 (1266), AM PHF=0.73

321,674

MetroCount Traffic Executive
Event Counts

EventCount-1231 -- English (ENU)

Datasets:

Site: 19031.09 DEL MAR HEIGHTS RD (CARMEL COUNTRY RD-EL CAMINO REAL) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 2 - East bound. - Excluded from totals. (0)
 Survey Duration: 21:12 Wednesday, May 13, 2009 => 7:47 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.09.16May2009.EC0 (Regular)
 Identifier: R509BKCT MC56-L5 (MC55) (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 32674 / 59507 (54.91%)

* Thursday, May 14, 2009=13950, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
28	10	11	0	22	86	380	1324	1124	815	755	603	527	722	1221	1129	871	944	837	747	473	260	138	75
3	3	1	2	1	10	56	216	371	254	205	213	313	395	206	259	218	261	204	201	153	51	49	20
1	0	1	1	5	13	69	283	433	165	174	183	157	111	287	259	207	209	221	174	128	63	37	23
5	2	4	3	1	28	102	400	336	201	185	217	224	149	361	342	216	245	204	199	106	61	27	17
8	2	2	2	11	35	153	365	281	195	191	190	173	207	370	253	238	225	208	174	86	43	25	15

AM Peak 0730 - 0830 (1569), AM PHF=0.81

MetroCount Traffic Executive
Event Counts

EventCount-1234 -- English (ENU)

Datasets:

Site: 19031.10 DEL MAR HEIGHTS RD (EL CAMINO REAL-HIGH BLUFF DR) EASTBOUND
 Input A: 4 - West bound. - Excluded from totals. (0)
 Input B: 2 - East bound. - Added to totals. (1)
 Survey Duration: 21:28 Wednesday, May 13, 2009 => 7:44 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.10.16May2009.EC0 (Regular)
 Identifier: R8319BB9 MC56-L5 (MC55) (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 37910 / 68353 (55.46%)

* Thursday, May 14, 2009=19748, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
81	48	32	21	37	187	502	1382	995	958	866	1103	1381	1168	1502	1581	1447	2013	1564	990	707	522	300	103
33	35	10	6	3	18	69	219	259	212	212	243	331	280	317	423	259	451	469	286	180	174	50	56
20	10	4	2	12	33	87	357	264	235	211	250	357	242	383	395	240	515	383	245	200	109	87	34
12	33	20	6	7	49	126	441	225	241	192	270	367	203	422	376	418	532	360	243	178	183	63	37
16	10	8	7	15	67	210	375	247	280	251	332	326	293	460	387	330	545	332	224	191	96	60	26

AM Peak 0715 - 0815 (1432), AM PHF=0.81

37910

MetroCount Traffic Executive
Event Counts

EventCount-1233 -- English (ENU)

Datasets:

Site: [9031.10] DEL MAR HEIGHTS RD (EL CAMINO REAL-HIGH BLUFF DR) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 2 - East bound. - Excluded from totals. (0)
 Survey Duration: 21:28 Wednesday, May 13, 2009 => 7:44 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.10.16May2009.EC0 (Regular)
 Identifier: R83198B9 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 37910 / 68353 (55.46%)

* Thursday, May 14, 2009=10162, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
52	18	23	37	40	130	330	1520	1747	1106	1030	1078	1222	1070	1469	1396	1154	1152	1054	951	828	397	243	216
18	7	7	3	8	16	85	259	421	345	272	217	336	291	324	111	281	305	282	256	205	123	84	41
13	6	8	3	10	21	107	330	463	211	224	257	301	278	356	340	300	269	275	251	155	110	78	25
8	3	6	9	5	16	112	486	465	259	274	239	322	246	421	356	271	307	214	231	154	89	39	30
15	2	2	2	17	52	196	451	378	261	260	295	263	265	350	332	288	271	253	210	114	75	42	20

All Peak 0730 - 0830 (10+1), AM PHF=0.95

MetroCount Traffic Executive
Event Counts

EventCount-1200 -- English (ENU)

Datasets:

Site: [9031.11] DEL MAR HEIGHTS RD (HIGH BLUFF DR-I-5 NB RAMP) EASTBOUND
 Input A: 4 - West bound. - Excluded from totals. (0)
 Input B: 2 - East bound. - Added to totals. (1)
 Survey Duration: 21:42 Wednesday, May 13, 2009 => 7:41 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.11.16May2009.EC0 (Regular)
 Identifier: W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 50406 / 110100 (45.78%)

* Thursday, May 14, 2009=27550, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
104	66	38	29	51	222	713	2048	1039	1635	1256	1486	1878	1663	2151	2095	1078	3515	1912	1338	1045	759	413	226
42	25	14	8	5	23	104	318	561	432	309	359	418	390	457	563	459	553	518	370	260	243	132	75
23	15	6	4	14	37	144	532	894	411	294	352	570	450	538	537	457	640	480	326	270	165	136	50
21	11	11	7	10	56	169	609	452	364	286	350	494	305	579	483	530	615	462	301	263	211	90	51
10	12	7	10	22	106	296	580	432	322	368	425	446	409	587	512	420	659	412	291	236	140	75	44

All Peak 0716 - 0815 (22+1), AM PHF=0.94

5/16/09

MetroCount Traffic Executive
Event Counts

EventCount-1207 -- English (ENU)

Datasets:

Site: [9031.11] DEL MAR HEIGHTS RD (HIGH BLUFF DR-I-5 NB RAMPS) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 2 - East bound. - Excluded from totals. (0)
 Survey Duration: 21:42 Wednesday, May 13, 2009 => 7:41 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.11.16May2009.EC0 (Regular)
 Identifier: W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, fUs, mph, lb, ton)
 In profile: Events = 60850 / 110100 (55.27%)

* Thursday, May 14, 2009=24067, 16 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
52	70	37	28	52	190	677	1934	2225	1480	3284	1492	1618	1350	1840	1904	1684	1876	1451	1156	735	508	283	142
21	33	9	3	9	21	111	302	477	420	326	358	486	352	438	432	428	526	433	316	230	155	101	50
15	9	11	4	15	35	127	466	579	316	208	262	276	342	440	458	416	451	351	295	183	131	91	32
11	3	8	11	9	37	197	529	609	316	322	350	438	313	522	570	413	442	345	294	167	121	43	37
15	3	4	8	23	85	212	617	571	378	348	392	336	343	510	444	427	457	322	251	147	101	48	29

AM Peak 0745 - 0845 (2281), AM PHF=0.82

MetroCount Traffic Executive
Event Counts

EventCount-1235 -- English (ENU)

Datasets:

Site: [9031.12] DEL MAR HEIGHTS RD (BETWEEN I-5 RAMPS) EASTBOUND
 Input A: 2 - East bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 19:46 Monday, May 11, 2009 => 12:28 Wednesday, May 13, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.12.E13May2009.EC0 (Regular)
 Identifier: R5098(KCT MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, May 12, 2009 => 0:00 Wednesday, May 13, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, fUs, mph, lb, ton)
 In profile: Events = 19372 / 20947 (92.48%)

* Tuesday, May 12, 2009=19372, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
71	95	45	22	32	158	462	1529	1256	1037	917	1119	1276	1213	1523	1541	1483	1623	1414	1028	727	506	267	160
18	9	3	8	6	15	59	249	334	290	233	267	330	269	371	390	368	375	392	264	190	143	82	40
22	8	14	4	6	25	93	420	294	266	230	291	316	270	349	300	302	410	352	269	200	148	86	46
9	8	3	4	9	42	216	453	300	212	242	270	327	324	405	395	365	430	339	259	175	116	54	35
22	10	5	6	12	76	194	407	328	239	212	291	303	330	399	378	370	358	331	234	162	99	45	31

AM Peak 0745 - 0815 (1914), AM PHF=0.89

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MetroCount Traffic Executive
Event Counts

EventCount-1236 -- English (ENU)

Datasets:
 Site: [9031.12] DEL MAR HEIGHTS RD (BETWEEN I-5 RAMPS) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 19:45 Monday, May 11, 2009 => 12:27 Wednesday, May 13, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.12.W13May2009.EC0 (Regular)
 Identifier: R513P5FW MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Tuesday, May 12, 2009 => 0:00 Wednesday, May 13, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 20719 / 22289 (92.96%)

* Tuesday, May 12, 2009=20719, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
30	35	32	30	40	107	590	1359	1506	1337	1093	1280	1392	1287	1496	1574	1547	1685	1397	939	568	256	222	164
15	7	0	3	7	31	82	262	393	330	270	271	416	313	342	349	364	389	376	251	176	123	114	50
10	11	7	9	7	33	124	323	443	338	283	273	350	325	365	403	355	445	349	274	132	129	07	31
11	11	11	10	8	54	176	473	460	355	262	345	325	309	373	426	417	430	289	211	136	124	72	33
11	10	6	8	19	71	216	511	390	314	278	351	301	320	416	401	411	421	323	203	144	80	59	30

Alt Peak 0730 - 0830 (1020), Alt PHF=0.89

MetroCount Traffic Executive
Event Counts

EventCount-1209 - English (ENU)

Datasets:
 Site: [9031.13] DEL MAR HEIGHTS RD (I-5 SB RAMPS-PORTOFINO DR) EASTBOUND
 Input A: 2 - East bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 21:56 Wednesday, May 13, 2009 => 7:38 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.13.E16May2009.EC0 (Regular)
 Identifier: W139N0DA MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 17132 / 31367 (54.62%)

* Thursday, May 14, 2009=17132, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
71	40	29	24	48	131	439	1226	1212	1057	845	889	1232	1160	1381	1270	1153	1308	1318	732	620	470	251	162
29	10	0	5	11	32	68	176	366	270	243	240	279	315	278	348	318	310	311	232	167	130	34	40
23	16	5	7	7	39	10	358	362	271	204	256	333	293	300	307	274	358	293	194	177	111	01	34
12	8	5	7	10	35	137	362	277	260	257	231	313	286	408	324	285	319	253	105	152	121	45	39
13	6	7	5	20	45	164	393	270	248	251	262	307	272	401	299	276	291	252	101	122	97	51	29

Alt Peak 0730 - 0815 (1416), Alt PHF=0.97

36,086

MetroCount Traffic Executive
Event Counts

EventCount-1210 -- English (ENU)

Datasets:

Site: [9031.13] DEL MAR HEIGHTS RD (I-5 SB RAMP-PORTOFINO DR) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 21:55 Wednesday, May 13, 2009 => 7:40 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.13.W16May2009.EC0 (Regular)
 Identifier: V239J.E7M MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 18956 / 34853 (54.39%)

* Thursday, May 14, 2009=18956, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
65	42	29	20	16	15	55	229	146	121	103	129	116	110	132	110	123	147	131	85	68	51	32	17
29	12	15	5	9	18	71	261	352	313	266	250	405	213	251	293	218	325	390	230	203	155	98	60
18	11	10	6	10	26	116	270	330	332	219	352	350	297	276	275	322	300	339	213	175	155	108	42
10	11	9	18	8	36	144	359	365	262	251	332	330	276	356	315	316	303	308	232	159	113	48	44
8	5	15	11	19	76	218	458	369	301	276	359	300	292	369	305	349	381	273	190	152	117	71	31

AM Peak 07:45 - 08:45 (1533), AM PHF=0.85

MetroCount Traffic Executive
Event Counts

EventCount-1211 -- English (ENU)

Datasets:

Site: [9031.14] DEL MAR HEIGHTS RD (PORTOFINO DR-MANGO DR) EASTBOUND
 Input A: 2 - East bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 21:58 Wednesday, May 13, 2009 => 7:36 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.14.E16May2009.EC0 (Regular)
 Identifier: V231T.DVM MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 16947 / 31138 (54.43%)

* Thursday, May 14, 2009=16946, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
88	90	91	24	29	133	420	1206	1470	1628	931	971	1176	1359	1319	1250	1117	1322	1104	818	690	506	276	157
32	11	10	4	12	10	68	172	366	250	212	237	267	308	262	242	298	351	298	233	172	152	01	48
20	19	9	8	7	39	70	330	209	271	213	216	303	331	283	304	280	363	269	200	190	120	90	31
15	13	5	7	10	22	156	383	253	261	242	259	306	284	403	311	283	122	269	192	156	121	46	42
13	7	7	5	20	42	156	371	262	243	237	259	300	275	371	287	276	208	218	186	130	111	59	33

AM Peak 07:15 - 08:15 (1400), AM PHF=0.94

21314

MetroCount Traffic Executive
Event Counts

EventCount-1238 -- English (ENU)

Datasets:

Site: [9031.15] HIGH BLUFF DR (DEL MAR HEIGHTS RD-EL CAMINO REAL) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 19:32 Monday, May 11, 2009 => 12:25 Wednesday, May 13, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.15.13May2009.ECO (Regular)
 Identifier: S014F2C9 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, May 12, 2009 => 0:00 Wednesday, May 13, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 9843 / 12562 (78.36%)

* Tuesday, May 12, 2009=4368, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
3	3	4	3	7	13	60	193	237	247	194	307	336	327	311	360	495	621	316	352	67	48	28	15	
2	1	1	0	1	1	3	25	58	69	56	79	81	84	82	114	206	103	40	24	13	9	5	--	
1	0	1	1	1	2	5	33	48	65	59	84	90	58	84	108	167	80	44	15	11	0	3	--	
0	1	2	0	3	3	19	66	65	55	43	84	87	85	87	85	120	120	79	32	16	14	4	6	--
0	1	0	2	2	7	32	65	66	57	45	88	86	71	82	105	123	128	74	20	12	10	7	1	--

AM Peak 11:45 - 12:45 (338), AM PHF=0.96

9843
12562

MetroCount Traffic Executive
Event Counts

EventCount-1239 -- English (ENU)

Datasets:

Site: [9031.15] HIGH BLUFF DR (DEL MAR HEIGHTS RD-EL CAMINO REAL) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 19:32 Monday, May 11, 2009 => 12:25 Wednesday, May 13, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.15.13May2009.ECO (Regular)
 Identifier: S014F2C9 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, May 12, 2009 => 0:00 Wednesday, May 13, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 9843 / 12562 (78.36%)

* Tuesday, May 12, 2009=5474, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
10	7	5	3	6	50	164	543	728	477	305	347	307	223	360	223	309	333	250	157	116	86	61	24	
1	2	0	0	1	2	25	73	100	143	74	69	81	120	69	78	55	79	73	24	47	23	24	7	--
1	0	2	1	1	5	30	125	169	116	93	108	85	103	83	88	84	76	64	54	22	25	19	4	--
1	3	2	1	1	10	42	166	176	117	66	75	90	93	92	74	75	51	63	40	21	22	5	6	--
4	2	1	1	3	33	63	170	184	101	72	95	128	107	116	83	95	87	50	29	26	16	9	7	--

AM Peak 0800 - 0900 (728), AM PHF=0.97

MetroCount Traffic Executive
Event Counts

EventCount-1203 -- English (ENU)

Datasets:

Site: [9031.16] EL CAMINO REAL (HIGH BLUFF DR-VALLEY CENTRE DR) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 20:59 Wednesday, April 29, 2009 => 8:30 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.16.03May2009.EC0 (Regular)
 Identifier: V239JE7M MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 19365 / 41545 (46.61%)

* Thursday, April 30, 2009=9024, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
32	11	8	7	17	42	166	436	984	604	501	625	667	659	576	622	697	939	673	469	310	198	106	54
17	4	1	3	2	6	25	88	135	170	128	149	157	158	118	163	148	227	183	139	91	65	35	13
6	0	4	2	2	10	32	122	149	150	111	110	172	157	146	157	168	227	185	225	89	38	35	13
7	2	1	1	2	10	44	135	153	145	121	150	166	178	144	133	181	255	158	300	84	42	22	14
7	5	2	1	10	10	65	131	147	123	141	197	171	166	168	169	200	230	147	57	86	53	14	11

AM Peak 1145 - 1215 (68%), AM PHF=0.81

19365
,
41545

MetroCount Traffic Executive
Event Counts

EventCount-1204 -- English (ENU)

Datasets:

Site: [9031.16] EL CAMINO REAL (HIGH BLUFF DR-VALLEY CENTRE DR) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 20:59 Wednesday, April 29, 2009 => 8:30 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.16.03May2009.EC0 (Regular)
 Identifier: V239JE7M MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 19365 / 41545 (46.61%)

* Thursday, April 30, 2009=10340, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
27	20	29	32	15	83	242	712	829	608	534	685	742	720	727	751	817	901	722	447	319	188	137	68
15	3	13	3	2	13	35	99	212	149	139	146	202	260	371	180	235	218	235	152	92	40	45	16
10	6	11	3	2	15	45	158	210	154	157	171	165	195	149	186	161	212	392	95	79	49	30	23
0	4	6	1	4	24	71	200	210	169	135	193	174	196	218	191	182	223	174	103	76	40	32	13
2	7	1	5	7	31	93	255	189	137	105	187	201	137	189	178	215	210	141	97	72	43	10	9

AM Peak 0745 - 0845 (99%), AM PHF=0.86

MetroCount Traffic Executive
Event Counts

EventCount-1205 - English (ENU)

Datasets:

Site: [9031.17] EL CAMINO REAL (TOWNSGATE DR-ELIJAH CT) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 20:58 Wednesday, April 29, 2009 => 8:32 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.17.03May2009.ECO (Regular)
 Identifier: W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 15426 / 35068 (43.99%)

* Thursday, April 30, 2009=7229, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
11	12	4	7	10	31	100	351	231	355	319	509	591	478	498	563	641	862	820	416	246	149	74	41
3	2	0	2	2	2	11	47	90	81	91	105	156	221	313	335	345	207	182	136	61	49	26	9
5	3	2	3	2	0	23	91	82	90	71	101	150	122	138	130	161	223	166	90	80	25	17	9
3	5	0	1	2	7	28	121	76	91	51	141	148	116	127	134	179	234	142	95	64	31	10	12
3	1	2	1	1	17	35	98	63	85	93	162	137	119	130	154	162	198	130	95	50	44	11	12

AM Peak 1145 - 1245 (616), AM P1F=0.85

15426

MetroCount Traffic Executive
Event Counts

EventCount-1206 - English (ENU)

Datasets:

Site: [9031.17] EL CAMINO REAL (TOWNSGATE DR-ELIJAH CT) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 20:58 Wednesday, April 29, 2009 => 8:32 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.17.03May2009.ECO (Regular)
 Identifier: W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 15426 / 35068 (43.99%)

* Thursday, April 30, 2009=8196, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
22	15	15	7	10	41	149	586	736	442	387	478	652	668	828	841	506	555	533	463	356	214	141	61
12	5	4	2	1	6	21	80	215	110	105	111	160	185	128	146	135	111	169	120	104	68	45	12
7	2	7	2	4	6	32	110	172	110	113	116	115	106	154	147	132	141	153	114	85	52	46	23
1	2	3	1	1	13	42	170	185	130	80	124	141	162	165	126	101	137	105	120	75	56	33	12
2	6	1	2	4	16	51	226	164	92	85	127	205	125	101	122	130	166	105	101	87	38	17	14

AM Peak 0745 - 0845 (790), AM P1F=0.83

MetroCount Traffic Executive
Event Counts

EventCount-1240 -- English (ENU)

Datasets:
 Site: [9031.18] EL CAMINO REAL (DEL MAR HEIGHTS RD-MALL ENTRANCE) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 20:30 Wednesday, April 29, 2009 => 8:33 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.18.N03May2009.EC0 (Regular)
 Identifier: T54701F7 MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 7385 / 17135 (43.10%)

* Thursday, April 30, 2009=7385, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
13	9	3	7	6	20	83	319	358	333	322	459	552	584	555	626	597	747	629	449	313	219	111	50
2	2	0	2	1	3	15	43	86	88	98	101	125	169	147	155	146	174	190	135	81	71	44	15
8	1	2	1	1	4	18	71	109	99	78	102	157	328	133	163	152	384	171	118	86	55	31	16
2	5	0	1	1	9	22	123	59	88	86	106	143	136	131	158	169	211	132	97	66	37	20	14
3	1	2	0	3	8	29	84	74	78	70	150	127	151	141	150	150	175	136	99	80	52	16	14

AM Peak 1145 - 1245 (578), AM PHF=0.52

14781

MetroCount Traffic Executive
Event Counts

EventCount-1241 -- English (ENU)

Datasets:
 Site: [9031.18] EL CAMINO REAL (DEL MAR HEIGHTS RD-MALL ENTRANCE) SOUTHBOUND
 Input A: 3 - South bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 20:29 Wednesday, April 29, 2009 => 8:35 Sunday, May 03, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.18.S03May2009.EC0 (Base)
 Identifier: V273S0NX MC56-L5 [MC55] (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, April 30, 2009 => 0:00 Friday, May 01, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 7347 / 16777 (43.79%)

* Thursday, April 30, 2009=7346, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
12	10	0	5	20	44	135	244	265	221	368	511	594	517	603	564	481	573	522	360	276	160	81	58
10	3	2	0	0	6	22	54	170	84	79	104	136	123	82	136	119	116	132	101	87	48	35	19
6	1	2	1	5	6	22	97	187	133	112	138	143	153	142	149	146	160	152	86	58	37	15	11
1	1	3	2	4	12	27	120	252	171	79	132	120	136	110	127	99	146	118	83	53	41	23	15
2	5	1	0	11	20	48	173	152	107	98	137	135	105	229	132	132	151	120	94	78	31	11	11

AM Peak 0745 - 0845 (603), AM PHF=0.51

MetroCount Traffic Executive
Event Counts

EventCount-1242 - English (ENU)

Datasets:

Site: [9031.19] CARMEL COUNTRY RD (DEL MAR HEIGHTS RD-TOWNSGATE DR) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 19:59 Wednesday, May 13, 2009 => 7:54 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.19.16May2009.EC0 (Regular)
 Identifier: T54701F7 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 15932 / 29998 (53.11%)

* Thursday, May 14, 2009=8222, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
24	9	6	2	10	28	151	478	580	369	363	395	423	367	455	708	583	826	680	704	420	328	157	46
2	1	1	3	2	3	17	87	126	105	85	114	111	93	94	180	131	190	193	150	155	85	49	12
5	4	1	0	2	2	27	105	208	21	83	96	113	84	94	207	116	250	153	246	116	96	52	13
5	0	3	1	2	11	45	178	157	77	107	102	102	80	122	168	140	256	183	207	99	85	39	0
2	4	1	1	5	12	62	106	99	103	90	83	97	110	145	153	186	230	251	193	58	52	17	13

AM Peak 0730 - 0930 (818), AM PHF=0.74

15,932

MetroCount Traffic Executive
Event Counts

EventCount-1243 - English (ENU)

Datasets:

Site: [9031.19] CARMEL COUNTRY RD (DEL MAR HEIGHTS RD-TOWNSGATE DR) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 19:59 Wednesday, May 13, 2009 => 7:54 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.19.16May2009.EC0 (Regular)
 Identifier: T54701F7 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 15932 / 29998 (53.11%)

* Thursday, May 14, 2009=7710, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
20	11	9	6	7	15	114	523	622	365	384	323	323	371	616	768	356	645	513	425	312	230	127	57
12	4	4	1	0	4	15	62	198	84	92	88	179	102	99	195	136	171	151	115	80	71	39	15
2	2	2	0	4	14	32	103	184	106	99	83	103	95	147	180	129	162	176	121	84	60	26	23
3	3	2	1	1	20	39	162	142	81	98	78	120	94	194	215	163	147	132	92	79	48	33	19
3	2	1	4	2	18	47	186	138	74	95	74	121	86	236	179	156	169	113	91	61	43	29	6

AM Peak 0730 - 0930 (710), AM PHF=0.85

MetroCount Traffic Executive
Event Counts

EventCount-1244 - English (ENU)

Datasets:

Site: [9031.20] CARMEL COUNTRY RD (TOWNSGATE DR-CARMEL CREEK RD) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 19:40 Wednesday, May 13, 2009 => 7:55 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.20.16May2009.EC0 (Base)
 Identifier: V273SONX MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 13879 / 25167 (55.15%)

* Thursday, May 14, 2009=6570, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
18	7	4	3	11	26	120	369	539	721	112	339	359	228	433	418	473	635	565	437	271	197	80	29
3	0	0	1	2	2	15	68	155	79	75	92	93	88	95	162	121	136	110	104	105	53	30	12
5	3	0	0	2	1	17	85	176	75	79	72	105	75	99	197	123	162	131	96	66	64	30	6
7	0	3	1	1	0	35	140	115	75	89	92	65	135	120	106	100	127	107	52	55	17	5	
3	1	1	1	6	15	53	106	95	92	99	86	79	100	141	139	123	157	105	130	48	25	11	6

AM Peak 0730 - 0830 (57%), AM PHF=0.82

13878

MetroCount Traffic Executive
Event Counts

EventCount-1245 - English (ENU)

Datasets:

Site: [9031.20] CARMEL COUNTRY RD (TOWNSGATE DR-CARMEL CREEK RD) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 19:40 Wednesday, May 13, 2009 => 7:55 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.20.16May2009.EC0 (Base)
 Identifier: V273SONX MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 13679 / 25167 (55.15%)

* Thursday, May 14, 2009=7308, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
13	9	9	2	6	70	118	517	662	338	359	299	426	319	562	791	590	619	691	390	286	200	104	36
0	4	4	0	0	4	17	66	165	90	76	82	144	84	94	151	156	167	140	81	84	67	35	16
0	2	2	0	0	13	30	106	226	99	90	73	96	73	108	214	136	174	165	101	64	61	20	11
3	1	1	0	1	26	30	151	134	74	93	75	105	82	162	169	153	120	138	100	55	41	23	6
2	2	2	2	5	27	41	192	119	75	100	69	101	80	178	197	145	152	116	109	63	28	18	3

AM Peak 0730 - 0830 (75%), AM PHF=0.84

MetroCount Traffic Executive
Event Counts

EventCount-1246 -- English (ENU)

Datasets:

Site: [9031.21] CARMEL COUNTRY RD (CARMEL CREEK RD-CARMEL CANYON RD) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 18:29 Wednesday, May 13, 2009 => 8:00 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.21.16May2009.ECO (Regular)
 Identifier: T5441WJP MC56-L5 [MC55] (c)Microcom 190ci04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, fUs, mph, lb, ton)
 In profile: Events = 13138 / 24399 (53.85%)

* Thursday, May 14, 2009=8202, 15 minute drops

0200	0100	0100	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
16	0	4	6	11	14	14	162	360	215	307	302	285	284	440	564	483	490	493	314	245	191	95	29
5	0	0	3	2	10	21	69	215	83	78	96	82	75	73	118	123	132	116	01	75	60	25	11
3	1	1	2	3	41	35	84	157	77	61	75	81	65	94	165	129	112	110	83	61	64	40	7
3	3	3	1	1	51	45	154	53	61	91	71	65	63	111	113	121	126	120	74	46	43	15	6
3	4	0	0	5	43	40	155	103	91	71	90	58	63	162	138	110	120	117	76	57	26	15	5

AM Peak 0730 - 0930 (861), AM PHF=0.79

13/137

MetroCount Traffic Executive
Event Counts

EventCount-1247 -- English (ENU)

Datasets:

Site: [9031.21] CARMEL COUNTRY RD (CARMEL CREEK RD-CARMEL CANYON RD) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 18:29 Wednesday, May 13, 2009 => 8:00 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.21.16May2009.ECO (Regular)
 Identifier: T5441WJP MC56-L5 [MC55] (c)Microcom 190ci04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, fUs, mph, lb, ton)
 In profile: Events = 13138 / 24399 (53.85%)

* Thursday, May 14, 2009=8935, 15 minute drops

0200	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
12	7	7	2	3	32	115	529	505	389	391	319	300	317	435	858	794	679	520	344	282	194	123	36
7	3	3	0	3	5	22	89	137	98	83	67	107	86	95	136	123	191	154	07	162	67	61	13
2	1	2	1	0	5	32	111	175	101	97	80	89	68	86	236	106	191	144	94	66	53	26	9
0	1	1	1	0	12	58	180	182	108	112	75	97	81	133	150	118	142	107	09	59	41	18	8
3	2	3	0	6	10	63	179	101	82	59	67	87	82	122	133	125	155	115	77	59	33	18	6

AM Peak 0745 - 0945 (674), AM PHF=0.93

MetroCount Traffic Executive
Event Counts

EventCount-1248 -- English (ENU)

Datasets:
 Site: [9031.22] CARMEL CANYON RD (CARMEL COUNTRY RD-DEL MAR HEIGHTS) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 17:49 Wednesday, May 13, 2009 => 8:04 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.22.16May2009.EC0 (Base)
 Identifier: V289W1MS MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 12224 / 23071 (52.98%)

* Thursday, May 14, 2009=6195, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
25	39	5	4	5	30	51	482	308	257	240	262	307	206	185	405	335	644	617	371	304	257	144	51
5	2	2	2	2	0	10	51	82	86	53	53	69	71	107	115	105	148	172	115	95	62	48	20
5	0	2	0	2	0	18	89	79	59	63	60	87	16	131	192	117	150	192	94	84	69	32	22
6	3	1	3	0	7	21	147	74	51	65	71	78	60	111	140	138	172	148	65	61	44	33	10
5	5	0	1	1	3	39	155	73	51	61	78	73	76	136	136	155	174	115	77	64	42	21	9

All Peak 0715 - 0815 (41%), All PHF=0.36

12,224

MetroCount Traffic Executive
Event Counts

EventCount-1249 -- English (ENU)

Datasets:
 Site: [9031.22] CARMEL CANYON RD (CARMEL COUNTRY RD-DEL MAR HEIGHTS) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 17:49 Wednesday, May 13, 2009 => 8:04 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.22.16May2009.EC0 (Base)
 Identifier: V289W1MS MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:
 Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 12224 / 23071 (52.98%)

* Thursday, May 14, 2009=6029, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
13	8	2	2	14	68	238	772	776	428	330	274	294	245	437	455	258	328	400	230	145	97	58	36
6	4	0	2	0	12	29	117	205	157	92	59	61	64	79	123	95	97	59	85	41	32	22	11
2	1	1	0	1	21	42	160	191	101	66	78	68	64	90	128	114	82	120	59	52	24	11	0
2	0	1	0	7	27	80	216	162	90	101	65	77	55	123	100	81	71	94	42	22	19	13	10
3	3	0	0	8	25	84	279	132	80	68	71	69	62	145	95	78	70	87	44	30	19	9	6

All Peak 0730 - 0830 (97%), All PHF=0.66

MetroCount Traffic Executive
Event Counts

EventCount-1250 -- English (ENU)

Datasets:

Site: [9031.23] CARMEL COUNTRY RD (CARMEL CANYON RD-SR-56) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 18:00 Wednesday, May 13, 2009 => 6:03 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.23.N16May2009.EC0 (Regular)
 Identifier: S1339PHE MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 10078 / 18853 (53.46%)

* Thursday, May 14, 2009=10078, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
43	16	10	10	14	111	192	783	827	480	400	472	487	820	875	828	800	846	571	454	362	195	80	
16	2	3	6	2	9	31	101	214	152	105	105	122	113	157	214	210	213	252	159	135	112	54	29
10	1	2	1	5	30	39	153	227	112	83	119	237	220	193	236	199	251	258	150	126	103	61	31
9	6	1	2	1	35	40	269	132	88	115	122	111	106	214	209	212	217	252	131	95	82	45	16
0	7	1	1	6	37	74	262	111	128	105	126	100	148	256	220	207	209	183	131	90	65	32	14

AM Peak 0715 - 0815 (897), AM PHF=0.84

2055
1

MetroCount Traffic Executive
Event Counts

EventCount-1251 -- English (ENU)

Datasets:

Site: [9031.23] CARMEL COUNTRY RD (CARMEL CANYON RD-SR-56) SOUTHBOUND
 Input A: 3 - South bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 18:09 Wednesday, May 13, 2009 => 8:00 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.23.S16May2009.EC0 (Base)
 Identifier: V286M0GP MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 10476 / 19524 (53.65%)

* Thursday, May 14, 2009=10476, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
23	12	5	5	20	66	374	1059	1133	722	504	509	568	479	709	552	613	661	693	450	342	215	148	71
14	7	2	2	2	20	52	185	341	224	150	123	160	170	136	225	152	210	191	132	104	63	64	24
3	2	1	1	1	11	45	223	275	174	126	136	120	117	137	258	154	152	104	122	105	61	31	13
2	1	1	1	7	27	119	252	300	177	164	138	142	109	204	186	150	158	155	89	67	46	30	19
1	2	1	1	10	26	130	265	213	147	144	112	236	112	234	171	157	151	163	97	68	45	23	11

AM Peak 0745 - 0845 (1285), AM PHF=0.88

MetroCount Traffic Executive
Event Counts

EventCount-1252 -- English (ENU)

Datasets:

Site: [9031.24] CARMEL CREEK RD (CARMEL COUNTRY RD-DEL MAR TRAIL) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 3 - South bound. - Excluded from totals. (0)
 Survey Duration: 19:29 Wednesday, May 13, 2009 => 7:57 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.24.16May2009.EC0 (Regular)
 Identifier: S014F2C9 MC56-L5 [MC56] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 11206 / 19369 (57.86%)

* Thursday, May 14, 2009=5563, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
33	10	4	0	3	23	53	294	380	153	196	205	266	236	431	510	496	603	561	344	238	372	85	47
3	1	2	0	1	7	9	26	192	49	32	50	61	60	84	133	122	196	166	91	73	80	29	19
1	5	1	0	1	2	12	11	103	50	46	48	85	53	89	151	112	186	154	88	67	50	27	9
1	2	0	0	0	17	12	07	39	41	44	50	60	58	132	90	132	211	141	65	50	39	16	0
0	2	1	0	1	7	20	110	46	53	54	57	60	65	126	122	150	210	100	76	48	23	13	11

AM Peak 0730 - 0830 (492), AM PIU=0.64

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MetroCount Traffic Executive
Event Counts

EventCount-1253 -- English (ENU)

Datasets:

Site: [9031.24] CARMEL CREEK RD (CARMEL COUNTRY RD-DEL MAR TRAIL) SOUTHBOUND
 Input A: 1 - North bound. - Excluded from totals. (0)
 Input B: 3 - South bound. - Added to totals. (1)
 Survey Duration: 19:29 Wednesday, May 13, 2009 => 7:57 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 OEL MAR\9031.24.16May2009.EC0 (Regular)
 Identifier: S014F2C9 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 11206 / 19369 (57.86%)

* Thursday, May 14, 2009=5643, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
8	5	2	4	12	35	142	609	729	350	236	210	298	253	211	477	348	412	377	323	199	186	65	23
3	0	0	1	0	5	19	72	204	115	61	60	89	75	50	122	91	92	91	133	74	64	20	8
2	2	1	1	1	4	5	29	103	215	90	69	58	66	60	72	155	76	107	90	66	41	57	20
2	2	1	0	2	12	40	166	174	70	56	52	78	57	92	111	95	105	93	76	41	25	16	
1	1	0	2	6	13	56	262	136	67	50	50	65	61	133	89	90	115	92	90	43	20	9	

AM Peak 0745 - 0845 (655), AM PIU=0.62

MetroCount Traffic Executive
Event Counts

EventCount-1257 -- English (ENU)

Datasets:

Site: [9031.26] VALLEY CENTRE DR (CARMEL CREEK RD-EL CAMINO REAL) EASTBOUND
 Input A: 4 - West bound. - Excluded from totals. (0)
 Input B: 2 - East bound. - Added to totals. (1)
 Survey Duration: 18:51 Wednesday, May 13, 2009 => 7:59 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.26.16May2009.EC0 (Regular)
 Identifier: T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 10876 / 20168 (53.93%)

* Thursday, May 14, 2009=4891, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	2	1	0	2	5	13	11	72	77	88	72	108	88	91	97	104	153	123	75	44	18	16	9
1	2	1	0	1	5	22	61	71	75	58	82	97	71	75	85	82	126	101	60	18	20	7	5
1	2	1	2	5	7	40	90	88	78	70	113	92	76	81	101	102	109	95	53	18	16	9	7
1	3	3	2	5	10	49	86	86	59	68	111	100	77	91	74	115	111	65	47	24	19	9	4

Alt Peak 1130 - 1230 (129), Alt PHF=0.95

10875
1

MetroCount Traffic Executive
Event Counts

EventCount-1256 -- English (ENU)

Datasets:

Site: [9031.26] VALLEY CENTRE DR (CARMEL CREEK RD-EL CAMINO REAL) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 2 - East bound. - Excluded from totals. (0)
 Survey Duration: 18:51 Wednesday, May 13, 2009 => 7:59 Saturday, May 16, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.26.16May2009.EC0 (Regular)
 Identifier: T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 14, 2009 => 0:00 Friday, May 15, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 10876 / 20168 (53.93%)

* Thursday, May 14, 2009=5984, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
11	11	7	5	5	29	99	289	497	328	296	360	464	450	406	437	430	500	411	328	284	209	69	27
2	2	1	2	1	5	13	36	121	90	75	84	90	137	119	101	105	120	92	82	71	66	28	12
4	2	2	0	0	7	32	77	164	12	81	77	129	119	97	119	112	122	119	96	80	66	31	19
3	6	2	1	3	6	31	69	137	77	63	100	127	105	85	113	100	116	110	82	70	32	23	5
2	1	2	2	1	11	17	107	88	61	77	91	118	95	111	101	113	134	120	66	52	36	3	11

Alt Peak 0745 - 0845 (508), Alt PHF=0.99

MetroCount Traffic Executive
Event Counts

MetroCount Traffic Executive
Event Counts

EventCount-1212 -- English (ENU)

Datasets:

Site: [9031.27] EL CAMINO REAL (VALLEY CENTER DR-SR-56 WB RAMPS) NORTHBOUND
 Input A: 1 - North bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 20:20 Monday, May 11, 2009 => 12:29 Wednesday, May 13, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.27.N13May2009.EC0 (Regular)
 Identifier: W558TFAZ MC56-L5 (MC55) (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, May 12, 2009 => 0:00 Wednesday, May 13, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 12027 / 16136 (74.54%)

* Tuesday, May 12, 2009=12027, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
78	20	21	7	37	152	390	910	1022	856	644	758	831	756	699	742	811	1135	819	548	313	233	321	99
9	4	9	1	6	19	65	185	265	259	162	158	201	179	169	182	177	284	234	141	94	65	33	35
7	8	8	1	11	23	70	215	250	217	150	187	223	199	140	185	203	303	217	137	71	70	45	22
1	6	4	3	6	42	118	249	238	206	157	209	191	165	185	189	196	270	170	132	86	54	25	21
8	2	3	2	16	60	137	261	259	211	175	215	228	213	197	192	235	279	190	130	79	44	31	15

AM Peak 0730 - 0830 (1025), AM PHF=0.87

EventCount-1258 -- English (ENU)

Datasets:

Site: [9031.27] EL CAMINO REAL (VALLEY CENTRE DR-SR-56 WB RAMPS) SOUTHBOUND
 Input A: 3 - South bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 20:18 Monday, May 11, 2009 => 12:30 Wednesday, May 13, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL MAR\9031.27.S13May2009.EC0 (Regular)
 Identifier: R8319BB9 MC56-L5 (MC55) (c)\Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, May 12, 2009 => 0:00 Wednesday, May 13, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, ft/s, mph, lb, ton)
 In profile: Events = 15563 / 16372 (95.06%)

* Tuesday, May 12, 2009=15562, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
24	33	45	13	36	100	286	693	1258	824	613	969	1253	1176	1305	1192	1314	1538	924	602	326	274	107	97
5	7	9	4	7	11	33	142	294	249	211	201	257	306	253	314	349	502	239	211	156	87	84	26
4	1	11	2	3	19	43	181	366	253	211	205	311	317	204	300	285	376	261	159	104	67	41	22
8	12	20	2	12	32	78	239	322	189	213	308	335	285	292	302	390	366	221	155	105	58	35	26
7	7	5	5	16	36	112	331	286	234	178	275	310	238	316	275	290	274	203	157	61	62	24	21

AM Peak 0745 - 0845 (1213), AM PHF=0.88

27589

MetroCount Traffic Executive
Event Counts

EventCount-1369 - English (ENU)

Datasets:

Site: [9031.28] CARMEL VALLEY RD (CAMINO REAL-I-5 NB RAMPS) WESTBOUND
 Input A: 4 - West bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 18:34 Wednesday, May 27, 2009 => 10:18 Friday, May 29, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL.MAR\Recount\9031.28.W29May2009.EC0 (Regular)
 Identifier: S1339PHE MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 28, 2009 => 0:00 Friday, May 29, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 21919 / 30292 (72.36%)

* Thursday, May 28, 2009=21919, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
94	58	49	48	110	327	669	1638	1688	1433	1287	1422	1345	1415	1455	1601	1510	1685	1367	894	689	479	316	106
25	16	10	10	15	36	128	328	411	371	333	321	314	314	315	391	401	460	378	314	148	130	89	59
21	14	15	19	24	65	193	420	447	357	283	327	312	338	351	410	392	460	374	218	154	109	302	50
18	12	13	14	30	95	270	411	450	362	340	306	323	362	355	433	403	393	311	194	144	117	64	41
17	16	10	11	18	131	298	439	390	393	331	308	336	371	389	370	371	372	304	160	153	94	64	39

AM Peak 0745 - 0845 (1746), AM PHF=0.87

MetroCount Traffic Executive
Event Counts

EventCount-1370 - English (ENU)

Datasets:

Site: [9031.28] CARMEL VALLEY RD (CAMINO REAL-I-5 NB RAMPS) EASTBOUND
 Input A: 2 - East bound. - Added to totals. (1)
 Input B: 0 - Unused or unknown. - Excluded from totals. (0)
 Survey Duration: 18:36 Wednesday, May 27, 2009 => 10:17 Friday, May 29, 2009
 File: C:\Users\Gus\True Count\Projects\9031 DEL.MAR\Recount\9031.28.E29May2009.EC0 (Regular)
 Identifier: T544TWJP MC56-L5 [MC55] (c)Microcom 19Oct04
 Algorithm: Event Count
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, May 28, 2009 => 0:00 Friday, May 29, 2009
 Name: TC Default Profile
 Scheme: Count events divided by two.
 Units: Non metric (ft, mi, f/s, mph, lb, ton)
 In profile: Events = 21456 / 29432 (72.90%)

* Thursday, May 28, 2009=21456, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
319	58	31	38	78	218	495	1381	1663	1298	1034	1142	1206	1210	1285	1418	1576	2255	1555	828	745	630	431	273
40	15	9	8	11	28	117	253	482	373	269	255	275	289	304	357	369	430	622	262	194	164	133	78
44	19	3	10	16	47	180	276	426	322	235	266	302	330	331	363	383	467	478	251	197	177	114	67
25	7	11	8	22	93	393	261	362	287	211	235	290	269	326	352	377	421	371	195	171	129	100	73
38	17	8	12	29	107	215	594	377	306	289	286	339	313	324	347	447	627	263	218	183	138	76	55

AM Peak 0745 - 0845 (1801), AM PHF=0.80

Route	Post mile	Direction	Description	ADT	ADT	ADT	ADT	ADT	ADT	
12	55	ORA	R	5.990 JCT. RTE. 405, SAN DIEGO FREEWAY	10800	146000	142000	17000	228000	222000
12	55	ORA	IR	6.990 SANTA ANA, MAC ARTHUR BOULEVARD	117000	220000	222000	17800	242000	239000
12	55	ORA	IR	7.950 SANTA ANA, DYER ROAD	178000	242000	239000	18000	286000	251000
12	55	ORA	IR	8.433 SANTA ANA, SPRINGER AVENUE	180000	285000	250000	19500	279000	285000
12	55	ORA	IR	9.960 TUSTIN, MC FADDEN STREET INTERCHANGE	186000	210000	265000	18600	285000	250000
12	55	ORA	IR	10.450 TUSTIN, JCT. RTE. 4, SANTA ANA FREEWAY	186000	265000	252000	18100	244000	239000
12	55	ORA	IR	10.979 SANTA ANA, FOURTH STREET INTERCHANGE	181000	244000	229000	18100	245000	230000
12	55	ORA	IR	11.785 TUSTIN, SEVENTEENTH STREET INTERCHANGE	181000	245000	228000	17500	237000	221000
12	55	ORA	IR	12.967 JCT. RTE. 22 WEST, GARDEN GROVE FREEWAY	175000	237000	221000	18800	255000	238000
12	55	ORA	IR	13.700 CHAPMAN AVENUE	188000	255000	238000	17800	243000	227000
12	55	ORA	IR	15.242 ORANGE, KATELLA AVENUE INTERCHANGE	179000	243000	227000	16900	225000	211000
12	55	ORA	IR	16.891 ORANGE, LINCOLN AVENUE INTERCHANGE	166000	225000	211000	16500	222000	208000
12	55	ORA	R	17.878 JCT. RTE. 91	186000	222000	208000			
11	56	SD		0.000 JCT. RTE. 5, TIE OFF				4600	60000	58000
11	56	SD		0.308 EL CAMINO REAL	48000	60000	58000	6800	83000	81000
11	56	SD		0.820 CARMEL CREEK ROAD	68000	83000	81000	6700	78000	76000
11	56	SD		1.808 SAN DIEGO, CARMEL COUNTRY RD	67000	78000	76000	6800	71000	70000
11	56	SD		3.103 SAN DIEGO, CARMEL VALLEY ROAD	68000	71000	70000	5900	64000	63000
11	56	SD		6.700 SAN DIEGO, CAMINO DEL SUR	59000	64000	63000			
11	56	SD		6.700 SAN DIEGO, CAMINO DEL SUR				7100	72000	71000
11	56	SD		7.233 SAN DIEGO, BLACK MOUNTAIN ROAD	71000	72000	71000	6900	71000	69000
11	56	SD		8.038 RANCHO PENASQUITOS BLVD	65000	71000	69000	5800	64000	63000
11	56	SD		9.210 SAN DIEGO, JCT. RTE. 15	58000	64000	63000	4800	53000	52000
12	57	ORA		10.830 ORANGE, JCT. RTE. 5 AND 22, SANTA ANA/GARDEN GROVE FREEWAYS	180000	224000	220000	18400	231000	226000
12	57	ORA		11.238 ORANGE, CHINTERCHANGE D 22, SANTA ANA/GARDEN GROVE FREEWAYS	160000	224000	220000	18000	227000	222000
12	57	ORA		11.798 ORANGEWOOD AVENUE INTERCHANGE	100000	227000	222000	17100	225000	219000
12	57	ORA		12.540 ANAHEIM, KATELLA AVENUE INTERCHANGE	171000	225000	219000	17600	232000	225000
12	57	ORA		13.416 ANAHEIM, BALL ROAD INTERCHANGE	176000	232000	225000	20400	292000	273000
12	57	ORA		14.777 ANAHEIM, LINCOLN AVENUE INTERCHANGE	204000	292000	273000	20000	266000	251000
12	57	ORA		15.600 ANAHEIM, JCT. RTE. 91, RIVERSIDE FREEWAY	178000	237000	228000	20400	292000	273000
12	57	ORA		16.393 PLACENTIA, ORANGETHORPE AVENUE INTERCHANGE	200000	292000	273000	18000	266000	251000
12	57	ORA		17.303 FULLERTON, CHAPMAN AVENUE INTERCHANGE	180000	266000	248000	18200	269000	251000
12	57	ORA		17.574 FULLERTON, NUTWOOD AVENUE INTERCHANGE	183000	269000	251000	17200	251000	237000
12	57	ORA		18.341 FULLERTON, YORBA LINDA BOULEVARD INTERCHANGE	172000	251000	237000	17600	226000	220000
12	57	ORA		19.858 BREA, JCT. RTE. 90	178000	226000	220000	17700	215000	210000
12	57	ORA		20.884 BREA, LAMBERT ROAD INTERCHANGE	177000	215000	210000	16300	218000	210000
12	57	ORA		21.778 TONNER CANYON ROAD INTERCHANGE	163000	218000	210000			
12	57	ORA	IR	22.451 ORANGE/LOS ANGELES COUNTY LINE						
7	57	LA	IR	0.000 ORANGE/LOS ANGELES COUNTY LINE				16300	218000	210000
7	57	LA	IR	0.912 DIAMOND BAR, BREA CANYON ROAD INTERCHANGE	163000	218000	210000	15400	224000	216000
7	57	LA	IR	1.537 DIAMOND BAR, DIAMOND BAR BOULEVARD INTERCHANGE	154000	224000	216000	13900	205000	198000
7	57	LA	IR	3.167 DIAMOND BAR, PATHFINDER ROAD INTERCHANGE	139000	205000	198000	14500	209000	202000
7	57	LA	IR	4.518 DIAMOND BAR, NORTH JCT. RTE. 60, POMONA FREEWAY INTERCHANGE	145000	209000	202000			
7	57	LA		BREAK IN ROUTE						
7	57	LA	IR	4.518 DIAMOND BAR, NORTH JCT. RTE. 60, POMONA FREEWAY INTERCHANGE				9800	137000	129000
7	57	LA		4.977 DIAMOND BAR, SUNSET CROSSING ROAD INTERCHANGE	98000	137000	129000	10800	155000	146000
7	57	LA		6.168 POMONA, TEMPLE AVENUE INTERCHANGE	109000	155000	146000	10000	175000	160000
7	57	LA	IR	7.719 POMONA, JCT. RTE. 1071, SAN BERNARDINO/CHINO VALLEY FREEWAYS INTERCHANGE	125000	175000	160000	13800	181000	169000
7	57	LA	IR	8.711 POMONA, VIA VERDE/IRAGING WATERS DRIVE INTERCHANGE	138000	181000	169000	13600	178000	159000
7	57	LA	IR	10.272 SAN DIMAS, COVINA AVENUE INTERCHANGE	136000	178000	169000	12700	168000	160000
7	57	LA	IR	10.784 SAN DIMAS, ARROW HIGHWAY INTERCHANGE	127000	168000	160000	11800	160000	152000
7	57	LA	IR	11.781 GLENDORA, JCT. RTE. 210, FOOTHILL FREEWAY INTERCHANGE	119000	160000	152000			
5	58	SLO		0.000 JCT. RTE. 101				720	8300	7200
5	58	SLO		1.540 SANTA MARGARITA, PINAL AVENUE	7200	8300	7200	730	8400	7300
5	58	SLO		1.870 SANTA MARGARITA, J STREET	7300	8400	7300	310	3900	2900

<http://www.dot.ca.gov/hq/traffops/safesr/trafdata/2008all/docs/rt051-59.htm>

11/30/2010

OTMS2420
05/14/2009
16:11:19

CHICAGO TRAFFIC VOLUMES
LATEST TRAFFIC YEAR SELECTED
PEAK HOUR VOLUME DATA

DI	RTE	CO	PRE	PM CS	LBS	YR	Dir	AM PEAK				1 WAY	PM PEAK										
								PHV	%	%	%		PHV	%	%	%							
07	002	LA		28.58	744	0	07	W	620	15.18	86.65	13.15	7	THU	RPR	E	446	1.1	87.45	9.62	16	WED	JUL
08	002	SD		6.358	850	B	06	W	640	13.34	82.37	10.99	7	MON	FEB	E	814	25.34	55.6	13.98	15	SUN	FEB
02	003	TRI	L	0	101	A	06	S	21	11.64	77.78	9.05	9	THU	AUG	S	21	15.09	60	9.05	13	SUN	AUG
02	003	TRI	L	30.89	103	B	06	N	92	8.63	73.6	6.35	9	FRI	MAY	S	100	10.57	65.36	6.91	17	THU	MAY
02	003	TRI		30.86	104	A	06	S	272	11.2	60.44	6.77	12	WED	AUG	S	262	11.15	58.48	6.52	15	FRI	FEB
02	003	TRI		37.9	105	B	06	S	103	11.85	66.45	7.87	8	TUE	SEP	N	102	14.22	54.84	7.8	16	FRI	SEP
02	003	TRI		59.64	226	B	06	S	68	17.35	59.65	10.35	12	SUN	AUG	N	80	19.03	64	12.16	14	FRI	AUG
02	003	SIS	R	47.26	107	B	07	S	877	12.22	50.69	6.19	12	FRI	MAR	N	852	11.9	50.56	6.02	13	WED	NOV
04	004	CC	R	5.168	541	B	06	E	2670	9.17	60.96	5.59	7	TUE	MAR	W	2863	9.98	60.08		6	WED	MAR
04	004	CC	R	12.67	24	A	06	W	4175	8.91	55.4	4.94	7	WED	DEC	E	3839	8.38	54.14	4.54	16	MON	JUN
04	004	CC	R	16.83	121	A	06	W	8879	7.89	71.6	5.65	7	WED	MAR	W	8737	7.18	77.37	5.56	18	TUE	JUN
04	004	CC	R	20.10	416	A	06	W	6396	7	73.26	5.13	6	THU	SEP	E	5224	6.84	61.24	4.19	17	MON	JUN
04	004	CC	R	39.32	540	B	06	E	942	10.8	52.22	5.64	8	TUE	MAR	E	1024	10.93	56.05	6.13	15	MON	MAR
04	004	CC	R	44.37	123	A	06	W	1184	8.19	74.61	6.11	7	THU	MAR	E	1063	8.15	67.32	5.49	17	WED	JUN
10	004	SJ	T	14.05	54	A	08	W	716	8.12	74.74	6.07	6	TUE	APR	E	950	11.12	72.35	8.05	16	TUE	NOV
10	004	SJ	R	16.06	58	B	08	W	899	7.91	69.91	5.53	6	MON	MAY	E	1210	10.02	74.23	7.44	16	WED	JUL
10	004	SJ	R	17.71	60	B	08	W	4922	8.51	59.26	5.04	7	THU	AUG	E	4468	8.64	53.03	4.58	16	FRI	MAR
11	005	SD	R	.878	501	A	08	S	1714	6.35	62.17	3.95	12	SAT	OCT	S	2788	9.02	71.2	6.42	17	FRI	FEB
11	005	SD		4.632	901	A	08	N	6195	6.46	64.85	4.19	7	WED	DEC	S	7925	8.55	62.64	5.35	16	FRI	OCT
11	005	SD		8.562	902	B	08	N	7612	6.27	73.69	4.62	6	THU	NOV	S	8517	8.42	61.41	5.17	16	FRI	FEB
11	005	SD	R	11.13	952	A	06	N	9022	7.51	65.89	4.95	7	WED	JUN	S	9601	8.25	63.93	5.27	16	THU	JUL
11	005	SD	R	12.65	903	A	08	N	8933	7.8	74.52	5.81	7	THU	JUL	S	8066	8.16	64.1	5.25	15	TUE	MAY
11	005	SD	R	20.06	800	B	06	S	7838	7.47	51.64	3.86	8	WED	SEP	S	8441	7.94	52.31	4.15	17	FRI	AUG
11	005	SD	R	20.06	931	A	08	W	8810	7.89	55.59	4.39	7	MON	MAY	S	8603	7.89	54.33	4.28	16	MON	AUG
11	005	SD	R	36.27	898	A	07	S	9305	6.67	55.26	3.68	7	MON	NOV	N	8054	6.75	52.9	3.57	16	THU	FEB
11	005	SD	R	41.51	376	B	06	S	7292	6.74	54.35	3.66	7	THU	SEP	N	7911	7.29	54.5	3.97	17	WED	JUL
11	005	SD	R	42.71	661	B	06	S	7326	6.78	53.78	3.64	10	SAT	JUN	N	7993	7.33	54.28	3.98	15	WED	OCT
11	005	SD	R	49.28	904	B	08	S	7859	6.66	59.2	3.94	7	TUE	SEP	N	8196	7.67	53.61	4.11	15	FRI	MAY
11	005	SD	R	53.93	906	B	07	W	7080	7.35	50.94	3.74	11	SUN	APR	N	7209	7.07	53.94	3.81	14	SUN	JUL
11	005	SD	R	54.39	954	A	08	N	5874	7.6	58.25	4.43	11	MON	SEP	S	5861	7.35	60.11	4.42	16	FRI	JUL
12	005	ORA		.483	401	O	09	N	6012	8.35	53	4.43	11	SUN	AUG	N	5958	8.55	50.58	4.39	13	SAT	JUL
12	005																						

DI	RTE	CO	PRE	PM CS	LEG	YR	Dir	AM PEAK								PM PEAK							
								1 WAY PHV	% K	% D	% KD	HR	DAY	MNTH	Dir	1 WAY PHV	% K	% D	% KD	HR	DAY	MNTH	
03	050	ED		78.42	384	D	08	W	1627	9.68	53.75	5.2	12	SUN	JUL	E	1696	10.16	53.37	5.42	15	MON	DEC
03	050	ED		80.14	386	B	08	W	1594	8.41	57.5	4.83	10	SUN	JUL	W	1727	9.22	56.79	5.24	16	SUN	DEC
03	050	ED		80.44	387	O	08	W	1359	9.44	50.99	4.81	12	SAT	AUG	E	1542	9.55	57.2	5.46	15	SUN	JUL
03	051	SAC		3.357	430	B	08	S	6082	7.32	51.2	3.75	7	TUE	FEB	S	5989	7.29	50.63	3.69	14	MON	FEB
03	051	SAC		4.061	432	A	08	S	8024	7.92	63.06	5	7	WED	MAR	N	7434	7.74	59.84	4.63	16	WED	MAR
03	051	SAC		7.969	433	A	08	S	5357	6.38	66.03	4.21	6	THU	APR	N	6500	7.74	66	5.11	16	WED	JAN
11	052	SD		5.494	725	B	08	W	5544	9.46	61.4	5.81	7	TUE	JUL	E	4916	8.88	57.97	5.35	16	TUE	SEP
11	052	SD		5.494	726	A	08	W	6278	9.6	64.65	6.21	7	TUE	JUL	E	5522	9.4	58.1	5.46	17	TUE	AUG
11	052	SD		13.27	729	B	08	W	5539	9.36	78.42	7.34	7	THU	JUL	E	4730	8.82	71.09	6.27	17	WED	MAR
11	052	SD		13.27	730	A	08	W	3995	9.52	68.65	6.53	7	TUE	FEB	E	3502	8.9	65.85	5.86	17	WED	JAN
01	053	LAK		5.15	728	A	08	N	365	9.13	52.14	4.76	12	MON	MAY	S	424	10.3	53.67	5.93	16	FRI	JUL
01	053	LAK		7.413	729	B	08	N	327	8.97	71.4	6.4	12	FRI	MAY	N	355	9.64	72.15	6.95	15	FRI	MAR
11	054	SD		1.88	814	A	08	W	6577	7.92	67.21	5.32	7	WED	APR	E	6005	8.16	59.54	4.86	17	WED	MAY
11	054	SD	T	11.85	817	A	08	W	1030	8.17	54.35	4.44	11	SAT	DEC	W	1153	9.46	52.53	4.97	15	FRI	FEB
12	055	ORA		0	93	A	06	N	1352	4.09	69.51	2.85	8	WED	DEC	S	1400	5.23	56.38	2.95	17	MON	DEC
12	055	ORA		2.67	234	A	06	N	2528	7.03	80.31	5.65	6	THU	APR	N	2293	6.68	76.72	5.12	21	SUN	JUL
12	055	ORA	R	2.772	909	B	07	N	3867	6.9	59.64	4.12	7	THU	OCT	N	3399	6.82	53.08	3.62	15	THU	JUL
12	055	ORA	R	3.776	910	B	07	N	6829	7.32	72.95	5.94	8	WED	NOV	N	5354	6.71	62.35	4.18	13	FRI	OCT
12	055	ORA	R	7.5	190	A	07	N	9433	7.85	51.53	4.05	7	TUE	FEB	S	8610	5.87	62.97	3.69	17	WED	FEB
12	055	ORA		14.37	94	A	08	S	8996	6.99	56.55	3.95	7	TUE	APR	N	10129	7.77	57.24	4.45	17	MON	JUN
11	056	SD		1.808		A	07	W	4572	9.36	70.17	6.57	7	MON	APR	E	4459	9.25	69.24	6.4	17	TUE	JUN
11	056	SD		3.103	753	B	08	W	4726	9.89	68.11	6.74	7	WED	SEP	E	4486	8.9	71.81	6.39	16	THU	JUL
11	056	SD		4.523	754	O	08	W	4197	9.53	70.46	6.71	7	WED	FEB	E	4082	9.08	71.91	6.53	16	WED	MAY
11	056	SD		6.7	756	A	08	W	4773	10.12	66.47	6.73	7	TUE	NOV	E	4337	8.78	69.65	6.11	16	MON	OCT
11	056	SD		8.038	758	B	08	W	4021	9.4	61.69	5.8	7	THU	APR	E	3505	8.46	59.7	5.05	15	FRI	FEB
12	057	ORA		15.6	927	A	07	S	10262	6.05	59.55	3.6	6	WED	JUN	S	9947	6.77	51.56	3.49	16	WED	OCT
12	057	ORA		20.38	196	O	07	S	9833	6.37	69.45	4.43	6	FRI	JUN	S	10001	6.96	64.69	4.5	17	FRI	JUN
07	057	LA	R	3.167	77	B	08	S	8134	6.58	62.5	4.11	6	THU	APR	N	7499	7.39	51.28	3.79	17	TUE	APR
07	057	LA	R	6.85	97	B	08	S	6108	7.32	52.12	3.82	7	TUE	FEB	S	6437	7.87	51.08	4.02	17	WED	SEP
07	057	LA	R	9.816	416	O	08	N	6867	7.72	52.52	4.05	7	WED	FEB	S	7477	8.08	54.6	4.41	17	THU	NOV
05	058	SLO		1.87	235	A	07	W	185	8.1	76.39	6.35	7	TUE	MAR	E	193	8.68	76.29	6.62	17	TUE	SEP
06	058	KER		15.41	71	B	06	W	29	10.93	85.29	9.32	10	THU	NOV	E	43	18.65	74.14	13.83	16	THU	MAY
06	058	KER		28.12	73	A	06	W	430	10.43	79.78	8.32	5	THU	AUG	E	461	11.47	77.74	8.92	16	TUE	FEB

Route	District	P.M.	Truck 1
4	10 ALP	31,677 B	540
5	11 SD R	0.09 A	80000
5	11 SD R	0.878 A	42500
5	11 SD	4.832 B	121000
5	11 SD	4.525 A	548000
5	11 SD R	11,129 B	169000
5	11 SD R	12,647 B	188000
5	11 SD R	12,647 A	154000
5	11 SD R	14,077 A	164000
5	11 SD R	14,077 B	160000
5	11 SD R	15,035 B	164000
5	11 SD R	15,035 A	210000
5	11 SD R	16,059 B	210000
5	11 SD R	16,059 A	201000
5	11 SD R	20,056 B	203000
5	11 SD R	20,056 A	201000
5	11 SD R	23,476 A	190000
5	11 SD R	23,476 B	157000
5	11 SD R	25,947 A	182000
5	11 SD R	30,682 A	148000
5	11 SD R	42,712 B	198000
5	11 SD R	51,201 A	193000
5	11 SD R	61,201 B	197000
5	11 SD R	53,43 A	156000
5	11 SD R	71,377 B	131000
5	12 ORA	0 A	138000
5	12 ORA	6,78 B	226000

Note: No Truck 1 is available on SR-56 by Caltrans.

LOCATION: Del Mar Heights Rd WB to 5 SB
 (Loc #1)
 Discharge (veh/hr/lane) 570
 Least Restrictive 365
 Most Restrictive 6.1
 CPM (cycles/min) 9.5
 Least Restrictive 6.1
 Most Restrictive
 Schedule Hours 0530-1100
 1400-1900
 Veh/Cyc 1
 SOV 2
 HOV 0

Meter ID 82		
	Hex	Dec
HICPM	5f	#NAME?
DLCPM	18	#NAME?

	cyc/min	veh/cyc	veh/hr/lane	sec/cyc
Rate 1	9.50	1	570	6.3
Rate 2	9.26	1	556	6.5
Rate 3	9.02	1	541	6.7
Rate 4	8.78	1	527	6.8
Rate 5	8.54	1	512	7.0
Rate 6	8.30	1	498	7.2
Rate 7	8.06	1	484	7.4
Rate 8	7.82	1	469	7.7
Rate 9	7.58	1	455	7.9
Rate 10	7.34	1	440	8.2
Rate 11	7.10	1	426	8.5
Rate 12	6.86	1	412	8.7
Rate 13	6.62	1	397	9.1
Rate 14	6.38	1	383	9.4
Rate 15	6.14	1	368	9.8

LOCATION: Del Mar Heights Rd EB to 5 SB
 (Loc #2)
 Discharge (veh/hr/lane) 996
 Least Restrictive 499
 Most Restrictive
 CPM (cycles/min) 8.3
 Least Restrictive 4.2
 Most Restrictive
 Schedule Hours 0530-1100
 1400-1900
 Veh/Cyc 2
 SOV 1
 HOV 1

Meter ID 83		
	Hex	Dec
HICPM	53	#NAME?
DLCPM	1e	#NAME?

	cyc/min	veh/cyc	veh/hr/lane	sec/cyc
Rate 1	8.30	2	996	7.2
Rate 2	8.06	2	967	7.4
Rate 3	7.78	2	931	7.7
Rate 4	7.45	2	895	8.0
Rate 5	7.16	2	859	8.4
Rate 6	6.85	2	823	8.7
Rate 7	6.56	2	787	9.1
Rate 8	6.28	2	751	9.6
Rate 9	5.98	2	715	10.1
Rate 10	5.66	2	679	10.6
Rate 11	5.36	2	643	11.2
Rate 12	5.06	2	607	11.9
Rate 13	4.75	2	571	12.6
Rate 14	4.46	2	535	13.5
Rate 15	4.16	2	499	14.4

LOCATION: Del Mar Heights Rd to 5 NB
 (Loc #3)
 Discharge (veh/hr/lane) 996
 Least Restrictive 593
 Most Restrictive
 CPM (cycles/min) 6.3
 Least Restrictive 4.9
 Most Restrictive
 Schedule Hours 1500-1900
 Veh/Cyc 2
 SOV 2
 HOV 0

Meter ID 129		
	Hex	Dec
HICPM	53	#NAME?
DLCPM	18	#NAME?

	cyc/min	veh/cyc	veh/hr/lane	sec/cyc
Rate 1	6.30	2	996	7.2
Rate 2	6.06	2	967	7.4
Rate 3	5.82	2	938	7.7
Rate 4	5.58	2	910	7.9
Rate 5	5.34	2	881	8.2
Rate 6	5.10	2	852	8.5
Rate 7	4.86	2	823	8.7
Rate 8	4.62	2	794	9.1
Rate 9	4.38	2	766	9.4
Rate 10	4.14	2	737	9.8
Rate 11	3.90	2	708	10.2
Rate 12	3.66	2	679	10.6
Rate 13	3.42	2	650	11.1
Rate 14	3.18	2	622	11.6
Rate 15	2.94	2	593	12.1

LOCATION: RBE 5 NB @ DEL MAR HEIGHTS ROAD
 CALTRANS C8 Version 3
 F PAGE

DATE: 0/16/10

PAGE 1

INTERVAL	PHASE TIMING								PRE-EMPTION	E	F																		
	1	2	3	4	5	6	7	8			9	1	2	3	4	5	6	7	8	9									
0 WALK	1	7	1	1	1	7	1	22	CLK RST																				
1 DONT WALK	1	2.0	1	1	1	10	1	11	RR1 CLR	15	RED LOCK					5												8	1
2 MIN GREEN	1	7	1	1	1	5	1	5	EVA DLY	0	YEL LOCK																		2
3 TYPE 3 DET	0	255	0	0	0	255	0	0	EVA CLR	5	V RECALL			2					6									3	
4 ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	EVE DLY	0	P RECALL																	4	
5 PASSAGE	0.9	5.0	0.9	0.9	2.0	5.0	0.9	2.0	EVE CLR	5																		5	
6 MAX GAP	0.9	5.5	0.9	0.9	2.0	6.5	0.9	2.0	EVC DLY	0	RT OLA																	6	
7 MIN GAP	0.9	3.0	0.9	0.9	2.0	3.0	0.9	2.0	EVC CLR	5	RT OLA																	7	
8 MAX EXT	9	35	9	9	30	35	9	25	EVD DLY	0	DBL ENTRY				4													8	
9 MAX 2								40	VR	EVD CLR	5	MAX 2 PHASES																8	
A MAX 3								45	MO	MAX EV	255	LAG PHASES																A	
B									DAY	RR2 CLR	15	RED REST																B	
C REDUCE BY	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	DDR		REST-IN-WALK																	C	
D EVERY	1.0	0.7	2.0	2.0	1.0	0.7	2.0	1.0	HR		MAX 3 PHASES					5												D	
E YELLOW	3.0	4.3	2.0	5.5	2.2	4.3	2.0	3.6	MIN		YEL START UP			2				6										E	
F RED	1.0	2.0	1.0	2.0	2.0	2.0	1.0	2.0	SEC		FIRST PHASE				3													F	
3.5 BIKE XING FT																													
3.5 PED XING FT																													

FOC LONG FAILURE	FOF SHORT FAILURE	FOF	FCO	FC1	FC2	FC3	FC4	FC5	FC6	FC7	FC8	FC9	FC0	FC1	FC2	FC3	FC4	FC5	FC6	FC7	FC8	FC9	FC0	FC1	FC2	FC3	FC4	FC5	FC6	FC7	FC8	FC9
0	0	0	3	3	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1	0	5	3	3	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	0																															
3	0																															
4																																
5																																
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F																																
3.5																																
4.7																																

NOTES:

C/M = 221

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN OCA FLASH ONLY



I-5 / Del Mar Heights Road Interchange

Observed Ramp Meter Information

Ramp Location	Direction	Date	Time	# of Lanes	vehicles/Lane	Seconds/vehicle	Flow Rate (veh/hr)
Northbound (A)	N/A	9/22/09	4:35 PM	2 No-HOV	2	10	$360 \times 2 = 720$ max Q = 7 veh
Southbound (B) (LOOP)	Westbound	9/23/09	7:35 AM	2 No-HOV	1	5	720 max Q = 9 veh
Southbound (B) (LOOP)	Westbound	9/22/09	4:20 PM	2 No-HOV	1	6	600 max Q = 5 veh
Southbound (C)	Eastbound	9/23/09	7:45 AM	1 and 1-HOV	2	10	720 max Q = 11 veh
Southbound (C)	Eastbound	9/22/09	4:45 PM	1 and 1-HOV	2	7	1,028 max Q = 2 veh

	CONTROL PLANS								Y-COORD		LAG PHASE		FLAG										
	1	2	3	4	5	6	7	8	9	C	D	E	F	1	2	3	4	5	6	7	8		
0 CYCLE LENGTH	120												LAG FZ FREE		2		4		6		8	0	
1 FZ1 GRN FCTR	0											GAPOUT CP1	0	LAG FZ CP 1		2		4		6		8	1
2												GAPOUT CP2		LAG FZ CP 2									2
3 FZ3 GRN FCTR	0											GAPOUT CP3		LAG FZ CP 3									3
4 FZ4 GRN FCTR	0									PERM TIME		GAPOUT CP4		LAG FZ CP 4									4
5 FZ5 GRN FCTR	20									LAG OFFSET		GAPOUT CP5		LAG FZ CP 5									5
6										FORCE OFF		GAPOUT CP6		LAG FZ CP 6									6
7 FZ7 GRN FCTR	40									LONG GRN		GAPOUT CP7		LAG FZ CP 7									7
8 FZ8 GRN FCTR	40									NO GREEN		GAPOUT CP8		LAG FZ CP 8									8
9 MULTI CYCLE	0											GAPOUT CP9		LAG FZ CP 9									9
A OFFSET A	82									OFFSET				LAG C COORD									A
B OFFSET B														LAG D COORD									B
C OFFSET C														COORD PHASES		2			6				C
D FZ 3 EXT																							D
E FZ 7 EXT																							E
F OFFSET INTRPT																							F

COL	MANUAL CP	FEATURE	OFF	ON	LOCATION	OFF	ON
CO1	MANUAL CP						
CO2	MASTER CP						
CO3	CURRENT CP	SYSTEM MASTER:					
CO4	LAST CP	RTE 5 SB RAMP					
CO7	TRANSMT CP						
COD	MANUAL OFFSET						
CAO	LOCAL CYCLE TIMER						
CBO	MASTER CYCLE TIMER						
CAA	LOCAL OFFSET						
CBA	MASTER OFFSET						

CCB/CDB OFFSET TIMER
 CCC/CDC LAG GREEN TIMER
 CCD/CDD FORCE OFF TIMER
 CCE/CDE LONG GREEN TIMER
 CCF/CDF NO GREEN TIMER

COO = 1

	D	FLAGS								E	FLAGS								F	FLAGS							
	MAX	1	2	3	4	5	6	7	8	MIN	1	2	3	4	5	6	7	8	RCL	1	2	3	4	5	6	7	8
0	RCL									RCL									RCL								
1	CP 1									CP 1									CP 1								
2	CP 2									CP 2									CP 2								
3	CP 3									CP 3									CP 3								
4	CP 4									CP 4									CP 4								
5	CP 5									CP 5									CP 5								
6	CP 6									CP 6									CP 6								
7	CP 7									CP 7									CP 7								
8	CP 8									CP 8									CP 8								
9	CP 9									CP 9									CP 9								
A																			RCL 1								
B																			RCL 2								
C																											
D																											
E																											
F																											

LAST POWER FAILURE REGISTER

HOUR = D-A-E
 MINUTE = D-B-E
 DAY = D-C-E

RCL 1 = TIME OF DAY MAX RECALL (1ST SELECT) PHASES
 (CALL ACTIVE LIGHTS)
 RCL 2 = TIME OF DAY MAX RECALL (2ND SELECT) PHASES
 (CALL ACTIVE LIGHTS)

LAST FLASH TIME REGISTER

HOUR = D-A-F
 MINUTE = D-B-F
 DAY = D-C-F

D-E-E = C8 VERSION NUMBER
 D-E-F = LITHIUM BATTERY CONDITION
 84 = BAD
 85 = GOOD

	E	FLAGS								F	FLAGS							
	FUNCTION	1	2	3	4	5	6	7	8	FUNCTION	1	2	3	4	5	6	7	8
0										CODE 4								
1										CODE 5								
2										C-RECALL								
3										D-RECALL								
4																		
5																		
6																		
7																		
8																		
9																		
A																		
B																		
C																		
D																		
E																		
F																		

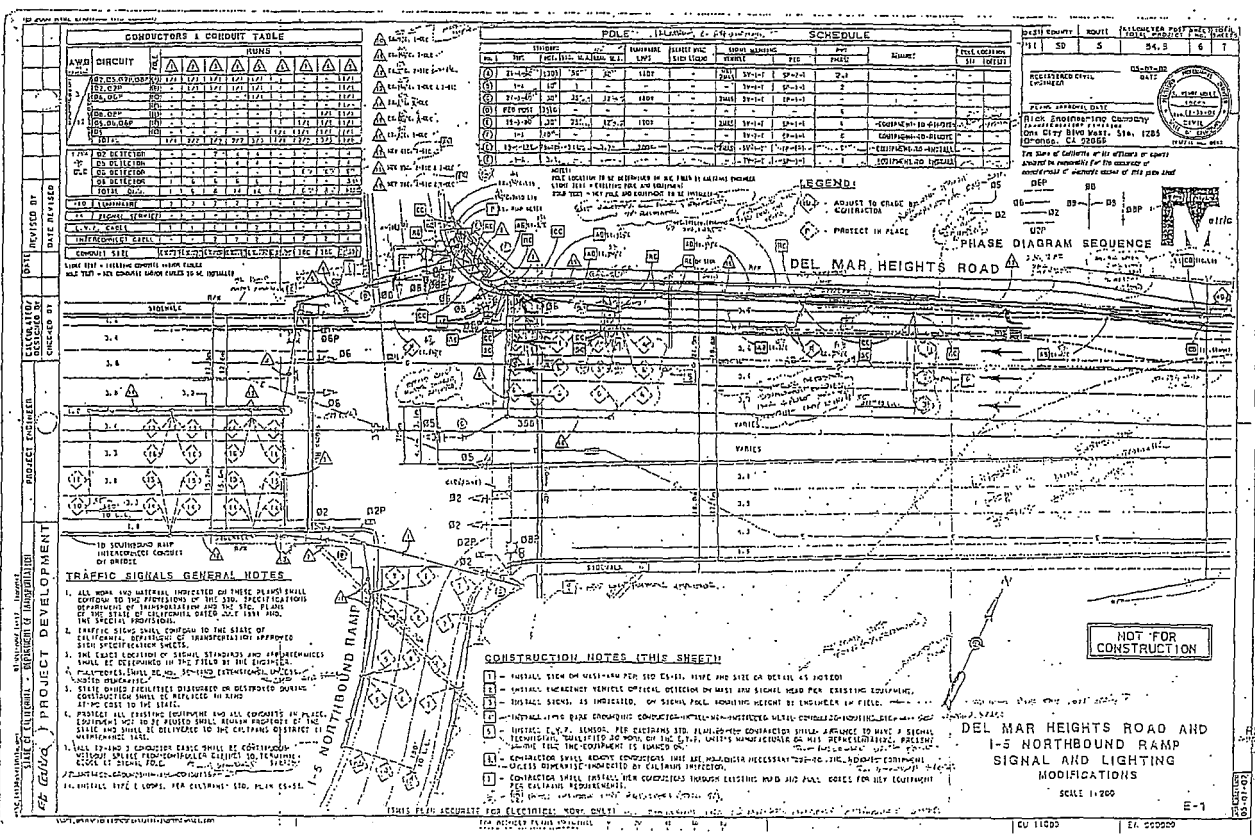
TIME OF DAY ACTIVITY TABLE											
7+EVENT+HR+MIN+ACT+ "E"+ON/OFF+DOW LTS											
	HR	MIN	ACT	OFF	1	2	3	4	5	6	7
D	06	00	3	ON							
1	09	00	3								
2	15	00	2	ON							
3	18	00	2								
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E	16	30	E								
F	18	30	E	ON							

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	1	2	3	4	5	6	7
0											
1											
2											
3											
4	16	30	1	A							
5	18	30	E								
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

CONTROL PLAN TIME OF DAY											
9+EVENT+HR+MIN+CP+OS+E+DOW											
	HR	MIN	CP	OS	1	2	3	4	5	6	7
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
A											
B											
C											
D											
E											
F											

- ACTIVITY CODE
- 1 TYPE OF MAX TERMINATION
 - 2 MAX 2
 - 3 MAX 3
 - 4 COND SERV (1ST SELECT)
 - 5 COND SERV (2ND SELECT)
 - 6 ENERGIZE AUX OUTPUT-RED
 - 7 ENERGIZE AUX OUTPUT-GREEN

- 8 ENERGIZE AUX OUTPUT-YELLOW
- 9 TIME OF DAY MAX RECALL (1ST SELECT)
- A TRAFFIC ACT. MAX 2 OPERATION
- B TIME OF DAY MAX RECALL (2ND SELECT)
- C YELLOW YIELD COORDINATION
- D YELLOW YIELD COORDINATION
- E TIME OF DAY FREE OPERATION
- F FLASHING OPERATION



INTERVAL	PHASE TIMING								PRE-EMPTION	E	FLAGS	F										
	1	2	3	4	5	6	7	8				1	2	3	4	5	6	7	8			
0 WALK	1	1	1	1	1	7	1	7	CLK RST													
1 DONT WALK	1	1	1	1	1	12	1	18	RR1 CLR	15	RED LOCK								1			
2 MIN GREEN	1	5	6	5	1	5	1	1	EVR DLY	0	YEL LOCK			3				2				
3 TYPE 3 DET	0	255	0	0	0	255	0	0	EVC CLR	5	V RECALL		2			6		3				
4 ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	EVE DLY	0	F RECALL							4				
5 PASSAGE	0.9	5.0	0.9	2.0	0.9	5.0	0.9	0.9	BVB CLR	5								5				
6 MAX GAP	0.9	6.5	0.9	2.0	0.9	6.5	0.9	0.9	EVC DLY	0	RT OLA							6				
7 MIN GAP	0.9	3.0	0.9	2.0	0.9	3.0	0.9	0.9	EVC CLR	5	RT OLB							7				
8 MAX EXT	9	35	9	25	9	35	9	25	EVD DLY	0	DBL ENTRY			4			8	8				
9 MAX 2									YR	EVD CLR	5	MAX 2 PHASES						9				
A MAX 3									MO	MAX EV	255	LAG PHASES						A				
B									DAY	RR2 CLR	15	RED RST						B				
C REDUCE BY	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	DNW		REST-IN-WALK							C				
D EVERY	1.0	0.7	1.0	1.0	1.0	0.7	1.0	1.0	HR		MAX 3 PHASES							D				
E YELLOW	3.0	4.3	3.0	3.6	3.0	4.3	3.0	3.6	MIN		YEL START UP		2			6		E				
F RED	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	SEC		FIRST PHASE			3			7	F				
3.5 PED XING FT						50		80						1	2	3	4	5	6	7	8	
BIKE XING FT		56				62																

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FCC	3
FCL	3
FCE	1.0
FCA	0.0
FCE	0.0
FCC	0.0
FCD	0.0

FDO TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FDS PERMISSIVE	0
FDB OS SEEKING	1

COS FLASH TYPE	1
CC2 DOWNLOAD	1

NOTES:

FEO = 1
 DELAYED F2 4 WITH F2 8 PED CALL
 F2 2 BIKE = 4 sec

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CCI FLASH ONLY

	CONTROL PLANS								Y-COORD			LAG PHASE				FLAG							
	1	2	3	4	5	6	7	8	9	C	D	E	F	1	2	3	4	5	6	7	8		
0 CYCLE LENGTH	0												LAG FZ FREE		2		4		6		8	0	
1 FZ1 GRN FCTR	0											GAPOUT CP1	0	LAG FZ CP 1								1	
2												GAPOUT CP2		LAG FZ CP 2								2	
3 FZ3 GRN FCTR	0											GAPOUT CP3		LAG FZ CP 3								3	
4 FZ4 GRN FCTR	0										PERM TIME		LAG FZ CP 4									4	
5 FZ5 GRN FCTR	0										LAG OFFSET		LAG FZ CP 5									5	
6											FORCE OFF		LAG FZ CP 6									6	
7 FZ7 GRN FCTR	0										LONG GRN		LAG FZ CP 7									7	
8 FZ8 GRN FCTR	0										NO GREEN		LAG FZ CP 8									8	
9 MULTI CYCLE	0											GAPOUT CP9	LAG FZ CP 9									9	
A OFFSET A	0										OFFSET		LAG C COORD									A	
B OFFSET B													LAG D COORD									B	
C OFFSET C													COORD FAZES		2			6				C	
D FZ 3 EXT																						D	
E FZ 7 EXT																						E	
F OFFSET INTRET																						F	

CO1 MANUAL CP
 CO2 MASTER CP
 CO3 CURRENT CP
 CO4 LAST CP
 CO7 TRNSMT CP
 COD MANUAL OFFSET
 CAO LOCAL CYCLE TIMER
 CBO MASTER CYCLE TIMER
 CAA LOCAL OFFSET
 CBA MASTER OFFSET

FEATURE

OFF	ON
1	
2	
3	
4	
5	
6	
7	
8	

LOCATION

OFF	ON
1	
2	
3	
4	
5	
6	
7	
8	

CCB/CDB OFFSET TIMER
 CCC/CDC LAG GREEN TIMER
 CCD/CDD FORCE OFF TIMER
 CCE/CDE LONG GREEN TIMER
 CCF/CDF NO GREEN TIMER

COO = 2

NO.	DATE	BY	REVISION
1	11/15/11	...	...
2	11/15/11	...	...
3	11/15/11	...	...
4	11/15/11	...	...
5	11/15/11	...	...
6	11/15/11	...	...
7	11/15/11	...	...
8	11/15/11	...	...
9	11/15/11	...	...
10	11/15/11	...	...

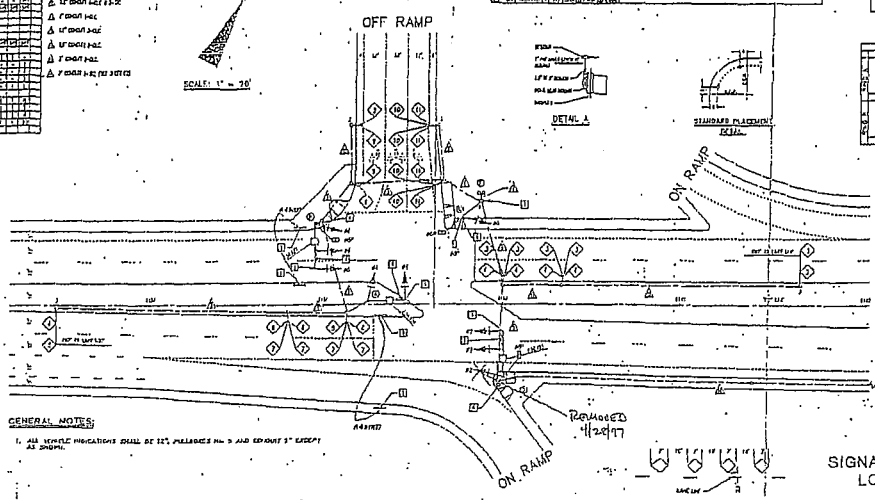
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"
- △ 1" DOWN 10' 11" 12"

SCALE: 1" = 20'

NO.	DATE	BY	REVISION
1	11/15/11	...	...
2	11/15/11	...	...
3	11/15/11	...	...
4	11/15/11	...	...
5	11/15/11	...	...
6	11/15/11	...	...
7	11/15/11	...	...
8	11/15/11	...	...
9	11/15/11	...	...
10	11/15/11	...	...

NO.	DATE	BY	REVISION
1	11/15/11	...	...
2	11/15/11	...	...
3	11/15/11	...	...
4	11/15/11	...	...
5	11/15/11	...	...
6	11/15/11	...	...
7	11/15/11	...	...
8	11/15/11	...	...
9	11/15/11	...	...
10	11/15/11	...	...

NO.	DATE	BY	REVISION
1	11/15/11	...	...
2	11/15/11	...	...
3	11/15/11	...	...
4	11/15/11	...	...
5	11/15/11	...	...
6	11/15/11	...	...
7	11/15/11	...	...
8	11/15/11	...	...
9	11/15/11	...	...
10	11/15/11	...	...



GENERAL NOTES:

- 1. ALL VEHICLE INDICATIONS SHALL BE 12" DIAMETERS UNLESS NOTED OTHERWISE.

CONSTRUCTION NOTES:

- 1. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 2. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 3. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 4. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 5. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 6. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 7. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 8. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 9. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.
- 10. INSTALL 12" DIAMETER SIGNPOSTS PER STATE STANDARD PLAN 12-82.

SIGNAL AND LIGHTING LOCATION 1

Coltrons Signal No. P34133

PLANS FOR THE CONSTRUCTION OF TRAFFIC SIGNALS AND STREET LIGHTING SYSTEMS AT DEL MAR HEIGHTS ROAD AND I-5 SOUTHBOUND RAMP

CITY OF SAN DIEGO, CALIFORNIA	DATE: 11/15/11
PROJECT NO.	...
DATE	...
BY	...
CHECKED	...
APPROVED	...
DATE	...

TRC CONSULTANTS, INC.
 CONSULTING ENGINEERS
 10000 LA JOLLA VILLAGE CENTER DRIVE, SUITE 100
 LA JOLLA, CALIFORNIA 92037
 TEL: 619-451-1111 FAX: 619-451-1112

REVISIONS
 NO. DATE BY DESCRIPTION

APPENDIX D

EXISTING SYNCHRO WORKSHEETS

HCM Signalized Intersection Capacity Analysis
1: Via De La Valle & El Camino Real

Existing AM
12/1/2010

Movement	LEBL	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Lane Configurations	2	352	354	282	448	0	365	5	143
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt. Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1858	1775	1583	1750	1750
Flt. Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1858	1775	1583	1750	1750
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2111	2111	2111	2111	2111	2111	2111	2111	2111
RTOR Reduction (vph)	0	253	0	0	0	0	115	0	0
Lane Group Flow (vph)	2	391	140	313	506	0	412	74	2
Turn Type	Prot	Prot	Prot	Split	Prot	Split	Prot	Split	Prot
Protected Phases	7	4	3	8	2	2	2	6	6
Permitted Phases									
Actuated Green, G (s)	0.8	22.4	16.2	37.8	21.4	21.4	1.1		
Effective Green, g (s)	0.8	22.4	16.2	37.8	21.4	21.4	1.1		
Actuated g/C Ratio	0.01	0.29	0.29	0.21	0.49	0.28	0.28	0.01	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	18	541	460	372	911	493	439	25	
v/s Ratio Prot	0.00	0.21	0.09	0.16	0.27	0.23	0.03	0.00	
v/s Ratio Perm									
v/c Ratio	0.11	0.72	0.30	0.84	0.56	0.84	0.10	0.00	
Uniform Delay, d1	37.8	24.6	21.3	29.2	13.8	26.2	20.7	37.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.7	4.7	0.4	15.7	0.7	11.7	0.1	1.4	
Delay (s)	40.5	29.3	21.7	44.9	14.5	37.9	20.8	38.9	
Level of Service	D	C	C	D	B	D	C	D	
Approach Delay (s)		25.5		26.1		33.1		38.9	
Approach LOS		C		C		C		D	
Intersection Summary									
HCM Average Control Delay	27.7			HCM Level of Service			C		
HCM Volume to Capacity ratio	0.78								
Actuated Cycle Length (s)	77.1			Sum of lost time (s)			16.0		
Intersection Capacity Utilization	71.3%			ICU Level of Service			C		
Analysis Period (min)	15								
c: Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
2: San Dieguito Road & El Camino Real

Existing AM
12/1/2010

Movement	WBL	WBR	NBL	NBR	SBL	SBR
Lane Configurations	396	299	190	189	275	281
Volume (vph)	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Flt. Protected	0.95	1.00	1.00	0.85	1.00	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt. Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2111	2111	2111	2111	2111	2111
RTOR Reduction (vph)	0	250	0	0	234	0
Lane Group Flow (vph)	429	82	0	1210	72	312
Turn Type	Perm	Prot	Perm	Prot	Perm	Prot
Protected Phases	3	8	7	7	7	7
Permitted Phases						
Actuated Green, G (s)	12.4	12.4	11.7	11.7	13.9	12.4
Effective Green, g (s)	12.4	12.4	11.7	11.7	13.9	12.4
Actuated g/C Ratio	0.25	0.25	0.23	0.23	0.28	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	851	393	436	370	492	878
v/s Ratio Prot	0.12	0.11	0.11	0.10	0.18	0.13
v/s Ratio Perm		0.05		0.05		0.13
v/c Ratio	0.50	0.21	0.48	0.19	0.69	0.51
Uniform Delay, d1	16.2	14.9	16.5	15.4	15.8	16.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3	0.8	0.3	2.7	0.5
Delay (s)	16.6	15.2	17.4	15.6	18.5	16.7
Level of Service	B	B	B	B	B	B
Approach Delay (s)	16.0	16.3	17.4	17.4	17.4	17.4
Approach LOS	B	B	B	B	B	B
Intersection Summary						
HCM Average Control Delay	16.6		HCM Level of Service		B	
HCM Volume to Capacity ratio	0.55					
Actuated Cycle Length (s)	50.0		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	46.5%		ICU Level of Service		A	
Analysis Period (min)	15					
c: Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
3: Derby Downs Road & El Camino Real

Existing AM
12/1/2010

Movement	WB	WBR	NB	NBR	SB	SBR
Lane Configurations	↑↑	↑	↑	↑	↑	↑↑
Volume (vph)	84	7	0	443	50	799
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0		4.0
Lane Util. Factor	0.97			0.95		1.00
Flt	0.99			0.98		1.00
Flt Protected	0.96			1.00		0.95
Satd. Flow (prot)	3414			3485		1770
Flt Permitted	0.96			1.00		0.95
Satd. Flow (perm)	3414			3485		1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	93	8	0	492	56	888
RTOR Reduction (vph)	7	0	0	14	0	0
Lane Group Flow (vph)	94	0	0	534	0	888
Turn Type		Prot		Prot		
Protected Phases	0	5	2	1	6	
Permitted Phases						
Actuated Green, G (s)	3.1			14.1		0.6
Effective Green, g (s)	3.1			14.1		0.6
Actuated g/C Ratio	0.10			0.47		0.02
Clearance Time (s)	4.0			4.0		4.0
Vehicle Extension (s)	3.0			3.0		3.0
Lane Grp Cap (vph)	355			1649		36
v/s Ratio Prot	0.03			0.15		0.00
v/s Ratio Perm						
v/c Ratio	0.26			0.32		0.08
Uniform Delay, d1	12.3			4.9		14.3
Progression Factor	1.00			1.00		1.00
Incremental Delay, d2	0.4			0.1		1.0
Delay (s)	12.7			5.0		2.9
Level of Service	B			A		B
Approach Delay (s)	12.7			5.0		2.9
Approach LOS	B			A		A
Intersection Summary						
HCM Average Control Delay	4.3		HCM Level of Service		A	
HCM Volume to Capacity ratio	0.38		Sum of lost time (s)		8.0	
Actuated Cycle Length (s)	29.8		ICU Level of Service		A	
Intersection Capacity Utilization	32.1%		Analysis Period (min)		15	
c - Critical Lane Group						

Baseline

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

Existing AM
12/1/2010

Movement	EB	EBT	EBR	WB	WBT	WBR	NB	NBT	NBR	SB	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Volume (vph)	23	114	190	54	0	149	6	300	13	160	649	1904
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Flt	1.00	0.91		1.00	0.85		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1686		1770	1583		1770	3518		1770	3466	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1686		1770	1583		1770	3518		1770	3466	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	123	211	60	0	166	7	333	14	178	721	116
RTOR Reduction (vph)	0	108	0	0	121	0	0	5	0	0	19	0
Lane Group Flow (vph)	26	226	20	60	45	0	7	342	0	178	818	116
Turn Type		Prot			Prot			Prot			Prot	
Protected Phases	7	1			6			5			2	
Permitted Phases												
Actuated Green, G (s)	0.7	12.2		2.3	13.8		0.7	14.1		6.8	20.2	
Effective Green, g (s)	0.7	12.2		2.3	13.8		0.7	14.1		6.8	20.2	
Actuated g/C Ratio	0.01	0.24		0.04	0.27		0.01	0.27		0.13	0.39	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	24	400		79	425		24	965		234	1362	
v/s Ratio Prot	0.01	0.13		0.03	0.03		0.00	0.10		0.10	0.24	
v/s Ratio Perm												
v/c Ratio	1.08	0.56		0.78	0.10		0.29	0.35		0.76	0.60	
Uniform Delay, d1	25.4	17.3		24.3	14.2		25.1	15.0		21.5	12.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	210.9	1.8		33.5	0.1		6.7	0.2		13.6	0.8	
Delay (s)	236.2	19.1		57.8	14.3		31.8	15.2		35.1	13.1	
Level of Service	F	B		E	B		C	B		D	B	
Approach Delay (s)		34.8			25.8			15.3			17.0	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay	21.0			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.60			Sum of lost time (s)			12.0					
Actuated Cycle Length (s)	51.4			ICU Level of Service			B					
Intersection Capacity Utilization	58.8%			Analysis Period (min)			15					
c - Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

Existing AM
12/1/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑	↔	↔	↔	↔	↔	↑	↔	↔	↔	↔
Volume (vph)	15	83	70	84	137	36	40	317	52	44	728	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Flt	1.00	1.00	0.85	1.00	0.97	1.00	1.00	0.98	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1805	1770	1770	3464	1770	3534	1770	3534
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1805	1770	1770	3464	1770	3534	1770	3534
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	92	78	93	152	40	44	352	58	46	809	158
RTOR Reduction (vph)	0	0	65	0	17	0	0	19	0	0	1	0
Lane Group Flow (vph)	6	92	13	93	175	0	44	391	0	46	816	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	3	6	5	2	6	6	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	0.6	7.7	7.7	2.7	9.8	1.3	17.0	1.3	17.0	1.3	17.0	1.3
Effective Green, g (s)	0.6	7.7	7.7	2.7	9.8	1.3	17.0	1.3	17.0	1.3	17.0	1.3
Actuated g/C Ratio	0.01	0.17	0.17	0.05	0.22	0.03	0.38	0.03	0.38	0.03	0.38	0.03
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	24	321	273	107	396	51	1317	51	1344	51	1344	51
v/s Ratio Prot	0.00	0.05	0.01	0.05	0.10	0.02	0.11	0.02	0.11	0.02	0.11	0.02
v/s Ratio Perm												
v/c Ratio	0.25	0.29	0.05	0.87	0.44	0.86	0.30	0.90	0.51	0.90	0.51	0.90
Uniform Delay, d1	21.8	16.1	15.4	20.8	15.1	21.6	9.7	21.6	11.2	21.6	11.2	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.4	0.5	0.1	47.8	0.8	76.8	0.1	89.8	0.8	89.8	0.8	89.8
Delay (s)	27.2	16.6	15.5	68.7	15.9	98.4	9.8	111.5	11.9	111.5	11.9	111.5
Level of Service	C	B	B	E	B	F	A	F	B	F	B	F
Approach Delay (s)		16.5			33.1		16.4		17.2		17.2	
Approach LOS		B			C		B		B		B	
Intersection Summary												
HCM Average Control Delay	20.0			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.54											
Actuated Cycle Length (s)	44.7			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	45.0%			ICU Level of Service			A					
Analysis Period (min)	15											
Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

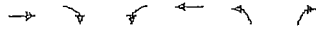
Existing AM
12/1/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑	↔	↔	↔	↔	↔	↑	↔	↔	↔	↔
Volume (vph)	99	830	29	62	650	191	68	56	58	420	22	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	0.95
Flt	1.00	1.00	1.00	0.97	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.97	1.00	0.95	1.00	0.95	1.00	0.97
Satd. Flow (prot)	1770	5064	1770	3442	1813	1583	1681	1637	1770	5064	1770	3442
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.97	1.00	0.95	1.00	0.95	1.00	0.97
Satd. Flow (perm)	1770	5064	1770	3442	1813	1583	1681	1637	1770	5064	1770	3442
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	103	922	26	91	944	212	76	62	64	467	24	91
RTOR Reduction (vph)	0	3	0	0	21	0	0	0	55	0	18	0
Lane Group Flow (vph)	103	945	0	91	1135	0	0	138	9	294	270	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Split	Perm	Split	Prot	Prot	Prot	Prot
Protected Phases	7	4	3	6	5	2	6	6	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	7.0	31.1	7.4	31.5	11.6	11.6	17.2	17.2	11.6	11.6	17.2	17.2
Effective Green, g (s)	7.0	31.1	7.4	31.5	11.6	11.6	17.2	17.2	11.6	11.6	17.2	17.2
Actuated g/C Ratio	0.08	0.37	0.09	0.38	0.14	0.14	0.21	0.21	0.14	0.14	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	149	1891	157	1302	252	220	347	338	252	220	347	338
v/s Ratio Prot	0.06	0.19	0.05	0.33	0.08	0.08	0.17	0.16	0.08	0.08	0.17	0.16
v/s Ratio Perm												
v/c Ratio	0.69	0.50	0.58	0.87	0.55	0.04	0.85	0.80	0.55	0.04	0.85	0.80
Uniform Delay, d1	37.1	20.1	36.5	24.0	33.4	31.0	31.8	31.4	33.4	31.0	31.8	31.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.0	0.2	5.1	6.7	2.4	0.1	17.1	12.3	2.4	0.1	17.1	12.3
Delay (s)	50.1	20.3	41.6	30.7	35.8	31.1	48.9	43.7	35.8	31.1	48.9	43.7
Level of Service	D	C	D	C	D	C	D	D	D	C	D	D
Approach Delay (s)		23.2		31.5		34.3		46.4		34.3		46.4
Approach LOS		C		C		C		D		C		D
Intersection Summary												
HCM Average Control Delay	31.7			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.75											
Actuated Cycle Length (s)	83.3			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	66.1%			ICU Level of Service			C					
Analysis Period (min)	15											
Critical Lane Group												

Baseline

HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

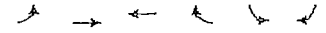
Existing AM
12/1/2010



Movement	EB1	EB2	WB1	WB2	NB1	NB2
Lane Configurations	↑↑↑			↑↑		↑
Volume (veh/h)	1321	53	0	4327	0	107
Sign Control	Free			Free	Stop	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1468	59	0	4474	0	119
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	575			607		
pX platoon unblocked		0.88		0.88	0.88	
vC, conflicting volume		1527		2234	519	
vC1, stage 1 cont vol						
vC2, stage 2 cont vol						
vCu, unblocked vol		1116		1921	0	
IC, single (s)		4.1		6.8	6.9	
IC, 2 stage (s)						
IC (s)		2.2		3.5	3.3	
p0 queue free %		100		100	88	
SM capacity (veh/h)		546		52	963	
Direction	EB	EB	WB	WB	NB	NB
Volume Total	587	587	352	737	737	149
Volume Left	0	0	0	0	0	0
Volume Right	0	0	59	0	0	119
cSH	1700	1700	1700	1700	1700	953
Volume to Capacity	0.35	0.35	0.21	0.43	0.43	0.12
Queue Length 95th (ft)	0	0	0	0	0	11
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS						A
Approach Delay (s)	0.0		0.0		9.3	
Approach LOS					A	
Intersection Summary						
Average Delay	0.4					
Intersection Capacity Utilization	40.0%				ICU Level of Service: A	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis
8: Del Mar Heights Rd. & I-15 SB Ramps

Existing AM
4/25/2011



Movement	EB1	EB2	WB1	WB2	SB1	SB2
Lane Configurations	↑↑	↑↑			↑↑	↑
Volume (vph)	659	91	0	0	849	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3			5.6	5.6
Lane Util. Factor	0.95	0.95			0.97	0.91
Fit	1.00	1.00			0.99	0.85
Fit Protected	1.00	1.00			0.95	1.00
Satd. Flow (prot)	3539	3539			3429	1441
Fit Permitted	1.00	1.00			0.95	1.00
Satd. Flow (perm)	3539	3539			3429	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	732	1101	0	0	943	362
RTOR Reduction (vph)	0	0	0	0	4	52
Lane Group Flow (vph)	732	1101	0	0	975	274
Turn Type						Perm
Protected Phases	2.6	6.2			4	
Permitted Phases						4
Actuated Green, G (s)	40.1	40.1			22.2	22.2
Effective Green, g (s)	40.1	40.1			22.2	22.2
Actuated G/C Ratio	0.54	0.54			0.30	0.30
Clearance Time (s)					5.6	5.6
Vehicle Extension (s)					3.0	3.0
Lane Grp Cap (vph)	1913	1913			1026	431
v/s Ratio Prot	0.21	0.31			0.28	
v/s Ratio Perm						0.19
v/c Ratio	0.38	0.58			0.95	0.64
Uniform Delay, d1	9.9	11.4			25.5	22.5
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4			17.4	3.1
Delay (s)	10.0	11.8			42.9	25.6
Level of Service	B	B			D	C
Approach Delay (s)	10.0	11.8			38.6	
Approach LOS	B	B			D	
Intersection Summary						
HCM Average Control Delay	22.5				HCM Level of Service: C	
HCM Volume to Capacity ratio	0.71					
Actuated Cycle Length (s)	74.2				Sum of lost time (s): 11.9	
Intersection Capacity Utilization	62.4%				ICU Level of Service: B	
Analysis Period (min)	15					
Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
9: Del Mar Heights Road & I-15 NB Ramps

Existing AM
4/25/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑	↔	↔	↑↑↑	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	224	1264	0	0	1411	866	373	0	763	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.3	0	0	6.3	6.3	5.6	5.6	5.6	0	0	0
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.91	0.95			
Flt	1.00	1.00			1.00	0.85	1.00	0.86	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Sald. Flow (prot)	3433	3539			5085	1583	1661	1467	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Sald. Flow (perm)	3433	3539			5085	1583	1601	1457	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	249	1404	0	0	1568	964	414	0	848	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	463	0	27	27	0	0	0
Lane Group Flow (vph)	249	1404	0	0	1568	521	373	421	414	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	5	2			6	6	6	6	6			
Permitted Phases												
Actuated Green, G (s)	11.6	69.5			52.7	52.7	38.6	38.6	38.6			
Effective Green, g (s)	11.6	69.5			52.7	52.7	38.6	38.6	38.6			
Actuated g/C Ratio	0.10	0.58			0.44	0.44	0.32	0.32	0.32			
Clearance Time (s)	5.2	6.3			6.3	6.3	5.6	5.6	5.6			
Vehicle Extension (s)	8.0	8.0			8.0	8.0	8.0	8.0	8.0			
Lane Grp Cap (vph)	332	2050			2233	695	541	469	484			
v/s Ratio Prot	0.07	0.40			0.31	0.33	0.22	0.29	0.20			
v/s Ratio Perm												
v/c Ratio	0.75	0.68			0.70	0.75	0.69	0.90	0.86			
Uniform Delay, d1	52.8	17.6			27.3	28.1	35.5	38.8	38.1			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	14.0	1.9			1.9	7.3	7.0	22.5	16.8			
Delay (s)	66.8	19.5			29.2	35.4	42.5	61.4	54.8			
Level of Service	E	B			C	D	D	E	D			
Approach Delay (s)	26.6				31.6			53.5		0.0		
Approach LOS	C				C			D		A		
Intersection Summary												
HCM Average Control Delay	35.1				HCM Level of Service				D			
HCM Volume to Capacity ratio	0.82											
Actuated Cycle Length (s)	120.0				Sum of lost time (s)				18.2			
Intersection Capacity Utilization	93.6%				ICU Level of Service				F			
Analysis Period (min)	15											
c - Critical Lane Group												

Baseline

Synchro 7 - Report
Page 1

HCM Signalized Intersection Capacity Analysis
10: Del Mar Heights Road & High Bluff Drive

Existing AM
12/1/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑↑	↔	↔	↑↑↑	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	108	1179	674	92	1789	59	195	10	13	79	57	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.95	1.00	1.00	1.00	1.00
Flt	1.00	1.00	0.85	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Sald. Flow (prot)	1770	5085	1583	1770	5061	3433	3242		1770	1863	1503	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Sald. Flow (perm)	1770	5085	1583	1770	5061	3433	3242		1770	1863	1583	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	120	1310	749	102	1988	66	217	11	14	88	63	337
RTOR Reduction (vph)	0	0	374	0	4	0	0	12	0	0	0	137
Lane Group Flow (vph)	120	1310	375	102	2050	0	217	13	0	88	63	200
Turn Type	Prot		Prot	Prot			Prot			Prot		Prot
Protected Phases	4	4	4	3	8		5	2		6		6
Permitted Phases												
Actuated Green, G (s)	7.9	41.3	41.3	6.7	40.1		7.0	11.8		12.2	16.8	16.8
Effective Green, g (s)	7.9	41.3	41.3	6.7	40.1		7.0	11.6		12.2	16.8	16.8
Actuated g/C Ratio	0.09	0.47	0.47	0.08	0.46		0.08	0.13		0.14	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	159	2392	745	135	2311		274	428		246	356	303
v/s Ratio Prot	0.07	0.26	0.24	0.06	0.44		0.05	0.00		0.05	0.03	0.13
v/s Ratio Perm												
v/c Ratio	0.75	0.55	0.50	0.76	0.89		0.79	0.03		0.36	0.18	0.66
Uniform Delay, d1	39.0	16.6	16.1	39.7	21.8		39.7	33.2		34.3	29.7	32.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	18.2	0.3	0.5	21.1	4.5		14.4	0.0		0.9	0.2	5.1
Delay (s)	57.2	16.9	16.7	60.8	26.3		54.1	33.2		35.1	30.0	37.9
Level of Service	E	B	B	E	C		D	C		D	C	D
Approach Delay (s)	19.0				28.0		52.0			36.4		
Approach LOS	B				C		D			D		
Intersection Summary												
HCM Average Control Delay	26.1				HCM Level of Service				C			
HCM Volume to Capacity ratio	0.81											
Actuated Cycle Length (s)	87.8				Sum of lost time (s)				16.0			
Intersection Capacity Utilization	70.2%				ICU Level of Service				C			
Analysis Period (min)	15											
c - Critical Lane Group												

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
13: Del Mar Heights Road & El Camino Real

Existing AM
12/1/2010

Movement	EB			WB			NB			SB		
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑↓		↔	↑↑↓		↔	↑↑↑	↔	↔	↑↑↓	
Volume (vph)	214	867	195	188	1340	92	205	99	76	159	297	405
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91	1.00	0.97	0.91	
Flt.	1.00	0.97		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	4945		3433	5036		3433	5085	1583	3433	4639	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	4945		3433	5036		3433	5085	1583	3433	4639	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	238	963	217	209	1489	102	229	110	84	177	319	450
RTOR Reduction (vph)	0	55	0	0	11	0	0	0	67	0	154	0
Lane Group Flow (vph)	238	1125	0	209	1580	0	229	110	17	177	615	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	5.8	20.5		6.2	21.1		5.4	12.6	12.6	8.0	15.2	
Effective Green, g (s)	5.6	20.5		6.2	21.1		5.4	12.6	12.6	8.0	15.2	
Actuated g/C Ratio	0.09	0.32		0.30	0.33		0.09	0.20	0.20	0.19	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	304	1601		336	1679		293	1012	315	434	1114	
v/s Ratio Prot	0.07	0.23		0.06	0.31		0.07	0.02	0.01	0.05	0.13	
v/s Ratio Perm												
v/c Ratio	0.70	0.70		0.62	0.94		0.78	0.11	0.05	0.41	0.87	
Uniform Delay, d1	28.3	18.7		27.4	20.5		28.4	20.8	20.5	25.5	21.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	12.4	1.4		3.6	10.9		12.7	0.0	0.1	0.6	0.6	
Delay (s)	40.6	20.1		31.0	31.4		41.1	20.8	20.6	26.1	21.7	
Level of Service	D	C		C	C		D	C	C	C	C	
Approach Delay (s)	23.6			31.4			31.7			22.5		
Approach LOS	C			C			C			C		
Intersection Summary												
HCM Average Control Delay	27.2			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.72											
Actuated Cycle Length (s)	63.3			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	67.9%			ICU Level of Service			C					
Analysis Period (min)	15											
u: Default Right Lane: Recode with 1 through lane as a right lane. c: Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
14: Del Mar Heights Road & Carmel Country Rd.

Existing AM
12/1/2010

Movement	EB			WB			NB			SB		
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑↓		↔	↑↑↓		↔	↑↑↑	↔	↔	↑↑↓	
Volume (vph)	138	591	267	272	1108	169	336	183	108	142	180	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91	1.00	0.97	0.91	
Flt.	1.00	0.95		1.00	0.98		1.00	0.94	1.00	0.94	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	4984		3433	4984		3433	4802	1770	3333	4639	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	4984		3433	4984		3433	4802	1770	3333	4639	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	153	657	297	302	1231	188	373	203	120	158	200	127
RTOR Reduction (vph)	0	111	0	0	27	0	0	101	0	0	108	0
Lane Group Flow (vph)	153	843	0	302	1392	0	373	222	0	158	219	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	3.9	17.2		8.6	21.9		9.1	9.6	9.6	8.6	9.1	
Effective Green, g (s)	3.9	17.2		8.6	21.9		9.1	9.6	9.6	8.6	9.1	
Actuated g/C Ratio	0.06	0.29		0.14	0.36		0.15	0.16	0.16	0.14	0.15	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	223	1390		492	1819		521	768	254	506	506	
v/s Ratio Prot	0.04	0.17		0.09	0.26		0.11	0.06	0.09	0.07	0.07	
v/s Ratio Perm												
v/c Ratio	0.69	0.61		0.61	0.77		0.72	0.29	0.62	0.43	0.43	
Uniform Delay, d1	27.5	18.5		24.1	16.8		24.2	22.2	24.2	23.1	23.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.5	0.8		2.3	2.0		4.7	0.2	4.7	0.6	0.6	
Delay (s)	35.9	19.2		26.4	18.8		28.9	22.4	28.9	23.7	23.7	
Level of Service	D	B		C	B		C	C	C	C	C	
Approach Delay (s)	21.5			20.1			25.9			25.4		
Approach LOS	C			C			C			C		
Intersection Summary												
HCM Average Control Delay	22.1			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.64											
Actuated Cycle Length (s)	60.0			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	60.7%			ICU Level of Service			B					
Analysis Period (min)	15											
c: Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Del Mar Heights Road & Torrey Ridge Drive

Existing AM
12/1/2010

Movement	EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR		
Lane Configurations	T T T		T T T		T T T		T T T		T T T		T T T		T T T		T T T		
Volume (vph)	206	619	112	79	993	210	77	151	11	54	60	126					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Flt	1.00	0.99	1.00	0.97	1.00	0.99	1.00	0.99	1.00	0.99	1.00	0.99	1.00	0.99	1.00	0.87	
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1770	4969	1770	4952	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1770	4969	1770	4952	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	229	688	124	88	1103	233	86	168	12	60	67	139					
RTOR Reduction (vph)	0	30	0	0	40	0	0	4	0	0	111	0					
Lane Group Flow (vph)	229	782	0	88	1296	0	86	176	0	60	95	0					
Turn Type	Prot		Prot		Prot		Prot		Prot		Prot		Prot		Prot		
Protected Phases	4		6		5		2		1		6		1		6		
Permitted Phases	3		3		3		3		3		3		3		3		
Actuated Green, G (s)	11.9	27.6	6.5	22.2	4.5	12.7	2.7	10.9									
Effective Green, g (s)	11.9	27.6	6.5	22.2	4.5	12.7	2.7	10.9									
Actuated g/C Ratio	0.18	0.42	0.10	0.34	0.07	0.19	0.04	0.17									
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	322	2094	176	1678	122	358	73	279									
v/s Ratio Prot	0.19	0.16	0.05	0.26	0.05	0.10	0.03	0.06									
v/s Ratio Perm																	
w/C Ratio	0.74	0.37	0.50	0.77	0.70	0.49	0.82	0.31									
Uniform Delay, d1	25.2	13.0	28.0	19.4	29.9	23.5	31.2	24.1									
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
Incremental Delay, d2	7.2	0.1	2.2	2.3	16.9	1.1	49.9	0.7									
Delay (s)	32.4	13.1	30.2	21.7	46.7	24.6	81.1	24.9									
Level of Service	C	B	C	C	D	C	F	C									
Approach Delay (s)	17.4		22.2		31.7		37.5										
Approach LOS	B		C		C		D										
Intersection Summary																	
HCM Average Control Delay	22.7		HCM Level of Service				C										
HCM Volume to Capacity ratio	0.65																
Actuated Cycle Length (s)	65.5		Sum of lost time (s)				12.0										
Intersection Capacity Utilization	63.7%		ICU Level of Service				B										
Analysis Period (min)	15																
c : Critical Lane Group																	

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing AM
12/1/2010

Movement	EBL		EBR		WBL		WBR		NBL		NBR		SBL		SBR		
Lane Configurations	T T T		T T T		T T T		T T T		T T T		T T T		T T T		T T T		
Volume (vph)	145	546	34	65	1068	35	43	25	53	48	58	316					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Flt	1.00	0.99	1.00	1.00	1.00	0.90	1.00	0.90	1.00	0.90	1.00	0.87					
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1770	5040	1770	5061	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1770	5040	1770	5061	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	1770	4844	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	161	607	38	72	1187	39	48	28	59	53	64	351					
RTOR Reduction (vph)	0	9	0	0	5	0	48	0	0	239	0						
Lane Group Flow (vph)	161	636	0	72	1221	0	48	39	0	53	176	0					
Turn Type	Prot		Prot		Prot		Prot		Prot		Prot		Prot		Prot		
Protected Phases	4		6		5		2		1		6		1		6		
Permitted Phases	3		3		3		3		3		3		3		3		
Actuated Green, G (s)	6.2	22.1	2.7	18.6	1.7	10.4	2.4	11.1									
Effective Green, g (s)	6.2	22.1	2.7	18.6	1.7	10.4	2.4	11.1									
Actuated g/C Ratio	0.12	0.41	0.05	0.35	0.03	0.19	0.04	0.21									
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	205	2078	89	1756	56	325	79	337									
v/s Ratio Prot	0.09	0.13	0.04	0.24	0.03	0.02	0.03	0.11									
v/s Ratio Perm																	
w/C Ratio	0.79	0.31	0.81	0.70	0.86	0.12	0.67	0.52									
Uniform Delay, d1	23.1	10.6	25.2	15.1	25.8	17.8	25.2	18.9									
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
Incremental Delay, d2	17.7	0.1	39.8	1.2	70.1	0.2	20.1	1.5									
Delay (s)	40.8	10.7	65.0	16.3	95.9	18.0	45.3	20.3									
Level of Service	D	B	E	B	F	B	D	C									
Approach Delay (s)	16.7		19.0		45.7		23.2										
Approach LOS	B		B		D		C										
Intersection Summary																	
HCM Average Control Delay	20.4		HCM Level of Service				C										
HCM Volume to Capacity ratio	0.64																
Actuated Cycle Length (s)	53.6		Sum of lost time (s)				16.0										
Intersection Capacity Utilization	58.7%		ICU Level of Service				C										
Analysis Period (min)	15																
c : Critical Lane Group																	

HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing AM
12/1/2010

Movement	EBE	EBR	WBE	WBR	NBE	NBR
Lane Configurations	↑↑↑		↑↑↑		↑↑↑	
Volume (vph)	543	119	385	967	249	332
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.91	0.97	1.00	1.00
Flt	0.97	1.00	1.00	1.00	0.85	1.00
Flt Protected	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4940	1770	5085	3433	1583	1583
Flt Permitted	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4940	1770	5085	3433	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	603	132	428	1074	277	369
RTOR Reduction (vph)	59	0	0	0	0	294
Lane Group Flow (vph)	676	0	428	1074	277	75
Turn Type	Prot		Prot		Prot	
Protected Phases	3		8		2	
Permitted Phases	6		6		6	
Actuated Green, G (s)	13.1	15.2	32.3	10.2	10.2	10.2
Effective Green, g (s)	13.1	15.2	32.3	10.2	10.2	10.2
Actuated g/C Ratio	0.26	0.30	0.64	0.20	0.20	0.20
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1284	533	3252	693	320	320
v/s Ratio Prot	0.14	0.24	0.21	0.08	0.05	0.05
v/s Ratio Perm	0.53		0.80		0.35	
v/c Ratio	0.53	0.80	0.35	0.40	0.23	0.23
Uniform Delay, d1	16.0	16.3	4.2	17.5	16.9	16.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	8.5	0.1	0.4	0.4	0.4
Delay (s)	16.4	24.8	4.2	17.9	17.2	17.2
Level of Service	B	C	A	B	B	B
Approach Delay (s)	16.4	10.1		17.5	17.2	
Approach LOS	B	B		B	B	
Intersection Summary						
HCM Average Control Delay	13.4			HCM Level of Service B		
HCM Volume to Capacity ratio	0.60					
Actuated Cycle Length (s)	50.5			Sum of lost time (s) 12.0		
Intersection Capacity Utilization	51.6%			ICU Level of Service A		
Analysis Period (min)	15					
c: Critical Lane Group						

Baseline

HCM Signalized Intersection Capacity Analysis
18: Del Mar Highlands Town Ctr. & El Camino Real

Existing AM
12/1/2010

Movement	WBE	WBR	WBR	WBR	WBR	WBR	WBR	WBR	WBR	WBR	WBR	WBR	WBR	WBR	WBR	
Lane Configurations	↑↑↑		↑↑↑		↑↑↑		↑↑↑		↑↑↑		↑↑↑		↑↑↑		↑↑↑	
Volume (vph)	94	0	107	0	10	0	0	292	90	160	583	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	0.97
Flt	1.00	1.00	0.85	1.00	1.00	1.00	1.00	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583
Flt Permitted	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	104	0	119	0	10	0	0	324	109	178	648	0	0	0	0	0
RTOR Reduction (vph)	0	0	99	0	0	0	0	77	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	104	0	120	0	10	0	0	356	0	178	648	0	0	0	0	0
Turn Type	Perm		Perm		Prot		Prot		Prot		Prot		Prot		Prot	
Protected Phases	6		6		3		3		3		3		3		3	
Permitted Phases	6		6		6		6		6		6		6		6	
Actuated Green, G (s)	5.5	5.5	9.6	5.1	18.7	5.5	5.5	9.6	5.1	18.7	5.5	5.5	9.6	5.1	18.7	5.5
Effective Green, g (s)	5.5	5.5	9.6	5.1	18.7	5.5	5.5	9.6	5.1	18.7	5.5	5.5	9.6	5.1	18.7	5.5
Actuated g/C Ratio	0.17	0.17	0.30	0.16	0.58	0.17	0.17	0.30	0.16	0.58	0.17	0.17	0.30	0.16	0.58	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	302	270	1459	544	2953	302	270	1459	544	2953	302	270	1459	544	2953	302
v/s Ratio Prot	0.06	0.06	0.07	0.05	0.13	0.06	0.06	0.07	0.05	0.13	0.06	0.06	0.07	0.05	0.13	0.06
v/s Ratio Perm	0.01		0.01		0.01		0.01		0.01		0.01		0.01		0.01	
v/c Ratio	0.34	0.08	0.24	0.33	0.22	0.34	0.08	0.24	0.33	0.22	0.34	0.08	0.24	0.33	0.22	0.34
Uniform Delay, d1	11.8	11.2	8.6	12.0	3.2	11.8	11.2	8.6	12.0	3.2	11.8	11.2	8.6	12.0	3.2	11.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.1	0.4	0.0	0.7	0.1	0.1	0.4	0.0	0.7	0.1	0.1	0.4	0.0	0.7
Delay (s)	12.4	11.3	8.6	12.4	3.3	12.4	11.3	8.6	12.4	3.3	12.4	11.3	8.6	12.4	3.3	12.4
Level of Service	B	B	A	B	A	B	B	A	B	A	B	B	A	B	A	B
Approach Delay (s)	11.9	0.0		8.6	5.2		11.9	0.0		8.6	5.2		11.9	0.0		8.6
Approach LOS	B	A		A	A		B	A		A	A		B	A		A
Intersection Summary																
HCM Average Control Delay	7.2				HCM Level of Service A				7.2				HCM Level of Service A			
HCM Volume to Capacity ratio	0.26															
Actuated Cycle Length (s)	32.2				Sum of lost time (s) 8.0				32.2				Sum of lost time (s) 8.0			
Intersection Capacity Utilization	29.8%				ICU Level of Service A				29.8%				ICU Level of Service A			
Analysis Period (min)	15															
c: Critical Lane Group																

Baseline

HCM Signalized Intersection Capacity Analysis
19: Townsgate Drive & Carmel Country Road

Existing AM
12/1/2010

Movement	SEBL	SEBT	SEBR	WBL	WBT	WBR	SEBL	NBL	NBR	SEBL	SEBT	SEBR	
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Volume (vph)	150	83	113	45	189	149	111	364	7	100	433	162	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	1.00	
Flt. Protected	0.95	1.00	0.85	1.00	0.93	1.00	1.00	1.00	1.00	1.00	0.85	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1739	1770	3529	1770	3539	1583	1770	1839	
Flt. Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1739	1770	3529	1770	3539	1583	1770	1839	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	167	92	126	50	210	166	123	404	8	111	481	180	
RTOR Reduction (vph)	0	0	78	0	36	0	0	2	0	0	0	140	
Lane Group Flow (vph)	167	92	46	50	340	0	123	410	0	111	481	40	
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	
Protected Phases	7	4	4	9	8	5	2	6	6	6	6	6	
Permitted Phases													
Activated Green, G (s)	11.5	25.7	25.7	3.5	17.7	7.1	15.9	16.1	14.9	14.9	19.3	19.3	
Effective Green, g (s)	11.5	25.7	25.7	3.5	17.7	7.1	15.9	6.1	14.9	14.9	8.1	19.3	
Activated g/C Ratio	0.17	0.38	0.38	0.05	0.26	0.11	0.24	0.09	0.22	0.22	0.15	0.36	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	303	712	605	92	458	187	835	161	785	351	271	1819	
v/s Ratio Prot	0.09	0.05	0.03	0.03	0.20	0.07	0.12	0.06	0.14	0.09	0.11	0.11	
v/s Ratio Perm													
v/c Ratio	0.55	0.13	0.06	0.54	0.74	0.66	0.49	0.69	0.61	0.11	0.61	0.29	
Uniform Delay, d1	26.5	13.5	13.2	31.1	22.7	28.9	22.2	29.6	23.6	20.9	20.8	11.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	0.1	0.1	6.4	6.4	8.1	0.5	11.6	1.4	0.1	2.9	0.1	
Delay (s)	27.7	13.6	13.3	37.5	29.1	37.0	22.6	41.3	25.0	21.0	23.7	12.0	
Level of Service	C	B	B	D	C	D	C	D	C	C	C	B	
Approach Delay (s)	19.6	19.6	19.6	30.0	25.9	26.4	26.4	26.4	26.4	26.4	26.4	26.4	
Approach LOS	B	B	B	C	C	C	C	C	C	C	C	C	
Intersection Summary													
HCM Average Control Delay	25.8				HCM Level of Service				C				
HCM Volume to Capacity ratio	0.65				Sum of lost time (s)				16.0				
Actuated Cycle Length (s)	67.2				ICU Level of Service				B				
Intersection Capacity Utilization	58.8%				Analysis Period (min)				15				
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
20: Townsgate Drive & El Camino Real

Existing AM
12/1/2010

Movement	SEBL	SEBT	SEBR	NWBL	NWBT	NWBR	SEBL	SEBT	SEBR	SEBL	SEBT	SEBR	
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Volume (vph)	38	67	6	226	45	104	14	205	52	140	436	66	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	1.00	
Flt. Protected	1.00	0.99	1.00	1.00	0.85	1.00	0.97	1.00	0.98	1.00	0.98	1.00	
Satd. Flow (prot)	1770	1839	1770	1839	1583	1770	1839	1770	1839	1770	1839	1770	
Flt. Permitted	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1839	1770	1839	1583	1770	1839	1770	1839	1770	1839	1770	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	42	74	7	251	50	116	16	228	58	156	484	73	
RTOR Reduction (vph)	0	5	0	0	83	0	45	0	25	0	25	0	
Lane Group Flow (vph)	42	76	0	251	50	33	16	241	0	156	532	0	
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	
Protected Phases	6	6	6	6	6	6	6	6	6	6	6	6	
Permitted Phases													
Activated Green, G (s)	2.0	5.3	11.6	14.9	14.9	0.7	11.9	6.1	19.3	6.1	19.3	19.3	
Effective Green, g (s)	2.0	5.3	11.6	14.9	14.9	0.7	11.9	8.1	19.3	8.1	19.3	19.3	
Activated g/C Ratio	0.04	0.10	0.22	0.28	0.28	0.01	0.22	0.15	0.36	0.15	0.36	0.36	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	67	184	388	525	446	23	1109	271	1819	271	1819	1819	
v/s Ratio Prot	0.02	0.04	0.14	0.03	0.02	0.01	0.05	0.09	0.11	0.09	0.11	0.11	
v/s Ratio Perm													
v/c Ratio	0.63	0.41	0.65	0.50	0.07	0.70	0.22	0.58	0.29	0.58	0.29	0.29	
Uniform Delay, d1	25.1	22.3	18.8	14.0	13.9	26.0	16.7	20.8	11.9	20.8	11.9	11.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	16.9	1.5	3.7	0.1	0.1	63.9	0.1	2.9	0.1	2.9	0.1	0.1	
Delay (s)	42.0	23.8	22.5	14.1	14.0	89.9	16.8	23.7	12.0	23.7	12.0	12.0	
Level of Service	D	C	C	B	B	F	B	C	B	C	B	B	
Approach Delay (s)	30.0	19.1	19.1	20.7	20.7	14.6	14.6	14.6	14.6	14.6	14.6	14.6	
Approach LOS	C	B	B	C	C	A	C	C	B	C	B	B	
Intersection Summary													
HCM Average Control Delay	18.2				HCM Level of Service				B				
HCM Volume to Capacity ratio	0.45				Sum of lost time (s)				12.0				
Actuated Cycle Length (s)	52.9				ICU Level of Service				A				
Intersection Capacity Utilization	42.4%				Analysis Period (min)				15				
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
21: Carmel Creek Road & Carmel Country Road

Existing AM
12/1/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	
Volume (vph)	279	110	123	60	291	29	269	372	26	66	392	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Flt	1.00	1.00	0.85	0.99	1.00	0.99	1.00	0.99	1.00	0.99	1.00	
Flt Protected	0.95	1.00	1.00	0.99	0.95	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1863	1583	1829	1770	3502	1770	3277	1770	3277	1770	
Flt Permitted	0.95	1.00	1.00	0.99	0.95	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1863	1583	1829	1770	3502	1770	3277	1770	3277	1770	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	310	131	137	67	323	32	299	413	31	73	424	
RTOR Reduction (vph)	0	0	112	0	3	0	0	6	0	0	194	
Lane Group Flow (vph)	310	131	25	0	419	0	299	438	0	73	666	
Turn Type	Split	Prot	Split	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	
Protected Phases	2	4	4	6	6	5	2	1	6	6	6	
Permitted Phases												
Actuated Green, G (s)	16.8	16.8	16.8	21.0	16.0	29.7	7.0	20.7				
Effective Green, g (s)	16.8	16.8	16.8	21.0	16.0	29.7	7.0	20.7				
Actuated g/C Ratio	0.19	0.19	0.19	0.23	0.18	0.33	0.08	0.23				
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	329	346	291	424	313	1149	137	750				
vs Ratio Prot	0.18	0.07	0.02	0.23	0.17	0.13	0.04	0.20				
vs Ratio Perm												
g/C Ratio	0.94	0.38	0.09	0.99	0.96	0.38	0.53	0.89				
Uniform Delay, d1	36.4	32.3	30.5	34.6	36.9	23.3	40.2	33.8				
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	34.6	0.7	0.1	40.1	38.7	0.2	3.9	12.4				
Delay (s)	71.0	33.0	30.6	74.8	75.6	23.5	44.1	46.2				
Level of Service	E	C	C	E	E	C	D	D				
Approach Delay (s)		52.8		74.8		44.5		46.0				
Approach LOS		D		E		D		D				
Intersection Summary												
HCM Average Control Delay	51.6			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.94											
Actuated Cycle Length (s)	90.5			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	87.2%			ICU Level of Service			E					
Analysis Period (min)	15											
c: Critical Lane Group												


HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing AM
12/1/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	
Volume (vph)	30	110	245	94	221	63	212	242	29	68	860	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.97	0.91	0.91	1.00	0.91	1.00	
Flt	1.00	0.85	0.85	1.00	0.97	1.00	0.98	0.98	1.00	0.98	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.96	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1583	1583	1770	3363	3433	5004	1770	5001	1770	5001	
Flt Permitted	0.95	1.00	1.00	0.95	0.96	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1583	1583	1770	3363	3433	5004	1770	5001	1770	5001	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	33	122	272	104	246	70	236	269	32	76	956	
RTOR Reduction (vph)	0	0	203	0	45	0	22	0	0	25	0	
Lane Group Flow (vph)	33	122	69	104	271	0	236	279	0	76	1050	
Turn Type	Perm	Perm	Split	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	
Protected Phases	2	2	6	3	8	7	4	4	4	4	4	
Permitted Phases												
Actuated Green, G (s)	15.2	15.2	15.2	5.8	5.8	5.1	18.9	4.1	17.9	4.1	17.9	
Effective Green, g (s)	15.2	15.2	15.2	5.8	5.8	5.1	18.9	4.1	17.9	4.1	17.9	
Actuated g/C Ratio	0.25	0.25	0.25	0.10	0.10	0.08	0.32	0.07	0.30	0.07	0.30	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	448	401	401	171	325	292	1576	121	1492	121	1492	
vs Ratio Prot	0.02	0.02	0.06	0.08	0.06	0.07	0.06	0.04	0.21	0.04	0.21	
vs Ratio Perm	0.08	0.04										
g/C Ratio	0.07	0.30	0.17	0.61	0.83	0.61	0.19	0.63	0.70	0.63	0.70	
Uniform Delay, d1	17.0	18.1	17.5	26.0	26.6	27.0	14.9	27.2	18.7	27.2	18.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	2.0	0.9	6.0	16.5	15.0	8.1	9.8	1.5	9.8	1.5	
Delay (s)	17.4	20.1	18.4	32.0	43.1	42.0	15.0	37.0	20.2	37.0	20.2	
Level of Service	B	C	B	C	D	D	B	D	C	D	C	
Approach Delay (s)	18.8		40.4		28.9		21.3		21.3		21.3	
Approach LOS	B		D		C		C		C		C	
Intersection Summary												
HCM Average Control Delay	25.2			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.59											
Actuated Cycle Length (s)	60.0			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	50.0%			ICU Level of Service			A					
Analysis Period (min)	15											
c: Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road


Existing AM
12/1/2010



Movement	SE	EB	WB	NB	SE	EB	WB	NB	SE	EB	WB	NB	SE	EB	WB	NB
Lane Configurations	T		T		T		T		T		T		T		T	
Sign Control	Stop		Stop		Stop		Stop		Stop		Stop		Stop		Stop	
Volume (vph)	44	6	65	13	26	14	105	30	2	3	16	175				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	49	7	72	14	29	16	117	33	2	3	18	194				
Direction Lane #	SE	SE	NW	NW	SE	SE	SW	SW								
Volume Total (vph)	56	72	59	152	216											
Volume Left (vph)	49	0	14	117	3											
Volume Right (vph)	0	72	16	2	194											
Head (s)	0.47	0.67	0.08	0.18	0.50											
Departure Headway (s)	5.9	4.7	4.9	4.8	4.1											
Degree Utilization	0.09	0.09	0.08	0.20	0.24											
Capacity (veh/h)	571	705	665	716	839											
Control Delay (s)	8.3	7.0	8.4	9.0	8.4											
Approach Delay (s)	7.6		8.4	9.0	8.4											
Approach LOS	A		A	A	A											
Intersection Summary																
Delay	8.3															
HCM Level of Service	A															
Intersection Capacity Utilization	38.9%															
ICU Level of Service	A															
Analysis Period (min)	15															

HCM Signalized Intersection Capacity Analysis
24: Carmel Grove Road & Carmel Creek Road

Existing AM
12/1/2010



Movement	EBL	EB	EBR	WBL	WB	WBR	NBL	NB	NBR	SBL	SBR
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T
Volume (vph)	52	89	116	199	61	24	30	264	81	15	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.96	1.00	0.98	1.00
Flt Protected	0.98	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1829	1583	1779	1770	3414	1770	3414	1770	3456	1770	3456
Flt Permitted	0.98	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1829	1583	1779	1770	3414	1770	3414	1770	3456	1770	3456
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	99	129	221	68	27	33	293	90	17	180
RTOR Reduction (vph)	0	0	108	0	4	0	0	34	0	0	18
Lane Group Flow (vph)	0	157	21	0	312	0	33	349	0	17	978
Turn Type	Split	Prot	Split	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	4	4	4	4	5	2	5	2	5	2	6
Permitted Phases											
Actuated Green, G (s)	11.3	11.3	15.6	1.5	25.3	0.8	24.6				
Effective Green, g (s)	11.3	11.3	15.6	1.5	25.3	0.8	24.6				
Actuated g/C Ratio	0.16	0.16	0.23	0.02	0.37	0.01	0.36				
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	300	259	402	38	1252	21	1232				
v/s Ratio Prot	0.09	0.01	0.18	0.02	0.10	0.01	0.28				
v/s Ratio Perm											
v/c Ratio	0.52	0.08	0.79	0.87	0.20	0.81	0.79				
Uniform Delay, d1	26.4	24.5	25.1	33.7	15.4	34.0	19.9				
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	1.6	0.1	9.1	93.8	0.1	109.0	3.6				
Delay (s)	28.0	24.6	34.2	127.5	15.5	143.1	23.5				
Level of Service	C	G	C	F	B	F	C				
Approach Delay (s)	26.5		34.2		24.4		25.5				
Approach LOS	C		C		C		C				
Intersection Summary											
HCM Average Control Delay	26.8										
HCM Level of Service	C										
HCM Volume to Capacity ratio	0.73										
Actuated Cycle Length (s)	69.0										
Sum of lost time (s)	16.0										
Intersection Capacity Utilization	58.2%										
ICU Level of Service	B										
Analysis Period (min)	15										
Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
25: Carmel Valley Road & I-5 SB Ramps

Existing AM
12/1/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	
Volume (vph)	0	286	176	382	615	0	0	0	0	997	3	144	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.97	0.95	0.97	0.95	0.95	0.91	0.95	0.95	1.00	0.95	0.95	
Flt.	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	
Satd. Flow (prot)	3337	3433	3539	3433	3539	1681	1610	1504	1504	1681	1610	1504	
Flt Permitted	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	
Satd. Flow (perm)	3337	3433	3539	3433	3539	1681	1610	1504	1504	1681	1610	1504	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	0	318	196	424	683	0	0	0	0	1100	3	160	
RTOR Reduction (vph)	0	155	0	0	0	0	0	0	0	2	83	0	
Lane Group Flow (vph)	0	359	0	424	683	0	0	0	0	565	560	161	
Turn Type		Prot						Split			Prot		
Protected Phases	4	3	8	6	6	6	6	6	6	6	6	6	
Permitted Phases													
Actuated Green, G (s)	11.7	9.9	25.6	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	
Effective Green, g (s)	11.7	9.9	25.6	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	
Actuated g/C Ratio	0.20	0.17	0.44	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	670	583	1554	712	682	637	637	637	637	637	637	637	
vs Ratio Prot	0.11	0.12	0.19	0.34	0.35	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
vs Ratio Perm													
g/C Ratio	0.54	0.75	0.44	0.79	0.82	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
Uniform Delay, d1	20.9	22.9	11.4	14.6	14.9	10.1	10.1	10.1	10.1	10.1	10.1	10.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	4.5	0.2	6.1	7.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Delay (s)	21.7	27.4	11.6	20.7	22.7	10.2	10.2	10.2	10.2	10.2	10.2	10.2	
Level of Service	C	C	B	C	C	C	C	C	C	C	C	B	
Approach Delay (s)	21.7		17.6	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	
Approach LOS	C		B	A	C	C	C	C	C	C	C	A	
Intersection Summary													
HCM Average Control Delay	19.6			HCM Level of Service						B			
HCM Volume to Capacity ratio	0.73												
Actuated Cycle Length (s)	58.3			Sum of lost time (s)						12.0			
Intersection Capacity Utilization	73.6%			ICU Level of Service						D			
Analysis Period (min)	15												
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
26: Carmel Valley Road & I-5 NB Ramps

Existing AM
12/1/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	
Volume (vph)	61	1167	0	0	925	834	106	2	547	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.85	1.00	0.86	0.85	1.00	1.00	1.00	
Flt.	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.86	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	
Satd. Flow (prot)	3433	3539	3539	3539	3539	1583	1681	1449	1504	1504	1504	1504	
Flt Permitted	0.95	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Satd. Flow (perm)	3433	3539	3539	3539	3539	1583	1681	1449	1504	1504	1504	1504	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	68	1297	0	0	1028	927	118	2	608	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	494	0	39	39	0	0	0	
Lane Group Flow (vph)	68	1297	0	0	1028	433	106	273	271	0	0	0	
Turn Type		Prot						Split			Prot		
Protected Phases	7	4	0	6	2	2	2	2	2	2	2	2	
Permitted Phases													
Actuated Green, G (s)	2.4	31.6		25.2	25.2	14.3	14.3	14.3	14.3	14.3	14.3	14.3	
Effective Green, g (s)	2.4	31.6		25.2	25.2	14.3	14.3	14.3	14.3	14.3	14.3	14.3	
Actuated g/C Ratio	0.04	0.59		0.47	0.47	0.27	0.27	0.27	0.27	0.27	0.27	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	153	2075		1655	740	446	384	399	399	399	399	399	
vs Ratio Prot	0.02	0.37		0.29	0.27	0.06	0.19	0.18	0.18	0.18	0.18	0.18	
vs Ratio Perm													
g/C Ratio	0.44	0.63		0.62	0.59	0.24	0.71	0.68	0.68	0.68	0.68	0.68	
Uniform Delay, d1	25.1	7.3		10.8	10.5	15.5	17.9	17.7	17.7	17.7	17.7	17.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.1	0.6		0.7	1.2	0.3	6.1	4.6	4.6	4.6	4.6	4.6	
Delay (s)	27.2	7.9		11.5	11.7	15.8	24.0	22.3	22.3	22.3	22.3	22.3	
Level of Service	C	A		B	B	B	C	C	C	C	C	C	
Approach Delay (s)	0.8			11.8	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	
Approach LOS	A			B	C	C	C	C	C	C	C	C	
Intersection Summary													
HCM Average Control Delay	12.6			HCM Level of Service						B			
HCM Volume to Capacity ratio	0.65												
Actuated Cycle Length (s)	53.9			Sum of lost time (s)						8.0			
Intersection Capacity Utilization	73.6%			ICU Level of Service						D			
Analysis Period (min)	15												
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
 27: Valley Centre Drive & El Camino Real

Existing AM
 12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	20	6	16	704	14	133	89	857	145	111	3041	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	1.00	0.91	1.00	0.91
Flt	1.00	0.97	0.85	1.00	0.99	0.85	1.00	0.98	1.00	1.00	1.00	1.00
Flt Protected	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1681	1617	1504	1681	1611	1504	1770	14975	1770	1770	5073	5073
Flt Permitted	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1601	1617	1504	1681	1611	1504	1770	14975	1770	1770	5073	5073
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	7	18	792	16	149	77	952	161	123	1157	19
RTOR Reduction (vph)	0	3	14	0	1	89	0	23	0	0	2	0
Lane Group Flow (vph)	16	13	1	407	405	44	77	1090	0	123	1174	0
Turn Type	Spfl		Prot	Spfl		Prot	Prot		Prot			
Protected Phases												
Permitted Phases												
Actuated Green, G (s)	3.5	3.5	3.5	23.7	23.7	23.7	4.4	32.0	29.6	29.6	29.6	29.6
Effective Green, g (s)	3.5	3.5	3.5	23.7	23.7	23.7	4.4	32.0	23.6	23.6	23.6	23.6
Actuated g/C Ratio	0.05	0.05	0.05	0.33	0.33	0.33	0.06	0.45	0.33	0.33	0.33	0.33
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	83	79	74	560	536	501	109	2236	587	1682	1682	1682
v/s Ratio Prot	0.01	0.01	0.00	0.24	0.25	0.03	0.04	0.22	0.07	0.07	0.07	0.07
v/s Ratio Perm												
v/c Ratio	0.19	0.17	0.01	0.73	0.75	0.09	0.71	0.49	0.21	0.21	0.70	0.70
Uniform Delay, d1	32.5	32.5	32.2	20.9	21.2	16.3	32.8	13.8	17.1	20.7	17.1	20.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	1.0	0.1	4.7	6.0	0.1	18.8	0.2	0.2	1.3	0.2	1.3
Delay (s)	33.6	33.4	32.3	25.6	27.1	16.4	51.6	14.0	17.3	22.0	17.3	22.0
Level of Service	C	C	C	C	C	B	D	B	B	C	B	C
Approach Delay (s)	33.1			25.0			16.4		21.5			
Approach LOS	C			C			B		C			
Intersection Summary												
HCM Average Control Delay	20.9			HCM Level of Service				C				
HCM Volume to Capacity ratio	0.69											
Actuated Cycle Length (s)	71.2			Sum of lost time (s)				16.0				
Intersection Capacity Utilization	63.8%			ICU Level of Service				F				
Analysis Period (min)	15											
! Phase conflict between lane groups												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 28: Carmel Valley Road & El Camino Real

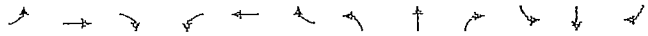
Existing AM
 12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	0	0	0	0	1008	200	147	788	0	0	0	544
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.95	0.91	1.00	0.95	0.95	0.86	0.86	0.86	0.86
Flt, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	1.00	1.00	1.00
Flt, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.85	1.00	1.00
Flt Protected	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	5085	5085	1583	3433	3639	5085	5085	5085	4207	1362	4207	1362
Flt Permitted	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	5085	5085	1583	3433	3539	5085	5085	5085	4207	1362	4207	1362
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	1120	222	163	876	0	0	604	699
RTOR Reduction (vph)	0	0	0	0	0	89	0	0	0	0	18	18
Lane Group Flow (vph)	0	0	0	0	1120	133	163	876	0	0	936	331
Confl. Peds. (#/hr)	200											
Turn Type												
Protected Phases												
Permitted Phases												
Actuated Green, G (s)					16.4	16.4	3.7	26.9			19.2	19.2
Effective Green, g (s)					16.4	16.4	3.7	26.9			19.2	19.2
Actuated g/C Ratio					0.32	0.32	0.07	0.52			0.37	0.37
Clearance Time (s)					4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					1626	506	248	1856			1575	1510
v/s Ratio Prot					0.22	0.05	0.25	0.25			0.22	0.24
v/s Ratio Perm						0.08						
v/c Ratio					0.69	0.26	0.66	0.47			0.59	0.65
Uniform Delay, d1					15.2	13.0	23.2	7.7			12.9	13.3
Progression Factor					1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2					1.2	0.3	6.2	0.2			0.6	2.8
Delay (s)					16.5	13.2	29.3	7.9			13.5	16.1
Level of Service					B	B	C	B			B	B
Approach Delay (s)					15.9			11.3			14.2	
Approach LOS					B			B			B	
Intersection Summary												
HCM Average Control Delay	14.0			HCM Level of Service				B				
HCM Volume to Capacity ratio	0.67											
Actuated Cycle Length (s)	51.3			Sum of lost time (s)				12.0				
Intersection Capacity Utilization	95.4%			ICU Level of Service				F				
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
29: SR-56 EB on ramp & El Camino Real

Existing AM
12/1/2010

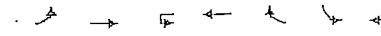


Movement	EB1	EB2	EB3	WB1	WB2	WB3	NB1	NB2	NB3	SB1	SB2	SB3
Lane Configurations	↘	↘	↘				↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑
Volume (vph)	589	896	265	0	0	0	346	192	111	676	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				4.0		4.0	4.0		
Lane Util. Factor	0.91	0.86	0.91				0.86		1.00	0.91		
Frt	1.00	1.00	0.85				0.95		1.00	1.00		
Frt Protected	0.95	1.00	1.00				1.00		0.95	1.00		
Satd. Flow (prot)	1610	3176	1441				6065		1770	5085		
Frt Permitted	0.95	1.00	1.00				1.00		0.95	1.00		
Satd. Flow (perm)	1610	3176	1441				6065		1770	5085		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	654	996	294	0	0	0	384	213	123	751	0	0
RTOR Reduction (vph)	0	3	71	0	0	0	57	0	0	0	0	0
Lane Group Flow (vph)	543	1133	194	0	0	0	540	0	123	751	0	0
Turn Type	Spill			Prot			Prot			Prot		
Protected Phases	4			4			2			6		
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	23.7	23.7	23.7				11.7		4.5	20.2		
Effective Green, g (s)	23.7	23.7	23.7				11.7		4.5	20.2		
Actuated g/C Ratio	0.46	0.46	0.46				0.23		0.09	0.39		
Clearance Time (s)	4.0	4.0	4.0				4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0				3.0		3.0	3.0		
Lane Grp Cap (vph)	735	1450	658				1367		153	1979		
v/s Ratio Prot	0.34	0.36	0.13				0.09		0.07	0.15		
v/s Ratio Perm												
v/c Ratio	0.74	0.78	0.29				0.39		0.30	0.38		
Uniform Delay, d1	11.6	11.9	8.9				17.1		23.3	11.4		
Progression Factor	1.00	1.00	1.00				1.00		1.00	1.00		
Incremental Delay, d2	3.9	2.8	0.3				0.2		25.5	0.1		
Delay (s)	15.5	14.7	9.1				17.3		48.7	11.5		
Level of Service	B	B	A				B		D	B		
Approach Delay (s)	14.2			0.0			17.3			10.7		
Approach LOS	B			A			B			B		

Intersection Summary			
HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	51.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		
c: Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
30: Valley Centre Drive & Carmel View Road

Existing AM
12/1/2010



Movement	EB1	EB2	WB1	WB2	WB3	NB1	SB1	SB2	SB3
Lane Configurations	↘	↘	↘	↘	↘	↑↑	↑↑	↑↑	↑↑
Volume (vph)	16	201	0	424	24	94	112	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0	4.0		
Lane Util. Factor	1.00	0.95		0.95		1.00	1.00		
Frt	1.00	1.00		0.99		1.00	0.85		
Frt Protected	0.95	1.00		1.00		0.95	1.00		
Satd. Flow (prot)	1770	3539		3510		1770	1583		
Frt Permitted	0.95	1.00		1.00		0.95	1.00		
Satd. Flow (perm)	1770	3539		3510		1770	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	18	223	0	471	27	104	124	0	0
RTOR Reduction (vph)	0	0	0	8	0	0	105	0	0
Lane Group Flow (vph)	18	223	0	490	0	104	119	0	0
Turn Type	Prot		Prot		Prot		Prot		Prot
Protected Phases	7		3		8		6		6
Permitted Phases	4		4		8		6		6
Actuated Green, G (s)	0.5	12.7		8.2		3.8	3.8		
Effective Green, g (s)	0.5	12.7		8.2		3.8	3.8		
Actuated g/C Ratio	0.02	0.52		0.33		0.16	0.16		
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0		
Lane Grp Cap (vph)	36	1835		1175		275	246		
v/s Ratio Prot	0.04	0.06		0.14		0.06	0.01		
v/s Ratio Perm									
v/c Ratio	0.50	0.12		0.32		0.38	0.08		
Uniform Delay, d1	11.9	3.0		6.3		9.3	8.9		
Progression Factor	1.00	1.00		1.00		1.00	1.00		
Incremental Delay, d2	10.5	0.0		0.2		0.9	0.1		
Delay (s)	22.4	3.1		6.5		10.2	9.0		
Level of Service	C	A		A		B	A		
Approach Delay (s)	4.5		6.5		9.5		9.0		9.0
Approach LOS	A		A		A		A		A

Intersection Summary			
HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	24.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		
c: Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing AM
12/1/2010

Movement	EBE	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑	↑	↑	↑	↑↑	↑↑	↑	↑↑	↑↑	↑
Volume (vph)	65	214	142	157	362	97	316	309	209	1070	183	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	0.95	1.00
Fit	1.00	0.85	0.85	1.00	0.97	1.00	1.00	0.85	1.00	1.00	0.85	1.00
Fit Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	2787	1583	1770	1804	1770	3539	1583	3433	3539	1583	1583
Fit Permitted	0.31	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	572	2707	1583	1770	1804	1770	3539	1583	3433	3539	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	238	158	174	402	108	351	343	232	1189	203	220
RTOR Reduction (vph)	0	0	132	0	11	0	0	0	194	0	0	159
Lane Group Flow (vph)	72	238	26	174	499	0	351	343	30	1189	203	61
Turn Type	custom	custom	custom	Prot			Prot		Prot	Prot		Prot
Protected Phases				3	6		5	2	2	1		6
Permitted Phases	4	4	4									
Actuated Green, G (s)	14.2	14.2	14.2	9.5	27.7		21.5	13.8	13.8	31.2	23.5	23.5
Effective Green, g (s)	14.2	14.2	14.2	9.5	27.7		21.5	13.8	13.8	31.2	23.5	23.5
Actuated g/C Ratio	0.17	0.17	0.17	0.11	0.33		0.25	0.16	0.16	0.37	0.28	0.28
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	96	467	265	199	590		449	577	258	1265	982	439
v/s Ratio Prot				0.10	0.28		0.20	0.10	0.10	0.35	0.06	0.04
v/s Ratio Perm	0.13	0.09	0.02									
v/C Ratio	0.75	0.51	0.10	0.87	0.85		0.78	0.59	0.15	0.94	0.21	0.14
Uniform Delay, d1	33.6	32.1	29.8	37.0	26.5		29.4	32.9	30.4	25.8	23.5	23.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	27.6	0.9	0.2	31.9	10.8		8.6	1.6	0.3	13.3	0.1	0.1
Delay (s)	61.1	33.0	30.0	68.9	37.3		38.0	34.5	30.7	39.1	23.6	23.1
Level of Service	E	C	C	E	D		D	C	C	D	C	C
Approach Delay (s)				45.3			34.9			35.0		
Approach LOS				D			C			C		
Intersection Summary												
HCM Average Control Delay				37.0	HCM Level of Service			D				
HCM Volume to Capacity ratio				0.84								
Actuated Cycle Length (s)				84.7	Sum of lost time (s)			12.0				
Intersection Capacity Utilization				80.9%	ICU Level of Service			D				
Analysis Period (min)				15								
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

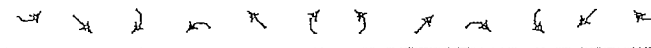
Existing AM
12/1/2010

Movement	EBE	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑				↑↑	↑↑		↑↑	↑↑	↑
Volume (vph)	137	0	180	0	0	0	0	394	74	183	289	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00				0.95	0.98		0.97	0.95	
Fit	1.00	1.00	0.85				1.00	0.98		1.00	1.00	
Fit Protected	0.95	0.95	1.00				1.00	0.95		0.95	1.00	
Satd. Flow (prot)	1681	1681	1583				3455	3455		3433	3539	
Fit Permitted	0.95	0.95	1.00				1.00	0.95		0.95	1.00	
Satd. Flow (perm)	1681	1681	1583				3455	3455		3433	3539	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	148	0	200	0	0	0	0	438	82	203	299	0
RTOR Reduction (vph)	0	0	138	0	0	0	0	32	0	0	0	0
Lane Group Flow (vph)	243	243	62	0	0	0	0	488	0	203	299	0
Turn Type	Split						Prot					Prot
Protected Phases							2			1		6
Permitted Phases												
Actuated Green, G (s)	12.1	12.1	12.1				11.6			3.6		19.2
Effective Green, g (s)	12.1	12.1	12.1				11.6			3.6		19.2
Actuated g/C Ratio	0.31	0.31	0.31				0.30			0.09		0.49
Clearance Time (s)	4.0	4.0	4.0				4.0			4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0				3.0			3.0		3.0
Lane Grp Cap (vph)	518	518	487				1020			314		1729
v/s Ratio Prot	0.14	0.14	0.04				0.14			0.06		0.08
v/s Ratio Perm												
v/C Ratio	0.47	0.47	0.13				0.48			0.65		0.17
Uniform Delay, d1	11.0	11.0	9.8				11.4			17.2		5.6
Progression Factor	1.00	1.00	1.00				1.00			1.00		1.00
Incremental Delay, d2	0.7	0.7	0.1				0.4			4.5		0.0
Delay (s)	11.7	11.7	9.9				11.7			21.8		5.7
Level of Service	B	B	A				B			C		A
Approach Delay (s)				11.2			11.7			12.2		
Approach LOS				B			A			B		
Intersection Summary												
HCM Average Control Delay				11.6	HCM Level of Service			B				
HCM Volume to Capacity ratio				0.50								
Actuated Cycle Length (s)				39.3	Sum of lost time (s)			12.0				
Intersection Capacity Utilization				40.6%	ICU Level of Service			A				
Analysis Period (min)				15								
b Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
 33: Carmel Country Road & Carmel Canyon Road

Existing AM
 12/1/2010



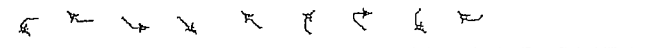
Movement	SSEL	SEL	SER	NWL	NWT	NWR	SSEL	SER	NWL	NWT	NWR	
Lane Configurations	T			T			T			T		
Volume (vph)	86	466	33	141	422	335	48	64	236	623	139	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	0.97	1.00	0.97	1.00	0.97	
Fit	1.00	0.99	1.00	0.93	1.00	0.88	1.00	0.92	1.00	0.92	1.00	
Fit Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	
Satd. Flow (prot)	1770	3505	1770	3304	1770	1643	3433	1706	3433	1706	1583	
Fit Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	
Satd. Flow (perm)	1770	3505	1770	3304	1770	1643	3433	1706	3433	1706	1583	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	96	540	37	157	469	372	53	71	262	692	154	
RTOR Reduction (vph)	0	5	0	0	149	0	0	149	0	47	0	
Lane Group Flow (vph)	96	572	0	157	692	0	53	184	0	692	305	
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6	5	2	7	4	3	0	5	2	6	
Permitted Phases												
Actuated Green, G (s)	8.1	19.4	12.1	23.4	5.0	14.4	19.0	28.4	17.2	39.0	17.6	
Effective Green, g (s)	8.1	19.4	12.1	23.4	5.0	14.4	19.0	28.4	17.2	39.0	17.6	
Actuated g/C Ratio	0.10	0.24	0.15	0.29	0.06	0.18	0.23	0.36	0.34	0.71	0.32	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	177	841	265	956	109	292	806	599	1072	2505	1143	
v/s Ratio Prot	0.05	0.16	0.09	0.21	0.03	0.11	0.20	0.18	0.24	0.18	0.23	
v/s Ratio Perm												
v/c Ratio	0.54	0.69	0.59	0.72	0.49	0.63	0.86	0.51	0.78	0.26	0.72	
Uniform Delay, d1	34.6	27.9	32.1	25.8	36.7	30.8	29.7	20.7	17.2	2.9	16.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.4	2.2	3.5	2.7	3.4	4.4	9.0	0.7	3.8	0.1	2.3	
Delay (s)	38.0	30.1	35.6	28.6	40.1	35.2	38.7	21.4	21.0	2.9	18.7	
Level of Service	D	C	D	C	D	D	D	C	A	B	B	
Approach Delay (s)	31.3		29.7				35.9		32.9			
Approach LOS	C		C				D		C			
Intersection Summary												
HCM Average Control Delay	31.9			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.74											
Actuated Cycle Length (s)	80.5											
Sum of lost time (s)	16.0											
Intersection Capacity Utilization	76.2%			ICU Level of Service			D					
Analysis Period (min)	15											
Critical Lane Group	S <=> L											

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
 34: SR-56 WB Ramps & Carmel Country Road

Existing AM
 12/1/2010



Movement	SSEL	SEL	SER	NWL	NWT	NWR	SSEL	SER	NWL	NWT	NWR	
Lane Configurations	T			T			T			T		
Volume (vph)	0	0	754	576	742	0	306	133	209	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.95	0.95	1.00	0.97	1.00	1.00	0.97	1.00	0.85	1.00	
Fit	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	
Fit Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3539	3539	3539	1583	3433	1583	3433	1583	3433	1583	
Fit Permitted	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3539	3539	3539	1583	3433	1583	3433	1583	3433	1583	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	0	0	838	640	824	0	340	140	232	0	0	
RTOR Reduction (vph)	0	0	0	0	0	0	230	0	198	0	0	
Lane Group Flow (vph)	0	0	838	640	824	0	340	140	232	0	34	
Turn Type	Prot			Perm			Perm			Perm		
Protected Phases	5	2	6	6	4	4	5	2	6	6	4	
Permitted Phases												
Actuated Green, G (s)	17.2	39.0	17.6	17.8	8.1	8.1	17.2	39.0	17.6	17.8	8.1	
Effective Green, g (s)	17.2	39.0	17.8	17.8	8.1	8.1	17.2	39.0	17.6	17.8	8.1	
Actuated g/C Ratio	0.34	0.71	0.32	0.32	0.15	0.15	0.34	0.71	0.32	0.32	0.15	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1072	2505	1143	511	505	233	1072	2505	1143	511	505	
v/s Ratio Prot	0.24	0.18	0.23	0.21	0.29	0.15	0.24	0.18	0.23	0.21	0.29	
v/s Ratio Perm												
v/c Ratio	0.78	0.26	0.72	0.21	0.29	0.15	0.78	0.26	0.72	0.21	0.29	
Uniform Delay, d1	17.2	2.9	16.5	13.6	20.9	20.5	17.2	2.9	16.5	13.6	20.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.8	0.1	2.3	0.2	0.3	0.3	3.8	0.1	2.3	0.2	0.3	
Delay (s)	21.0	2.9	18.7	13.8	21.3	20.8	21.0	2.9	18.7	13.8	21.3	
Level of Service	C	A	B	B	C	C	C	A	B	B	C	
Approach Delay (s)	0.0	9.2			17.3			0.0	21.0			
Approach LOS	A	B			B			A	C			
Intersection Summary												
HCM Average Control Delay	15.7			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.66											
Actuated Cycle Length (s)	55.1											
Sum of lost time (s)	12.0											
Intersection Capacity Utilization	55.8%			ICU Level of Service			B					
Analysis Period (min)	15											
Critical Lane Group	S <=> L											

Baseline

Synchro 7 - Report
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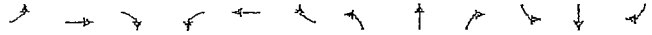


Movement	EBL2	EBL	EBR	SEL	SET	SEB	NW	NW2	NWR	SW	SW2
Lane Configurations	3	3	3	3	3	3	3	3	3	3	3
Volume (vph)	300	2	161	337	370	0	0	723	214	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	0	0	4.0	4.0	0	0
Lane Util. Factor	0.95	0.95	1.00	0.97	0.95			0.95	1.00		
FRT	1.00	1.00	0.85	1.00	1.00			1.00	0.85		
FRT Protected	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (prot)	1681	1681	1583	3433	3539			3539	1583		
FRT Permitted	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (perm)	1681	1681	1583	3433	3539			3539	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	333	2	179	374	411	0	0	803	238	0	0
RTOR Reduction (vph)	0	0	140	0	0	0	0	0	156	0	0
Lane Group Flow (vph)	166	169	39	374	411	0	0	803	82	0	0
Turn Type	Split	Prot	Prot	Prot	Prot			Prot			
Protected Phases	4	4	4	6	6			2	2		
Permitted Phases											
Actuated Green, G (s)	10.2	10.2	10.2	8.9	29.2			16.3	16.3		
Effective Green, g (s)	10.2	10.2	10.2	8.9	29.2			16.3	16.3		
Actuated g/C Ratio	0.22	0.22	0.22	0.19	0.62			0.34	0.34		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		
Lane Grp Cap (vph)	362	362	341	645	2180			1217	544		
v/s Ratio Prot	0.10	0.10	0.02	0.11	0.12			0.23	0.05		
v/s Ratio Perm											
v/c Ratio	0.46	0.47	0.11	0.58	0.19			0.66	0.15		
Uniform Delay, d1	16.2	16.2	15.0	17.5	4.0			13.2	10.8		
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	0.9	1.0	0.1	1.3	0.0			1.3	0.1		
Delay (s)	17.1	17.2	15.1	18.8	4.0			14.5	10.9		
Level of Service	B	B	B	B	A			B	B		
Approach Delay (s)		16.4		11.1				13.7		0.0	
Approach LOS		B		B				B		A	
Intersection Summary											
HCM Average Control Delay	13.4			HCM Level of Service			B				
HCM Volume to Capacity ratio	0.58										
Actuated Cycle Length (s)	47.4			Sum of lost time (s)			12.0				
Intersection Capacity Utilization	48.0%			ICU Level of Service			A				
Analysis Period (min)	15										
Critical Lane Group											

ALL-WAY STOP CONTROL ANALYSIS												
General Information						Site Information						
Analyst	Jacob Swim					Intersection	Carmel Creek Rd/Del Mar Trail					
Agency/Co.	USAI					Jurisdiction	City of San Diego					
Date Performed	9/1/2009					Analysis Year	2009					
Analysis Time Period	36 Existing AM											
Project ID 002407 - San Diego Corporate Center Lots												
East/West Street: Del Mar Trail						North/South Street: Carmel Creek Road						
Volume Adjustments and Site Characteristics												
Approach			Eastbound			Westbound						
Movement	L	T	R	L	T	R	L	T	R			
Volume (veh/h)	10	10	10	200	2	25						
%Thus Left Lane												
Approach			Northbound			Southbound						
Movement	L	T	R	L	T	R	L	T	R			
Volume (veh/h)	3	237	100	15	924	3						
%Thus Left Lane	50			50								
		Eastbound		Westbound		Northbound		Southbound				
Configuration	L1	L2	L1	L2	L1	L2	L1	L2	L1	L2		
PHF	0.90		0.90		0.90		0.90		0.90			
Flow Rate (veh/h)	33		251		134		243		516			
% Heavy Vehicles	2		2		2		2		2			
No. Lanes	1		1		2		2		2			
Geometry Group	2		2		5		5		5			
Duration, T	0.25											
Saturation Headway Adjustment Worksheet												
Prop. Left-Turns	0.3		0.9		0.0		0.0		0.0			
Prop. Right-Turns	0.3		0.1		0.0		0.5		0.0			
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0		0.0			
hLT-adj	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.5		
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7		
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7		
hadj, computed	-0.1		0.1		0.0	-0.3	0.0	0.0	0.0	0.0		
Departure Headway and Service Time												
hd, initial value (s)	3.20		3.20		3.20		3.20		3.20			
x, initial	0.03		0.22		0.12		0.22		0.47			
hd, final value (s)	7.33		6.74		7.05		6.71		6.22			
x, final value	0.07		0.47		0.26		0.45		0.91			
Move-up time, m (s)	2.0		2.0		2.3		2.3		2.3			
Service Time, ts (s)	5.3		4.7		4.7		4.4		3.9			
Capacity and Level of Service												
Approach			Eastbound			Westbound			Northbound		Southbound	
Capacity (veh/h)	L1	L2	L1	L2	L1	L2	L1	L2	L1	L2		
Delay (s/veh)	10.86		15.57		12.24		14.85		43.62			
LOS	B		C		B		B		E			
Approach Delay (s/veh)	10.86			15.57			13.92			41.59		
LOS	B			C			B			E		
Intersection Delay (s/veh)	31.06											
Intersection LOS	D											

HCM Signalized Intersection Capacity Analysis
1: Via De La Valle & El Camino Real

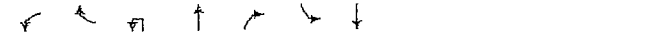
Existing PM
12/1/2010



Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	6	397	485	162	363	3	512	2	392	0	2	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Permitted	1.00	1.00	0.85	1.00	1.00	1.00	0.85	1.00	0.85	1.00	0.95	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1861	1774	1583	1779	1583	1770	1779	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1861	1774	1583	1779	1583	1770	1779	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	441	539	180	403	3	569	2	436	0	2	1
RTOR Reduction (vph)	0	0	279	0	0	0	0	274	0	1	0	0
Lane Group Flow (vph)	7	441	260	180	406	0	571	162	0	2	2	2
Turn Type	Prot	Prot	Prot	Prot	Split	Split	Prot	Split	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8	2	2	2	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	0.6	27.4	27.4	10.7	37.3	32.6	32.6	1.1				
Effective Green, g (s)	0.6	27.4	27.4	10.7	37.3	32.6	32.6	1.1				
Actuated g/C Ratio	0.01	0.31	0.31	0.12	0.42	0.37	0.37	0.01				
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	16	581	494	216	791	659	588	22				
vs Ratio Prot	0.00	0.24	0.16	0.10	0.22	0.32	0.30	0.00				
vs Ratio Perm												
v/c Ratio	0.44	0.76	0.53	0.63	0.51	0.67	0.28	0.09				
Uniform Delay, d1	43.3	27.2	24.9	37.7	18.6	25.6	19.3	42.9				
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	18.0	5.7	1.0	23.2	0.6	11.5	0.3	1.8				
Delay (s)	61.2	32.9	25.9	60.9	19.1	37.1	19.6	44.7				
Level of Service	E	C	C	E	B	D	B	D				
Approach Delay (s)		29.3		32.0		29.5		44.7				
Approach LOS		C		C		C		D				
Intersection Summary												
HCM Average Control Delay	30.0			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.81											
Actuated Cycle Length (s)	87.8											
Sum of lost time (s)	16.0											
Intersection Capacity Utilization	75.0%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
2: San Dieguito Road & El Camino Real

Existing PM
12/1/2010



Movement	WB	WB	NB	NB	SB	SB
Lane Configurations	↔	↔	↔	↔	↔	↔
Volume (vph)	201	256	0	521	354	332
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Flt Permitted	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	1863	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	223	284	0	579	393	369
RTOR Reduction (vph)	0	236	0	0	243	0
Lane Group Flow (vph)	223	48	0	579	150	369
Turn Type	Prot	Perm	Prot	Perm	Prot	Prot
Protected Phases			3	8		7
Permitted Phases		1		8		6
Actuated Green, G (s)	13.0	11.0	24.8	24.8	17.2	11.0
Effective Green, g (s)	11.0	11.0	24.8	24.8	17.2	11.0
Actuated g/C Ratio	0.17	0.17	0.38	0.38	0.26	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	581	268	711	604	468	599
vs Ratio Prot	0.06		0.31		0.21	
vs Ratio Perm		0.03		0.09		0.09
v/c Ratio	0.36	0.18	0.61	0.25	0.79	0.50
Uniform Delay, d1	24.0	23.1	18.0	13.7	22.2	24.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.3	7.1	0.2	8.6	0.7
Delay (s)	24.4	23.5	25.2	13.9	30.8	25.2
Level of Service	C	C	C	B	C	C
Approach Delay (s)	23.9		20.6		28.3	
Approach LOS	C		C		C	
Intersection Summary						
HCM Average Control Delay	23.8		HCM Level of Service		C	
HCM Volume to Capacity ratio	0.74					
Actuated Cycle Length (s)	65.0					
Sum of lost time (s)	12.0					
Intersection Capacity Utilization	61.5%		ICU Level of Service		B	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
3: Derby Downs Road & El Camino Real

Existing PM
12/1/2010

Movement	WBL	WBR	NBL	NBR	SBL	GBR
Lane Configurations	T	T	T	T	T	T
Volume (vph)	63	6	0	836	108	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	0.97			0.95	1.00	0.95
Flt.	0.99			0.98	1.00	1.00
Flt Protected	0.96			1.00	0.95	1.00
Satd. Flow (prot)	3409			3478	1770	3539
Flt Permitted	0.96			1.00	0.29	1.00
Satd. Flow (perm)	3409			3478	536	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	7	0	929	120	522
RTOR Reduction (vph)	6	0	0	17	0	0
Lane Group Flow (vph)	71	0	0	1032	0	522
Turn Type		Perm		Perm		
Protected Phases	0		2		6	
Permitted Phases		2		6		
Actuated Green, G (s)	1.9		13.9		13.9	
Effective Green, g (s)	1.9		13.9		13.9	
Actuated g/C Ratio	0.08		0.58		0.58	
Clearance Time (s)	4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0	
Lane Grp Cap (vph)	272		2031		313	2067
vs Ratio Prot	0.02		0.30		0.15	
vs Ratio Perm					0.02	
g/C Ratio	0.26		0.51		0.03	0.25
Uniform Delay, d1	10.3		2.9		2.1	2.4
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	0.5		0.2		0.0	0.1
Delay (s)	10.8		3.1		2.1	2.5
Level of Service	B		A		A	A
Approach Delay (s)	10.8		3.1		2.5	
Approach LOS	B		A		A	
Intersection Summary						
HCM Average Control Delay		3.3		HCM Level of Service		A
HCM Volume to Capacity ratio		0.48				
Actuated Cycle Length (s)		23.8		Sum of lost time (s)		8.0
Intersection Capacity Utilization		36.6%		ICU Level of Service		A
Analysis Period (min)		15				
Critical Lane Group						

Baseline

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

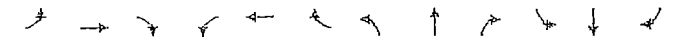
Existing PM
12/1/2010

Movement	WBL	WBR	NBL	NBR	SBL	GBR
Lane Configurations	T	T	T	T	T	T
Volume (vph)	22	21	14	14	20	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Flt.	1.00	0.94		1.00	0.87	1.00
Flt Protected	0.95	1.00		0.95	1.00	0.95
Satd. Flow (prot)	1770	1748		1770	1616	1770
Flt Permitted	0.95	1.00		0.95	1.00	0.95
Satd. Flow (perm)	1770	1748		1770	1616	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	24	23	16	16	22	167
RTOR Reduction (vph)	0	14	0	0	148	0
Lane Group Flow (vph)	24	25	0	16	41	167
Turn Type	Prot			Prot		Prot
Protected Phases	7	4		3	8	5
Permitted Phases						2
Actuated Green, G (s)	0.8	5.1		0.8	5.1	0.6
Effective Green, g (s)	0.8	5.1		0.8	5.1	0.6
Actuated g/C Ratio	0.02	0.11		0.02	0.11	0.01
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	32	200		32	185	24
vs Ratio Prot	0.01	0.04		0.01	0.03	0.02
vs Ratio Perm						0.25
g/C Ratio	0.75	0.12		0.50	0.22	1.17
Uniform Delay, d1	21.8	17.7		21.7	17.9	22.0
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	65.2	0.3		11.8	0.6	239.4
Delay (s)	87.0	18.0		33.5	18.6	261.4
Level of Service	F	B		C	B	F
Approach Delay (s)	44.3			19.7		17.9
Approach LOS	D			B		B
Intersection Summary						
HCM Average Control Delay		16.8		HCM Level of Service		B
HCM Volume to Capacity ratio		0.59				
Actuated Cycle Length (s)		44.6		Sum of lost time (s)		20.0
Intersection Capacity Utilization		54.1%		ICU Level of Service		A
Analysis Period (min)		15				
Critical Lane Group						

Baseline

HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

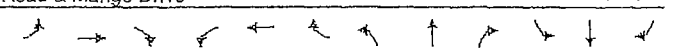
Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	T
Volume (vph)	7	41	32	40	29	19	47	886	114	22	437	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Flt. Protected	0.95	1.00	0.95	1.00	0.94	1.00	0.99	1.00	0.99	1.00	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1752	1770	3479	1770	3527	1770	3527	1900
Flt. Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1752	1770	3479	1770	3527	1770	3527	1900
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	8	46	36	34	32	21	52	984	127	24	486	11
RTOR Reduction (vph)	0	0	33	0	19	0	0	12	0	0	2	0
Lane Group Flow (vph)	8	46	3	44	34	0	52	1099	0	24	495	0
Turn Type	Prot			Prot	Prot			Prot			Prot	
Protected Phases	7	4	4	3	8			6			6	
Permitted Phases												
Activated Green, G (s)	0.7	4.0	4.0	1.6	4.9			1.7	21.7		0.6	20.6
Effective Green, g (s)	0.7	4.0	4.0	1.6	4.9			1.7	21.7		0.6	20.6
Activated g/C Ratio	0.02	0.09	0.09	0.04	0.11			0.04	0.49		0.01	0.47
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	28	170	144	65	196			69	1720		24	1655
v/s Ratio Prot	0.00	0.02	0.00	0.02	0.02			0.03	0.32		0.01	0.14
v/s Ratio Perm												
v/c Ratio	0.29	0.27	0.02	0.66	0.16			0.75	0.64		1.00	0.90
Uniform Delay, d1	21.4	18.6	18.2	20.9	17.7			20.9	8.2		21.6	7.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	5.6	0.9	0.1	24.4	0.4			36.6	0.8		183.7	0.1
Delay (s)	26.9	19.5	18.2	45.3	18.1			57.5	9.0		205.4	7.3
Level of Service	C	B	B	D	B			E	A		F	A
Approach Delay (s)		19.6			30.5			11.2			16.4	
Approach LOS		B			C			B			B	
Intersection Summary												
HCM Average Control Delay		14.0										
HCM Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		43.9										
Intersection Capacity Utilization		50.3%										
ICU Level of Service												
Analysis Period (min)		15										
Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	T
Volume (vph)	121	817	116	110	874	178	40	31	40	372	35	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.95	1.00	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Flt. Protected	1.00	1.00	1.00	0.97	1.00	0.95	1.00	0.95	1.00	0.93	1.00	0.93
Satd. Flow (prot)	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770
Flt. Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.97	1.00	0.97	0.95	0.98	0.98
Satd. Flow (perm)	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	138	908	116	122	971	198	44	34	44	413	39	144
RTOR Reduction (vph)	0	2	0	0	18	0	0	0	0	0	0	0
Lane Group Flow (vph)	138	924	0	122	1151	0	0	78	44	306	252	140
Turn Type	Prot			Prot			Split		Prot	Split		
Protected Phases	7	4		3	8			2	2	5		6
Permitted Phases												
Activated Green, G (s)	8.3	31.1		8.6	31.4			7.4	7.4	17.3		17.3
Effective Green, g (s)	8.3	31.1		8.6	31.4			7.4	7.4	17.3		17.3
Activated g/C Ratio	0.10	0.36		0.11	0.39			0.09	0.09	0.22		0.22
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	183	1961		189	1947			167	146	362		346
v/s Ratio Prot	0.00	0.16		0.07	0.33			0.01	0.00	0.16		0.16
v/s Ratio Perm												
v/c Ratio	0.75	0.47		0.65	0.85			0.47	0.03	0.85		0.73
Uniform Delay, d1	35.1	18.5		34.4	22.4			34.6	33.2	30.3		29.4
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00		1.00
Incremental Delay, d2	16.1	0.2		7.4	5.5			2.1	0.1	16.4		7.4
Delay (s)	51.1	18.7		41.8	27.9			36.7	33.3	46.6		36.8
Level of Service	D	B		D	C			D	C	D		D
Approach Delay (s)		22.9			29.2			35.5		41.6		
Approach LOS		C			C			D		D		
Intersection Summary												
HCM Average Control Delay		29.7										
HCM Volume to Capacity ratio		0.75										
Actuated Cycle Length (s)		80.4								12.0		
Intersection Capacity Utilization		69.1%								C		
ICU Level of Service												
Analysis Period (min)		15										
Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

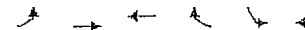
Existing PM
12/1/2010



Movement	EB	EB	WB	WB	NB	NB
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Volume (veh/h)	1103	62	0	1401	0	176
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1314	69	0	1557	0	84
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	575			607		
pX platoon unblocked		0.89		0.89	0.89	
vC conflicting volume		1383		2127	473	
vC1 stage 1 conf vol						
vC2 stage 2 conf vol						
vCu unblocked vol		986		1824	0	
IC single (s)		4.1		6.8	6.9	
IC 2 stage (s)						
IF (s)		2.2		3.5	3.3	
pD queue free %		100		100	91	
CM capacity (veh/h)		618		617	962	
Direction Lane #	EB	EB	WB	WB	NB	NB
Volume Total	526	526	332	778	778	84
Volume Left	0	0	0	0	0	0
Volume Right	0	0	69	0	0	84
cSH	1700	1700	1700	1700	1700	962
Volume to Capacity	0.31	0.31	0.20	0.46	0.46	0.09
Queue Length 95th (ft)	0	0	0	0	0	7
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.1
Lane LOS						A
Approach Delay (s)	0.0	0.0	0.0	0.0	0.0	9.1
Approach LOS						A
Intersection Summary						
Average Delay	0.3					
Intersection Capacity Utilization	42.1% ICU Level of Service A					
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis
8: Del Mar Heights Rd. & I-15 SB Ramps


Existing PM
4/25/2011



Movement	EB	EB	WB	WB	SB	SB
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Volume (vph)	0	875	1133	0	849	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3	6.3		5.6	5.6
Lane Util. Factor		0.95	0.65		0.97	0.91
Flt Protected		1.00	1.00		1.00	0.85
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3539	3539		3430	1441
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3539	3539		3430	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)		972	1259		943	322
RTOR Reduction (vph)		0	0		3	29
Lane Group Flow (vph)		972	1259		972	261
Turn Type	Perm					
Protected Phases	2.6 6.2 4					
Permitted Phases	4					
Actuated Green, G (s)	41.9 41.9 25.1 25.1					
Effective Green, g (s)	41.9 41.9 25.1 25.1					
Actuated g/C Ratio	0.53 0.53 0.32 0.32					
Clearance Time (s)	5.6 5.6					
Vehicle Extension (s)	3.0 3.0					
Lane Grp Cap (vph)	1879 1879 1091 458					
v/s Ratio Prot	0.27 0.36 0.28 0.28					
v/s Ratio Perm	0.18					
w/C Ratio	0.62 0.67 0.89 0.57					
Uniform Delay, d1	12.0 13.5 25.6 22.4					
Progression Factor	1.00 1.00 1.00 1.00					
Incremental Delay, d2	0.2 1.0 9.3 1.6					
Delay (s)	12.2 14.4 34.9 24.0					
Level of Service	B B C C					
Approach Delay (s)	12.2 14.4 32.4 24.0					
Approach LOS	B B C C					
Intersection Summary						
HCM Average Control Delay	20.3 HCM Level of Service C					
HCM Volume to Capacity ratio	0.75					
Actuated Cycle Length (s)	78.9 Sum of lost time (s) 11.9					
Intersection Capacity Utilization	96.0% ICU Level of Service F					
Analysis Period (min)	15					
Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
 9: Del Mar Heights Road & I-15 NB Ramps

Existing PM
 4/25/2011

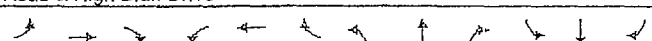


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SEB	SEB	SBR
Lane Configurations	↑↑	↑↑		↑↑↑	↑↑↑		↑↑	↑↑				
Volume (vph)	235	1463	0	0	1017	795	615	10	749	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.3			6.3	6.3	5.6	5.6	5.6			
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.91	0.95			
Flt	1.00	1.00			1.00	0.85	1.00	0.90	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3433	3539			5085	1583	1681	1500	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3433	3539			5085	1583	1681	1500	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	261	1626	0	0	1130	884	683	11	832	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	513	0	9	9	0	0	0
Lane Group Flow (vph)	261	1626	0	0	1130	371	533	493	482	0	0	0
Turn Type	Prot				Prot	Spill		Prot				
Protected Phases	5	2			6	6	8	8	8			
Permitted Phases												
Actuated Green, G (s)	12.0	64.2			47.0	47.0	43.9	43.9	43.9			
Effective Green, g (s)	12.0	64.2			47.0	47.0	43.9	43.9	43.9			
Actuated g/C Ratio	0.10	0.54			0.39	0.39	0.37	0.37	0.37			
Clearance Time (s)	5.2	6.3			6.3	6.3	5.6	5.6	5.6			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	343	1893			1992	620	615	549	550			
v/s Ratio Prot	0.09	0.46			0.22	0.23	0.32	0.33	0.32			
v/s Ratio Perm												
v/C Ratio	0.76	0.88			0.57	0.60	0.87	0.90	0.88			
Uniform Delay, d1	52.6	24.0			28.5	29.0	35.3	35.9	35.5			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	9.6	5.3			1.2	4.2	12.3	17.3	14.6			
Delay (s)	62.2	29.3			29.7	33.2	47.6	53.2	50.1			
Level of Service	E	C			C	C	D	D	D			
Approach Delay (s)		33.9			31.3		50.3		0.0			
Approach LOS		C			C		D		A			
Intersection Summary												
HCM Average Control Delay	37.5				HCM Level of Service				D			
HCM Volume to Capacity ratio	0.87				Sum of lost time (s)				11.9			
Actuated Cycle Length (s)	120.0				ICU Level of Service				F			
Intersection Capacity Utilization	95.2%				Analysis Period (min)				15			
c - Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
 10: Del Mar Heights Road & High Bluff Drive

Existing PM
 12/1/2010

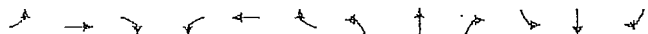


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SEB	SEB	SBR
Lane Configurations	↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑	↑↑				
Volume (vph)	242	1994	251	15	1140	28	618	65	134	27	29	00
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91		0.97	0.95		1.00	1.00	1.00
Flt	1.00	1.00	0.85	1.00	1.00		1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5067		3433	3181		1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5067		3433	3181		1770	1863	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	269	2204	279	17	1267	31	687	72	149	30	32	09
RTOR Reduction (vph)	0	0	106	0	3	0	0	110	0	0	0	83
Lane Group Flow (vph)	269	2204	173	17	1295	0	687	111	0	30	32	6
Turn Type	Prot		Prot	Prot			Prot			Prot		Prot
Protected Phases	7		3	3			6			6		6
Permitted Phases												
Actuated Green, G (s)	16.2	45.9	45.9	17.5	31.4		20.2	23.4		3.4	6.6	6.6
Effective Green, g (s)	16.2	45.9	45.9	1.7	31.4		20.2	23.4		3.4	6.6	6.6
Actuated g/C Ratio	0.18	0.51	0.51	0.02	0.35		0.22	0.26		0.04	0.07	0.07
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	317	2582	804	33	1780		767	823		67	136	116
v/s Ratio Prot	0.15	0.43	0.41	0.01	0.26		0.20	0.03		0.02	0.02	0.00
v/s Ratio Perm												
v/C Ratio	0.85	0.85	0.22	0.52	0.74		0.90	0.13		0.45	0.24	0.06
Uniform Delay, d1	35.9	19.3	12.3	43.9	25.9		34.1	25.7		42.6	39.5	39.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	18.6	3.0	0.1	12.9	1.6		13.0	0.1		4.7	0.9	0.2
Delay (s)	54.5	22.3	12.4	56.9	27.5		47.1	25.8		47.3	40.4	39.2
Level of Service	D	C	B	E	C		D	C		D	D	D
Approach Delay (s)		24.4			27.9		41.9			41.1		
Approach LOS		C			C		D			D		
Intersection Summary												
HCM Average Control Delay	28.9				HCM Level of Service				C			
HCM Volume to Capacity ratio	0.79				Sum of lost time (s)				12.0			
Actuated Cycle Length (s)	90.4				ICU Level of Service				D			
Intersection Capacity Utilization	76.0%				Analysis Period (min)				15			
c - Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
15: Del Mar Heights Road & Torrey Ridge Drive

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑	↑	↑	↑	↑	↑
Volume (vph)	46	1146	105	8	601	22	36	14	31	27	8	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt	1.00	0.99		1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5021		1770	5059		1770	1673		1770	1643	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5021		1770	5059		1770	1673		1770	1643	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	53	1273	117	9	668	24	40	16	34	30	9	33
RTOR Reduction (vph)	0	12	0	0	5	0	0	32	0	0	31	0
Lane Group Flow (vph)	53	1378	0	9	687	0	40	19	0	30	11	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.2	20.6		0.6	20.0		1.2	3.0		0.6	2.4	
Effective Green, g (s)	1.2	20.6		0.6	20.0		1.2	3.0		0.6	2.4	
Actuated g/C Ratio	0.03	0.50		0.01	0.49		0.03	0.07		0.01	0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	52	2535		26	2480		52	123		26	97	
v/s Ratio Prot	c0.03	c0.27		0.01	0.14		c0.02	c0.01		c0.02	c0.01	
v/s Ratio Perm												
v/c Ratio	1.02	0.64		0.35	0.28		0.77	0.15		1.15	0.11	
Uniform Delay, d1	19.8	6.9		19.9	6.1		19.7	17.7		20.1	18.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	130.4	0.2		7.9	0.1		40.9	0.6		227.3	0.5	
Delay (s)	150.2	7.1		27.8	6.2		68.6	18.3		247.4	18.7	
Level of Service	F	A		C	A		E	B		F	B	
Approach Delay (s)	12.4			6.5			40.6			114.0		
Approach LOS	B			A			D			F		

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	40.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		
c: Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑	↑	↑	↑	↑	↑
Volume (vph)	237	901	63	21	439	24	39	45	34	23	32	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt	1.00	0.99		1.00	0.99		1.00	0.94		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5035		1770	5045		1770	1742		1770	1631	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5035		1770	5045		1770	1742		1770	1631	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	263	1001	70	23	488	27	43	50	38	26	36	177
RTOR Reduction (vph)	0	10	0	0	9	0	0	31	0	0	148	0
Lane Group Flow (vph)	263	1061	0	23	506	0	43	57	0	26	65	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.1	24.0		0.7	14.5		1.4	9.0		0.7	8.3	
Effective Green, g (s)	1.1	24.9		0.7	14.5		1.4	9.0		0.7	8.3	
Actuated g/C Ratio	0.22	0.49		0.01	0.28		0.03	0.18		0.01	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	383	2444		24	1426		48	306		24	264	
v/s Ratio Prot	c0.15	c0.21		0.01	0.10		c0.02	c0.03		c0.01	c0.04	
v/s Ratio Perm												
v/c Ratio	0.69	0.43		0.96	0.36		0.90	0.19		1.08	0.24	
Uniform Delay, d1	18.5	8.6		25.3	14.7		24.9	18.0		25.3	10.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.1	0.1		163.4	0.2		90.6	0.3		210.9	0.5	
Delay (s)	23.6	8.7		186.7	14.8		115.5	18.3		236.2	19.3	
Level of Service	C	A		F	B		F	B		F	B	
Approach Delay (s)	11.7			22.3			50.2			42.0		
Approach LOS	B			C			D			F		

Intersection Summary			
HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	51.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		
c: Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing PM
12/1/2010

Movement	EB	WB	NB	SB	EB
Lane Configurations	↑↑↑	↑↑↑	↑↑↑	↑↑↑	↑↑↑
Volume (vph)	787	155	89	399	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.91	0.97	1.00
Flt. Protected	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1960	1770	5085	3433	1583
Flt. Permitted	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1960	1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	874	172	99	443	112
RTOR Reduction (vph)	49	0	0	0	234
Lane Group Flow (vph)	997	0	99	443	112
Turn Type	Prot		Prot		
Protected Phases	4	3	8	2	2
Permitted Phases					
Actuated Green, G (s)	16.2	2.4	22.6	5.5	5.5
Effective Green, g (s)	16.2	2.4	22.6	5.5	5.5
Actuated g/C Ratio	0.45	0.07	0.63	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2226	118	3183	523	241
v/s Ratio Prot	0.20	0.05	0.09	0.03	0.03
v/s Ratio Perm					
v/c Ratio	0.45	0.84	0.14	0.21	0.17
Uniform Delay, d1	6.9	16.7	2.8	13.4	13.3
Progression Factor	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	38.0	0.0	0.2	0.3
Delay (s)	7.0	54.6	2.8	13.6	13.7
Level of Service	A	D	A	B	B
Approach Delay (s)	7.0	12.3	13.7		
Approach LOS	A	B	B		
Intersection Summary					
HCM Average Control Delay	9.8		HCM Level of Service A		
HCM Volume to Capacity ratio	0.43				
Actuated Cycle Length (s)	36.1		Sum of lost time (s) 12.0		
Intersection Capacity Utilization	40.7%		ICU Level of Service A		
Analysis Period (min)	15				
c: Critical Lane Group					

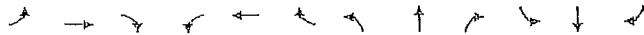
HCM Signalized Intersection Capacity Analysis
18: Del Mar Highlands Town Ctr. & El Camino Real

Existing PM
12/1/2010

Movement	WB	WB	WB	SE	SE	NE	NE	SW	SW	SW
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Volume (vph)	188	0	248	0	0	0	0	619	163	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.91	0.97	0.91	0.97	0.91	0.97	0.91	0.91
Flt. Protected	0.95	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	4926	3433	1583	5085	3433	5085	3433	5085
Flt. Permitted	0.95	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1583	4926	3433	1583	5085	3433	5085	3433	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	209	0	276	0	0	0	668	181	318	353
RTOR Reduction (vph)	0	0	206	0	0	0	95	0	0	0
Lane Group Flow (vph)	209	0	276	0	0	0	774	0	318	353
Turn Type	Perm			Prot			Prot			
Protected Phases	6	3			8				7	4
Permitted Phases										
Actuated Green, G (s)	10.3	10.3			13.4			5.1	22.5	
Effective Green, g (s)	10.3	10.3			13.4			5.1	22.5	
Actuated g/C Ratio	0.25	0.25			0.33			0.12	0.55	
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0	
Lane Grp Cap (vph)	447	400			1618			429	2804	
v/s Ratio Prot	0.12	0.16			0.09			0.07	0.07	
v/s Ratio Perm										
v/c Ratio	0.47	0.17			0.48			0.74	0.19	
Uniform Delay, d1	12.9	11.9			10.9			17.2	4.4	
Progression Factor	1.00	1.00			1.00			1.00	1.00	
Incremental Delay, d2	0.8	0.2			0.2			6.8	0.0	
Delay (s)	13.7	12.1			11.1			24.0	4.4	
Level of Service	B	B			B			C	A	
Approach Delay (s)	12.8	0.0			11.1			13.7		
Approach LOS	B	A			B			B		
Intersection Summary										
HCM Average Control Delay	12.4			HCM Level of Service B						
HCM Volume to Capacity ratio	0.52									
Actuated Cycle Length (s)	40.8			Sum of lost time (s) 12.0						
Intersection Capacity Utilization	44.2%			ICU Level of Service A						
Analysis Period (min)	15									
c: Critical Lane Group										

HCM Signalized Intersection Capacity Analysis
19: Townsgate Drive & Carmel Country Road

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Volume (vph)	110	105	173	45	54	115	111	360	190	182	493	568
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Flt. Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1673	1770	3529	1770	3539	1770	1503	1503
Flt. Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1673	1770	3529	1770	3539	1770	1503	1503
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	117	192	50	60	128	123	404	202	202	540	627
RTOR Reduction (vph)	0	0	147	0	107	0	0	1	0	0	0	52
Lane Group Flow (vph)	122	117	45	50	81	0	123	411	0	202	540	627
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8	5	2	1	6	5	6	6
Permitted Phases												
Actuated Green, G (s)	7.6	13.4	13.4	9.9	9.2	6.1	14.5	9.6	10.0	10.0	10.0	10.0
Effective Green, g (s)	7.6	13.4	13.4	3.4	9.2	6.1	14.5	9.6	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.19	0.24	0.24	0.08	0.16	0.11	0.25	0.17	0.32	0.32	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	236	439	373	106	271	190	899	299	1120	501	501	501
vs Ratio Prot	0.07	0.06	0.03	0.03	0.05	0.07	0.12	0.11	0.35	0.02	0.02	0.02
vs Ratio Perm												
g/C Ratio	0.52	0.27	0.12	0.47	0.30	0.65	0.46	0.60	0.49	0.05	0.05	0.05
Uniform Delay, d1	22.9	17.7	17.1	25.9	21.0	24.4	17.9	22.2	15.7	13.5	13.5	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.3	0.1	3.3	0.6	7.4	0.4	5.9	0.3	0.0	0.0	0.0
Delay (s)	24.9	18.3	17.3	29.2	21.6	31.7	18.2	28.1	16.1	13.5	13.5	13.5
Level of Service	C	B	B	C	C	C	B	C	B	B	B	B
Approach Delay (s)	19.6			23.2			21.4			18.8		
Approach LOS	B			C			C			B		
Intersection Summary												
HCM Average Control Delay	20.2			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.47											
Actuated Cycle Length (s)	56.9			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	49.7%			ICU Level of Service			A					
Analysis Period (min)	15											
Critical Lane Group	EBL											

Baseline

HCM Signalized Intersection Capacity Analysis
20: Townsgate Drive & El Camino Real

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Volume (vph)	11	6	10	140	0	78	7	669	200	94	369	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.97	1.00	0.91	1.00
Flt. Protected	1.00	0.91	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1692	1770	1583	1770	1583	1770	4910	1770	5082	1770	5082
Flt. Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1692	1770	1583	1770	1583	1770	4910	1770	5082	1770	5082
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	12	7	11	156	0	87	8	743	222	104	410	2
RTOR Reduction (vph)	0	11	0	0	0	73	0	77	0	0	1	0
Lane Group Flow (vph)	12	7	11	156	0	14	8	888	0	104	411	2
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	6	6	6	5	2	2	7	4	3	6	6	6
Permitted Phases												
Actuated Green, G (s)	0.7	1.0	6.7	7.0	0.7	16.6	3.4	19.3	0.0	19.3	0.0	19.3
Effective Green, g (s)	0.7	1.0	6.7	7.0	0.7	16.6	3.4	19.3	0.0	19.3	0.0	19.3
Actuated g/C Ratio	0.02	0.02	0.15	0.16	0.02	0.38	0.08	0.44	0.00	0.44	0.00	0.44
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	28	39	271	254	28	1865	130	2244	0	0	0	0
vs Ratio Prot	0.01	0.00	0.06	0.01	0.00	0.18	0.06	0.08	0.00	0.08	0.00	0.08
vs Ratio Perm												
g/C Ratio	0.43	0.19	0.50	0.05	0.29	0.48	0.75	0.18	0.00	0.18	0.00	0.18
Uniform Delay, d1	21.3	21.0	17.2	15.5	21.3	10.3	19.7	7.4	1.0	7.4	1.0	7.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.2	2.3	2.9	0.1	5.6	0.2	20.5	0.0	0.0	0.0	0.0	0.0
Delay (s)	31.5	23.3	20.1	15.6	26.8	10.5	40.3	7.5	1.0	7.5	1.0	7.5
Level of Service	C	C	C	B	C	B	D	A	A	A	A	A
Approach Delay (s)	26.6			18.5			10.6			14.1		
Approach LOS	C			B			B			B		
Intersection Summary												
HCM Average Control Delay	13.0			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.49											
Actuated Cycle Length (s)	43.7			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	47.0%			ICU Level of Service			A					
Analysis Period (min)	15											
Critical Lane Group	WBL											

Baseline

HCM Signalized Intersection Capacity Analysis
21: Carmel Creek Road & Carmel Country Road

Existing PM
12/1/2010

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB	SB	
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Volume (vph)	284	237	123	32	99	17	94	344	39	25	381	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Friction	1.00	1.00	0.85	0.98	1.00	0.98	1.00	0.94	1.00	0.94	1.00	
Flt Protected	0.95	1.00	1.00	0.99	0.99	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1863	1583	1814	1770	3486	1770	3344	1770	3344	1770	
Flt Permitted	0.95	1.00	1.00	0.99	0.95	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1863	1583	1814	1770	3486	1770	3344	1770	3344	1770	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	316	263	137	36	110	19	104	382	43	28	423	
RTOR Reduction (vph)	0	0	104	0	8	0	11	0	0	112	0	
Lane Group Flow (vph)	316	263	33	157	0	104	414	0	28	557	0	
Turn Type	Split			Prot			Prot			Split		
Protected Phases	4			8			5			2		
Permitted Phases	2			2			6			6		
Actuated Green, G (s)	15.0	15.0	15.0	6.6	4.8	20.6	1.6	17.4	6.0	17.3	4.5	
Effective Green, g (s)	15.0	15.0	15.0	8.6	4.8	20.6	1.6	17.4	6.0	17.3	4.5	
Actuated g/C Ratio	0.24	0.24	0.24	0.14	0.08	0.33	0.03	0.26	0.10	0.29	0.08	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	430	462	384	252	137	1162	46	942	343	1447	133	
v/s Ratio Prot	0.18	0.14	0.02	0.09	0.06	0.12	0.02	0.17	0.08	0.23	0.11	
v/s Ratio Perm	0.73	0.58	0.09	0.62	0.76	0.38	0.61	0.59	0.84	0.78	0.95	
Uniform Delay, d1	21.6	20.6	18.1	25.1	27.9	15.6	29.8	19.1	26.5	19.6	27.6	
Progression Factor, f	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.1	1.9	0.1	4.8	21.1	0.2	20.7	1.0	16.1	2.8	61.3	
Delay (s)	28.0	22.5	18.2	29.6	49.1	15.8	50.5	20.1	42.6	22.5	89.0	
Level of Service	C	C	B	C	D	B	D	C	D	C	F	
Approach Delay (s)	24.1			29.9			22.3			21.4		
Approach LOS	C			C			C			C		
Intersection Summary												
HCM Average Control Delay	23.2		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.70		Sum of lost time (s)		20.0							
Actuated Cycle Length (s)	61.8		ICU Level of Service		B							
Intersection Capacity Utilization	59.9%		Analysis Period (min)		15							
Analysis Period (min)	15		Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing PM
12/1/2010

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB	SB	
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
Volume (vph)	172	271	315	96	168	92	258	945	92	113	464	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	1.00	0.97	0.91	1.00	0.91	1.00	
Friction	1.00	0.85	0.85	1.00	0.95	1.00	0.99	1.00	0.99	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1583	1770	3315	1770	3433	5018	1770	5020	1770	
Flt Permitted	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1583	1583	1770	3315	1770	3433	5018	1770	5020	1770	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	80	301	350	107	187	102	287	1050	102	126	516	
RTOR Reduction (vph)	0	0	224	0	94	0	19	0	0	18	0	
Lane Group Flow (vph)	80	301	126	107	195	0	287	1133	0	126	546	
Turn Type	Perm		Perm		Split		Prot		Prot		Split	
Protected Phases	6		6		6		3		8		7	
Permitted Phases	2		2		6		6		7		4	
Actuated Green, G (s)	17.4	17.4	17.4	4.8	4.8	6.0	17.3	4.5	15.8	4.5	15.8	
Effective Green, g (s)	17.4	17.4	17.4	4.8	4.8	6.0	17.3	4.5	15.8	4.5	15.8	
Actuated g/C Ratio	0.29	0.29	0.29	0.08	0.08	0.10	0.29	0.08	0.26	0.08	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	513	459	459	142	265	343	1447	133	1322	133	1322	
v/s Ratio Prot	0.09	0.06	0.06	0.06	0.06	0.08	0.23	0.07	0.11	0.07	0.11	
v/s Ratio Perm	0.18	0.36	0.27	0.75	0.74	0.84	0.78	0.95	0.41	0.95	0.41	
Uniform Delay, d1	15.8	18.7	16.4	27.0	27.0	26.5	19.6	27.6	18.3	27.6	18.3	
Progression Factor, f	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	7.1	1.5	20.0	10.2	16.1	2.8	61.3	0.2	89.0	18.5	
Delay (s)	16.5	25.8	17.9	47.0	37.2	42.6	22.5	89.0	18.5	89.0	18.5	
Level of Service	B	C	B	D	D	D	C	F	B	C	B	
Approach Delay (s)	21.0		39.8		26.5		31.3		21.0		31.3	
Approach LOS	C		D		C		C		C		C	
Intersection Summary												
HCM Average Control Delay	27.9		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.70		Sum of lost time (s)		12.0							
Actuated Cycle Length (s)	60.0		ICU Level of Service		A							
Intersection Capacity Utilization	53.3%		Analysis Period (min)		15							
Analysis Period (min)	15		Critical Lane Group									

HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road

Existing PM
12/1/2010



Movement	SE	SE	SE	NW	NW	NW	NE	NE	NE	SW	SW	SW
Lane Configurations	↑			↑			↑			↑		
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	178	25	125	4	11	4	90	24	8	2	7	86
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	198	20	139	4	12	4	100	27	9	2	8	96

Direction/Lane	SE	SE	NW	NE	SW
Volume Total (vph)	226	139	21	135	106
Volume Left (vph)	198	0	0	100	2
Volume Right (vph)	0	139	4	9	96
Adj (s)	0.47	0.67	-0.05	0.14	-0.50
Departure Headway (s)	5.6	4.5	5.0	5.1	4.5
Degree Utilization, x	0.35	0.17	0.03	0.19	0.13
Capacity (veh/h)	617	774	665	666	739
Control Delay (s)	10.4	7.2	8.2	9.3	8.2
Approach Delay (s)	9.2	8.2	9.3	8.2	
Approach LOS	A	A	A	A	

Intersection Summary	
Delay	9.0
HCM Level of Service	A
Intersection Capacity Utilization	37.9%
ICU Level of Service	A
Analysis Period (min)	15

HCM Signalized Intersection Capacity Analysis
24: Carmel Grove Road & Carmel Creek Road

Existing PM
12/1/2010



Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Lane Configurations	↑			↑			↑			↑		
Volume (vph)	116	50	70	55	26	9	108	720	134	6	321	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0			4.0			4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Fr	1.00	0.86	0.99	1.00	0.99	1.00	0.98	1.00	0.97	1.00	0.97	1.00
Fl Protected	0.97	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd Flow (prot)	1800	1583	1783	1770	3456	1770	3431	1770	3431	1770	3431	1770
Fl Permitted	0.97	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd Flow (perm)	1800	1583	1783	1770	3456	1770	3431	1770	3431	1770	3431	1770

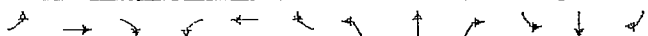
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj Flow (vph)	129	55	78	61	29	10	120	800	149	7	357	91
RTOR Reduction (vph)	0	0	56	0	6	0	0	16	0	0	25	0
Lane Group Flow (vph)	0	185	12	0	94	10	120	833	0	7	423	0

Turn Type	Split	Prot	Split	Prot	Split	Prot
Protected Phases	4	4	6	6	5	2
Permitted Phases						
Actuated Green, G (s)	8.6	8.6	6.5	5.7	24.8	0.7
Effective Green, g (s)	8.6	8.6	6.5	5.7	24.8	0.7
Actuated g/C Ratio	0.15	0.15	0.11	0.10	0.44	0.01
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	273	241	205	178	1514	22
W/S Ratio Prot	0.01	0.01	0.05	0.07	0.27	0.00
W/S Ratio Perm						
W/C Ratio	0.65	0.05	0.46	0.67	0.62	0.32
Uniform Delay, d1	22.7	20.5	23.4	24.6	12.2	27.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.5	0.1	1.5	9.7	0.8	8.2
Delay (s)	29.2	20.6	25.0	34.2	13.0	35.9
Level of Service	C	C	C	C	B	D
Approach Delay (s)	26.7		25.0		15.4	
Approach LOS	C		C		B	

Intersection Summary	
HCM Average Control Delay	17.2
HCM Level of Service	B
HCM Volume to Capacity Ratio	0.59
Actuated Cycle Length (s)	56.6
Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.1%
ICU Level of Service	A
Analysis Period (min)	15
Critical Lane Group	

HCM Signalized Intersection Capacity Analysis
25: Carmel Valley Road & I-5 SB Ramps

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑			↑↑							↑	↑
Volume (vph)	0	1611	137	604	851	0	0	0	0	835	1	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Lane Util. Factor	0.95		0.97		0.95		0.95		0.91		0.95	
Frt	0.97		1.00		1.00		1.00		1.00		0.85	
Flt Protected	1.00		0.95		1.00		0.95		0.95		1.00	
Satd. Flow (prot)	3442		3433		3539		1681		1612		1504	
Flt Permitted	1.00		0.95		1.00		0.95		0.95		1.00	
Satd. Flow (perm)	3442		3433		3539		1681		1612		1504	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	679	152	671	946	0	0	0	0	928	1	81
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	1	49
Lane Group Flow (vph)	0	802	0	671	946	0	0	0	0	473	463	24
Turn Type	Prot		Prot		Split		Prot		Prot		Prot	
Protected Phases	3		3		6		6		6		6	
Permitted Phases	4		4		8		8		8		8	
Actuated Green, G (s)	16.8		14.0		34.8		21.0		21.0		21.0	
Effective Green, g (s)	16.8		14.0		34.8		21.0		21.0		21.0	
Actuated g/C Ratio	0.26		0.22		0.55		0.33		0.33		0.33	
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0	
Lane Grp Cap (vph)	906		753		1930		553		531		495	
v/s Ratio Prot	0.23		0.20		0.27		0.28		0.29		0.22	
v/s Ratio Perm	0.88		0.89		0.49		0.66		0.67		0.65	
Uniform Delay, d1	22.6		24.2		9.0		20.0		20.1		14.6	
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00	
Incremental Delay, d2	10.3		12.8		0.2		12.3		14.6		0.0	
Delay (s)	32.8		36.9		9.2		32.3		34.8		14.6	
Level of Service	C		D		A		C		C		B	
Approach Delay (s)	32.8		20.7		0.0		32.2		0.0		0.0	
Approach LOS	C		C		A		C		A		A	
Intersection Summary												
HCM Average Control Delay	27.0				HCM Level of Service				C			
HCM Volume to Capacity ratio	0.88				Sum of lost time (s)				12.0			
Actuated Cycle Length (s)	63.8				ICU Level of Service				D			
Intersection Capacity Utilization	80.9%				Analysis Period (min)				15			
Analysis Period (min)	15				Critical Lane Group							

Baseline

HCM Signalized Intersection Capacity Analysis
26: Carmel Valley Road & I-5 NB Ramps

Existing PM
12/1/2010

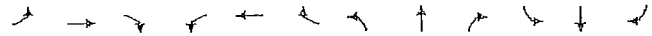


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑			↑↑							↑	↑
Volume (vph)	123	1355	0	0	957	780	439	7	667	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Lane Util. Factor	0.97		0.95		0.95		1.00		0.95		0.95	
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		0.99	
Satd. Flow (prot)	3433		3539		3539		1583		1681		1472	
Flt Permitted	0.95		1.00		1.00		1.00		0.95		0.99	
Satd. Flow (perm)	3433		3539		3539		1583		1681		1472	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	137	1506	0	0	1074	867	488	8	741	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	526	0	13	13	0	0	0
Lane Group Flow (vph)	137	1506	0	0	1074	341	429	395	387	0	0	0
Turn Type	Prot		Prot		Split		Prot		Prot		Prot	
Protected Phases	4		4		8		8		2		2	
Permitted Phases	8		8		8		8		2		2	
Actuated Green, G (s)	3.4		30.0		22.6		22.6		19.5		19.5	
Effective Green, g (s)	3.4		30.0		22.6		22.6		19.5		19.5	
Actuated g/C Ratio	0.06		0.52		0.39		0.39		0.34		0.34	
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0	
Lane Grp Cap (vph)	203		1846		1391		622		570		499	
v/s Ratio Prot	0.04		0.43		0.30		0.22		0.26		0.27	
v/s Ratio Perm	0.67		0.82		0.77		0.55		0.75		0.79	
Uniform Delay, d1	26.5		11.4		15.2		13.5		16.9		17.2	
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00	
Incremental Delay, d2	8.6		2.9		2.7		1.0		5.6		8.4	
Delay (s)	35.1		14.3		17.9		14.5		22.4		25.6	
Level of Service	D		B		B		B		C		C	
Approach Delay (s)	16.1		16.4		16.4		23.8		0.0		0.0	
Approach LOS	B		B		B		C		A		A	
Intersection Summary												
HCM Average Control Delay	18.2				HCM Level of Service				B			
HCM Volume to Capacity ratio	0.81				Sum of lost time (s)				8.0			
Actuated Cycle Length (s)	57.5				ICU Level of Service				D			
Intersection Capacity Utilization	80.9%				Analysis Period (min)				15			
Analysis Period (min)	15				Critical Lane Group							

Baseline

HCM Signalized Intersection Capacity Analysis
27: Valley Centre Drive & El Camino Real

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	
Lane Configurations	←	←	←	←	←	←	←	←	←	←	←	
Volume (vph)	30	30	20	476	22	92	75	874	214	153	1301	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	1.00	0.91	0.91	
Frt. Protected	1.00	0.99	0.85	1.00	0.99	0.85	1.00	0.97	1.00	1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1681	1668	1504	1681	1615	1504	1770	4935	1770	5071	5071	
Flt Permitted	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1681	1668	1504	1681	1615	1504	1770	4935	1770	5071	5071	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	42	33	31	529	24	102	83	971	238	170	1446	
RTOR Reduction (vph)	0	3	26	0	2	70	0	46	0	2	0	
Lane Group Flow (vph)	38	37	2	280	261	22	83	1163	0	170	1472	
Turn Type	Split	Split	Prot	Split	Split	Prot	Prot	Prot	Prot	Prot	Prot	
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	
Permitted Phases												
Actuated Green, G (s)	5.5	5.5	5.5	15.7	15.7	15.7	3.6	33.0	25.4	25.4	25.4	
Effective Green, g (s)	5.5	5.5	5.5	15.7	15.7	15.7	3.6	33.0	25.4	25.4	25.4	
Actuated g/C Ratio	0.08	0.08	0.08	0.24	0.24	0.24	0.05	0.50	0.38	0.38	0.38	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	140	139	125	399	383	357	96	2460	679	1946	1946	
vs Ratio Prot	c0.02	0.02	0.00	0.17	c0.17	0.01	c0.05	0.24	0.10	0.10	0.10	
vs Ratio Perm									c0.29			
vc Ratio	0.27	0.27	0.02	0.70	0.73	0.00	0.06	0.47	0.25	0.76	0.76	
Uniform Delay, d1	28.5	28.5	27.9	23.1	23.3	19.5	31.1	10.9	13.9	17.7	17.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	1.0	0.1	5.5	7.2	0.1	50.7	0.1	0.2	1.7	1.7	
Delay (s)	29.5	29.5	27.9	28.6	30.5	19.6	81.8	11.0	14.1	19.4	19.4	
Level of Service	C	C	C	C	C	B	F	B	B	B	B	
Approach Delay (s)	29.1			28.2			15.6			18.9		
Approach LOS	C			C			B			B		

Intersection Summary

HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	B
Analysis Period (min)	15		

l - Phase conflict between lane groups
c - Critical Lane Group

HCM Signalized Intersection Capacity Analysis
28: Carmel Valley Road & El Camino Real

Existing PM
12/1/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	←	←	←	←	←	←	←	←	←	←	←
Volume (vph)	0	0	0	186	807	170	341	964	0	0	591
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor				0.97	0.91	1.00	0.97	0.95			0.86
Frt. ped/bikes				1.00	1.00	1.00	1.00	1.00			0.91
Frt. ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00
Flt Protected				0.95	1.00	1.00	0.85	1.00			0.94
Satd. Flow (prot)				3433	5085	1583	3433	3539			4133
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00
Satd. Flow (perm)				3433	5085	1583	3433	3539			4133
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	184	897	189	379	1071	0	0	657
RTOR Reduction (vph)	0	0	0	0	0	71	0	0	0	0	11
Lane Group Flow (vph)	0	0	0	184	897	118	379	1071	0	0	1060
Confl. Peds. (#/hr)											402
Turn Type				Prot	Prot	Prot	Prot	Prot			Prot
Protected Phases				3	8	8	5	2			6
Permitted Phases											6
Actuated Green, G (s)				15.8	15.8	15.8	8.3	34.2			21.9
Effective Green, g (s)				15.8	15.8	15.8	8.3	34.2			21.9
Actuated g/C Ratio				0.27	0.27	0.27	0.14	0.59			0.38
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)				995	1385	431	491	2087			1651
vs Ratio Prot				0.05	c0.18	0.07	c0.11	0.30			0.26
vs Ratio Perm											c0.30
vc Ratio				0.20	0.65	0.27	0.77	0.51			0.68
Uniform Delay, d1				16.2	16.6	16.6	23.9	7.0			15.1
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00
Incremental Delay, d2				0.1	1.1	0.3	7.4	0.2			1.2
Delay (s)				16.3	19.7	16.9	31.3	7.2			16.3
Level of Service				B	B	B	C	A			B
Approach Delay (s)				0.0	18.8		13.5	18.3			18.3
Approach LOS				A	B		B	B			B

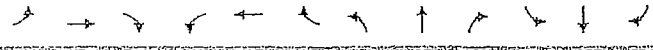
Intersection Summary

HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.6%	ICU Level of Service	G
Analysis Period (min)	15		

c - Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 29: SR-56 EB on ramp & El Camino Real

Existing PM
 12/1/2010



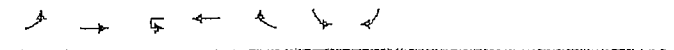
Movement	EBB	EBT	EBR	WBL	WBT	WBR	YBWB	YBWB	YBWB	NBB	NBT	NBR	SEB	SBT	SBR
Lane Configurations	T T T			T T T			T T T			T T T			T T T		
Volume (vph)	492	989	92	0	0	0	0	0	0	792	365	193	550	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	0	0	0	0	0	0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.86	0.91							0.86	1.00	0.91			
Flt Protected	1.00	1.00	0.85							0.95	1.00	1.00			
Flt Permitted	0.95	1.00	1.00							1.00	0.95	1.00			
Satd. Flow (prot)	1610	3192	1441							6093	1770	5085			
Satd. Flow (perm)	1610	3192	1441							6093	1770	5085			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	547	1099	102	0	0	0	0	0	0	880	428	214	611	0	0
RTOR Reduction (vph)	0	1	55	0	0	0	0	0	0	51	0	0	0	0	0
Lane Group Flow (vph)	492	1163	37	0	0	0	0	0	0	1257	0	214	611	0	0
Turn Type	Prot			Prot			Prot			Prot			Prot		
Protected Phases	4	4	4							2	2	2			
Permitted Phases	3			3			3			3			3		
Actuated Green, G (s)	28.0	28.0	28.0							19.0	10.6	33.6			
Effective Green, g (s)	28.0	28.0	28.0							19.0	10.6	33.6			
Actuated g/C Ratio	0.40	0.40	0.40							0.27	0.15	0.46			
Clearance Time (s)	4.0	4.0	4.0							4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0							3.0	3.0	3.0			
Lane Grp Cap (vph)	648	1284	580							1663	270	2455			
vs Ratio Prot	0.31	0.36	0.09							0.21	0.12	0.12			
vs Ratio Perm															
w/C Ratio	0.76	0.91	0.06							0.88	0.79	0.25			
Uniform Delay, d1	17.9	19.6	12.8							23.2	28.4	10.6			
Progression Factor	1.00	1.00	1.00							1.00	1.00	1.00			
Incremental Delay, d2	5.1	9.3	0.0							2.0	14.7	0.1			
Delay (s)	23.0	28.9	12.8							25.2	43.1	10.6			
Level of Service	C			C			C			D			B		
Approach Delay (s)	26.4			0.0			25.2			19.1					
Approach LOS	C			A			C			B					
Intersection Summary															
HCM Average Control Delay	24.4			HCM Level of Service			C								
HCM Volume to Capacity ratio	0.84														
Actuated Cycle Length (s)	69.6			Sum of lost time (s)			12.0								
Intersection Capacity Utilization	104.6%			ICU Level of Service			G								
Analysis Period (min)	15														
dr - Default Right Lane, Recode with 1 though lane as a right lane c - Critical Lane Group															

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
 30: Valley Centre Drive & Carmel View Road

Existing PM
 12/1/2010



Movement	EBB	EBT	EBR	WBL	WBT	WBR	YBWB	YBWB	YBWB	NBB	NBT	NBR	SEB	SBT	SBR
Lane Configurations	T T T			T T T			T T T			T T T			T T T		
Volume (vph)	66	379	0	347	94	30	46	0	0	0	0	0	1770	1583	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		0.95	1.00	1.00				1.00	0.95	1.00			
Flt Protected	1.00	1.00		0.97	1.00	1.00				1.00	0.85	1.00			
Flt Permitted	0.95	1.00		1.00	1.00	1.00				0.95	1.00	1.00			
Satd. Flow (prot)	1770	3539		3427	1770	1583				1770	1583	1583			
Satd. Flow (perm)	1770	3539		3427	1770	1583				1770	1583	1583			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	73	421	0	366	104	33	51	0	0	0	0	0	1770	1583	0
RTOR Reduction (vph)	0	0	0	46	0	0	47	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	73	421	0	444	0	33	51	0	0	0	0	0	1770	1583	0
Turn Type	Prot			Prot			Prot			Prot			Prot		
Protected Phases	7	4	4							6	6	6			
Permitted Phases	3			3			3			3			3		
Actuated Green, G (s)	1.2	13.8		8.6	1.7	1.7				1.2	13.8	8.6			
Effective Green, g (s)	1.2	13.8		8.6	1.7	1.7				1.2	13.8	8.6			
Actuated g/C Ratio	0.05	0.59		0.37	0.07	0.07				0.05	0.59	0.37			
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0				4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0				3.0	3.0	3.0			
Lane Grp Cap (vph)	90	2078		1254	128	115				90	2078	1254			
vs Ratio Prot	0.04	0.12		0.13	0.02	0.00				0.04	0.12	0.13			
vs Ratio Perm															
w/C Ratio	0.81	0.20		0.35	0.28	0.03				0.81	0.20	0.35			
Uniform Delay, d1	11.0	2.3		5.4	10.3	10.1				11.0	2.3	5.4			
Progression Factor	1.00	1.00		1.00	1.00	1.00				1.00	1.00	1.00			
Incremental Delay, d2	40.5	0.0		0.2	1.1	0.1				40.5	0.0	0.2			
Delay (s)	51.6	2.3		5.6	11.4	10.2				51.6	2.3	5.6			
Level of Service	D			A			A			B			B		
Approach Delay (s)	9.6			5.8			10.7								
Approach LOS	A			A			B								
Intersection Summary															
HCM Average Control Delay	7.8			HCM Level of Service			A								
HCM Volume to Capacity ratio	0.39														
Actuated Cycle Length (s)	23.5			Sum of lost time (s)			12.0								
Intersection Capacity Utilization	29.6%			ICU Level of Service			A								
Analysis Period (min)	15														
c - Critical Lane Group															

Baseline

Synchro 7 - Report
 Page 28

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing PM
12/1/2010

Movement	EBL	EBR	EBB	EBL	WBL	WBR	WBL	WBR	NBL	NBR	SBL	SBR
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	T
Volume (vph)	107	264	290	31	457	96	312	796	111	264	105	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00
Flt	1.00	0.85	0.85	1.00	0.94	1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	2787	1583	1770	1756	1770	3539	1583	3433	3539	1583	1583
Flt Permitted	0.59	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1094	2787	1583	1770	1756	1770	3539	1583	3433	3539	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	119	316	322	34	174	107	347	684	123	293	117	141
RTOR Reduction (vph)	0	0	255	0	34	0	0	79	0	0	0	114
Lane Group Flow (vph)	119	316	67	34	247	0	347	684	44	293	117	227
Turn Type	custom	custom	custom	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases				3	6	5	2	2	2	6	6	6
Permitted Phases	4	4	4									
Actuated Green, G (s)	12.5	12.5	12.5	1.5	18.0	18.8	21.5	21.5	8.6	11.3	11.3	11.3
Effective Green, g (s)	12.5	12.5	12.5	1.5	18.0	18.8	21.5	21.5	8.6	11.3	11.3	11.3
Actuated g/C Ratio	0.21	0.21	0.21	0.02	0.30	0.31	0.36	0.36	0.14	0.19	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	228	500	329	44	526	554	1266	566	491	665	298	298
v/s Ratio Prot				0.02	0.14	0.20	0.25	0.03	0.09	0.03	0.02	0.02
v/s Ratio Perm	0.11	0.11	0.04									
v/c Ratio	0.52	0.54	0.20	0.77	0.47	0.63	0.70	0.08	0.60	0.19	0.09	0.09
Uniform Delay, d1	21.1	21.3	19.7	29.1	17.2	17.6	16.5	12.8	24.1	20.5	20.1	20.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	1.0	0.3	57.0	0.7	2.2	1.7	0.1	2.0	0.1	0.1	0.1
Delay (s)	23.3	22.3	20.0	86.1	17.8	19.9	18.2	12.9	26.1	20.6	20.3	20.3
Level of Service	C	C	B	F	B	B	B	B	C	C	C	C
Approach Delay (s)				25.2			16.2			23.4		
Approach LOS				C			B			C		
Intersection Summary												
HCM Average Control Delay	20.7			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.57											
Actuated Cycle Length (s)	60.1			Sum of lost time (s)			8.0					
Intersection Capacity Utilization	62.9%			ICU Level of Service			B					
Analysis Period (min)	15											
c: Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

Existing PM
12/1/2010

Movement	EBL	EBR	EBB	EBL	WBL	WBR	WBL	WBR	NBL	NBR	SBL	SBR
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	T
Volume (vph)	908	424	92	0	0	0	0	0	317	43	348	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00						0.95	0.97	0.95	0.95
Flt	1.00	1.00	0.85						0.98	1.00	1.00	1.00
Flt Protected	0.95	0.98	1.00						1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1737	1583						3476	3433	3539	3539
Flt Permitted	0.95	0.98	1.00						1.00	0.95	1.00	1.00
Satd. Flow (perm)	1681	1737	1583						3476	3433	3539	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1009	471	102	0	0	0	0	0	352	48	387	81
RTOR Reduction (vph)	0	0	50	0	0	0	0	0	14	0	0	0
Lane Group Flow (vph)	726	754	52	0	0	0	0	0	386	0	307	81
Turn Type	Split	Prot	Prot						Prot	Prot	Prot	Prot
Protected Phases	4	4	4						2	1	6	6
Permitted Phases												
Actuated Green, G (s)	37.4	37.4	37.4						13.5	10.8	28.3	28.3
Effective Green, g (s)	37.4	37.4	37.4						13.5	10.8	28.3	28.3
Actuated g/C Ratio	0.51	0.51	0.51						0.18	0.15	0.38	0.38
Clearance Time (s)	4.0	4.0	4.0						4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0						3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	853	881	803						637	503	1359	1359
v/s Ratio Prot	0.45	0.43	0.03						0.11	0.11	0.02	0.02
v/s Ratio Perm												
v/c Ratio	0.85	0.86	0.06						0.61	0.77	0.06	0.06
Uniform Delay, d1	15.7	15.8	9.2						27.7	30.3	14.3	14.3
Progression Factor	1.00	1.00	1.00						1.00	1.00	1.00	1.00
Incremental Delay, d2	8.2	8.2	0.0						1.6	7.0	0.0	0.0
Delay (s)	23.9	24.0	9.3						29.3	37.2	14.3	14.3
Level of Service	C	C	A						C	D	B	B
Approach Delay (s)		23.0				0.0			29.3		33.3	
Approach LOS		C				A			C		C	
Intersection Summary												
HCM Average Control Delay	26.0			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.79											
Actuated Cycle Length (s)	73.7			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	66.4%			ICU Level of Service			C					
Analysis Period (min)	15											
c: Critical Lane Group												



Movement	SE	E	NW	N	NE	SW	S	W	
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	
Volume (vph)	127	407	30	91	376	400	94	128	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	0.97	1.00	
Flt. Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3503	1770	3266	1770	1737	3433	1708	
Flt. Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3503	1770	3266	1770	1737	3433	1708	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	141	452	33	101	418	444	99	142	
RTOR Reduction (vph)	0	9	0	0	327	0	51	0	
Lane Group Flow (vph)	141	476	0	101	535	0	207	0	
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	
Protected Phases	6	5	2	7	4	3	8		
Permitted Phases		6					4		
Actuated Green, G (s)	5.6	16.8	3.4	14.6	1.6	13.7	5.4	17.5	
Effective Green, g (s)	5.6	16.8	3.4	14.6	1.6	13.7	5.4	17.5	
Actuated g/C Ratio	0.10	0.30	0.06	0.26	0.03	0.25	0.10	0.32	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	179	1064	109	862	51	430	335	541	
v/s Ratio Prot	0.08	0.14	0.06	0.16	0.03	0.12	0.07	0.06	
v/s Ratio Perm									
g/C Ratio	0.79	10.45	0.93	0.62	0.99	0.46	0.76	0.15	
Uniform Delay, d1	24.3	15.5	25.8	17.9	26.8	17.8	24.3	13.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	20.1	0.3	62.7	1.4	111.0	0.9	9.9	0.1	
Delay (s)	44.4	15.8	88.5	19.3	137.8	18.6	34.3	13.7	
Level of Service	D	B	F	B	F	B	C	B	
Approach Delay (s)		22.2		26.6		37.6		27.3	
Approach LOS		C		C		D		C	
Intersection Summary									
HCM Average Control Delay	27.0		HCM Level of Service			C			
HCM Volume to Capacity ratio	0.63								
Actuated Cycle Length (s)	55.3				Sum of lost time (s)				20.0
Intersection Capacity Utilization	63.3%		ICU Level of Service			B			
Analysis Period (min)	15								
Critical Lane Group									



Movement	WB	WBR	SE	E	NW	N	NE	SW	S	W	
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	
Volume (vph)	0	0	269	472	621	0	190	147	241		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor			0.97	0.95	0.95		1.00	0.97	1.00		
Flt. Protected			0.95	1.00	1.00		0.85	1.00	0.85		
Satd. Flow (prot)			3433	3539	3539		1583	3433	1583		
Flt. Permitted			0.95	1.00	1.00		1.00	0.95	1.00		
Satd. Flow (perm)			3433	3539	3539		1583	3433	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	0	0	299	524	690	0	211	163	268		
RTOR Reduction (vph)	0	0	0	0	0	0	138	0	219		
Lane Group Flow (vph)	0	0	299	524	690	0	73	163	49		
Turn Type			Prot	Prot	Prot		Perm	Perm	Perm		
Protected Phases			5	2	6		6	4	4		
Permitted Phases											
Actuated Green, G (s)			8.3	27.4	15.1		15.1	8.0	8.0		
Effective Green, g (s)			8.3	27.4	15.1		15.1	8.0	8.0		
Actuated g/C Ratio			0.19	0.63	0.35		0.35	0.18	0.18		
Clearance Time (s)			4.0	4.0	4.0		4.0	4.0	4.0		
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0	3.0		
Lane Grp Cap (vph)			657	2234	1231		551	633	292		
v/s Ratio Prot			0.09	0.15	0.19		0.05	0.05	0.03		
v/s Ratio Perm											
g/C Ratio			0.46	0.23	0.56		0.13	0.26	0.17		
Uniform Delay, d1			15.5	3.5	11.5		9.7	15.2	14.9		
Progression Factor			1.00	1.00	1.00		1.00	1.00	1.00		
Incremental Delay, d2			0.5	0.1	0.6		0.1	0.2	0.3		
Delay (s)			16.0	3.5	12.0		9.8	15.4	15.2		
Level of Service			B	A	B		A	B	B		
Approach Delay (s)			0.0	8.1	11.5		15.3				
Approach LOS			A	A	B		B				
Intersection Summary											
HCM Average Control Delay	10.9			HCM Level of Service							B
HCM Volume to Capacity ratio	0.46										
Actuated Cycle Length (s)	43.4					Sum of lost time (s)					12.0
Intersection Capacity Utilization	39.0%			ICU Level of Service							A
Analysis Period (min)	15										
Critical Lane Group											



Movement	EBL	EB	EBR	WBL	WB	WBR	NBL	NB	NBR	SBL	SB	SBR
Lane Configurations	7	8	24	7	8	24	7	8	24	7	8	24
Volume (vph)	399	683	241	250	375	255	401	255	401	255	401	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.97	0.95	0.95	0.95	0.95	1.00	0.95	1.00	0.95
Flt	1.00	1.00	0.85	1.00	1.00	1.00	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1601	1601	1583	3433	3539	3539	3539	1583	3539	1583	3539	3539
Flt Permitted	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1601	1681	1583	3433	3539	3539	3539	1583	3539	1583	3539	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	443	759	268	278	417	0	446	283	0	446	0	0
RTOR Reduction (vph)	0	0	123	0	0	0	0	112	0	0	0	0
Lane Group Flow (vph)	399	803	145	278	417	0	446	171	0	446	0	0
Turn Type	Split	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	4	4	4	6	6	6	6	6	6	6	6	6
Permitted Phases	4	4	4	6	6	6	6	6	6	6	6	6
Actuated Green, G (s)	30.1	36.4	36.4	8.1	27.4	15.3	15.3	15.3	15.3	15.3	15.3	15.3
Effective Green, g (s)	30.4	38.4	38.4	8.1	27.4	15.3	15.3	15.3	15.3	15.3	15.3	15.3
Actuated g/C Ratio	0.52	0.52	0.52	0.11	0.37	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	875	875	824	377	1314	734	328	734	328	734	328	328
v/s Ratio Prot	0.24	0.48	0.09	0.08	0.12	0.13	0.11	0.13	0.11	0.13	0.11	0.11
v/s Ratio Perm	0.46	0.92	0.18	0.17	0.32	0.51	0.52	0.51	0.52	0.51	0.52	0.52
Uniform Delay, d1	11.1	16.2	9.3	31.8	16.5	26.5	26.0	26.5	26.0	26.5	26.0	26.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	14.2	0.1	7.3	0.1	1.4	1.5	1.4	1.5	1.4	1.5	1.5
Delay (s)	11.5	30.4	9.5	39.2	16.7	28.0	27.5	28.0	27.5	28.0	27.5	27.5
Level of Service	B	C	A	D	B	C	C	C	C	C	C	C
Approach Delay (s)	21.5	21.5	25.7	25.7	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
Approach LOS	C	C	C	C	C	C	C	C	C	C	C	A
Intersection Summary												
HCM Average Control Delay	24.1			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.82											
Actuated Cycle Length (s)	73.8			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	66.1%			ICU Level of Service			C					
Analysis Period (min)	15											
Critical Lane Group	C											

Baseline

Synchro 7 - Report
Page 33

ALL-WAY STOP CONTROL ANALYSIS									
General Information					Site Information				
Analyst	Jacob Swim				Intersection	Carmel Creek Rd./Del Mar Trail			
Agency/Co.	USAI				Jurisdiction	City of San Diego			
Date Performed	9/1/2009				Analysis Year	2009			
Analysis Time Period	36 Existing PM								
Project ID 002407 - San Diego Corporate Center Lots									
East/West Street: Del Mar Trail					North/South Street: Carmel Creek Road				
Volume Adjustments and Site Characteristics									
Approach					Approach				
Eastbound					Westbound				
Movement	L	T	R		L	T	R		
Volume (veh/h)	5	5	4		55	12	10		
% Thrus Left Lane									
Northbound					Southbound				
Movement	L	T	R		L	T	R		
Volume (veh/h)	12	733	100		15	389	10		
% Thrus Left Lane	50				50				
		Eastbound		Westbound		Northbound		Southbound	
		L1	L2	L1	L2	L1	L2	L1	L2
Configuration		LTR		LTR		LT	TR	LT	TR
PHF		0.90		0.90		0.90	0.90	0.90	0.90
Flow Rate (veh/h)		14		85		419	518	231	227
% Heavy Vehicles		2		2		2	2	2	2
No. Lanes		1		1		2		2	
Geometry Group		2		2		5		5	
Duration, T	0.25								
Saturation Headway Adjustment Worksheet									
Prop. Left-Turns	0.4		0.7		0.0	0.0	0.1	0.0	
Prop. Right-Turns	0.3		0.1		0.0	0.2	0.0	0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0	0.0	0.0	0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5	
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
hadj, computed	-0.1		0.1		0.0	-0.1	0.1	0.0	
Departure Headway and Service Time									
hd, initial value (s)	3.20		3.20		3.20	3.20	3.20	3.20	
x, initial	0.01		0.03		0.37	0.16	0.21	0.20	
hd, final value (s)	6.60		6.51		5.44	5.27	5.99	5.92	
x, final value	0.03		0.15		0.63	0.76	0.38	0.37	
Move-up time, m (s)	2.0		2.0		2.3		2.3		
Service Time, ts (s)	4.6		4.5		3.1	3.0	3.7	3.6	
Capacity and Level of Service									
		Eastbound		Westbound		Northbound		Southbound	
		L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)		264		335		657	679	481	477
Delay (s/veh)		9.78		10.69		17.02	22.53	12.37	12.09
LOS		A		B		C	C	B	B
Approach Delay (s/veh)		9.78		10.69		20.06		12.23	
LOS		A		B		C		B	
Intersection Delay (s/veh)	17.03								
Intersection LOS	C								

APPENDIX E

EXISTING + PROJECT SYNCHRO WORKSHEETS

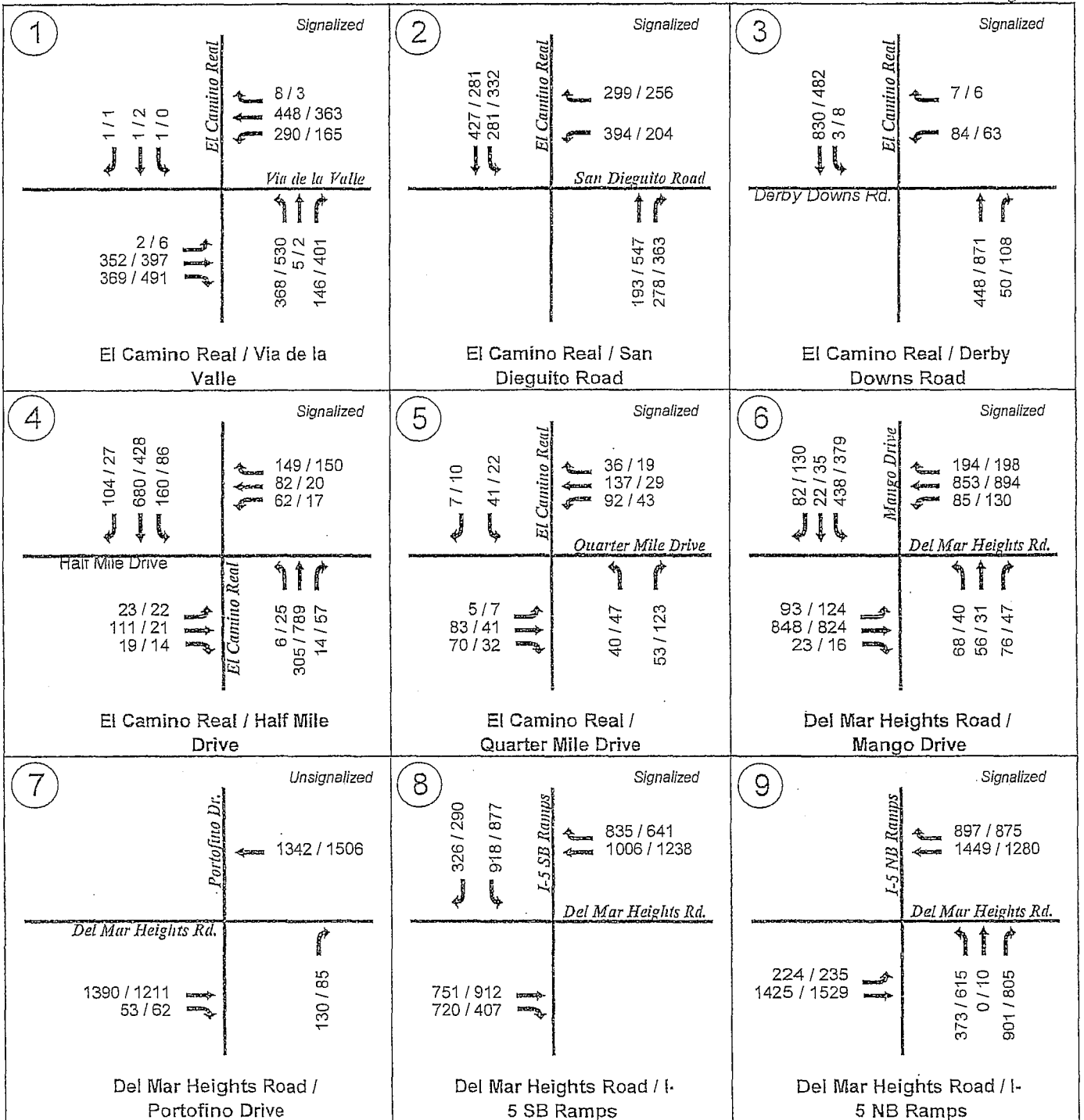


FIGURE X-X

Existing + Project (Phase 1) AM/PM Peak Hour Traffic

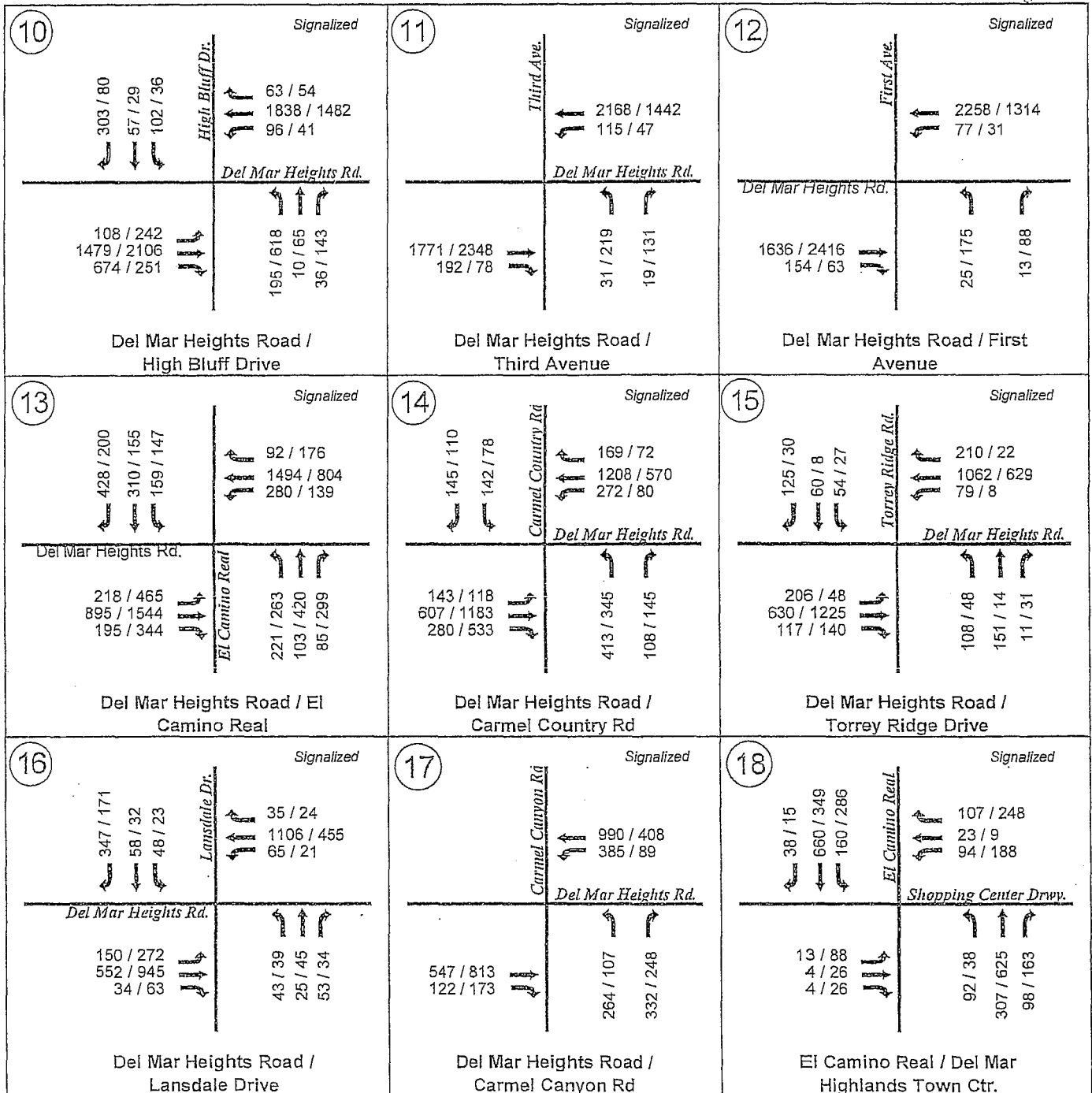


FIGURE X-X

Existing + Project (Phase 1) AM/PM Peak Hour Traffic

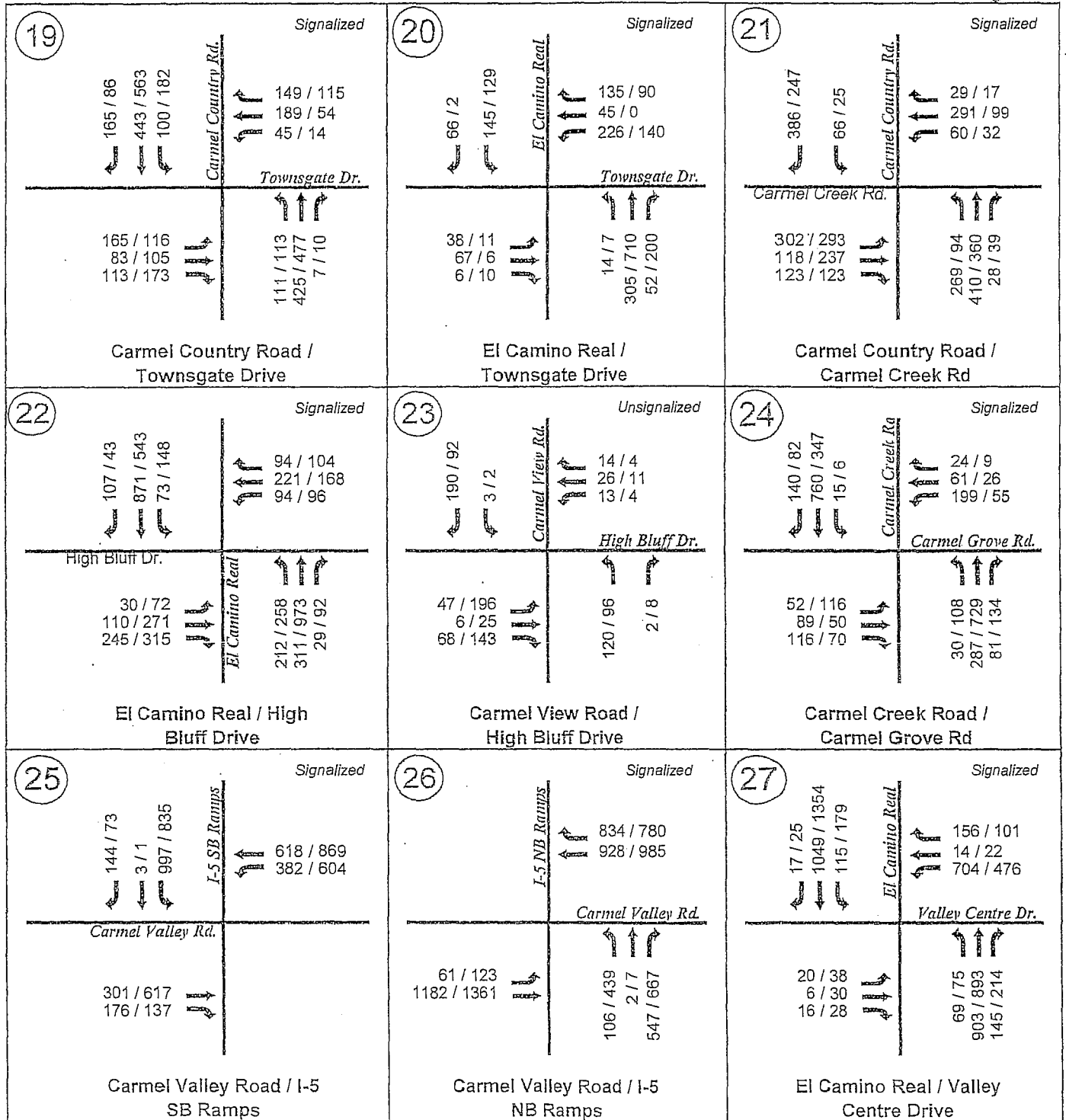


FIGURE X-X

Existing + Project (Phase 1) AM/PM Peak Hour Traffic

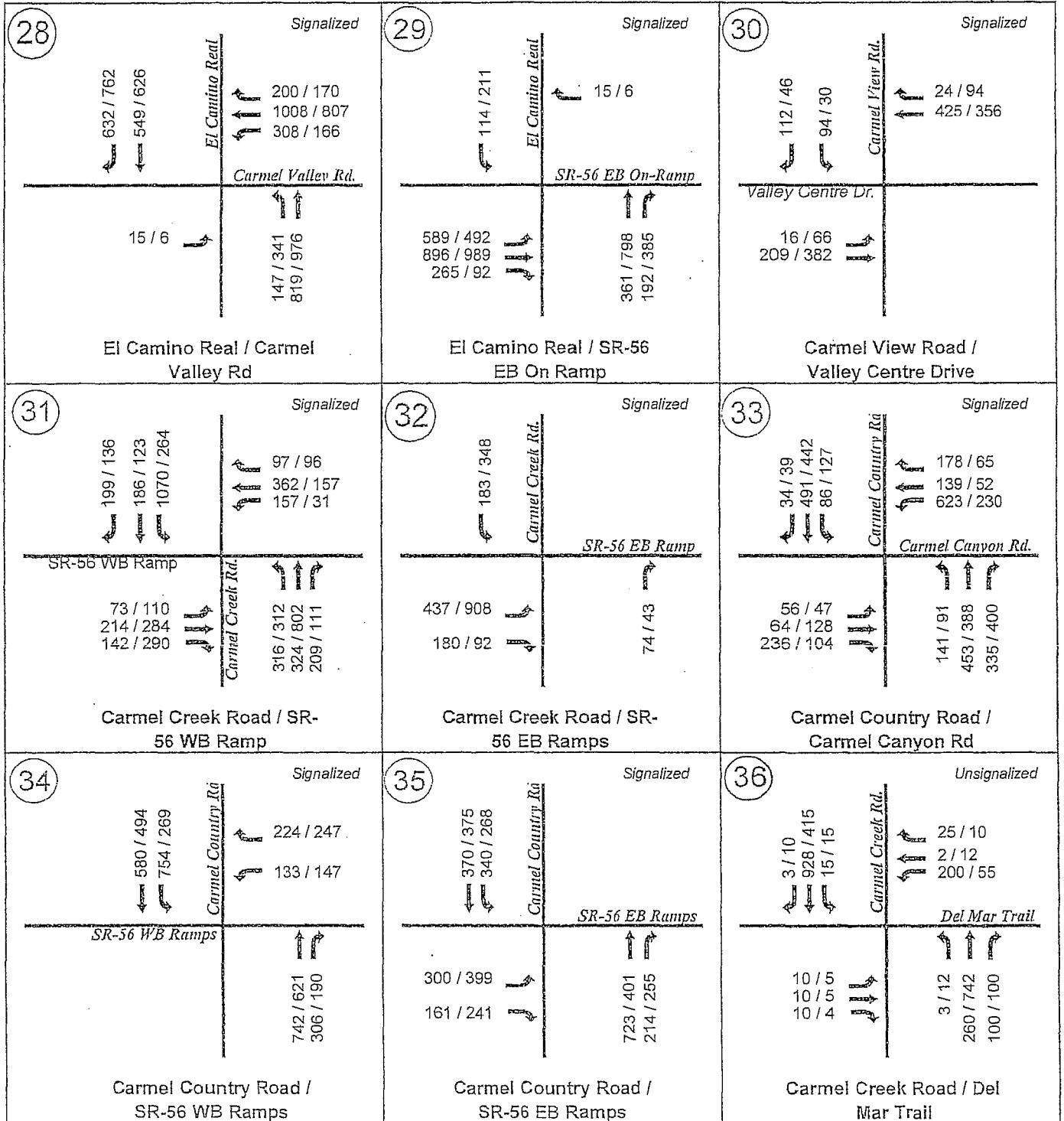


FIGURE X-X

Existing + Project (Phase 1) AM/PM Peak Hour Traffic

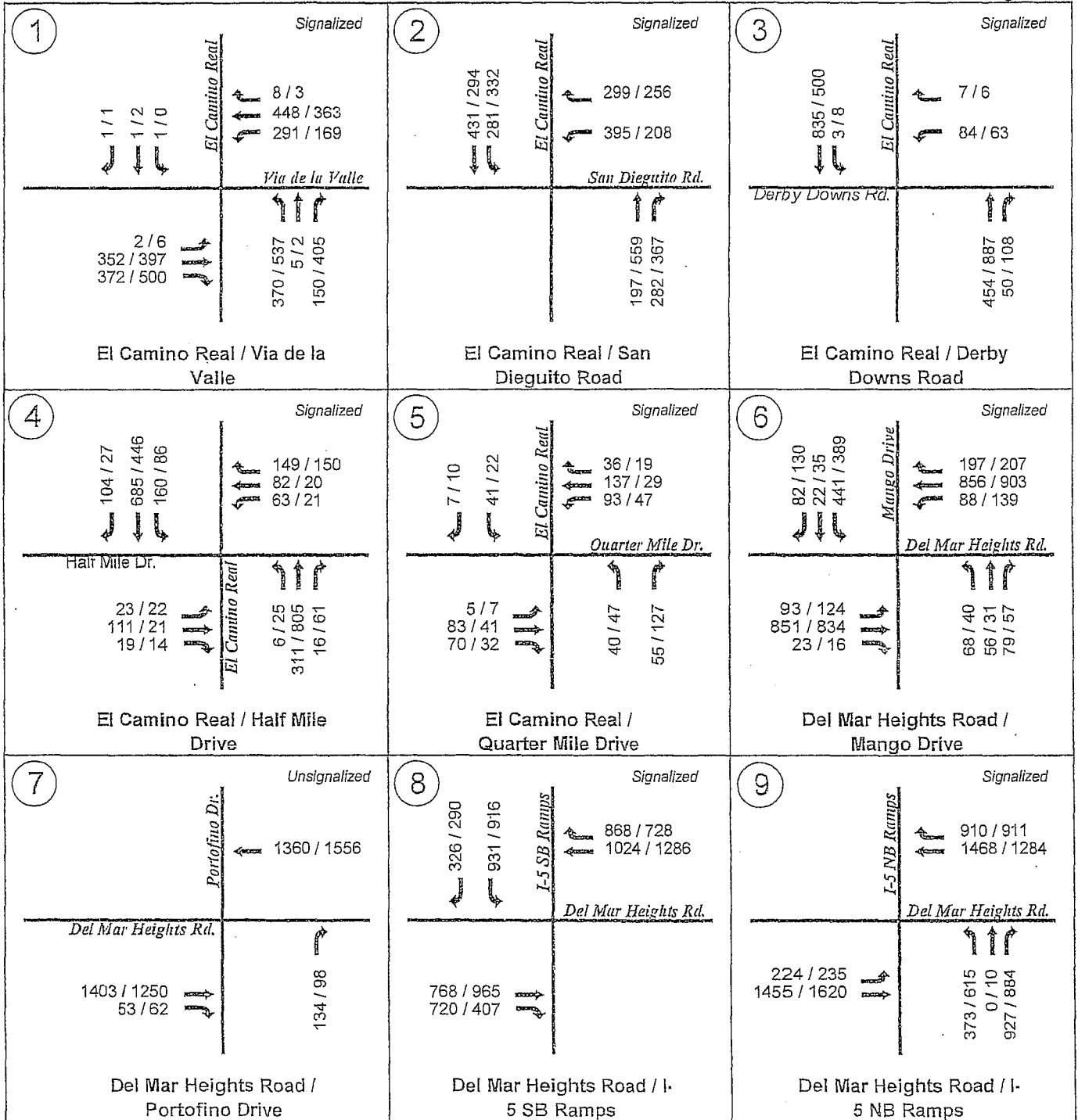


FIGURE X-X

Existing + Project (Phase 1&2) AM/PM Peak Hour Traffic

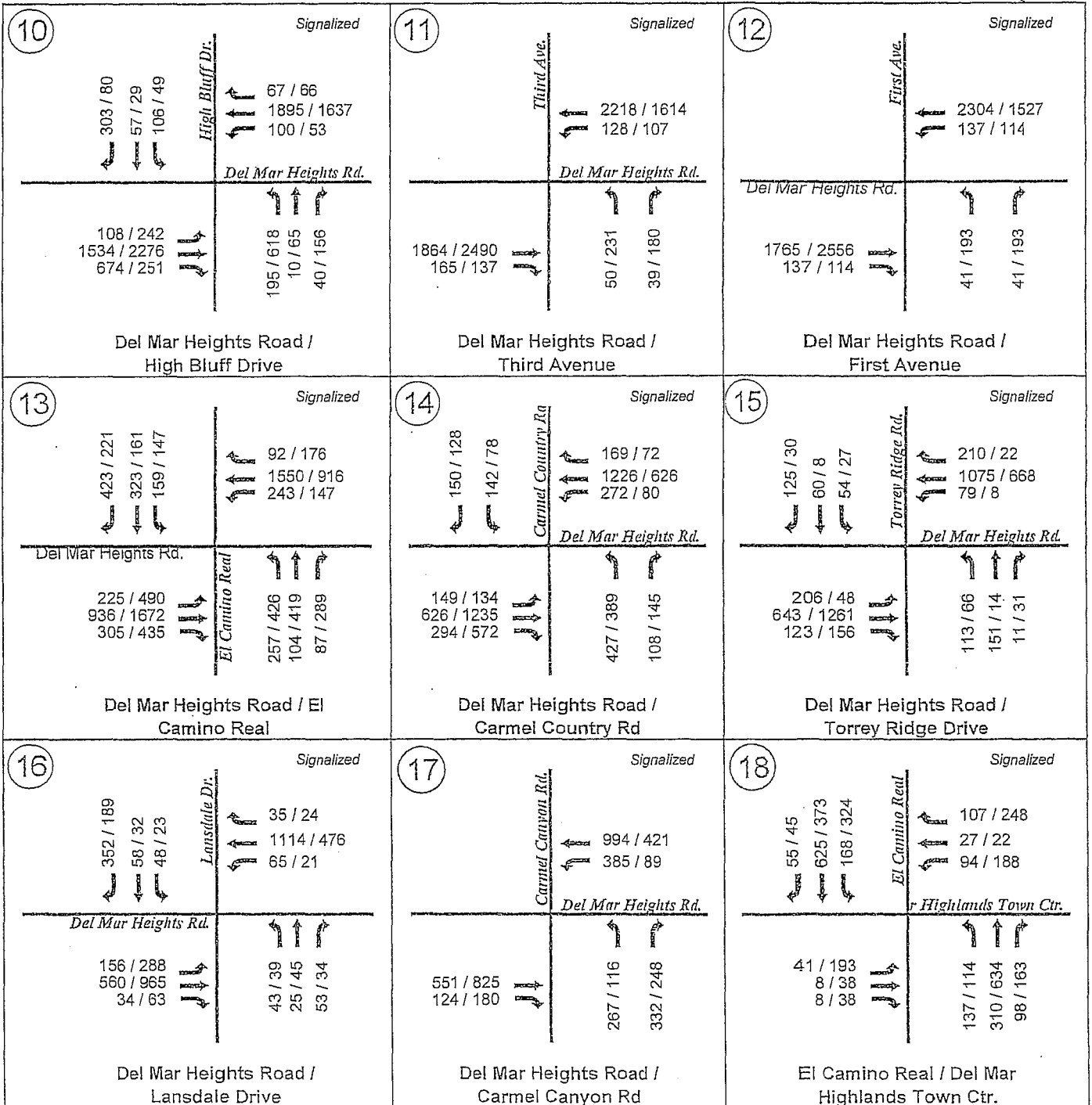


FIGURE X-X

Existing + Project (Phase 1&2) AM/PM Peak Hour Traffic

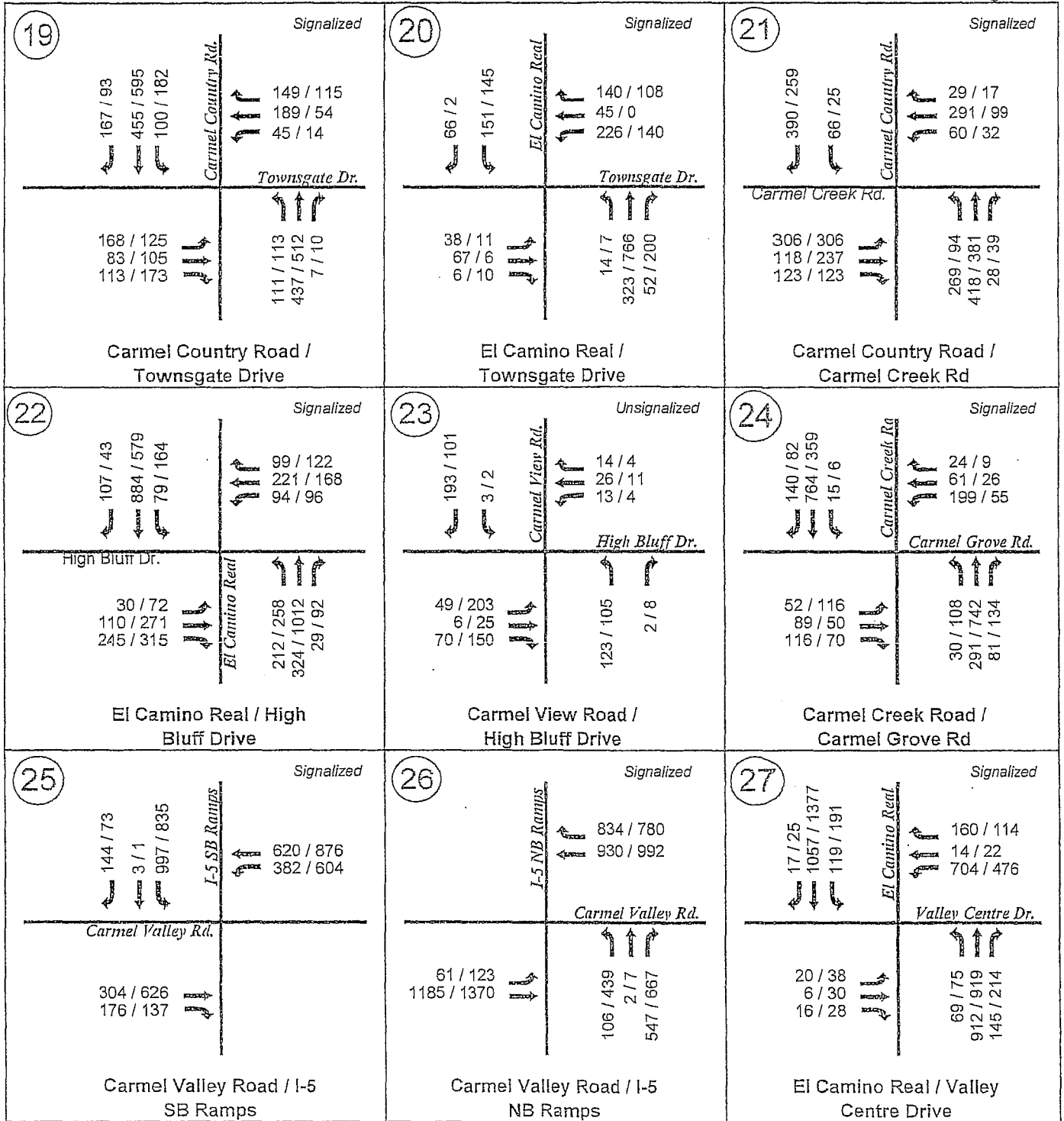


FIGURE X-X

Existing + Project (Phase 1&2) AM/PM Peak Hour Traffic

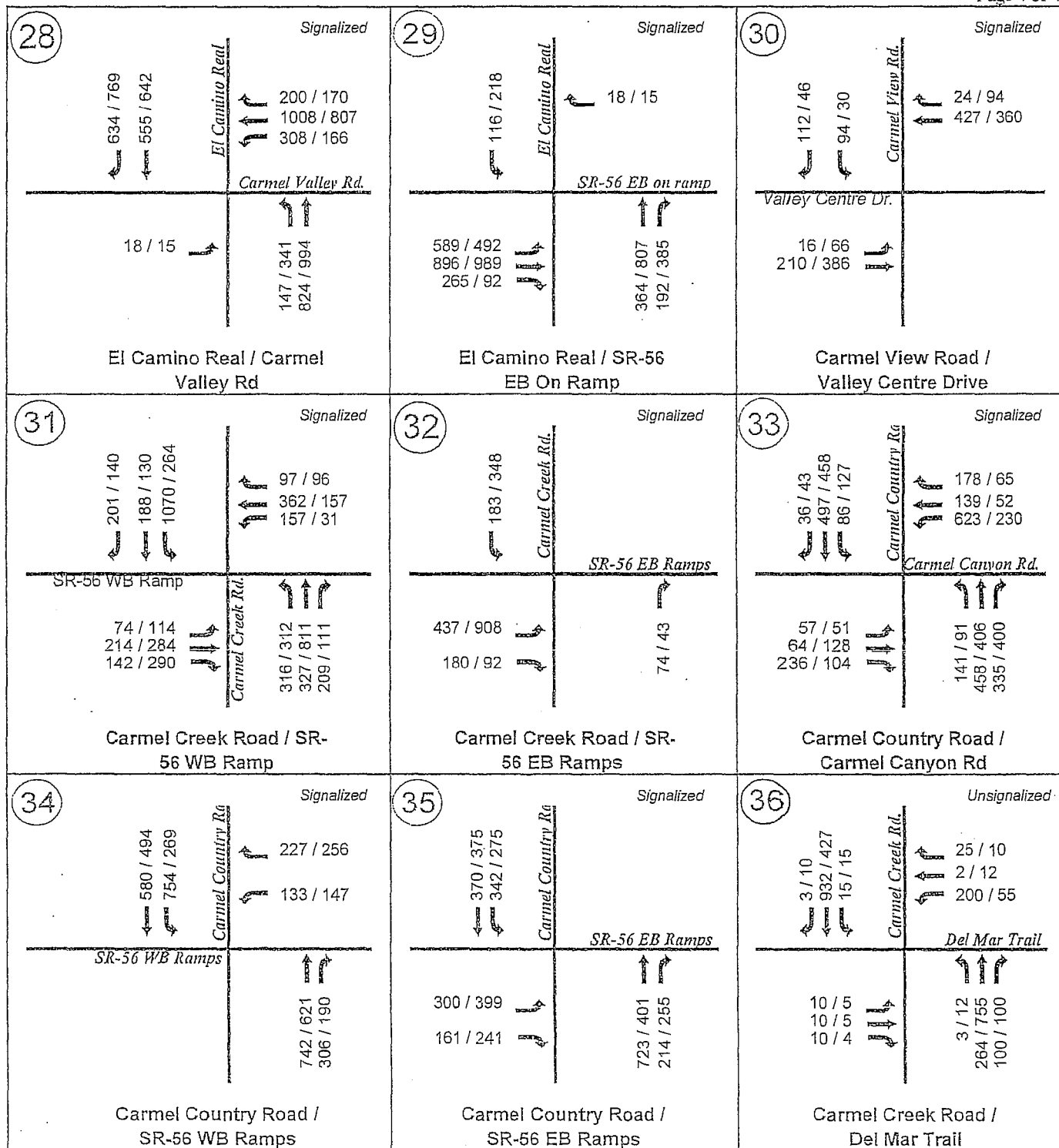


FIGURE X-X

Existing + Project (Phase 1&2) AM/PM Peak Hour Traffic

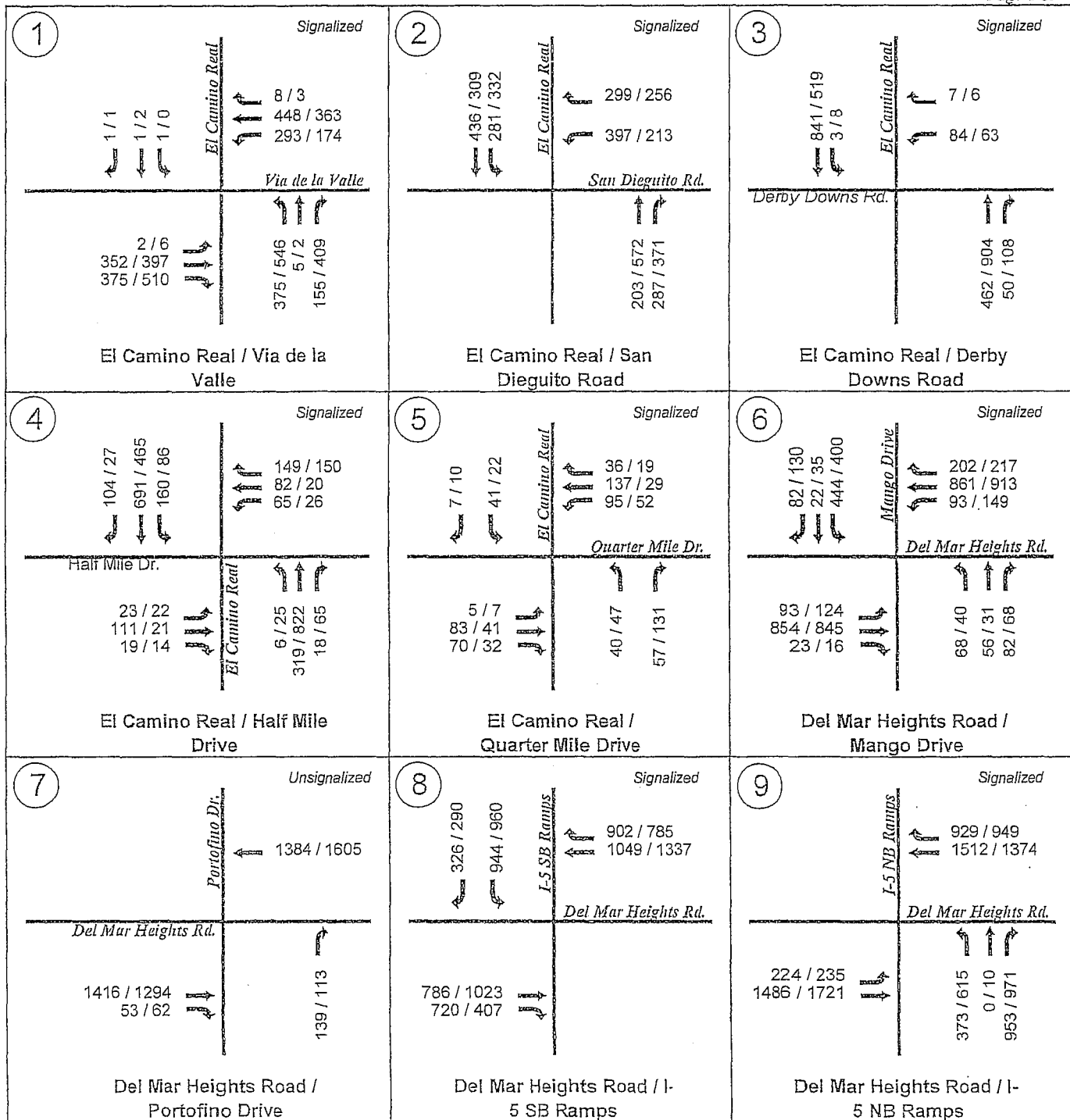


FIGURE X-X

Existing + Project (Buildout) AM/PM Peak Hour Traffic

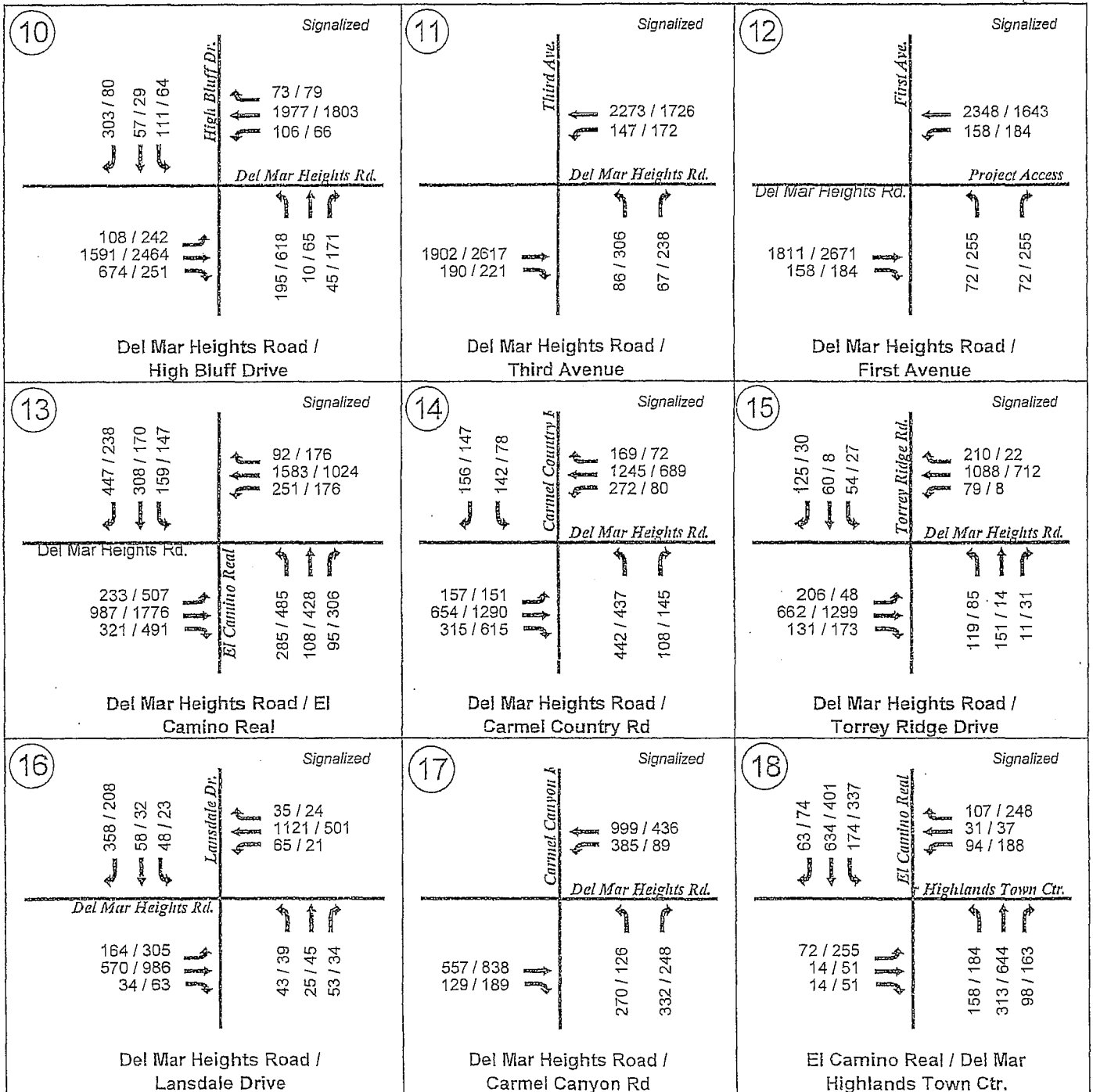


FIGURE X-X

Existing + Project (Buildout) AM/PM Peak Hour Traffic

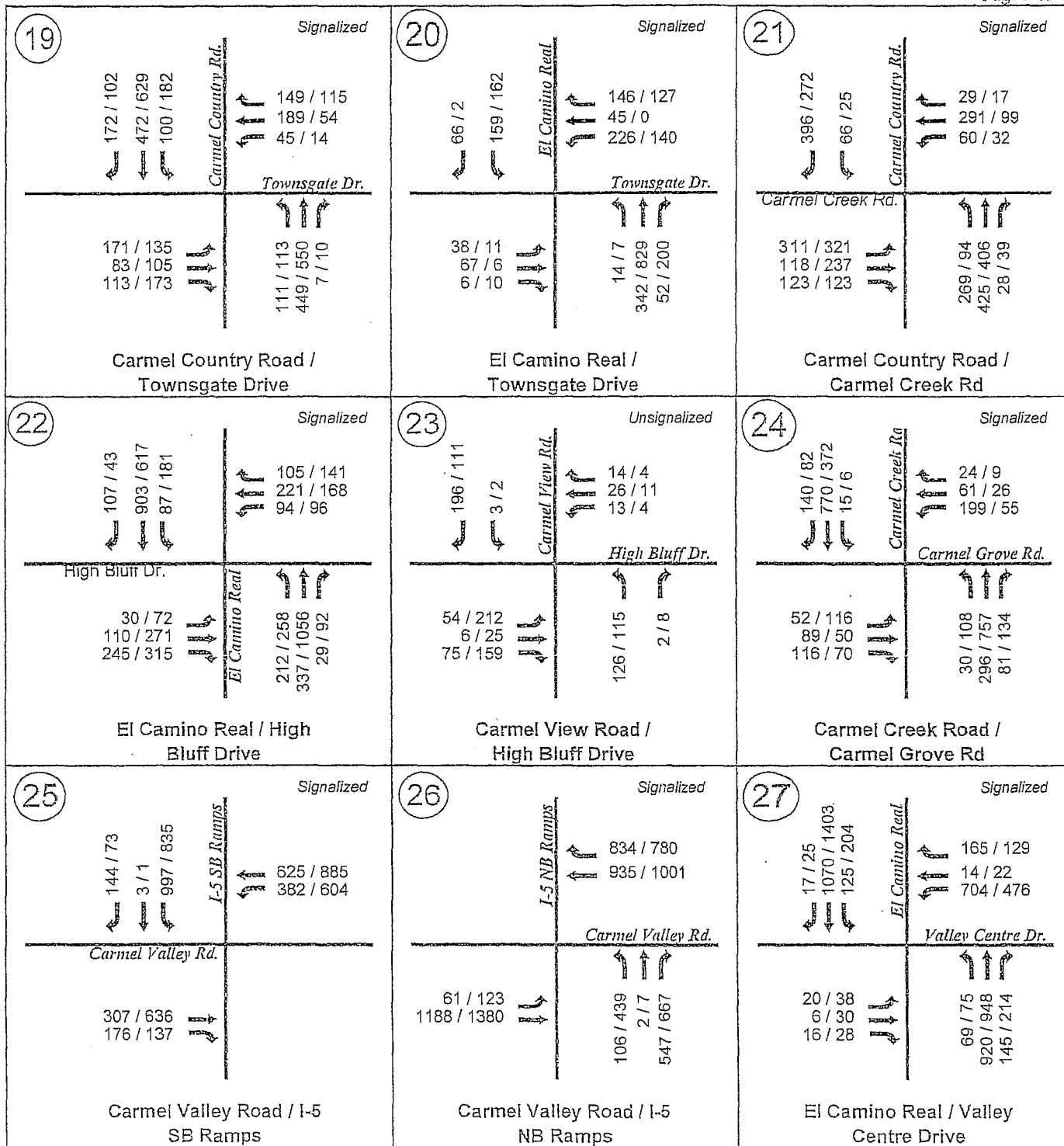


FIGURE X-X

Existing + Project (Buildout) AM/PM Peak Hour Traffic

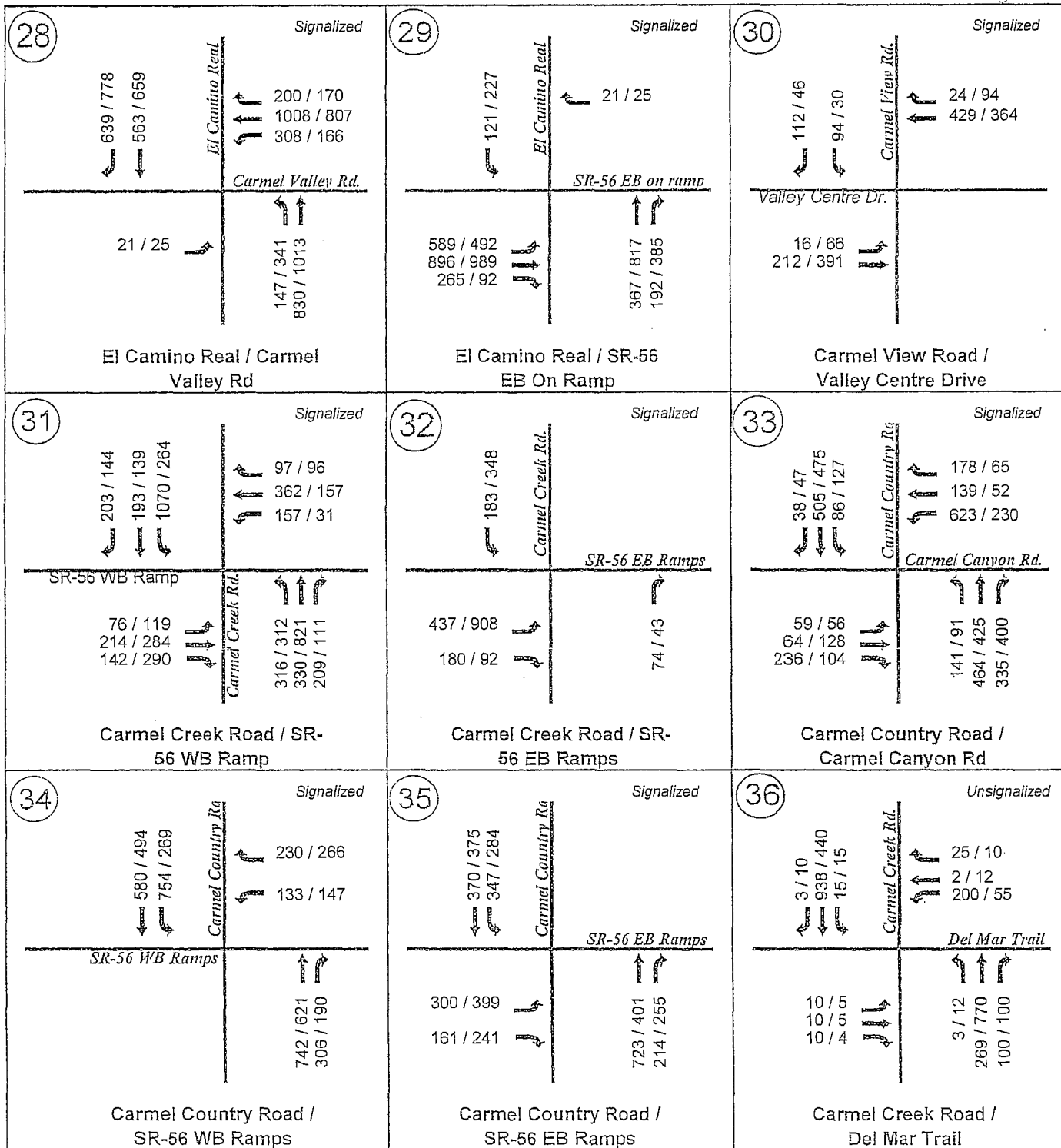
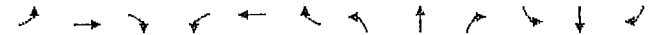


FIGURE X-X

Existing + Project (Buildout) AM/PM Peak Hour Traffic



EXISTING + PROJECT

Phase 1

Movement	SEBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Volume (vph)	2	352	369	290	448	8	368	5	146	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.85		0.96		
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.98		
Satd. Flow (prot)	1770	1863	1583	1770	1858		1775	1583		1750		
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.98		
Satd. Flow (perm)	1770	1863	1583	1770	1858		1775	1583		1750		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	391	410	322	498	9	409	6	162	1	1	1
RTOR Reduction (vph)	0	0	265	0	1	0	0	0	117	0	1	0
Lane Group Flow (vph)	2	391	145	322	506	0	415	45	0	2	0	0
Turn Type	Prot		Prot	Prot			Split		Prot	Split		
Protected Phases	7	4	4	3	8		2	2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	0.8	22.3	22.3	16.7	38.2		21.4	21.4		1.1		
Effective Green, g (s)	0.8	22.3	22.3	16.7	38.2		21.4	21.4		1.1		
Actuated g/C Ratio	0.01	0.29	0.29	0.22	0.49		0.28	0.28		0.01		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0		
Lane Grp Cap (vph)	18	536	455	381	916		490	437		25		
v/s Ratio Prot	0.00	0.21	0.09	0.18	0.27		0.23	0.03		0.00		
v/s Ratio Perm												
v/c Ratio	0.11	0.73	0.32	0.85	0.55		0.85	0.10		0.08		
Uniform Delay, d1	38.0	24.9	21.6	29.2	13.7		26.5	20.9		37.7		
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Incremental Delay, d2	2.7	4.9	0.4	15.7	0.7		12.8	0.1		1.4		
Delay (s)	40.7	29.8	22.1	44.8	14.4		39.3	21.0		39.1		
Level of Service	D	C	C	D	B		D	C		D		
Approach Delay (s)		25.9			26.2		34.1			39.1		
Approach LOS		C			C		C			D		
Intersection Summary												
HCM Average Control Delay				28.2	HCM Level of Service			C				
HCM Volume to Capacity ratio				0.79								
Actuated Cycle Length (s)				77.5	Sum of lost time (s)			16.0				
Intersection Capacity Utilization				71.9%	ICU Level of Service			C				
Analysis Period (min)				15								
c Critical Lane Group												

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↑	↑	↔	↔	↔
Volume (vph)	394	299	0	193	278	281	427
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00		1.00	1.00	1.00	0.95
Flt	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		1863	1583	1770	3539
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583		1863	1583	1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	438	332	0	214	309	312	474
RTOR Reduction (vph)	0	249	0	0	237	0	0
Lane Group Flow (vph)	438	83	0	214	72	312	474
Turn Type	Perm	Prot	Perm	Prot			
Protected Phases	1	3	8	7			
Permitted Phases	1		8	6			
Actuated Green, G (s)	12.7	12.7	11.8	11.8	14.0	12.7	
Effective Green, g (s)	12.7	12.7	11.8	11.8	14.0	12.7	
Actuated g/C Ratio	0.25	0.25	0.23	0.23	0.28	0.25	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	863	398	435	370	491	890	
v/s Ratio Prot	0.13		0.11	0.18			
v/s Ratio Perm		0.05		0.05		0.13	
v/c Ratio	0.51	0.21	0.49	0.20	0.64	0.53	
Uniform Delay, d1	16.2	14.9	16.8	15.5	16.0	16.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.3	0.9	0.3	2.7	0.6	
Delay (s)	16.7	15.2	17.6	15.8	18.7	17.0	
Level of Service	B	B	B	B	B	B	
Approach Delay (s)	16.0		16.5		17.6		
Approach LOS	B		B		B		
Intersection Summary							
HCM Average Control Delay	16.8		HCM Level of Service		B		
HCM Volume to Capacity ratio	0.56						
Actuated Cycle Length (s)	50.5		Sum of lost time (s)		12.0		
Intersection Capacity Utilization	47.0%		ICU Level of Service		A		
Analysis Period (min)	15						
c Critical Lane Group							

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↑	↑	↔	↔	↔
Volume (vph)	84	7	0	448	50	3	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.97			0.95	1.00	0.95	
Flt	0.99			0.98	1.00	1.00	
Flt Protected	0.96			1.00	0.95	1.00	
Satd. Flow (prot)	3414			3486	1770	3539	
Flt Permitted	0.96			1.00	0.95	1.00	
Satd. Flow (perm)	3414			3486	1770	3539	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	93	8	0	498	56	3	922
RTOR Reduction (vph)	7	0	0	13	0	0	0
Lane Group Flow (vph)	94	0	0	541	0	3	922
Turn Type			Prot		Prot		
Protected Phases	8		5	2	1	6	
Permitted Phases							
Actuated Green, G (s)	3.1		14.8		0.6	19.4	
Effective Green, g (s)	3.1		14.8		0.6	19.4	
Actuated g/C Ratio	0.10		0.49		0.02	0.64	
Clearance Time (s)	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	347		1692		35	2251	
v/s Ratio Prot	0.03		0.16		0.00	0.26	
v/s Ratio Perm							
v/c Ratio	0.27		0.32		0.09	0.41	
Uniform Delay, d1	12.7		4.8		14.7	2.7	
Progression Factor	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.4		0.1		1.1	0.1	
Delay (s)	13.1		4.9		15.7	2.9	
Level of Service	B		A		B	A	
Approach Delay (s)	13.1		4.9		2.9		
Approach LOS	B		A		A		
Intersection Summary							
HCM Average Control Delay	4.2		HCM Level of Service		A		
HCM Volume to Capacity ratio	0.39						
Actuated Cycle Length (s)	30.5		Sum of lost time (s)		8.0		
Intersection Capacity Utilization	32.9%		ICU Level of Service		A		
Analysis Period (min)	15						
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	23	111	19	62	82	149	6	305	14	160	680	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.90		1.00	0.99		1.00	0.98	
Frt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1822		1770	1682		1770	3515		1770	3469	
Frt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1822		1770	1682		1770	3515		1770	3469	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	123	21	69	91	166	7	339	16	178	756	116
RTOR Reduction (vph)	0	11	0	0	114	0	0	6	0	0	17	0
Lane Group Flow (vph)	26	133	0	69	143	0	7	349	0	178	855	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	0.7	10.6		2.3	12.2		0.7	13.8		6.8	19.9	
Effective Green, g (s)	0.7	10.6		2.3	12.2		0.7	13.8		6.8	19.9	
Actuated g/C Ratio	0.01	0.21		0.05	0.25		0.01	0.28		0.14	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	25	390		82	415		25	980		243	1395	
v/s Ratio Prot	0.01	0.07		c0.04	c0.09		0.00	0.10		c0.10	c0.25	
v/s Ratio Perm												
w/c Ratio	1.04	0.34		0.84	0.35		0.28	0.36		0.73	0.61	
Uniform Delay, d1	24.4	16.5		23.4	15.4		24.2	14.3		20.5	11.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	192.8	0.5		50.7	0.5		6.0	0.2		10.8	0.8	
Delay (s)	217.2	17.0		74.1	15.9		30.2	14.5		31.3	12.5	
Level of Service	F	B		E	B		C	B		C	B	
Approach Delay (s)		47.6			28.2			14.8			15.7	
Approach LOS		D			C			B			B	
Intersection Summary												
HCM Average Control Delay	20.5		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.51											
Actuated Cycle Length (s)	49.5		Sum of lost time (s)				8.0					
Intersection Capacity Utilization	55.6%		ICU Level of Service				B					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	5	83	70	92	137	36	40	323	53	41	766	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	0.85		1.00	0.97		1.00	0.98	
Frt Protected	0.95	1.00		1.00	0.95		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863		1770	1805		1770	3464		1770	3534	
Frt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863		1770	1805		1770	3464		1770	3534	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	92	78	102	152	40	44	359	59	46	851	8
RTOR Reduction (vph)	0	0	64	0	17	0	0	19	0	0	1	0
Lane Group Flow (vph)	6	92	14	102	175	0	44	399	0	46	858	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		4	3		8	2		5	6	
Permitted Phases												
Actuated Green, G (s)	0.6	8.4		8.4	3.5		11.3	17.4		1.3	17.4	
Effective Green, g (s)	0.6	8.4		8.4	3.5		11.3	17.4		1.3	17.4	
Actuated g/C Ratio	0.01	0.18		0.18	0.08		0.24	0.03		0.03	0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	23	336		285	133		438	49		1293	49	
v/s Ratio Prot	0.00	0.05		0.01	c0.06		c0.10	0.02		0.12	c0.03	
v/s Ratio Perm												
w/c Ratio	0.26	0.27		0.05	0.77		0.40	0.90		0.31	0.94	
Uniform Delay, d1	22.8	16.5		15.8	21.1		14.8	22.6		10.3	22.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.0	0.4		0.1	22.8		0.6	90.0		0.1	104.4	
Delay (s)	28.7	16.9		15.9	44.0		15.4	112.6		10.5	127.0	
Level of Service	C	B		B	D		B	F		B	F	
Approach Delay (s)		16.9			25.3			20.2			19.0	
Approach LOS		B			C			C			B	
Intersection Summary												
HCM Average Control Delay	20.1		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.61											
Actuated Cycle Length (s)	46.6		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	46.5%		ICU Level of Service				A					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑		↑↑	↑↑		↑	↑	↑	↑	↑	↑
Volume (vph)	93	948	23	85	853	194	68	56	76	438	22	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	1.00	0.95	0.95		
Frt	1.00	1.00		1.00	0.97		1.00	0.85	1.00	0.95		
Flt Protected	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.97		
Satd. Flow (prot)	1770	5065		1770	3441		1813	1583	1681	1638		
Flt Permitted	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.97		
Satd. Flow (perm)	1770	5065		1770	3441		1813	1583	1681	1638		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	103	942	26	94	948	216	76	62	84	487	24	91
RTOR Reduction (vph)	0	3	0	0	21	0	0	0	72	0	17	0
Lane Group Flow (vph)	103	965	0	94	1143	0	0	138	12	307	278	0
Turn Type	Prot			Prot			Split	Perm		Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases								2				
Actuated Green, G (s)	6.6	30.4		7.6	31.4		11.5	11.5		17.6	17.6	
Effective Green, g (s)	6.6	30.4		7.6	31.4		11.5	11.5		17.6	17.6	
Actuated g/C Ratio	0.08	0.37		0.09	0.38		0.14	0.14		0.21	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	141	1853		162	1300		251	219		356	347	
v/s Ratio Prot	0.06	0.19		0.05	0.33		0.08	0.18		0.17		
v/s Ratio Perm								0.01				
v/c Ratio	0.73	0.52		0.58	0.88		0.55	0.05		0.86	0.80	
Uniform Delay, d1	37.4	20.6		36.2	24.1		33.4	31.1		31.6	31.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	17.6	0.3		5.2	7.1		2.5	0.1		18.8	12.4	
Delay (s)	55.0	20.9		41.4	31.2		35.8	31.2		50.4	43.5	
Level of Service	D	C		D	C		D	C		D	D	
Approach Delay (s)		24.2			31.9			34.1			47.0	
Approach LOS		C			C			C			D	
Intersection Summary												
HCM Average Control Delay	32.3			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.76											
Actuated Cycle Length (s)	83.1			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	66.8%			ICU Level of Service			C					
Analysis Period (min)	15											
c - Critical Lane Group												

Baseline

Synchro 7 - Report
Page 6

HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Volume (veh/h)	1390	53	0	1342	0	130
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1544	59	0	1491	0	144
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	575			607		
pX, platoon unblocked			0.87		0.92	0.87
vC, conflicting volume			1603		2319	544
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1179		1421	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	85
cM capacity (veh/h)			613		117	946
Direction/Lane #						
Volume Total	618	618	368	746	746	144
Volume Left	0	0	0	0	0	0
Volume Right	0	0	59	0	0	144
cSH	1700	1700	1700	1700	1700	946
Volume to Capacity	0.36	0.36	0.22	0.44	0.44	0.15
Queue Length 95th (ft)	0	0	0	0	0	13
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.5
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.5
Approach LOS						A
Intersection Summary						
Average Delay	0.4			ICU Level of Service		
Intersection Capacity Utilization	42.8%			A		
Analysis Period (min)	15					

Baseline

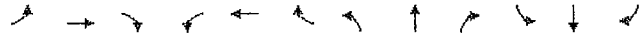
Synchro 7 - Report
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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑↑
Volume (vph)	0	751	1006	0	918	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3	6.3		5.6	5.6
Lane Util. Factor		0.95	0.95		0.97	0.91
Frt		1.00	1.00		0.99	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3539	3539		3430	1441
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3539	3539		3430	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	834	1118	0	1020	362
RTOR Reduction (vph)	0	0	0	0	3	46
Lane Group Flow (vph)	0	834	1118	0	1053	280
Turn Type					Perm	
Protected Phases		2.6	6.2		4	
Permitted Phases						4
Actuated Green, G (s)		42.4	42.4		25.4	25.4
Effective Green, g (s)		42.4	42.4		25.4	25.4
Actuated g/C Ratio		0.53	0.53		0.32	0.32
Clearance Time (s)					5.6	5.6
Vehicle Extension (s)					3.0	3.0
Lane Grp Cap (vph)		1883	1883		1093	459
v/s Ratio Prot		0.24	0.32		0.31	
v/s Ratio Perm						0.19
v/c Ratio		0.44	0.59		0.96	0.61
Uniform Delay, d1		11.4	12.8		26.7	23.0
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.5		18.8	2.4
Delay (s)		11.6	13.3		45.5	25.4
Level of Service		B	B		D	C
Approach Delay (s)		11.6	13.3		40.8	
Approach LOS		B	B		D	
Intersection Summary						
HCM Average Control Delay		24.2			HCM Level of Service	C
HCM Volume to Capacity ratio		0.73				
Actuated Cycle Length (s)		79.7			Sum of lost time (s)	11.9
Intersection Capacity Utilization		66.9%			ICU Level of Service	C
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)	224	1425	0	0	1449	897	373	0	901	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.97	0.95		0.91	1.00	0.95	0.91	0.95			
Frt		1.00	1.00		1.00	0.85	1.00	0.86	0.85			
Flt Protected		0.95	1.00		1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)		3433	3539		5085	1583	1681	1455	1504			
Flt Permitted		0.95	1.00		1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)		3433	3539		5085	1583	1681	1455	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	249	1583	0	0	1610	997	414	0	1001	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	452	0	15	15	0	0	0
Lane Group Flow (vph)	249	1583	0	0	1610	545	373	506	506	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	5	2			6	6	8	8	8			
Permitted Phases												
Actuated Green, G (s)	10.2	67.8			53.6	53.6	44.2	44.2	44.2			
Effective Green, g (s)	10.2	67.8			53.6	53.6	44.2	44.2	44.2			
Actuated g/C Ratio	0.08	0.56			0.45	0.45	0.37	0.37	0.37			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	292	2000			2271	707	619	536	554			
v/s Ratio Prot	0.07	0.45			0.32	0.34	0.22	0.35	0.34			
v/s Ratio Perm												
v/c Ratio	0.85	0.79			0.71	0.77	0.60	0.94	0.91			
Uniform Delay, d1	54.2	20.5			26.9	28.0	30.8	36.7	36.1			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	20.7	3.3			1.9	7.9	1.7	25.6	19.6			
Delay (s)	74.8	23.8			28.8	36.0	32.4	62.3	55.7			
Level of Service	E	C			C	D	C	E	E			
Approach Delay (s)		30.8			31.5		52.0				0.0	
Approach LOS		C			C		D				A	
Intersection Summary												
HCM Average Control Delay		36.2			HCM Level of Service				D			
HCM Volume to Capacity ratio		0.85										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)				8.0			
Intersection Capacity Utilization		91.5%			ICU Level of Service				F			
Analysis Period (min)		15										
c: Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
10: Del Mar Heights Road & High Bluff Drive

Existing + Project (Phase 1) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔↔	↔	↔	↔↔↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	108	1479	674	96	1838	63	195	10	36	102	57	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.95	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	1.00	0.88	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5060	3433	3123	1770	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5060	3433	3123	1770	1863	1583	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	120	1643	749	107	2042	70	217	11	40	113	63	337
RTDR Reduction (vph)	0	0	373	0	4	0	0	35	0	0	0	137
Lane Group Flow (vph)	120	1643	376	107	2108	0	217	16	0	113	63	200
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	7.9	41.3	41.3	6.7	40.1	7.0	10.0	13.2	16.2	16.2	16.2	16.2
Effective Green, g (s)	7.9	41.3	41.3	6.7	40.1	7.0	10.0	13.2	16.2	16.2	16.2	16.2
Actuated g/C Ratio	0.09	0.47	0.47	0.08	0.46	0.08	0.11	0.15	0.19	0.19	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	160	2408	750	136	2327	276	358	268	346	294	294	294
v/s Ratio Prot	c0.07	0.32	0.24	0.06	c0.42	c0.06	0.00	0.06	0.03	c0.13	0.03	0.13
v/s Ratio Perm												
w/c Ratio	0.75	0.68	0.50	0.79	0.91	0.79	0.04	0.42	0.16	0.68	0.68	0.68
Uniform Delay, d1	36.7	17.8	15.8	39.5	21.8	39.4	34.3	33.5	29.9	33.1	33.1	33.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.8	0.8	0.5	25.2	5.5	13.7	0.1	1.1	0.3	6.4	6.4	6.4
Delay (s)	56.5	18.7	16.4	64.8	27.3	53.1	34.4	34.6	30.2	39.4	39.4	39.4
Level of Service	E	B	B	E	C	D	C	C	C	C	C	D
Approach Delay (s)	19.8			29.1		49.5		37.2		21.5		
Approach LOS	B			C		D		D		C		

Intersection Summary			
HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	87.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
11: Del Mar Heights Road & Third Ave.

Existing + Project (Phase 1) AM
12/11/2011



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔↔↔	↔	↔	↔↔↔	↔↔	↔
Volume (vph)	1771	192	115	2168	31	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1968	213	128	2409	34	21
RTOR Reduction (vph)	0	87	0	0	0	20
Lane Group Flow (vph)	1968	126	128	2409	34	1
Turn Type	Perm	Prot			Perm	
Protected Phases	4	3	8	2		
Permitted Phases		4		2		
Actuated Green, G (s)	27.4	27.4	4.7	36.1	2.3	2.3
Effective Green, g (s)	27.4	27.4	4.7	36.1	2.3	2.3
Actuated g/C Ratio	0.59	0.59	0.10	0.78	0.05	0.05
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3003	935	179	3956	170	78
v/s Ratio Prot	0.39	0.07	c0.47	c0.04		
v/s Ratio Perm		0.08				0.00
w/c Ratio	0.66	0.13	0.72	0.81	0.20	0.01
Uniform Delay, d1	6.3	4.2	20.2	2.2	21.2	21.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.1	12.7	0.3	0.6	0.1
Delay (s)	6.9	4.3	32.9	2.4	21.7	21.0
Level of Service	A	A	C	A	C	C
Approach Delay (s)	6.6			4.0	21.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	5.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
12: Del Mar Heights Road & First Ave.

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↓	↑↑↑	↑	↑
Volume (vph)	1636	154	77	2258	25	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1818	171	86	2509	28	14
RTOR Reduction (vph)	0	59	0	0	0	13
Lane Group Flow (vph)	1818	112	86	2509	28	1
Turn Type	Perm		Prot		Perm	
Protected Phases	4		3	8	2	
Permitted Phases	4				2	
Actuated Green, G (s)	32.0	32.0	2.3	38.3	2.5	2.5
Effective Green, g (s)	32.0	32.0	2.3	38.3	2.5	2.5
Actuated g/C Ratio	0.66	0.66	0.05	0.78	0.05	0.05
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3334	1038	162	3991	91	81
v/s Ratio Prot	0.36		0.03	c0.49	c0.02	
v/s Ratio Perm	0.07				0.00	
v/c Ratio	0.55	0.11	0.53	0.63	0.31	0.01
Uniform Delay, d1	4.5	3.1	22.7	2.2	22.3	22.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.0	3.3	0.3	1.9	0.0
Delay (s)	4.7	3.2	26.0	2.5	24.2	22.0
Level of Service	A	A	C	A	C	C
Approach Delay (s)	4.6			3.3	23.5	
Approach LOS	A			A	C	
Intersection Summary						
HCM Average Control Delay	4.0		HCM Level of Service		A	
HCM Volume to Capacity ratio	0.61		Sum of lost time (s)		8.0	
Actuated Cycle Length (s)	48.8		ICU Level of Service		A	
Intersection Capacity Utilization	53.6%		Analysis Period (min)		15	
c: Critical Lane Group						

Baseline

HCM Signalized Intersection Capacity Analysis
13: Del Mar Heights Road & El Camino Real

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↓	↑↑↑		↑↓	↑↑↑		↑↓	↑↑↑		↑↓	↑↑↑	
Volume (vph)	218	895	195	280	1494	92	221	103	85	159	310	428
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91	1.00	0.97	0.91	
Frt	1.00	0.97		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	4949		3433	5041		3433	5085	1583	3433	4643	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	4949		3433	5041		3433	5085	1583	3433	4643	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	242	994	217	311	1660	102	246	114	94	177	344	476
RTOR Reduction (vph)	0	45	0	0	9	0	0	0	76	0	160	0
Lane Group Flow (vph)	242	1166	0	311	1753	0	246	114	18	177	660	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	7.0	24.8		9.2	27.0		7.0	14.2	14.2	9.7	16.9	
Effective Green, g (s)	7.0	24.8		9.2	27.0		7.0	14.2	14.2	9.7	16.9	
Actuated g/C Ratio	0.09	0.34		0.12	0.37		0.09	0.19	0.19	0.13	0.23	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	325	1661		427	1842		325	977	304	451	1062	
v/s Ratio Prot	0.07	0.24		c0.09	c0.35		c0.07	0.02	0.01	0.05	c0.14	
v/s Ratio Perm												
v/c Ratio	0.74	0.70		0.73	0.95		0.76	0.12	0.06	0.39	0.93dr	
Uniform Delay, d1	32.6	21.3		31.1	22.8		32.6	24.7	24.4	29.4	25.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.9	1.4		6.1	11.6		9.7	0.1	0.1	0.6	1.1	
Delay (s)	41.5	22.7		37.3	34.4		42.3	24.7	24.5	30.0	26.8	
Level of Service	D	C		D	C		D	C	C	C	C	
Approach Delay (s)	25.8			34.8			34.2			27.3		
Approach LOS	C			C			C			C		
Intersection Summary												
HCM Average Control Delay	30.6			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.77			Sum of lost time (s)			12.0					
Actuated Cycle Length (s)	73.9			ICU Level of Service			C					
Intersection Capacity Utilization	72.4%			Analysis Period (min)			15					
dr: Defacto Right Lane. Recode with 1 though lane as a right lane.												
c: Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
14: Del Mar Heights Road & Carmel Country Rd.

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	143	607	280	272	1208	169	413	183	108	142	180	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91		1.00	0.95	
Flt	1.00	0.95		1.00	0.98		1.00	0.94		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	4844		3433	4992		3433	4802		1770	3302	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	4844		3433	4992		3433	4802		1770	3302	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	159	674	311	302	1342	188	459	203	120	158	200	161
RTOR Reduction (vph)	0	105	0	0	23	0	0	98	0	0	138	0
Lane Group Flow (vph)	159	880	0	302	1507	0	459	225	0	158	223	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	5.0	20.1		9.0	24.1		11.7	12.0		9.4	9.7	
Effective Green, g (s)	5.0	20.1		9.0	24.1		11.7	12.0		9.4	9.7	
Actuated g/C Ratio	0.08	0.30		0.14	0.36		0.18	0.18		0.14	0.15	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	258	1464		465	1809		604	867		250	482	
v/s Ratio Prot	0.05	0.18		0.09	0.30		0.13	0.05		0.09	0.07	
v/s Ratio Perm												
v/c Ratio	0.62	0.60		0.65	0.83		0.76	0.26		0.63	0.46	
Uniform Delay, d1	29.8	19.8		27.3	19.4		26.1	23.4		26.9	26.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.3	0.7		3.1	3.5		5.5	0.2		5.1	0.7	
Delay (s)	34.1	20.5		30.4	22.8		31.5	23.6		32.1	26.7	
Level of Service	C	C		C	C		C	C		C	C	
Approach Delay (s)		22.4			24.1			28.3			28.3	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control Delay	24.9		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.73											
Actuated Cycle Length (s)	66.5		Sum of lost time (s)		16.0							
Intersection Capacity Utilization	65.9%		ICU Level of Service		C							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Del Mar Heights Road & Torrey Ridge Drive

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	206	630	117	79	1062	210	108	151	11	54	60	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt	1.00	0.98		1.00	0.98		1.00	0.98		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4966		1770	4966		1770	1844		1770	1674	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	4966		1770	4966		1770	1844		1770	1674	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	229	700	130	88	1180	233	120	168	12	60	67	139
RTOR Reduction (vph)	0	29	0	0	34	0	0	3	0	0	102	0
Lane Group Flow (vph)	229	801	0	88	1379	0	120	177	0	60	104	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.4	31.2		6.7	25.5		6.1	13.7		3.9	11.5	
Effective Green, g (s)	12.4	31.2		6.7	25.5		6.1	13.7		3.9	11.5	
Actuated g/C Ratio	0.17	0.44		0.09	0.36		0.09	0.19		0.05	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	307	2167		166	1769		151	353		97	269	
v/s Ratio Prot	0.13	0.16		0.05	0.28		0.07	0.10		0.03	0.06	
v/s Ratio Perm												
v/c Ratio	0.75	0.37		0.53	0.78		0.79	0.50		0.62	0.39	
Uniform Delay, d1	28.1	13.5		30.9	20.5		32.1	25.8		33.1	26.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.5	0.1		3.2	2.2		24.3	1.1		11.2	0.9	
Delay (s)	37.5	13.6		34.1	22.7		56.4	27.0		44.3	27.8	
Level of Service	D	B		C	C		E	C		D	C	
Approach Delay (s)		18.8			23.4			38.7			31.5	
Approach LOS		B			C			D			C	
Intersection Summary												
HCM Average Control Delay	24.0		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.68											
Actuated Cycle Length (s)	71.5		Sum of lost time (s)		12.0							
Intersection Capacity Utilization	66.8%		ICU Level of Service		C							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗
Volume (vph)	150	552	34	65	1106	35	43	25	53	48	58	347
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt	1.00	0.99		1.00	1.00		1.00	0.90		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5041		1770	5062		1770	1673		1770	1623	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5041		1770	5062		1770	1673		1770	1623	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	167	613	38	72	1229	39	48	28	59	53	64	386
RTOR Reduction (vph)	0	9	0	0	5	0	0	47	0	0	236	0
Lane Group Flow (vph)	167	642	0	72	1263	0	48	40	0	53	214	0
Turn Type	Prot		Prot		Prot		Prot		Prot		Prot	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.2	22.4		2.7	18.9		1.7	11.0		2.4	11.7	
Effective Green, g (s)	6.2	22.4		2.7	18.9		1.7	11.0		2.4	11.7	
Actuated g/C Ratio	0.11	0.41		0.05	0.35		0.03	0.20		0.04	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	2072		88	1755		55	338		78	348	
v/s Ratio Prot	0.09	0.13		0.04	0.25		0.03	0.02		0.03	0.13	
v/s Ratio Perm												
v/c Ratio	0.83	0.31		0.82	0.72		0.87	0.12		0.68	0.81	
Uniform Delay, d1	23.6	10.8		25.7	15.5		26.3	17.8		25.7	19.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	24.3	0.1		42.2	1.4		76.2	0.2		21.0	3.2	
Delay (s)	47.9	10.9		67.9	16.9		102.5	17.9		46.7	22.6	
Level of Service	D		E		B		F		D		C	
Approach Delay (s)	18.5		19.7		48.0		25.1					
Approach LOS	B		B		D		C					
Intersection Summary												
HCM Average Control Delay	21.7		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.68											
Actuated Cycle Length (s)	54.5		Sum of lost time (s)		16.0							
Intersection Capacity Utilization	71.6%		ICU Level of Service		C							
Analysis Period (min)	15											
c Critical Lane Group												

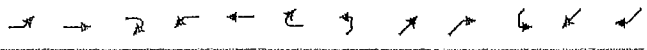
HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖ ↗		↖ ↗		↖ ↗	
Volume (vph)	547	122	385	990	264	332
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.91	0.97	1.00	1.00
Flt	0.97	1.00	1.00	1.00	1.00	0.85
Flt Protected	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4946	1770	5085	3433	1583	1583
Flt Permitted	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4946	1770	5085	3433	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	608	136	428	1100	293	369
RTOR Reduction (vph)	60	0	0	0	0	294
Lane Group Flow (vph)	684	0	428	1100	293	75
Turn Type	Prot		Prot		Prot	
Protected Phases	4		3	8	2	2
Permitted Phases						
Actuated Green, G (s)	13.6		15.2	32.8	10.4	10.4
Effective Green, g (s)	13.6		15.2	32.8	10.4	10.4
Actuated g/C Ratio	0.27		0.30	0.64	0.20	0.20
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1314		525	3258	697	322
v/s Ratio Prot	0.14		0.24	0.22	0.09	0.05
v/s Ratio Perm						
v/c Ratio	0.52		0.82	0.34	0.42	0.23
Uniform Delay, d1	16.0		16.7	4.2	17.8	17.1
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4		9.5	0.1	0.4	0.4
Delay (s)	16.4		26.2	4.3	18.2	17.4
Level of Service	B		C		A	
Approach Delay (s)	16.4		10.4		17.8	
Approach LOS	B		B		B	
Intersection Summary						
HCM Average Control Delay	13.6		HCM Level of Service		B	
HCM Volume to Capacity ratio	0.61					
Actuated Cycle Length (s)	51.2		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	52.2%		ICU Level of Service		A	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
18: Del Mar Highlands Town Ctr. & El Camino Real

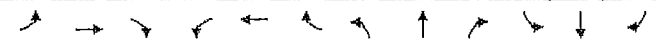
Existing + Project (Phase 1) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NET	NER	SWL	SWT	SWR
Lane Configurations	13	4	4	94	23	107	92	307	98	160	660	38
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost time (s)	0.95	0.95	1.00	1.00	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91
Lane Util. Factor	1.00	0.95	1.00	0.85	1.00	0.96	1.00	0.95	1.00	0.95	1.00	0.95
Flt Protected	1681	1651	1791	1583	3433	4901	3433	5044	1770	1863	1583	1770
Satd. Flow (prot)	0.95	0.99	0.98	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Flt Permitted	1681	1651	1791	1583	3433	4901	3433	5044	1770	1863	1583	1770
Satd. Flow (perm)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Peak-hour factor, PHF	14	4	4	104	26	119	102	341	109	178	733	42
Adj. Flow (vph)	0	3	0	0	0	102	0	63	0	0	7	0
RTOR Reduction (vph)	11	8	0	0	130	17	102	367	0	178	768	0
Lane Group Flow (vph)	Split		Split		Perm		Prot		Prot			
Protected Phases	2	2	6	6	6	3	8	7	4			
Permitted Phases	6.6	6.6	7.2	7.2	3.6	13.6	5.9	15.9	6.6	6.6	7.2	7.2
Actuated Green, G (s)	0.13	0.13	0.15	0.15	0.07	0.28	0.12	0.32	0.13	0.13	0.15	0.15
Actuated g/C Ratio	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	225	221	262	231	251	1352	411	1627	225	221	262	231
Lane Grp Cap (vph)	c0.01	0.00	c0.07	0.01	0.03	0.08	c0.05	c0.15	0.01	0.03	0.08	0.01
v/s Ratio Prot	0.05	0.03	0.50	0.08	0.41	0.29	0.43	0.47	0.05	0.03	0.50	0.08
v/s Ratio Perm	18.6	18.6	19.4	18.2	21.8	14.0	20.1	13.3	18.6	18.6	19.4	18.2
Uniform Delay, d1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Progression Factor	0.1	0.1	1.5	0.1	1.1	0.1	0.7	0.2	0.1	0.1	1.5	0.1
Incremental Delay, d2	18.7	18.6	20.9	18.3	22.9	14.2	20.9	13.6	18.7	18.6	20.9	18.3
Delay (s)	B	B	C	B	C	B	C	B	B	B	C	B
Level of Service	18.7	18.6	19.6	18.3	22.9	14.2	20.9	13.6	18.7	18.6	19.6	18.3
Approach Delay (s)	B	B	B	B	B	B	B	B	B	B	B	B
Approach LOS	B		B		B		B		B			
Intersection Summary												
HCM Average Control Delay	15.9		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.37		Sum of lost time (s)				12.0					
Actuated Cycle Length (s)	49.3		ICU Level of Service				A					
Intersection Capacity Utilization	40.0%		Analysis Period (min)				15					
Analysis Period (min)	15		c Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
19: Townsgate Drive & Carmel Country Road

Existing + Project (Phase 1) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SWR
Lane Configurations	165	83	113	45	189	149	111	425	7	100	443	165
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Lane Util. Factor	1.00	1.00	0.85	1.00	0.93	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Flt Protected	1770	1863	1583	1770	1739	1900	1770	3530	1770	3530	1770	3530
Satd. Flow (prot)	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Flt Permitted	1770	1863	1583	1770	1739	1900	1770	3530	1770	3530	1770	3530
Satd. Flow (perm)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Peak-hour factor, PHF	183	92	126	50	210	166	123	472	8	111	492	183
Adj. Flow (vph)	0	0	77	0	36	0	0	2	0	0	0	142
RTOR Reduction (vph)	183	92	49	50	340	0	123	478	0	111	492	41
Lane Group Flow (vph)	Prot		Prot		Prot		Prot		Prot		Prot	
Protected Phases	7	4	4	3	8	5	2	1	6	6	6	6
Permitted Phases	12.0	26.2	26.2	3.5	17.7	7.1	16.1	6.1	15.1	15.1	15.1	15.1
Actuated Green, G (s)	0.18	0.39	0.39	0.05	0.26	0.10	0.24	0.09	0.22	0.22	0.22	0.22
Actuated g/C Ratio	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	313	719	611	91	453	185	837	159	787	352	159	787
Lane Grp Cap (vph)	c0.10	0.05	0.03	0.03	c0.20	c0.07	0.14	0.06	c0.14	0.03	c0.10	0.05
v/s Ratio Prot	0.58	0.43	0.08	0.55	0.75	0.66	0.57	0.70	0.63	0.12	0.58	0.43
v/s Ratio Perm	25.7	13.5	13.2	31.4	23.1	29.3	22.9	30.0	23.8	21.1	25.7	13.5
Uniform Delay, d1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Progression Factor	2.8	0.1	0.1	6.6	6.9	8.7	0.9	12.6	1.6	0.1	2.8	0.1
Incremental Delay, d2	28.4	13.6	13.3	38.1	28.9	37.9	23.8	42.6	25.4	21.2	28.4	13.6
Delay (s)	C	B	B	D	C	D	C	D	C	C	C	B
Level of Service	20.3	20.3	20.3	30.9	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
Approach Delay (s)	C		C		C		C		C		C	
Approach LOS	C		C		C		C		C		C	
Intersection Summary												
HCM Average Control Delay	26.4		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.66		Sum of lost time (s)				16.0					
Actuated Cycle Length (s)	67.9		ICU Level of Service				B					
Intersection Capacity Utilization	59.9%		Analysis Period (min)				15					
Analysis Period (min)	15		c Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
 20: Townsgate Drive & El Camino Real

Existing + Project (Phase 1) AM
 12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEE	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖↗↘	↖↗↘	↖	↗	↘	↖↗↘
Volume (vph)	30	67	6	226	45	135	14	305	52	145	452	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	0.85	1.00	0.98		1.00	0.98	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1839		1770	1863	1583	1770	4974		1770	4988	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1839		1770	1863	1583	1770	4974		1770	4988	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	74	7	251	50	150	16	339	58	161	502	73
RTOR Reduction (vph)	0	5	0	0	0	108	0	34	0	0	24	0
Lane Group Flow (vph)	42	76	0	251	50	42	16	363	0	161	551	0
Turn Type	Prot			Prot		Prot	Prot			Prot		Prot
Protected Phases	1	6		5	2	2	7	4		3		8
Permitted Phases												
Actuated Green, G (s)	2.0	5.4		11.6	15.0	15.0	0.7	13.0		8.2		20.5
Effective Green, g (s)	2.0	5.4		11.6	15.0	15.0	0.7	13.0		8.2		20.5
Actuated g/C Ratio	0.04	0.10		0.21	0.28	0.28	0.01	0.24		0.15		0.38
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0		4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	65	183		379	516	438	23	1193		268		1887
v/s Ratio Prot	0.02	0.04		0.14	0.03	0.03	0.01	0.07		0.09		0.11
v/s Ratio Perm												
w/c Ratio	0.65	0.41		0.66	0.10	0.09	0.70	0.30		0.60		0.29
Uniform Delay, d1	25.8	22.9		19.5	14.6	14.6	26.6	16.9		21.5		11.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2	20.0	1.5		4.3	0.1	0.1	63.9	0.1		3.8		0.1
Delay (s)	45.7	24.4		23.8	14.6	14.7	90.6	17.0		25.2		11.9
Level of Service	D	C		C	B	B	F	B		C		B
Approach Delay (s)		31.7			19.8			19.9				14.8
Approach LOS		C			B			B				B
Intersection Summary												
HCM Average Control Delay	18.5			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.46			Sum of lost time (s)			12.0					
Actuated Cycle Length (s)	54.2			ICU Level of Service			A					
Intersection Capacity Utilization	44.3%			Analysis Period (min)			15					
c - Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
 21: Carmel Creek Road & Carmel Country Road

Existing + Project (Phase 1) AM
 12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	302	118	123	60	291	29	269	410	28	66	398	386
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583		1829		1770	3506		1770	3278	
Flt Permitted	0.95	1.00	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583		1829		1770	3506		1770	3278	
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)	318	124	129	63	306	31	283	432	29	69	419	406
RTOR Reduction (vph)	0	0	103	0	4	0	0	6	0	0	218	0
Lane Group Flow (vph)	318	124	26	0	396	0	283	455	0	69	607	0
Turn Type	Split		Prot	Split		Prot		Prot		Prot		Prot
Protected Phases	4	4	4	8	8		5	2		1		6
Permitted Phases												
Actuated Green, G (s)	16.0	16.0	16.0		17.4		13.2	24.0		6.6		17.4
Effective Green, g (s)	16.0	16.0	16.0		17.4		13.2	24.0		6.6		17.4
Actuated g/C Ratio	0.20	0.20	0.20		0.22		0.16	0.30		0.08		0.22
Clearance Time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	354	373	317		398		292	1052		146		713
v/s Ratio Prot	0.18	0.07	0.02		0.22		0.16	0.13		0.04		0.19
v/s Ratio Perm												
w/c Ratio	0.90	0.33	0.08		1.00		0.97	0.43		0.47		0.85
Uniform Delay, d1	31.2	27.4	26.0		31.3		33.2	22.5		35.0		30.1
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00		1.00
Incremental Delay, d2	24.2	0.5	0.1		43.6		43.7	0.3		2.4		9.6
Delay (s)	55.4	28.0	26.1		74.8		76.9	22.8		37.4		39.6
Level of Service	E	C	C		E		E	C		D		D
Approach Delay (s)		42.8			74.8			43.4				39.5
Approach LOS		D			E			D				D
Intersection Summary												
HCM Average Control Delay	46.7			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.93			Sum of lost time (s)			16.0					
Actuated Cycle Length (s)	80.0			ICU Level of Service			E					
Intersection Capacity Utilization	88.8%			Analysis Period (min)			15					
c - Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBR	EBR2	NWL2	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	3	2	2	3	3	3	3	3	3	3	3	3
Volume (vph)	30	110	245	94	221	94	212	311	29	73	871	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.91	1.00	0.91	1.00	0.91
Flt	1.00	0.85	0.85	1.00	0.96	1.00	0.99	1.00	1.00	0.98	1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770	1583	1583	1770	3335	3433	5021	1770	5002	1770	5002	1770
Flt Permitted	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)	1770	1583	1583	1770	3335	3433	5021	1770	5002	1770	5002	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	122	272	104	246	104	236	346	32	81	968	119
RTOR Reduction (vph)	0	0	203	0	82	0	17	0	0	25	0	0
Lane Group Flow (vph)	33	122	69	104	268	0	236	361	0	81	1062	0
Turn Type		Perm	Perm	Split			Prot			Prot		
Protected Phases	2			6	6		3	8		7	4	
Permitted Phases		2	2									
Actuated Green, G (s)	15.3	15.3	15.3	5.8	5.8		5.0	18.7		4.2	17.9	
Effective Green, g (s)	15.3	15.3	15.3	5.8	5.8		5.0	18.7		4.2	17.9	
Actuated g/C Ratio	0.26	0.26	0.26	0.10	0.10		0.08	0.31		0.07	0.30	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	451	404	404	171	322		286	1565		124	1492	
v/s Ratio Prot	0.02			0.06	0.08		0.07	0.07		0.05	0.21	
v/s Ratio Perm		0.08	0.04									
v/c Ratio	0.07	0.30	0.17	0.61	0.83		0.83	0.23		0.65	0.71	
Uniform Delay, d1	17.0	18.0	17.4	26.0	26.6		27.1	15.3		27.2	18.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.9	0.9	6.0	16.5		17.3	0.1		11.7	1.6	
Delay (s)	17.3	20.0	18.3	32.0	43.1		44.4	15.4		38.9	20.4	
Level of Service	B	B	B	C	D		D	B		D	C	
Approach Delay (s)	18.7			40.6			26.5			21.7		
Approach LOS	B			D			C			D		
Intersection Summary												
HCM Average Control Delay	25.5			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.60											
Actuated Cycle Length (s)	60.0			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	51.2%			ICU Level of Service			A					
Analysis Period (min)	15											
c. Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road

Existing + Project (Phase 1) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Volume (vph)	47	6	68	13	26	14	120	30	2	3	16	190
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	52	7	76	14	29	16	133	33	2	3	18	211
Direction/Lane #	SE-1	SE-2	NW-1	NE-1	SW-1							
Volume Total (vph)	59	76	59	169	232							
Volume Left (vph)	52	0	14	133	3							
Volume Right (vph)	0	76	16	2	211							
Had'j (s)	0.48	-0.67	-0.08	0.18	-0.51							
Departure Headway (s)	6.0	4.8	5.0	4.8	4.1							
Degree Utilization, x	0.10	0.10	0.08	0.23	0.26							
Capacity (veh/h)	561	690	646	709	829							
Control Delay (s)	8.4	7.2	8.5	9.2	8.6							
Approach Delay (s)	7.7		8.5	9.2	8.6							
Approach LOS	A		A	A	A							
Intersection Summary												
Delay	8.6											
HCM Level of Service	A											
Intersection Capacity Utilization	40.7%			ICU Level of Service			A					
Analysis Period (min)	15											

HCM Signalized Intersection Capacity Analysis
 24: Carmel Grove Road & Carmel Creek Road

Existing + Project (Phase 1) AM
 12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		←	←	←	←	←	←	←	←	←	←	←
Volume (vph)	52	89	116	199	61	24	30	287	81	15	760	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85		0.99	1.00		1.00	0.97		1.00	0.98	
Flt Protected	0.98	1.00		0.97	0.95		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1829	1583		1779	1770		1770	3422		1770	3456	
Flt Permitted	0.98	1.00		0.97	0.95		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1829	1583		1779	1770		1770	3422		1770	3456	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	58	99	129	221	68	27	33	319	90	17	844	156
RTOR Reduction (vph)	0	0	108	0	4	0	0	30	0	0	18	0
Lane Group Flow (vph)	0	157	21	0	312	0	33	379	0	17	982	0
Turn Type	Split		Prot		Split		Prot		Prot		Prot	
Protected Phases	4		4		8		5		2		1	
Permitted Phases												
Actuated Green, G (s)	11.5		11.5		15.5		1.6		25.3		0.8	
Effective Green, g (s)	11.5		11.5		15.5		1.6		25.3		0.8	
Actuated g/C Ratio	0.17		0.17		0.22		0.02		0.37		0.01	
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0	
Lane Grp Cap (vph)	304		263		399		41		1253		20	
v/s Ratio Prot	c0.09		0.01		c0.18		c0.02		0.11		0.01	
v/s Ratio Perm												
v/c Ratio	0.52		0.08		0.78		0.80		0.30		0.85	
Uniform Delay, d1	26.3		24.3		25.2		33.6		15.6		34.1	
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00	
Incremental Delay, d2	1.5		0.1		9.6		69.0		0.1		131.5	
Delay (s)	27.7		24.5		34.8		102.6		15.7		165.6	
Level of Service	C		C		C		F		B		F	
Approach Delay (s)	26.3				34.8				22.2		26.3	
Approach LOS	C				C				C		C	
Intersection Summary												
HCM Average Control Delay	26.8		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.73											
Actuated Cycle Length (s)	69.1		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	58.3%		ICU Level of Service				B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 25: Carmel Valley Road & I-5 SB Ramps

Existing + Project (Phase 1) AM
 12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		←	←	←	←	←	←	←	←	←	←	←
Volume (vph)	0	301	176	382	618	0	0	0	0	997	3	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95		0.97	0.95		0.95	0.95		0.95	0.91	0.95
Frt		0.94		1.00	1.00		1.00	1.00		1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	0.95	1.00
Satd. Flow (prot)		3343		3433	3539		1681	1610		1681	1610	1504
Flt Permitted		1.00		0.95	1.00		0.95	0.95		0.95	0.95	1.00
Satd. Flow (perm)		3343		3433	3539		1681	1610		1681	1610	1504
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	334	196	424	687	0	0	0	0	1108	3	160
RTOR Reduction (vph)	0	139	0	0	0	0	0	0	0	0	2	84
Lane Group Flow (vph)	0	391	0	424	687	0	0	0	0	565	560	60
Turn Type	Split		Prot		Split		Prot		Split		Prot	
Protected Phases	4		3		8		6		6		6	
Permitted Phases												
Actuated Green, G (s)	12.2		9.9		26.1		24.7		24.7		24.7	
Effective Green, g (s)	12.2		9.9		26.1		24.7		24.7		24.7	
Actuated g/C Ratio	0.21		0.17		0.44		0.42		0.42		0.42	
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0	
Lane Grp Cap (vph)	694		578		1571		706		676		632	
v/s Ratio Prot	c0.12		c0.12		0.19		0.34		c0.35		0.04	
v/s Ratio Perm												
v/c Ratio	0.56		0.73		0.44		0.80		0.83		0.10	
Uniform Delay, d1	20.9		23.2		11.3		14.9		15.2		10.3	
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00	
Incremental Delay, d2	1.1		4.8		0.2		6.5		8.3		0.1	
Delay (s)	22.0		28.0		11.5		21.4		23.5		10.4	
Level of Service	C		C		B		C		C		B	
Approach Delay (s)	22.0		17.8				0.0		21.0		C	
Approach LOS	C		B				A		C		C	
Intersection Summary												
HCM Average Control Delay	20.0		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.74											
Actuated Cycle Length (s)	58.8		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	73.6%		ICU Level of Service				D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
26: Carmel Valley Road & I-5 NB Ramps

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑		↖	↑	↖	↖	↑	↖			
Volume (vph)	61	1182	0	0	928	834	106	2	547	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95			
Flt	1.00	1.00			1.00	0.85	1.00	0.85	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	3433	3539			3539	1583	1681	1449	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1681	1449	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	68	1313	0	0	1031	927	118	2	608	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	494	0	37	37	0	0	0
Lane Group Flow (vph)	68	1313	0	0	1031	433	106	275	273	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	7	4			8	8	2	2	2			
Permitted Phases												
Actuated Green, G (s)	2.4	31.6			25.2	25.2	14.4	14.4	14.4			
Effective Green, g (s)	2.4	31.6			25.2	25.2	14.4	14.4	14.4			
Actuated g/C Ratio	0.04	0.59			0.47	0.47	0.27	0.27	0.27			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	153	2071			1652	739	448	386	401			
vs Ratio Prot	0.02	0.37			0.29	0.27	0.06	0.19	0.18			
vs Ratio Perm												
v/c Ratio	0.44	0.63			0.62	0.59	0.24	0.71	0.68			
Uniform Delay, d1	25.2	7.4			10.8	10.6	15.5	17.9	17.7			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	2.1	0.6			0.7	1.2	0.3	6.1	4.5			
Delay (s)	27.2	8.0			11.6	11.8	15.8	24.0	22.3			
Level of Service	C	A			B	B	B	C	C			
Approach Delay (s)		9.0			11.7			22.1				0.0
Approach LOS		A			B			C				A
Intersection Summary												
HCM Average Control Delay		12.6										B
HCM Volume to Capacity ratio		0.66										
Actuated Cycle Length (s)		54.0										8.0
Intersection Capacity Utilization		73.6%										D
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
27: Valley Centre Drive & El Camino Real

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↑	↖	↖	↖	↖
Volume (vph)	20	6	16	704	14	156	69	903	145	115	1049	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	0.95	1.00	0.91	1.00
Flt	1.00	0.97	0.85	1.00	0.99	0.85	1.00	0.98	1.00	0.98	1.00	1.00
Flt Protected	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1681	1617	1504	1681	1610	1504	1770	1681	1770	1681	1504	1770
Flt Permitted	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1681	1617	1504	1681	1610	1504	1770	1681	1770	1681	1504	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	7	18	782	16	173	77	1003	161	128	1166	19
RTOR Reduction (vph)	0	3	14	0	1	104	0	21	0	0	2	0
Lane Group Flow (vph)	16	13	1	407	407	52	77	1143	0	128	1183	0
Turn Type	Split		Prot	Split		Prot	Prot				Prot	
Protected Phases	4	4	4	6	6	6	5	21			61	
Permitted Phases												6
Actuated Green, G (s)	3.5	3.5	3.5	23.7	23.7	23.7	4.4	32.1			23.7	23.7
Effective Green, g (s)	3.5	3.5	3.5	23.7	23.7	23.7	4.4	32.1			23.7	23.7
Actuated g/C Ratio	0.05	0.05	0.05	0.33	0.33	0.33	0.06	0.45			0.33	0.33
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	83	79	74	559	535	500	109	2242			588	1686
vs Ratio Prot	0.01	0.01	0.00	0.24	0.25	0.03	0.04	0.23			0.07	
vs Ratio Perm												0.23
v/c Ratio	0.19	0.17	0.01	0.73	0.76	0.10	0.71	0.51			0.22	0.70
Uniform Delay, d1	32.5	32.5	32.3	21.0	21.3	16.5	32.8	14.0			17.1	20.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	1.1	1.0	0.1	4.7	6.3	0.1	18.8	0.2			0.2	1.3
Delay (s)	33.7	33.5	32.3	25.7	27.5	16.5	51.6	14.2			17.3	22.1
Level of Service	C	C	C	C	C	B	D	B			B	C
Approach Delay (s)		33.2			25.0			16.5				21.6
Approach LOS		C			C			B				C
Intersection Summary												
HCM Average Control Delay					20.9							C
HCM Volume to Capacity ratio					0.69							
Actuated Cycle Length (s)					71.3							16.0
Intersection Capacity Utilization					65.2%							C
Analysis Period (min)					15							
! Phase conflict between lane groups. c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
30: Valley Centre Drive & Carmel View Road

Existing + Project (Phase 1) AM
12/11/2011



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR	
Lane Configurations	↔	↕↕	↔	↕↕	↔	↕	↕	
Volume (vph)	16	209	0	425	24	94	112	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		0.95		1.00	1.00	
Frt	1.00	1.00		0.99		1.00	0.85	
Flt Protected	0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539		3510		1770	1583	
Flt Permitted	0.95	1.00		1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539		3510		1770	1583	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	18	232	0	472	27	104	124	
RTOR Reduction (vph)	0	0	0	8	0	0	105	
Lane Group Flow (vph)	18	232	0	491	0	104	19	
Turn Type	Prot		Prot			Prot		
Protected Phases	7	4	3	8		6	6	
Permitted Phases								
Actuated Green, G (s)	0.5	12.7		8.2		3.8	3.8	
Effective Green, g (s)	0.5	12.7		8.2		3.8	3.8	
Actuated g/C Ratio	0.02	0.52		0.33		0.16	0.16	
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	36	1835		1175		275	246	
v/s Ratio Prot	0.01	0.07		0.14		0.06	0.01	
v/s Ratio Perm								
v/c Ratio	0.50	0.13		0.42		0.38	0.08	
Uniform Delay, d1	11.9	3.0		6.3		9.3	8.9	
Progression Factor	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	10.5	0.0		0.2		0.9	0.1	
Delay (s)	22.4	3.1		6.5		10.2	9.0	
Level of Service	C	A		A		B	A	
Approach Delay (s)		4.5		6.5		9.5		
Approach LOS		A		A		A		
Intersection Summary								
HCM Average Control Delay	6.7			HCM Level of Service				A
HCM Volume to Capacity ratio	0.41							
Actuated Cycle Length (s)	24.5			Sum of lost time (s)				12.0
Intersection Capacity Utilization	26.1%			ICU Level of Service				A
Analysis Period (min)	15							
c Critical Lane Group								

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing + Project (Phase 1) AM
12/11/2011



Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR	
Lane Configurations	↔	↔	↔	↔	↔	↔	↕↕	↕↕	↔	↕↕	↕↕	↕↕	
Volume (vph)	73	214	142	157	362	97	316	324	209	1070	186	199	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00		1.00	0.95	1.00	0.97	0.95	1.00	
Frt	1.00	0.85	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	2787	1583	1770	1804		1770	3539	1583	3433	3539	1583	
Flt Permitted	0.31	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	578	2787	1583	1770	1804		1770	3539	1583	3433	3539	1583	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	81	238	158	174	402	108	351	360	232	1189	207	221	
RTOR Reduction (vph)	0	0	130	0	11	0	0	0	193	0	0	160	
Lane Group Flow (vph)	81	238	28	174	499	0	351	360	39	1189	207	61	
Turn Type	custom	custom	custom	Prot			Prot		Prot	Prot		Prot	
Protected Phases				3		8		5	2	2		6	
Permitted Phases	4	4	4										
Actuated Green, G (s)	15.2	15.2	15.2	9.4	28.6		21.8	14.3	14.3	31.1	23.6	23.6	
Effective Green, g (s)	15.2	15.2	15.2	9.4	28.6		21.8	14.3	14.3	31.1	23.6	23.6	
Actuated g/C Ratio	0.18	0.18	0.18	0.11	0.33		0.25	0.17	0.17	0.36	0.27	0.27	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	102	493	280	193	600		449	588	263	1241	971	434	
v/s Ratio Prot				0.10	0.28		0.20	0.10	0.02	0.35	0.08	0.04	
v/s Ratio Perm	0.14	0.09	0.02										
v/c Ratio	0.79	0.48	0.10	0.90	0.83		0.78	0.61	0.15	0.96	0.21	0.14	
Uniform Delay, d1	33.9	31.9	29.7	37.8	26.5		29.9	33.3	30.6	26.8	24.0	23.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	33.3	0.7	0.2	38.4	9.6		8.6	1.9	0.3	16.3	0.1	0.1	
Delay (s)	67.2	32.6	29.8	76.3	36.1		38.5	35.2	30.9	43.2	24.2	23.7	
Level of Service	E	C	C	E	D		D	D	C	D	C	C	
Approach Delay (s)					46.3				35.4			38.1	
Approach LOS					D				D			D	
Intersection Summary													
HCM Average Control Delay	38.8			HCM Level of Service									D
HCM Volume to Capacity ratio	0.84												
Actuated Cycle Length (s)	86.0			Sum of lost time (s)									12.0
Intersection Capacity Utilization	81.8%			ICU Level of Service									D
Analysis Period (min)	15												
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

Existing + Project (Phase 1) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	437	0	180	0	0	0	0	409	74	183	272	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.95		0.97	0.95	
Frt	1.00	1.00	0.85					0.98		1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					3458		3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					3458		3433	3539	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	486	0	200	0	0	0	0	454	82	203	302	0
RTOR Reduction (vph)	0	0	139	0	0	0	0	31	0	0	0	0
Lane Group Flow (vph)	243	243	61	0	0	0	0	505	0	203	302	0
Turn Type	Split			Prot			Prot			Prot		
Protected Phases	4	4	4					2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.2	12.2	12.2					11.9		3.6	19.5	
Effective Green, g (s)	12.2	12.2	12.2					11.9		3.6	19.5	
Actuated g/C Ratio	0.31	0.31	0.31					0.30		0.09	0.49	
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)	517	517	486					1037		311	1738	
v/s Ratio Prot	0.14	0.14	0.04					0.15		0.06	0.09	
v/s Ratio Perm												
v/c Ratio	0.47	0.47	0.13					0.49		0.65	0.17	
Uniform Delay, d1	11.1	11.1	9.9					11.4		17.4	5.6	
Progression Factor	1.00	1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.7	0.1					0.4		4.9	0.0	
Delay (s)	11.8	11.8	10.0					11.8		22.3	5.7	
Level of Service	B	B	B					B		C	A	
Approach Delay (s)		11.3			0.0			11.8			12.4	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM Average Control Delay	11.7			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.50											
Actuated Cycle Length (s)	39.7			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	41.0%			ICU Level of Service			A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
33: Carmel Country Road & Carmel Canyon Road

Existing + Project (Phase 1) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	86	491	34	141	453	335	56	64	236	623	139	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		0.97	1.00	
Frt	1.00	0.99		1.00	0.94		1.00	0.88		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3505		1770	3314		1770	1643		3433	1706	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3505		1770	3314		1770	1643		3433	1706	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	96	546	38	157	503	372	62	71	262	692	154	198
RTOR Reduction (vph)	0	5	0	0	138	0	0	151	0	0	48	0
Lane Group Flow (vph)	96	579	0	157	737	0	62	182	0	692	304	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	8.1	19.8		12.1	23.8		6.7	13.5		18.9	25.7	
Effective Green, g (s)	8.1	19.8		12.1	23.8		6.7	13.5		18.9	25.7	
Actuated g/C Ratio	0.10	0.25		0.15	0.30		0.08	0.17		0.24	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	179	864		267	982		148	276		808	546	
v/s Ratio Prot	0.05	0.17		0.09	0.22		0.04	0.11		0.20	0.18	
v/s Ratio Perm												
v/c Ratio	0.54	0.67		0.59	0.75		0.42	0.66		0.86	0.56	
Uniform Delay, d1	34.3	27.3		31.8	25.6		35.0	31.3		29.4	22.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.1	2.0		3.3	3.3		1.9	5.8		8.9	1.2	
Delay (s)	37.4	29.3		35.1	28.8		36.9	37.1		38.3	23.8	
Level of Service	D	C		D	C		D	D		D	C	
Approach Delay (s)		30.4			29.8			37.1			33.4	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM Average Control Delay	32.0			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.76											
Actuated Cycle Length (s)	80.3			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	77.0%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
34: SR-56 WB Ramps & Carmel Country Road

Existing + Project (Phase 1) AM
12/11/2011



Movement	WBL	WBR	SEL	SET	NWT	NWR	NWR2	SWL	SWR
Lane Configurations			↑↑	↑↑	↑↑			↑↑	↑↑
Volume (vph)	0	0	754	580	742	0	306	133	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0			4.0	4.0
Lane Util. Factor			0.97	0.95	0.95			1.00	0.97
Frt			1.00	1.00	1.00			0.85	1.00
Flt Protected			0.95	1.00	1.00			1.00	0.95
Sald. Flow (prot)			3433	3539	3539			1583	3433
Flt Permitted			0.95	1.00	1.00			1.00	0.95
Sald. Flow (perm)			3433	3539	3539			1583	3433
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	838	644	824	0	340	148	249
RTOR Reduction (vph)	0	0	0	0	0	0	230	0	212
Lane Group Flow (vph)	0	0	838	644	824	0	110	148	37
Turn Type			Prot			Perm		Perm	
Protected Phases			5	2	6		4		4
Permitted Phases						6		4	
Actuated Green, G (s)			17.2	39.0	17.8	17.8	8.1	8.1	
Effective Green, g (s)			17.2	39.0	17.8	17.8	8.1	8.1	
Actuated g/C Ratio			0.31	0.71	0.32	0.32	0.15	0.15	
Clearance Time (s)			4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)			3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			1072	2505	1143	511	505	233	
v/s Ratio Prot			0.24	0.18	0.23		0.04		
v/s Ratio Perm						0.07		0.02	
w/c Ratio			0.78	0.26	0.72	0.21	0.29	0.16	
Uniform Delay, d1			17.2	2.9	16.5	13.8	20.9	20.5	
Progression Factor			1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2			3.8	0.1	2.3	0.2	0.3	0.3	
Delay (s)			21.0	2.9	18.7	13.8	21.3	20.8	
Level of Service			C	A	B	B	C	C	
Approach Delay (s)	0.0			13.2	17.3		21.0		
Approach LOS	A			B	B		C		
Intersection Summary									
HCM Average Control Delay			15.8						B
HCM Volume to Capacity ratio			0.66						
Actuated Cycle Length (s)			55.1		Sum of lost time (s)			12.0	
Intersection Capacity Utilization			55.8%		ICU Level of Service				B
Analysis Period (min)			15						
c. Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
35: SR-56 EB Ramps & Carmel Country Road

Existing + Project (Phase 1) AM
12/11/2011



Movement	EBL2	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑			↑↑	↑↑	↑↑	↑↑
Volume (vph)	300	0	161	340	370	0	0	723	214	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.97	0.95			0.95	1.00		
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		
Flt Protected	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Sald. Flow (prot)	1681	1681	1583	3433	3539			3539	1583		
Flt Permitted	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Sald. Flow (perm)	1681	1681	1583	3433	3539			3539	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	333	0	179	378	411	0	0	803	238	0	0
RTOR Reduction (vph)	0	0	141	0	0	0	0	0	156	0	0
Lane Group Flow (vph)	166	167	38	378	411	0	0	803	82	0	0
Turn Type	Split			Prot	Prot			Prot			
Protected Phases	4	4	4	1	6			2	2		
Permitted Phases											
Actuated Green, G (s)	10.1	10.1	10.1	8.9	29.3			16.4	16.4		
Effective Green, g (s)	10.1	10.1	10.1	8.9	29.3			16.4	16.4		
Actuated g/C Ratio	0.21	0.21	0.21	0.19	0.62			0.35	0.35		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		
Lane Grp Cap (vph)	358	358	337	645	2188			1224	548		
v/s Ratio Prot	0.10	0.10	0.02	0.11	0.12			0.23	0.05		
v/s Ratio Perm											
w/c Ratio	0.46	0.47	0.11	0.59	0.19			0.66	0.15		
Uniform Delay, d1	16.3	16.3	15.0	17.6	3.9			13.1	10.7		
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	1.0	1.0	0.1	1.4	0.0			1.3	0.1		
Delay (s)	17.2	17.3	15.2	18.9	4.0			14.4	10.8		
Level of Service	B	B	B	B	A			B	B		
Approach Delay (s)		16.5			11.1			13.6		0.0	
Approach LOS		B			B			B		A	
Intersection Summary											
HCM Average Control Delay			13.4							B	
HCM Volume to Capacity ratio			0.58								
Actuated Cycle Length (s)			47.4		Sum of lost time (s)			12.0			
Intersection Capacity Utilization			48.0%		ICU Level of Service					A	
Analysis Period (min)			15								
c. Critical Lane Group											

ALL-WAY STOP CONTROL ANALYSIS										
General Information				Site Information						
Analyst	Jacob Swin			Intersection	Carmel Creek Rd./Del Mar Trail					
Agency/Co.	USAI			Jurisdiction	City of San Diego					
Date Performed	3/4/2011			Analysis Year	2011					
Analysis Time Period	36 Existing + Project Ph. 1 AM									
Project ID 002407 - San Diego Corporate Center Lots										
East/West Street: Del Mar Trail				North/South Street: Carmel Creek Road						
Volume Adjustments and Site Characteristics										
Approach		Eastbound			Westbound					
Movement	L	T	R	L	T	R				
Volume (veh/h)	10	10	10	200	2	25				
%Thrus Left Lane										
Approach		Northbound			Southbound					
Movement	L	T	R	L	T	R				
Volume (veh/h)	3	260	100	15	928	3				
%Thrus Left Lane	50			50						
		Eastbound		Westbound		Northbound		Southbound		
		L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LTR		LTR		LT		TR		TR	
PHF	0.90		0.90		0.90		0.90		0.90	
Flow Rate (veh/h)	33		251		147		255		531	
% Heavy Vehicles	2		2		2		2		2	
No. Lanes	1		1		2		2		2	
Geometry Group	2		2		5		5		5	
Duration, T	0.25									
Saturation Headway Adjustment Worksheet										
Prop. Left-Turns	0.3		0.9		0.0	0.0	0.0	0.0	0.0	0.0
Prop. Right-Turns	0.3		0.1		0.0	0.4	0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
hLT-adj	0.2		0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.5
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.1		0.0	-0.3	0.0	0.0	0.0	0.0
Departure Headway and Service Time										
hd, initial value (s)	3.20		3.20		3.20	3.20	3.20	3.20	3.20	3.20
κ, initial	0.03		0.22		0.13	0.23	0.47	0.47	0.46	0.46
hd, final value (s)	7.40		6.79		7.07	6.75	6.27	6.27	6.25	6.25
κ, final value	0.07		0.47		0.29	0.48	0.92	0.92	0.90	0.90
Move-up time, m (s)	2.0		2.0		2.3		2.3		2.3	
Service Time, I _s (s)	5.4		4.8		4.8	4.4	4.0	4.0	3.9	3.9
Capacity and Level of Service										
		Eastbound		Westbound		Northbound		Southbound		
		L1	L2	L1	L2	L1	L2	L1	L2	
Capacity (veh/h)	283		501		397		574		576	
Delay (s/veh)	10.94		15.74		12.62		15.48		45.81	
LOS	B		C		B		C		E	
Approach Delay (s/veh)	10.94		15.74		14.43		43.65			
LOS	B		C		B		E			
Intersection Delay (s/veh)	32.22									
Intersection LOS	D									

HCM Signalized Intersection Capacity Analysis
1: Via De La Valle & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	6	397	491	165	363	3	530	2	401	1	2	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85			0.97
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.99
Satd. Flow (prot)	1770	1863	1583	1770	1861			1774	1583			1778
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.99
Satd. Flow (perm)	1770	1863	1583	1770	1861			1774	1583			1778
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	441	546	183	403	3	589	2	446	1	2	1
RTOR Reduction (vph)	0	0	284	0	0	0	0	0	277	0	1	0
Lane Group Flow (vph)	7	441	262	183	406	0	0	591	169	0	3	0
Turn Type	Prot		Prot				Split		Prot	Split		
Protected Phases	7	4	4	3	8		2	2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	0.8	26.8	26.8	10.8	36.8			33.3	33.3		1.1	
Effective Green, g (s)	0.8	26.8	26.8	10.8	36.8			33.3	33.3		1.1	
Actuated g/C Ratio	0.01	0.30	0.30	0.12	0.42			0.38	0.38		0.01	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	16	567	482	217	778			671	599		22	
v/s Ratio Prot	0.00	0.24	0.17	0.10	0.22			0.33	0.11		0.00	
v/s Ratio Perm												
v/c Ratio	0.44	0.78	0.54	0.84	0.52			0.88	0.28		0.14	
Uniform Delay, d1	43.4	27.9	25.5	37.8	19.1			25.5	19.0		43.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	18.0	6.6	1.3	24.6	0.6			12.9	0.3		2.8	
Delay (s)	61.3	34.5	26.8	62.4	19.7			38.4	19.3		45.8	
Level of Service	E	C	C	E	B			D	B		D	
Approach Delay (s)	30.5			33.0			30.2			45.8		
Approach LOS	C			C			C			D		
Intersection Summary												
HCM Average Control Delay	30.9			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.82											
Actuated Cycle Length (s)	88.0			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	76.2%			ICU Level of Service			D					
Analysis Period (min)	15											
c: Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 2: San Dieguito Road & El Camino Real

Existing + Project (Phase 1) PM
 12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	T	T	A	A	T	T	T
Volume (vph)	204	256	0	547	363	332	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00		1.00	1.00	1.00	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		1863	1583	1770	3539
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583		1863	1583	1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	227	284	0	608	403	369	312
RTOR Reduction (vph)	0	237	0	0	244	0	0
Lane Group Flow (vph)	227	47	0	608	159	369	312
Turn Type	Perm	Prot		Perm	Prot		
Protected Phases	1	3		8	7		
Permitted Phases		1			8		6
Actuated Green, G (s)	11.5	11.5		27.3	27.3	18.2	11.5
Effective Green, g (s)	11.5	11.5		27.3	27.3	18.2	11.5
Actuated g/C Ratio	0.17	0.17		0.40	0.40	0.26	0.17
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	572	264		737	626	467	590
v/s Ratio Prot	0.07			0.33		0.21	
v/s Ratio Perm		0.03			0.10		0.09
v/c Ratio	0.40	0.18		0.82	0.25	0.79	0.53
Uniform Delay, d1	25.7	24.7		18.7	14.0	23.6	26.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3		7.5	0.2	8.8	0.9
Delay (s)	26.1	25.0		26.2	14.2	32.5	27.1
Level of Service	C	C		C	B	C	C
Approach Delay (s)	25.5			21.4		30.0	
Approach LOS	C			C		C	
Intersection Summary							
HCM Average Control Delay			25.0		HCM Level of Service		C
HCM Volume to Capacity ratio			0.75				
Actuated Cycle Length (s)			69.0		Sum of lost time (s)		12.0
Intersection Capacity Utilization			63.0%		ICU Level of Service		B
Analysis Period (min)			15				
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis
 3: Derby Downs Road & El Camino Real

Existing + Project (Phase 1) PM
 12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	T	T	A	A	T	T	T
Volume (vph)	63	6	0	871	108	8	482
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0		4.0	4.0
Lane Util. Factor	0.97			0.95		1.00	0.95
Frt	0.99			0.96		1.00	1.00
Flt Protected	0.96			1.00		0.95	1.00
Satd. Flow (prot)	3409			3481		1770	3539
Flt Permitted	0.96			1.00		0.95	1.00
Satd. Flow (perm)	3409			3481		1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	7	0	968	120	9	536
RTOR Reduction (vph)	7	0	0	13	0	0	0
Lane Group Flow (vph)	70	0	0	1075	0	9	536
Turn Type			Prot			Prot	
Protected Phases			8		2		1
Permitted Phases							6
Actuated Green, G (s)			1.8		18.0		0.5
Effective Green, g (s)			1.8		18.0		0.5
Actuated g/C Ratio			0.06		0.56		0.02
Clearance Time (s)			4.0		4.0		4.0
Vehicle Extension (s)			3.0		3.0		3.0
Lane Grp Cap (vph)			190		1940		27
v/s Ratio Prot			0.02		0.31		0.01
v/s Ratio Perm							0.15
v/c Ratio			0.37		0.55		0.33
Uniform Delay, d1			14.7		4.6		15.7
Progression Factor			1.00		1.00		1.00
Incremental Delay, d2			1.2		0.3		7.2
Delay (s)			15.9		4.9		22.9
Level of Service			B		A		C
Approach Delay (s)			15.9		4.9		2.1
Approach LOS			B		A		A
Intersection Summary							
HCM Average Control Delay			4.5		HCM Level of Service		A
HCM Volume to Capacity ratio			0.55				
Actuated Cycle Length (s)			32.3		Sum of lost time (s)		12.0
Intersection Capacity Utilization			37.5%		ICU Level of Service		A
Analysis Period (min)			15				
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	22	21	14	17	20	150	25	789	57	86	428	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Flt	1.00	0.94	1.00	0.87	1.00	0.99	1.00	0.99	1.00	0.99	1.00	0.99
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1748	1770	1616	1770	3504	1770	3504	1770	3508	1770	3508
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1748	1770	1616	1770	3504	1770	3504	1770	3508	1770	3508
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	24	23	16	19	22	167	28	877	63	96	476	30
RTOR Reduction (vph)	0	14	0	148	0	0	0	7	0	0	5	0
Lane Group Flow (vph)	24	25	0	19	41	0	28	933	0	96	501	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	9	8	5	2	1	6	1	6	6	6
Permitted Phases												
Actuated Green, G (s)	0.8	5.2	0.8	5.2	0.6	20.1	3.5	23.0	0.8	4.3	4.3	1.6
Effective Green, g (s)	0.8	5.2	0.8	5.2	0.6	20.1	3.5	23.0	0.8	4.3	4.3	1.6
Actuated g/C Ratio	0.02	0.11	0.02	0.11	0.01	0.44	0.08	0.50	0.02	0.09	0.09	0.04
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	31	199	31	184	23	1545	136	1769	31	175	149	62
v/s Ratio Prot	c0.01	0.01	0.01	c0.03	0.02	c0.27	c0.05	c0.14	0.00	c0.02	0.00	c0.03
v/s Ratio Perm												
v/c Ratio	0.77	0.12	0.61	0.22	1.22	0.60	0.71	0.26	0.26	0.26	0.02	0.77
Uniform Delay, d1	22.3	18.2	22.2	18.4	22.5	9.7	20.5	6.5	22.2	19.2	18.8	21.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	73.6	0.3	30.9	0.6	261.7	0.7	15.4	0.1	4.4	0.8	0.1	44.2
Delay (s)	96.0	18.4	53.2	19.0	284.2	10.4	35.9	6.6	26.5	20.0	18.9	66.1
Level of Service	F	B	D	B	F	B	D	A	C	C	B	E
Approach Delay (s)		48.0		22.1		18.3		11.3		20.1		41.3
Approach LOS		D		C		B		A		C		D
Intersection Summary												
HCM Average Control Delay	17.5		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.61											
Actuated Cycle Length (s)	45.6		Sum of lost time (s)				20.0					
Intersection Capacity Utilization	55.4%		ICU Level of Service				B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	7	41	32	43	29	19	47	930	123	22	453	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.98	1.00	0.95
Flt	1.00	1.00	1.00	0.85	1.00	0.94	1.00	0.98	1.00	0.98	1.00	0.95
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1752	1770	3477	3477	1770	3477	1770	3528
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1752	1770	3477	3477	1770	3477	1770	3528
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	8	46	36	48	32	21	52	1033	137	24	503	11
RTOR Reduction (vph)	0	0	33	0	19	0	12	0	0	2	0	0
Lane Group Flow (vph)	8	46	3	48	34	0	52	1158	0	24	512	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	6	5	2	1	6	1	6	6
Permitted Phases												
Actuated Green, G (s)	0.8	4.3	4.3	1.6	5.1	1.7	23.2	0.6	22.1	0.8	4.3	4.3
Effective Green, g (s)	0.8	4.3	4.3	1.6	5.1	1.7	23.2	0.6	22.1	0.8	4.3	4.3
Actuated g/C Ratio	0.02	0.09	0.09	0.04	0.11	0.04	0.51	0.01	0.48	0.02	0.09	0.09
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	31	175	149	62	196	66	1765	23	1706	31	175	149
v/s Ratio Prot	0.00	c0.02	0.00	c0.03	0.02	c0.03	c0.33	0.01	0.15	0.00	c0.02	0.00
v/s Ratio Perm												
v/c Ratio	0.26	0.26	0.02	0.77	0.18	0.79	0.66	1.04	0.30	0.26	0.26	0.02
Uniform Delay, d1	22.2	19.2	18.8	21.9	18.4	21.8	8.3	22.6	7.1	22.2	19.2	18.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.4	0.8	0.1	44.2	0.4	44.9	0.9	201.7	0.1	4.4	0.8	0.1
Delay (s)	26.5	20.0	18.9	66.1	18.8	66.7	9.2	224.3	7.2	26.5	20.0	18.9
Level of Service	C	C	B	E	B	E	A	F	A	C	C	B
Approach Delay (s)		20.1		41.3		11.6		16.9		20.1		41.3
Approach LOS		C		D		B		A		C		B
Intersection Summary												
HCM Average Control Delay	15.0		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.56											
Actuated Cycle Length (s)	45.7		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	52.0%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑			↑↑			↑↑			↑↑		
Volume (vph)	124	824	16	130	894	198	40	31	47	379	35	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	1.00	0.95	0.95		
Frt	1.00	1.00		1.00	0.97		1.00	0.85	1.00	0.93		
Fit Protected	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.98		
Sald. Flow (prot)	1770	5071		1770	3443		1812	1583	1681	1609		
Fit Permitted	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.98		
Sald. Flow (perm)	1770	5071		1770	3443		1812	1583	1681	1609		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	138	916	18	144	993	220	44	34	52	421	39	144
RTOR Reduction (vph)	0	2	0	0	20	0	0	0	47	0	37	0
Lane Group Flow (vph)	438	932	0	144	1193	0	0	78	5	312	255	0
Turn Type	Prot			Prot			Split			Perm		Split
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	8.1	27.3		11.4	30.6		7.4	7.4	17.4	17.4		
Effective Green, g (s)	8.1	27.3		11.4	30.6		7.4	7.4	17.4	17.4		
Actuated g/C Ratio	0.10	0.34		0.14	0.38		0.09	0.09	0.22	0.22		
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	180	1741		254	1325		169	147	368	352		
v/s Ratio Prot	0.08	0.18		0.08	0.35		0.04		0.19	0.16		
v/s Ratio Perm								0.00				
v/c Ratio	0.77	0.54		0.57	0.90		0.46	0.03	0.85	0.72		
Uniform Delay, d1	34.8	21.0		31.7	23.0		34.2	32.8	29.8	28.8		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		
Incremental Delay, d2	17.6	0.3		2.9	8.7		2.0	0.1	16.4	7.2		
Delay (s)	52.3	21.3		34.6	31.7		36.2	32.9	46.1	36.0		
Level of Service	D	C		C	C		D	C	D	D		
Approach Delay (s)	25.3			32.0			34.8			41.2		
Approach LOS	C			C			C			D		
Intersection Summary												
HCM Average Control Delay	31.6			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.82											
Actuated Cycle Length (s)	79.5			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	70.5%			ICU Level of Service			C					
Analysis Period (min)	15											
c Critical Lane Group												

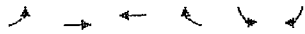
HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑			↑↑			
Volume (veh/h)	1211	62	0	1506	0	85	
Sign Control	Free			Free		Stop	
Grade	0%			0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	1346	69	0	1673	0	94	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None		None				
Median storage (veh)							
Upstream signal (ft)	575		607				
pX, platoon unblocked			0.87		0.81 0.87		
vC, conflicting volume			1414		2217 483		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			972		1100 0		
IC, single (s)			4.1		6.8 6.9		
IC, 2 stage (s)							
IF (s)			2.2		3.5 3.3		
p0 queue free %			100		100 90		
cm capacity (veh/h)			617		167 948		
Direction Lane #							
Volume Total	538	538	338	837	837	94	
Volume Left	0	0	0	0	0	0	
Volume Right	0	0	69	0	0	94	
eSH	1700	1700	1700	1700	1700	948	
Volume to Capacity	0.32	0.32	0.20	0.49	0.49	0.10	
Queue Length 95th (ft)	0	0	0	0	0	8	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.2	
Lane LOS	A		A				
Approach Delay (s)	0.0		0.0		9.2		
Approach LOS	A		A				
Intersection Summary							
Average Delay	0.3						
Intersection Capacity Utilization	45.0%			ICU Level of Service			A
Analysis Period (min)	15						

HCM Signalized Intersection Capacity Analysis
8: Del Mar Heights Rd. & I-15 SB Ramps

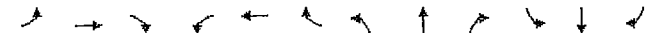
Existing + Project (Phase 1) PM
12/11/2011



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Volume (vph)	0	912	1238	0	877	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3	6.3		5.6	5.6
Lane Util. Factor		0.95	0.95		0.97	0.91
Flt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3539	3539		3430	1441
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3539	3539		3430	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1013	1376	0	974	322
RTOR Reduction (vph)	0	0	0	0	3	23
Lane Group Flow (vph)	0	1013	1376	0	1003	267
Turn Type					Perm	
Protected Phases		2 6	6 2		4	
Permitted Phases						4
Actuated Green, G (s)		42.7	42.7		24.9	24.9
Effective Green, g (s)		42.7	42.7		24.9	24.9
Actuated g/C Ratio		0.54	0.54		0.31	0.31
Clearance Time (s)					5.6	5.6
Vehicle Extension (s)					3.0	3.0
Lane Grp Cap (vph)		1901	1901		1074	451
v/s Ratio Prot		0.29	0.39		0.29	
v/s Ratio Perm						0.19
v/c Ratio		0.53	0.72		0.93	0.59
Uniform Delay, d1		11.9	13.9		26.5	23.0
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.3	1.4		14.3	2.1
Delay (s)		12.2	15.3		40.8	25.1
Level of Service		B	B		D	C
Approach Delay (s)		12.2	15.3		37.3	
Approach LOS		B	B		D	
Intersection Summary						
HCM Average Control Delay		22.2			HCM Level of Service	C
HCM Volume to Capacity ratio		0.80				
Actuated Cycle Length (s)		79.5			Sum of lost time (s)	11.9
Intersection Capacity Utilization		69.8%			ICU Level of Service	C
Analysis Period (min)		15				
c - Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
9: Del Mar Heights Road & I-15 NB Ramps

Existing + Project (Phase 1) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑			↑↑	↑		↑	↑			
Volume (vph)	235	1529	0	0	1280	875	615	10	805	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.91	0.95			
Flt	1.00	1.00			1.00	0.85	1.00	0.89	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3433	3539			5085	1583	1681	1491	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3433	3539			5085	1583	1681	1491	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	261	1699	0	0	1422	972	683	11	894	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	487	0	6	6	0	0	0
Lane Group Flow (vph)	261	1699	0	0	1422	485	553	519	504	0	0	0
Turn Type			Prot			Prot	Split		Prot			
Protected Phases		5	2		6	6	8	8	8			
Permitted Phases												
Actuated Green, G (s)		11.5	63.0		47.5	47.5	49.0	49.0	49.0			
Effective Green, g (s)		11.5	63.0		47.5	47.5	49.0	49.0	49.0			
Actuated g/C Ratio		0.10	0.52		0.40	0.40	0.41	0.41	0.41			
Clearance Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)		329	1858		2013	627	686	609	614			
v/s Ratio Prot		0.08	0.48		0.28	0.31	0.33	0.35	0.34			
v/s Ratio Perm												
v/c Ratio		0.79	0.91		0.71	0.77	0.81	0.85	0.82			
Uniform Delay, d1		53.1	26.0		30.4	31.6	31.3	32.2	31.6			
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2		12.3	8.5		2.1	9.0	6.9	11.1	8.6			
Delay (s)		65.4	34.5		32.5	40.6	38.2	43.3	40.2			
Level of Service		E	C		C	D	D	D	D			
Approach Delay (s)		38.6			35.8			40.5				0.0
Approach LOS		D			D			D				A
Intersection Summary												
HCM Average Control Delay		38.0										D
HCM Volume to Capacity ratio		0.89										
Actuated Cycle Length (s)		120.0										8.0
Intersection Capacity Utilization		96.4%										F
Analysis Period (min)		15										
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
10: Del Mar Heights Road & High Bluff Drive

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑↑	↔	↔	↑↑↑	↔	↔	↑↑	↔	↔	↑	↔
Volume (vph)	242	2106	251	41	1482	54	614	65	143	38	29	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	0.97	0.95	1.00	1.00	1.00	1.00	1.00
Flt	1.00	1.00	0.85	1.00	0.99	1.00	0.90	1.00	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5058	3433	3174	1770	1863	1583	1770	1863
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5058	3433	3174	1770	1863	1583	1770	1863
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	269	2340	279	46	1647	60	682	72	159	42	32	89
RTOR Reduction (vph)	0	0	94	0	3	0	0	105	0	0	0	83
Lane Group Flow (vph)	269	2340	185	46	1704	0	682	126	0	42	32	6
Turn Type	Prot		Prot	Prot		Prot		Prot		Prot		Prot
Protected Phases	7	4	4	3	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	17.4	51.8	51.8	3.5	37.9	22.1	25.0	4.0	6.9	6.9		
Effective Green, g (s)	17.4	51.8	51.8	3.5	37.9	22.1	25.0	4.0	6.9	6.9		
Actuated g/C Ratio	0.17	0.52	0.52	0.03	0.38	0.22	0.25	0.04	0.07	0.07		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	307	2626	818	62	1911	756	791	71	128	109		
v/s Ratio Prot	c0.15	c0.46	0.12	0.03	0.34	c0.20	0.04	0.02	c0.02	0.00		
v/s Ratio Perm												
v/c Ratio	0.88	0.89	0.23	0.74	0.89	0.90	0.16	0.59	0.25	0.06		
Uniform Delay, d1	40.4	21.7	13.3	48.0	29.3	38.0	29.4	47.3	44.2	43.7		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	23.2	4.3	0.1	37.6	5.7	14.0	0.1	12.5	1.0	0.2		
Delay (s)	63.6	26.0	13.4	85.5	35.0	52.0	29.5	59.9	45.3	43.9		
Level of Service	E	C	B	F	C	D	C	E	D	D		
Approach Delay (s)		28.3			36.3		46.3		48.3			
Approach LOS		C			D		D		D			
Intersection Summary												
HCM Average Control Delay	34.2		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.83											
Actuated Cycle Length (s)	100.3		Sum of lost time (s)		12.0							
Intersection Capacity Utilization	78.2%		ICU Level of Service		D							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
11: Del Mar Heights Road & Third Ave.

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↔	↔	↑↑↑	↔	↔
Volume (vph)	2348	78	47	1442	219	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Flt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2609	87	52	1602	243	146
RTOR Reduction (vph)	0	33	0	0	0	89
Lane Group Flow (vph)	2609	54	52	1602	243	57
Turn Type		Perm	Prot		Perm	
Protected Phases	4		3	8	2	
Permitted Phases		4			2	
Actuated Green, G (s)	38.4	38.4	2.2	44.6	9.6	9.6
Effective Green, g (s)	38.4	38.4	2.2	44.6	9.6	9.6
Actuated g/C Ratio	0.62	0.62	0.04	0.72	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3139	977	63	3646	530	244
v/s Ratio Prot	c0.51		c0.03	0.32	c0.07	
v/s Ratio Perm		0.03			0.04	
v/c Ratio	0.83	0.05	0.83	0.44	0.46	0.23
Uniform Delay, d1	9.4	4.7	29.8	3.6	23.9	23.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.0	56.1	0.1	0.6	0.5
Delay (s)	11.4	4.7	85.9	3.7	24.6	23.6
Level of Service	B	A	F	A	C	C
Approach Delay (s)	11.1			6.3	24.2	
Approach LOS	B			A	C	
Intersection Summary						
HCM Average Control Delay	10.5		HCM Level of Service		B	
HCM Volume to Capacity ratio	0.76					
Actuated Cycle Length (s)	62.2		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	60.1%		ICU Level of Service		B	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
12: Del Mar Heights Road & First Ave.

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↔	↑↑↑	↑	↑
Volume (vph)	2416	63	31	1314	175	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2684	70	34	1460	194	98
RTOR Reduction (vph)	0	28	0	0	0	80
Lane Group Flow (vph)	2684	42	34	1460	194	18
Turn Type	Perm		Prot		Perm	
Protected Phases	4		3	8	2	
Permitted Phases	4				2	
Actuated Green, G (s)	38.5	38.5	1.4	43.9	11.6	11.6
Effective Green, g (s)	38.5	38.5	1.4	43.9	11.6	11.6
Actuated g/C Ratio	0.61	0.61	0.02	0.69	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3083	960	76	3515	323	289
v/s Ratio Prot	c0.53		c0.01	c0.29	c0.11	
v/s Ratio Perm		0.03				0.01
v/c Ratio	0.87	0.04	0.45	0.42	0.60	0.06
Uniform Delay, d1	10.4	5.1	30.7	4.2	23.8	21.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.0	4.1	0.1	3.1	0.1
Delay (s)	13.4	5.1	34.8	4.3	27.0	21.5
Level of Service	B	A	C	A	C	C
Approach Delay (s)	13.2			5.0	25.1	
Approach LOS	B			A	C	
Intersection Summary						
HCM Average Control Delay	11.3		HCM Level of Service		B	
HCM Volume to Capacity ratio	0.81					
Actuated Cycle Length (s)	63.5		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	63.0%		ICU Level of Service		B	
Analysis Period (min)	15					
c - Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
13: Del Mar Heights Road & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑↑		↔	↑↑↑		↔	↑↑↑		↔	↑↑↑	
Volume (vph)	465	1544	344	139	804	176	263	420	299	147	155	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91		1.00	0.97	0.91
Frt	1.00	0.97		1.00	0.97		1.00	0.97		1.00	0.85	1.00
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3433	4946		3433	4948		3433	5085		1583	3433	4655
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3433	4946		3433	4948		3433	5085		1583	3433	4655
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	517	1716	382	154	893	196	292	467	332	163	172	222
RTOR Reduction (vph)	0	38	0	0	36	0	0	0	117	0	186	0
Lane Group Flow (vph)	517	2060	0	154	1053	0	292	467	215	163	208	0
Turn Type	Prot		Prot		Prot		Prot		Prot		Prot	
Protected Phases	7	4		3	8		5	2		2	1	6
Permitted Phases												
Actuated Green, G (s)	16.8	40.1		6.0	29.3		9.9	17.3		17.3	6.6	14.0
Effective Green, g (s)	16.8	40.1		6.0	29.3		9.9	17.3		17.3	6.6	14.0
Actuated g/C Ratio	0.20	0.47		0.07	0.34		0.12	0.20		0.20	0.08	0.16
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	671	2306		240	1686		395	1023		318	263	758
v/s Ratio Prot	c0.15	c0.42		0.04	0.21		c0.09	0.09		c0.14	0.05	0.04
v/s Ratio Perm												
v/c Ratio	0.77	0.89		0.64	0.62		0.74	0.46		0.68	0.62	0.27
Uniform Delay, d1	32.8	21.0		39.0	23.7		36.8	30.2		31.8	38.5	31.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.5	4.9		5.8	0.7		7.1	0.3		5.6	4.3	0.2
Delay (s)	38.2	25.9		44.7	24.5		43.9	30.5		37.4	42.8	31.7
Level of Service	D	C		D	C		D	C		D	D	C
Approach Delay (s)	28.3			27.0			36.2			35.0		
Approach LOS	C			C			D			C		
Intersection Summary												
HCM Average Control Delay	30.3			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.85											
Actuated Cycle Length (s)	86.0			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	70.2%			ICU Level of Service			C					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
14: Del Mar Heights Road & Carmel Country Rd.

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	118	1183	533	80	570	72	345	167	145	78	124	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	1.00	0.95		
Frt	1.00	0.95	1.00	0.98	1.00	0.93	1.00	0.93	1.00	0.93		
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (prot)	3433	4848	3433	5000	3433	4731	1770	3290				
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (perm)	3433	4848	3433	5000	3433	4731	1770	3290				
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	131	1314	592	89	633	80	383	186	161	87	138	122
RTOR Reduction (vph)	0	93	0	0	18	0	0	131	0	0	106	0
Lane Group Flow (vph)	131	1813	0	89	695	0	383	216	0	87	154	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	5.4	28.9		5.3	28.8		10.3	12.9		6.8	9.4	
Effective Green, g (s)	5.4	28.9		5.3	28.8		10.3	12.9		6.8	9.4	
Actuated g/C Ratio	0.08	0.41		0.08	0.41		0.15	0.18		0.10	0.13	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	265	2004		260	2060		506	873		172	442	
v/s Ratio Prot	0.04	0.37		0.03	0.14		0.11	0.05		0.05	0.05	
v/s Ratio Perm												
w/c Ratio	0.49	0.90		0.34	0.34		0.76	0.25		0.51	0.35	
Uniform Delay, d1	30.9	19.2		30.6	14.0		28.6	24.4		30.0	27.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.5	6.3		0.8	0.1		6.4	0.1		2.3	0.5	
Delay (s)	32.4	25.5		31.4	14.1		35.0	24.5		32.3	28.0	
Level of Service	C	C		C	B		C	C		C	C	
Approach Delay (s)	25.9			16.1			30.0			29.0		
Approach LOS	C			B			C			C		
Intersection Summary												
HCM Average Control Delay	24.9		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.72											
Actuated Cycle Length (s)	69.9		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	68.2%		ICU Level of Service				C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Del Mar Heights Road & Torrey Ridge Drive

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	48	1225	140	8	629	22	48	14	31	27	8	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.91	1.00	0.91	1.00	0.90	1.00	0.88		
Frt	1.00	0.98	1.00	1.00	1.00	0.95	1.00	0.90	1.00	0.88		
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (prot)	1770	5007	1770	5060	1770	1673	1770	1673	1770	1643		
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (perm)	1770	5007	1770	5060	1770	1673	1770	1673	1770	1643		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	53	1361	156	9	699	24	53	16	34	30	9	33
RTOR Reduction (vph)	0	16	0	0	4	0	0	31	0	0	31	0
Lane Group Flow (vph)	53	1501	0	9	719	0	53	19	0	30	11	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.3	21.8		0.6	21.1		1.2	3.1		0.6	2.5	
Effective Green, g (s)	1.3	21.8		0.6	21.1		1.2	3.1		0.6	2.5	
Actuated g/C Ratio	0.03	0.52		0.01	0.50		0.03	0.07		0.01	0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	55	2593		25	2536		50	123		25	98	
v/s Ratio Prot	0.03	0.30		0.01	0.14		0.03	0.01		0.02	0.01	
v/s Ratio Perm												
w/c Ratio	0.96	0.58		0.36	0.28		1.06	0.15		1.20	0.11	
Uniform Delay, d1	20.4	7.0		20.6	6.1		20.4	18.3		20.8	18.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	107.4	0.3		8.7	0.1		145.2	0.6		247.2	0.5	
Delay (s)	127.7	7.3		29.2	6.2		165.7	18.8		268.0	19.3	
Level of Service	F	A		C	A		F	B		F	B	
Approach Delay (s)	11.4			6.5			94.4			122.9		
Approach LOS	B			A			F			F		
Intersection Summary												
HCM Average Control Delay	16.6		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.46											
Actuated Cycle Length (s)	42.1		Sum of lost time (s)				8.0					
Intersection Capacity Utilization	49.4%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	272	945	63	21	455	24	39	45	34	23	32	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt Protected	1.00	0.99		1.00	0.99		1.00	0.94		1.00	0.87	
Satd. Flow (prot)	1770	5038		1770	5047		1770	1742		1770	1628	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5038		1770	5047		1770	1742		1770	1628	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	302	1050	70	23	506	27	43	50	38	26	36	190
RTOR Reduction (vph)	0	9	0	0	9	0	0	31	0	0	160	0
Lane Group Flow (vph)	302	1111	0	23	524	0	43	57	0	26	66	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.0	26.0		0.7	14.7		1.5	9.2		0.7	8.4	
Effective Green, g (s)	12.0	26.0		0.7	14.7		1.5	9.2		0.7	8.4	
Actuated g/C Ratio	0.23	0.49		0.01	0.28		0.03	0.17		0.01	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	404	2490		24	1410		50	305		24	260	
v/s Ratio Prot	c0.17	c0.22		0.01	0.10		c0.02	0.03		0.01	c0.04	
v/s Ratio Perm												
w/c Ratio	0.75	0.45		0.96	0.37		0.86	0.19		1.08	0.26	
Uniform Delay, d1	18.9	8.6		25.9	15.2		25.4	18.5		26.0	19.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.4	0.1		163.4	0.2		77.1	0.3		210.9	0.5	
Delay (s)	26.3	8.8		189.3	15.4		102.6	18.8		236.8	19.9	
Level of Service	C	A		F	B		F	B		F	B	
Approach Delay (s)		12.5			22.6			46.3			42.3	
Approach LOS		B			C			D			D	
Intersection Summary												
HCM Average Control Delay		19.9										B
HCM Volume to Capacity ratio		0.49										A
Actuated Cycle Length (s)		52.6						12.0				
Intersection Capacity Utilization		53.3%										A
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕	↕	↔	↕	↔	↔
Volume (vph)	813	173	89	408	107	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	0.97	1.00
Flt Protected	0.97		1.00	1.00	1.00	0.85
Satd. Flow (prot)	4962		1770	5085	3433	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4962		1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	903	192	99	453	119	276
RTOR Reduction (vph)	54	0	0	0	0	232
Lane Group Flow (vph)	1041	0	99	453	119	44
Turn Type			Prot			Prot
Protected Phases			3		0	2
Permitted Phases						
Actuated Green, G (s)	16.3		2.4	22.7	5.5	5.5
Effective Green, g (s)	16.3		2.4	22.7	5.5	5.5
Actuated g/C Ratio	0.45		0.07	0.63	0.15	0.15
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2230		117	3189	522	241
v/s Ratio Prot	c0.21		c0.06	0.09	c0.03	0.03
v/s Ratio Perm						
w/c Ratio	0.47		0.85	0.14	0.23	0.18
Uniform Delay, d1	6.9		16.7	2.8	13.5	13.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		39.9	0.0	0.2	0.4
Delay (s)	7.1		56.6	2.8	13.7	13.7
Level of Service	A		E	A	B	B
Approach Delay (s)	7.1			12.4	13.7	
Approach LOS	A			B	B	
Intersection Summary						
HCM Average Control Delay			9.8			A
HCM Volume to Capacity ratio			0.45			A
Actuated Cycle Length (s)			36.2			12.0
Intersection Capacity Utilization			41.6%			A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
18: Del Mar Highlands Town Ctr. & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SWL	SWT	SWR
Lane Configurations	↔	↕		↔	↕	↕	↕	↕	↕	↕	↕	↕
Volume (vph)	88	26	26	188	9	248	38	625	163	286	349	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95		1.00	1.00	0.97	0.91	0.97	0.91	0.97	0.91	
Fit	1.00	0.94		1.00	0.85	1.00	0.97	1.00	0.99	1.00	0.99	
Fit Protected	0.95	0.99		0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1649		1778	1583	3433	4928	3433	5053	3433	5053	
Fit Permitted	0.95	0.99		0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1649		1778	1583	3433	4928	3433	5053	3433	5053	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	98	29	29	209	10	276	42	625	181	318	388	17
RTOR Reduction (vph)	0	25	0	0	0	218	0	50	0	0	5	0
Lane Group Flow (vph)	79	52	0	0	219	58	42	825	0	318	400	0
Turn Type	Split			Split	Perm	Prot				Prot		
Protected Phases	2	2		6	6	3	8			7	4	
Permitted Phases					6							
Actuated Green, G (s)	8.6	8.6		14.2	14.2	2.2	18.3			10.7	26.8	
Effective Green, g (s)	8.6	8.6		14.2	14.2	2.2	18.3			10.7	26.8	
Actuated g/C Ratio	0.13	0.13		0.21	0.21	0.03	0.27			0.16	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)	213	209		372	332	111	1330			542	1997	
vs Ratio Prot	c0.05	0.03		c0.12	0.01	c0.17				c0.09	0.08	
vs Ratio Perm					0.04							
v/c Ratio	0.37	0.25		0.59	0.17	0.38	0.62			0.59	0.20	
Uniform Delay, d1	27.1	26.7		24.2	22.0	32.1	21.7			26.5	13.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	1.1	0.6		2.4	0.3	2.2	0.9			1.6	0.0	
Delay (s)	28.2	27.3		26.5	22.2	34.3	22.6			28.1	13.5	
Level of Service	C	C		C	C	C	C			C	B	
Approach Delay (s)		27.8		24.1		23.1				19.9		
Approach LOS		C		C		C				B		
Intersection Summary												
HCM Average Control Delay	22.7		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.56											
Actuated Cycle Length (s)	67.8		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	51.4%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
19: Townsgate Drive & Carmel Country Road

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SWR
Lane Configurations	↔	↕		↔	↕	↕	↕	↕	↕	↕	↕	↕
Volume (vph)	116	105	173	14	54	115	113	477	10	182	563	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	1.00	0.95	1.00	0.95
Fit	1.00	1.00	0.85	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1673	1770	3528	1770	3528	1770	3539	1583
Fit Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1673	1770	3528	1770	3528	1770	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	129	117	192	16	60	128	126	530	11	202	626	96
RTOR Reduction (vph)	0	0	135	0	105	0	1	0	0	0	0	65
Lane Group Flow (vph)	129	117	57	16	83	0	126	540	0	202	626	31
Turn Type	Prot		Prot	Prot		Prot		Prot		Prot		Prot
Protected Phases	7	4	4	3	6	5	2			1	6	6
Permitted Phases												
Actuated Green, G (s)	7.8	17.8	17.8	0.7	10.7	6.2	15.6			9.6	19.0	19.0
Effective Green, g (s)	7.8	17.8	17.8	0.7	10.7	6.2	15.6			9.6	19.0	19.0
Actuated g/C Ratio	0.13	0.30	0.30	0.01	0.18	0.10	0.26			0.16	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	231	555	472	21	300	184	922			285	1126	504
vs Ratio Prot	c0.07	0.06	0.04	0.01	c0.05	0.07	0.15			c0.11	c0.18	0.02
vs Ratio Perm												
v/c Ratio	0.56	0.21	0.12	0.76	0.28	0.68	0.59			0.71	0.56	0.06
Uniform Delay, d1	24.3	15.7	15.3	29.4	21.2	25.8	19.2			23.7	16.9	14.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	2.9	0.2	0.1	92.1	0.5	10.1	1.0			7.8	0.6	0.1
Delay (s)	27.2	15.9	15.4	121.5	21.7	35.9	20.2			31.5	17.5	14.2
Level of Service	C	B	B	F	C	D	C			C	B	B
Approach Delay (s)		19.0			29.5		23.1			20.2		
Approach LOS		B			C		C			C		
Intersection Summary												
HCM Average Control Delay	21.7		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.53											
Actuated Cycle Length (s)	59.7		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	53.3%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
20: Townsgate Drive & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗
Volume (vph)	11	6	10	140	0	90	7	710	200	129	483	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0		4.0		4.0		4.0
Lane Util. Factor	1.00	1.00		1.00		1.00		0.91		1.00		0.91
Frt	1.00	0.91		1.00		0.85		1.00		0.97		1.00
Flt Protected	0.95	1.00		0.95		1.00		0.95		1.00		1.00
Satd. Flow (prot)	1770	1692		1770		1583		1770		4918		1770
Flt Permitted	0.95	1.00		0.95		1.00		0.95		1.00		1.00
Satd. Flow (perm)	1770	1692		1770		1583		1770		4918		1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	12	7	11	156	0	100	8	789	222	143	537	2
RTOR Reduction (vph)	0	11	0	0	0	87	0	62	0	0	0	0
Lane Group Flow (vph)	12	7	0	156	0	13	8	949	0	143	539	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6		5	2		2	7	4		3	8
Permitted Phases												
Actuated Green, G (s)	0.7	1.1		5.6		6.0	0.7	19.3		4.9		23.5
Effective Green, g (s)	0.7	1.1		5.6		6.0	0.7	19.3		4.9		23.5
Actuated g/C Ratio	0.01	0.02		0.12		0.13	0.01	0.41		0.10		0.50
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0	4.0		4.0		4.0
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	26	40		211		203	26	2024		185		2546
v/s Ratio Prot	0.01	0.00		0.09		0.01	0.00	0.19		0.08		0.11
v/s Ratio Perm												
v/c Ratio	0.46	0.18		0.74		0.06	0.31	0.47		0.77		0.21
Uniform Delay, d1	22.9	22.5		19.9		18.0	22.9	10.1		20.5		6.5
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2	12.4	2.2		12.7		0.1	6.6	0.2		18.0		0.0
Delay (s)	35.3	24.6		32.7		18.1	29.5	10.2		38.4		6.6
Level of Service	D	C		C		B	C	B		D		A
Approach Delay (s)		28.9			27.0			10.4				13.3
Approach LOS		C			C			B				B
Intersection Summary												
HCM Average Control Delay	13.8			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.49			Sum of lost time (s)			12.0					
Actuated Cycle Length (s)	46.9			ICU Level of Service			A					
Intersection Capacity Utilization	49.8%			Analysis Period (min)			15					
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
21: Carmel Creek Road & Carmel Country Road

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Volume (vph)	293	237	123	32	99	17	94	360	39	25	425	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	1.00	0.85	0.98	1.00	0.99	1.00	0.99	1.00	0.99	1.00	0.94
Flt Protected	0.95	1.00	1.00	0.99	0.99	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1814	1770	3488	1770	3488	1770	3344	1770	3344
Flt Permitted	0.95	1.00	1.00	0.99	0.99	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1583	1814	1770	3488	1770	3488	1770	3344	1770	3344
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	326	263	137	36	110	19	104	400	43	28	472	274
RTOR Reduction (vph)	0	0	102	0	7	0	0	10	0	0	104	0
Lane Group Flow (vph)	326	263	35	0	158	0	104	433	0	28	642	0
Turn Type	Split			Prot	Split			Prot			Prot	
Protected Phases	4	4		4	8		8	5	2		1	6
Permitted Phases												
Actuated Green, G (s)	16.4	16.4		16.4		8.8		4.2	21.8		1.8	19.4
Effective Green, g (s)	16.4	16.4		16.4		8.8		4.2	21.8		1.8	19.4
Actuated g/C Ratio	0.25	0.25		0.25		0.14		0.06	0.34		0.03	0.30
Clearance Time (s)	4.0	4.0		4.0		4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	448	472		401		246		115	1173		49	1001
v/s Ratio Prot	0.18	0.14		0.02		0.09		0.06	0.12		0.02	0.19
v/s Ratio Perm												
v/c Ratio	0.73	0.56		0.09		0.64		0.90	0.37		0.57	0.64
Uniform Delay, d1	22.2	21.0		18.5		26.5		30.1	16.3		31.1	19.7
Progression Factor	1.00	1.00		1.00		1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	5.8	1.4		0.1		5.6		54.7	0.2		15.1	1.4
Delay (s)	28.0	22.5		18.6		32.2		84.8	16.5		46.2	21.1
Level of Service	C	C		B		C		F	B		D	C
Approach Delay (s)		24.2			32.2			29.5			22.0	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control Delay	25.3			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.68			Sum of lost time (s)			16.0					
Actuated Cycle Length (s)	64.8			ICU Level of Service			B					
Intersection Capacity Utilization	62.4%			Analysis Period (min)			15					
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBR	EBR2	NWL2	NWL	NWR	NEE	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	72	271	315	96	168	104	258	973	92	148	543	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97		0.97	0.91		1.00	0.91	
Frt	1.00	0.85	0.85	1.00	0.94		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583	1583	1770	3304		3433	5020		1770	5029	
Flt Permitted	0.95	1.00	1.00	0.95	0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1583	1583	1770	3304		3433	5020		1770	5029	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	80	301	350	107	187	116	287	1081	102	164	603	48
RTOR Reduction (vph)	0	0	227	0	107	0	0	18	0	0	15	0
Lane Group Flow (vph)	80	301	123	107	196	0	287	1165	0	164	636	0
Turn Type		Perm	Perm	Spill			Prot			Prot		
Protected Phases	2			6	6		3	8		7	4	
Permitted Phases		2	2									
Actuated Green, G (s)	16.7	16.7	16.7	4.8	4.8		6.0	15.8		6.7	16.5	
Effective Green, g (s)	16.7	16.7	16.7	4.8	4.8		6.0	15.8		6.7	16.5	
Actuated g/C Ratio	0.28	0.28	0.28	0.08	0.08		0.10	0.26		0.11	0.28	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	493	441	441	142	264		343	1322		198	1383	
v/s Ratio Prot	0.05			0.06	0.06		0.08	0.23		0.09	0.13	
v/s Ratio Perm		0.19	0.08									
v/c Ratio	0.16	0.68	0.28	0.75	0.74		0.84	0.88		0.83	0.46	
Uniform Delay, d1	16.4	19.3	16.9	27.0	27.0		26.5	21.2		26.1	18.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	8.3	1.6	20.0	10.8		16.1	7.2		23.9	0.2	
Delay (s)	17.1	27.6	18.5	47.0	37.8		42.6	28.4		49.9	18.3	
Level of Service	B	C	B	D	D		D	C		D	B	
Approach Delay (s)	22.1				40.2			31.1			24.7	
Approach LOS	C				D			C			C	
Intersection Summary:												
HCM Average Control Delay	28.8			HCM Level of Service				C				
HCM Volume to Capacity ratio	0.78											
Actuated Cycle Length (s)	60.0			Sum of lost time (s)				16.0				
Intersection Capacity Utilization	55.8%			ICU Level of Service				B				
Analysis Period (min)	15											
c. Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road

Existing + Project (Phase 1) PM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEE	NET	NER	SWL	SWT	SWR	
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	
Volume (vph)	196	25	143	4	11	4	96	24	8	2	7	92	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	218	28	159	4	12	4	107	27	9	2	8	102	
Direction/Lane #	SE1	SE2	SER	NW1	NW2	NWR	NE1	NE2	NER	SW1	SW2	SWR	
Volume Total (vph)	246	159	21	142	112								
Volume Left (vph)	218	0	4	107	2								
Volume Right (vph)	0	159	4	9	102								
Had (s)	0.48	-0.67	-0.05	0.15	-0.51								
Departure Headway (s)	5.7	4.5	5.1	5.2	4.6								
Degree Utilization, x	0.39	0.20	0.03	0.21	0.14								
Capacity (veh/h)	612	767	648	652	722								
Control Delay (s)	11.0	7.4	8.3	9.5	8.4								
Approach Delay (s)	9.6		8.3	9.5	8.4								
Approach LOS	A		A	A	A								
Intersection Summary:													
Delay	9.3												
HCM Level of Service	A												
Intersection Capacity Utilization	39.2%			ICU Level of Service									A
Analysis Period (min)	15												

HCM Signalized Intersection Capacity Analysis
24: Carmel Grove Road & Carmel Creek Road

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Volume (vph)	116	50	70	55	26	9	108	729	134	6	347	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Frt	1.00	0.85	0.99	0.99	1.00	0.98	1.00	0.97	1.00	0.97	1.00	0.85
Flt Protected	0.97	1.00	0.97	0.97	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97
Satd. Flow (prot)	1800	1583	1783	1770	3457	1770	3438	1770	3438	1770	3438	1770
Flt Permitted	0.97	1.00	0.97	0.97	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97
Satd. Flow (perm)	1800	1583	1783	1770	3457	1770	3438	1770	3438	1770	3438	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	129	56	78	61	29	10	120	810	149	7	366	91
RTOR Reduction (vph)	0	0	66	0	6	0	0	16	0	0	23	0
Lane Group Flow (vph)	0	185	12	0	94	0	120	943	0	7	454	0
Turn Type	Split	Prot	Split	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	4	4	4	8	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)		8.6	8.6		6.5		5.7	25.4		0.7	20.4	
Effective Green, g (s)		8.6	8.6		6.5		5.7	25.4		0.7	20.4	
Actuated g/C Ratio		0.15	0.15		0.11		0.10	0.44		0.01	0.36	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		271	238		203		176	1535		22	1226	
v/s Ratio Prot		0.10	0.01		0.05		0.07	0.27		0.00	0.13	
v/s Ratio Perm												
v/c Ratio		0.68	0.05		0.46		0.68	0.61		0.32	0.37	
Uniform Delay, d1		23.0	20.8		23.7		24.9	12.2		28.0	13.6	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		6.9	0.1		1.7		10.4	0.7		8.2	0.2	
Delay (s)		29.9	20.9		25.4		35.3	12.9		36.2	13.8	
Level of Service		C	C		C		D	B		D	B	
Approach Delay (s)		27.2			25.4		15.4			14.2		
Approach LOS		C			C		B			B		
Intersection Summary												
HCM Average Control Delay		17.2										
HCM Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		57.2										
Intersection Capacity Utilization		49.4%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
25: Carmel Valley Road & I-5 SB Ramps

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Volume (vph)	0	617	137	604	869	0	0	0	0	835	1	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	0.97	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.91	0.95
Frt	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00
Satd. Flow (prot)	3443	3433	3539	3433	3539	3443	3433	3539	3443	3433	3539	3443
Flt Permitted	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00
Satd. Flow (perm)	3443	3433	3539	3433	3539	3443	3433	3539	3443	3433	3539	3443
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	686	152	671	966	0	0	0	0	928	1	81
RTOR Reduction (vph)	0	32	0	0	0	0	0	0	0	0	1	50
Lane Group Flow (vph)	0	806	0	671	966	0	0	0	0	473	463	23
Turn Type		Prot								Split	Prot	Prot
Protected Phases		4			3	8				6	6	6
Permitted Phases												
Actuated Green, G (s)		16.3		12.8	33.1					18.6	18.6	18.6
Effective Green, g (s)		16.3		12.8	33.1					18.6	18.6	18.6
Actuated g/C Ratio		0.27		0.21	0.55					0.31	0.31	0.31
Clearance Time (s)		4.0		4.0	4.0					4.0	4.0	4.0
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		940		736	1962					524	502	469
v/s Ratio Prot		0.23		0.20	0.27					0.28	0.29	0.02
v/s Ratio Perm												
v/c Ratio		0.86		0.91	0.49					0.90	0.92	0.05
Uniform Delay, d1		20.6		22.9	8.2					19.7	19.8	14.4
Progression Factor		1.00		1.00	1.00					1.00	1.00	1.00
Incremental Delay, d2		7.8		15.5	0.2					18.7	22.5	0.0
Delay (s)		28.4		38.4	8.3					38.4	42.3	14.4
Level of Service		C		D	A					D	D	B
Approach Delay (s)		28.4		20.7				0.0		38.5		
Approach LOS		C		C				A		D		
Intersection Summary												
HCM Average Control Delay		27.7										
HCM Volume to Capacity ratio		0.90										
Actuated Cycle Length (s)		59.7								12.0		
Intersection Capacity Utilization		80.9%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
26: Carmel Valley Road & I-5 NB Ramps

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔	↔	↔	↔	↔			
Volume (vph)	123	1361	0	0	985	780	439	7	667	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95			
Flt	1.00	1.00			1.00	0.85	1.00	0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3433	3539			3539	1583	1681	1472	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1681	1472	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	137	1512	0	0	1094	867	488	8	741	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	525	0	13	13	0	0	0
Lane Group Flow (vph)	137	1512	0	0	1094	342	429	395	387	0	0	0
Turn Type	Prot				Prot	Split	Prot					
Protected Phases	7	4			8	2	2	2				
Permitted Phases												
Actuated Green, G (s)	3.4	30.1			22.7	22.7	19.5	19.5	19.5			
Effective Green, g (s)	3.4	30.1			22.7	22.7	19.5	19.5	19.5			
Actuated g/C Ratio	0.06	0.52			0.39	0.39	0.34	0.34	0.34			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	203	1849			1395	624	569	498	509			
v/s Ratio Prot	0.04	0.43			0.31	0.22	0.26	0.27	0.26			
v/s Ratio Perm												
v/c Ratio	0.67	0.82			0.78	0.55	0.75	0.79	0.76			
Uniform Delay, d1	26.6	11.5			15.3	13.5	16.9	17.2	17.0			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	8.6	2.9			3.0	1.0	5.6	8.5	6.6			
Delay (s)	35.1	14.4			18.3	14.5	22.5	25.7	23.6			
Level of Service	D	B			B	B	C	C	C			
Approach Delay (s)		16.1			16.6		23.9			0.0		
Approach LOS		B			B		C			A		
Intersection Summary												
HCM Average Control Delay	18.3		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.81											
Actuated Cycle Length (s)	57.6		Sum of lost time (s)				8.0					
Intersection Capacity Utilization	80.9%		ICU Level of Service				D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
27: Valley Centre Drive & El Camino Real

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	38	30	28	476	22	101	75	893	214	179	1354	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	1.00	0.91	1.00	0.91
Flt	1.00	0.99	0.85	1.00	0.99	0.85	1.00	0.97	1.00	0.97	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1681	1668	1504	1681	1614	1504	1770	4938	1770	5071	1770	5071
Flt Permitted	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1681	1668	1504	1681	1614	1504	1770	4938	1770	5071	1770	5071
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	33	31	529	24	112	83	992	238	199	1504	28
RTOR Reduction (vph)	0	3	26	0	2	77	0	40	0	0	2	0
Lane Group Flow (vph)	38	37	2	280	2	24	83	1190	0	199	1530	0
Turn Type	Split		Prot	Split		Prot	Prot			Prot		
Protected Phases	4	4	4	8	8	8	5	21		61		
Permitted Phases												
Actuated Green, G (s)	5.6	5.6	5.6	17.8	17.8	17.8	4.3	38.8	30.5	30.5	30.5	6
Effective Green, g (s)	5.6	5.6	5.6	17.8	17.8	17.8	4.3	38.8	30.5	30.5	30.5	6
Actuated g/C Ratio	0.08	0.08	0.08	0.24	0.24	0.24	0.06	0.52	0.41	0.41	0.41	0.41
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	127	126	114	403	387	361	103	2582	728	2084	728	2084
v/s Ratio Prot	0.02	0.02	0.00	0.17	0.17	0.02	0.05	0.24	0.11	0.11	0.11	0.11
v/s Ratio Perm												0.30
v/c Ratio	0.30	0.30	0.02	0.69	0.73	0.07	0.81	0.46	0.27	0.73	0.27	0.73
Uniform Delay, d1	32.4	32.4	31.8	25.7	26.0	21.8	34.5	11.1	14.5	18.4	14.5	18.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	1.3	0.1	5.1	6.8	0.1	35.2	0.1	0.2	1.4	0.2	1.4
Delay (s)	33.8	33.7	31.8	30.9	32.7	21.9	69.7	11.3	14.7	19.8	14.7	19.8
Level of Service	C	C	C	C	C	C	E	B	B	B	B	B
Approach Delay (s)		33.2			30.3		15.0			19.2		
Approach LOS		C			C		B			B		
Intersection Summary												
HCM Average Control Delay	20.1		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.70											
Actuated Cycle Length (s)	74.2		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	63.4%		ICU Level of Service				B					
Analysis Period (min)	15											
l Phase conflict between lane groups.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
28: Camel Valley Road & El Camino Real

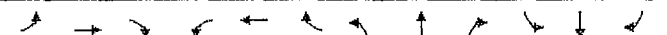
Existing + Project (Phase 1) PM
12/11/2011



Movement	EBL	EB	EBRT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Volume (vph)	0	0	0	0	166	807	170	341	976	0	0	626	762
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor					0.97	0.91	1.00	0.97	0.95			0.86	0.86
Frpb, ped/bikes					1.00	1.00	1.00	1.00	1.00			0.90	0.74
Flpb, ped/bikes					1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt					1.00	1.00	0.85	1.00	1.00			0.94	0.85
Flt Protected					0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)					3433	5085	1583	3433	3539			4079	1002
Flt Permitted					0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)					3433	5085	1583	3433	3539			4079	1002
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	184	897	189	379	1084	0	0	696	847
RTOR Reduction (vph)	0	0	0	0	0	0	92	0	0	0	0	6	6
Lane Group Flow (vph)	0	0	0	0	184	897	97	379	1084	0	0	1114	417
Confl. Peds. (#/hr)													200
Turn Type					Prot		Perm	Prot					Perm
Protected Phases					3		8		5				2
Permitted Phases													6
Actuated Green, G (s)					16.2	16.2	16.2	9.0	44.5			31.5	31.5
Effective Green, g (s)					16.2	16.2	16.2	9.0	44.5			31.5	31.5
Actuated g/C Ratio					0.24	0.24	0.24	0.13	0.65			0.46	0.46
Clearance Time (s)					4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)					3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					810	1199	373	450	2292			1870	459
v/s Ratio Prot					0.05	0.18		0.11	0.31			0.27	
v/s Ratio Perm							0.06						0.42
v/c Ratio					0.23	0.75	0.26	0.84	0.47			0.60	0.91
Uniform Delay, d1					21.2	24.4	21.4	29.2	6.3			13.9	17.3
Progression Factor					1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2					0.1	2.6	0.4	13.4	0.2			0.5	21.5
Delay (s)					21.3	27.0	21.7	42.5	6.3			14.4	38.8
Level of Service					C	C	C	D	A			B	D
Approach Delay (s)		0.0				25.4			15.7				21.1
Approach LOS		A				C			B				C
Intersection Summary:													
HCM Average Control Delay					20.5								
HCM Volume to Capacity ratio					0.85								
Actuated Cycle Length (s)					68.7					12.0			
Intersection Capacity Utilization					105.4%								
Analysis Period (min)					15								
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
29: SR-56 EB on ramp & El Camino Real

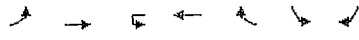
Existing + Project (Phase 1) PM
12/11/2011



Movement	EBL	EB	EBRT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Volume (vph)	492	989	92	0	0	0	0	798	385	211	568	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0				4.0	4.0	
Lane Util. Factor					0.91	0.86	0.91				0.86	1.00	0.91
Frpb, ped/bikes					1.00	1.00	1.00				0.95	1.00	1.00
Flpb, ped/bikes					1.00	1.00	1.00				1.00	1.00	1.00
Frt					1.00	1.00	0.85				0.95	1.00	1.00
Flt Protected					0.95	1.00	1.00				1.00	0.95	1.00
Satd. Flow (prot)					1610	3192	1441				6095	1770	5085
Flt Permitted					0.95	1.00	1.00				1.00	0.95	1.00
Satd. Flow (perm)					1610	3192	1441				6095	1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	547	1099	102	0	0	0	0	887	428	234	631	0	
RTOR Reduction (vph)	0	1	54	0	0	0	0	56	0	0	0	0	
Lane Group Flow (vph)	492	1163	38	0	0	0	0	1259	0	234	631	0	
Turn Type	Split				Prot						Prot		
Protected Phases	4	4			4						2	1	
Permitted Phases												6	
Actuated Green, G (s)	30.5	30.5	30.5					19.0			12.4	35.4	
Effective Green, g (s)	30.5	30.5	30.5					19.0			12.4	35.4	
Actuated g/C Ratio	0.41	0.41	0.41					0.26			0.17	0.48	
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0	
Lane Grp Cap (vph)	664	1317	595					1567			297	2436	
v/s Ratio Prot	0.31	0.36	0.03					0.21			0.13	0.12	
v/s Ratio Perm													
v/c Ratio	0.74	0.86	0.06					0.91			0.79	0.26	
Uniform Delay, d1	18.4	20.1	13.1					25.7			29.5	11.4	
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00	
Incremental Delay, d2	4.5	7.3	0.0					3.1			12.9	0.1	
Delay (s)	22.8	27.4	13.1					28.8			42.4	11.5	
Level of Service	C	C	B					C			D	B	
Approach Delay (s)		25.4				0.0		28.8				19.9	
Approach LOS		C				A		C				B	
Intersection Summary:													
HCM Average Control Delay					25.3								
HCM Volume to Capacity ratio					0.84								
Actuated Cycle Length (s)					73.9						12.0		
Intersection Capacity Utilization					105.4%								
Analysis Period (min)					15								
dr Defacto Right Lane. Recode with 1 though lane as a right lane.													
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
30: Valley Centre Drive & Carmel View Road

Existing + Project (Phase 1) PM
12/11/2011



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	↔	↕	↕	↕	↔	↕	↕
Volume (vph)	66	302	0	356	94	30	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		0.95		1.00	1.00
Frt	1.00	1.00		0.97		1.00	0.85
Flt Protected	0.95	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1770	3539		3429		1770	1583
Flt Permitted	0.95	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1770	3539		3429		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	73	424	0	396	104	33	51
RTOR Reduction (vph)	0	0	0	44	0	0	47
Lane Group Flow (vph)	73	424	0	456	0	33	4
Turn Type	Prot		Prot			Prot	
Protected Phases	7	4	3	8		6	6
Permitted Phases							
Actuated Green, G (s)	1.2	14.0		8.8		1.7	1.7
Effective Green, g (s)	1.2	14.0		8.8		1.7	1.7
Actuated g/C Ratio	0.05	0.59		0.37		0.07	0.07
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	90	2091		1273		127	114
v/s Ratio Prot	0.04	0.12		0.13		0.02	0.00
v/s Ratio Perm							
v/c Ratio	0.81	0.20		0.36		0.26	0.03
Uniform Delay, d1	11.1	2.3		5.4		10.4	10.2
Progression Factor	1.00	1.00		1.00		1.00	1.00
Incremental Delay, d2	40.5	0.0		0.2		1.1	0.1
Delay (s)	51.6	2.3		5.6		11.5	10.3
Level of Service	D	A		A		B	B
Approach Delay (s)		9.5		5.6		10.8	
Approach LOS		A		A		B	

Intersection Summary			
HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	23.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing + Project (Phase 1) PM
12/11/2011



Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	110	284	290	31	157	96	312	802	111	264	123	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.85	0.85	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	2787	1583	1770	1756		1770	3539	1583	3433	3539	1583
Flt Permitted	0.59	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1094	2707	1583	1770	1756		1770	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	316	322	34	174	107	347	891	123	293	137	151
RTOR Reduction (vph)	0	0	255	0	34	0	0	0	78	0	0	123
Lane Group Flow (vph)	122	316	67	34	247	0	347	891	45	293	137	28
Turn Type	custom	custom	custom	Prot			Prot		Prot		Prot	Prot
Protected Phases				3		8			5		2	
Permitted Phases	4	4	4									
Actuated Green, G (s)	12.6	12.6	12.6	1.5	18.1		19.0	21.9	21.9	8.5	11.4	11.4
Effective Green, g (s)	12.6	12.6	12.6	1.5	18.1		19.0	21.9	21.9	8.5	11.4	11.4
Actuated g/C Ratio	0.21	0.21	0.21	0.02	0.30		0.31	0.36	0.36	0.14	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	228	580	330	44	525		556	1281	573	482	667	298
v/s Ratio Prot				0.02	0.14		0.20	0.25	0.03	0.09	0.04	0.02
v/s Ratio Perm	0.11	0.11	0.04									
v/c Ratio	0.54	0.54	0.20	0.77	0.47		0.62	0.70	0.08	0.61	0.21	0.10
Uniform Delay, d1	21.3	21.4	19.8	29.3	17.3		17.7	16.5	12.7	24.4	20.7	20.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	1.0	0.3	57.0	0.7		2.2	1.7	0.1	2.2	0.2	0.1
Delay (s)	23.7	22.4	20.1	86.3	18.0		19.9	18.1	12.7	26.6	20.9	20.4
Level of Service	C	C	C	F	B		B	B	B	C	C	C
Approach Delay (s)				25.3				18.1			23.7	
Approach LOS				C				B			C	

Intersection Summary			
HCM Average Control Delay	20.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

Existing + Project (Phase 1) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	908	0	92	0	0	0	0	323	43	348	91	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.95		0.97	0.95	
Frt	1.00	1.00	0.85					0.98		1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					3477		3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					3477		3433	3539	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1009	0	102	0	0	0	0	359	48	387	101	0
RTOR Reduction (vph)	0	0	64	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	504	505	38	0	0	0	0	383	0	387	101	0
Turn Type	Split	Perm						Prot		Prot		
Protected Phases	4	4						2		1		6
Permitted Phases			4									
Actuated Green, G (s)	16.2	16.2	16.2					10.3		5.0		19.3
Effective Green, g (s)	16.2	16.2	16.2					10.3		5.0		19.3
Actuated g/C Ratio	0.37	0.37	0.37					0.24		0.11		0.44
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		3.0
Lane Grp Cap (vph)	626	626	590					823		395		1570
v/s Ratio Prot	0.30	0.30						0.11		0.11		0.03
v/s Ratio Perm			0.02									
v/c Ratio	0.81	0.81	0.06					0.47		0.98		0.06
Uniform Delay, d1	12.2	12.2	8.8					14.2		19.2		6.9
Progression Factor	1.00	1.00	1.00					1.00		1.00		1.00
Incremental Delay, d2	7.4	7.5	0.0					0.4		39.4		0.0
Delay (s)	19.7	19.8	8.8					14.7		58.6		6.9
Level of Service	B	B	A					B		E		A
Approach Delay (s)		18.7			0.0			14.7				47.9
Approach LOS		B			A			B				D
Intersection Summary												
HCM Average Control Delay	25.0		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.72											
Actuated Cycle Length (s)	43.5		Sum of lost time (s)		12.0							
Intersection Capacity Utilization	55.4%		ICU Level of Service		B							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
33: Carmel Country Road & Carmel Canyon Road

Existing + Project (Phase 1) PM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	127	442	39	91	388	400	47	128	104	230	52	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		0.97	1.00	
Frt	1.00	0.99		1.00	0.92		1.00	0.93		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3496		1770	3270		1770	1737		3433	1708	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3496		1770	3270		1770	1737		3433	1708	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	141	491	43	101	431	444	52	142	116	256	58	72
RTOR Reduction (vph)	0	8	0	0	226	0	0	37	0	0	49	0
Lane Group Flow (vph)	141	526	0	101	649	0	52	221	0	256	81	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	8.7	19.2		7.5	18.0		4.6	15.6		8.7	19.7	
Effective Green, g (s)	8.7	19.2		7.5	18.0		4.6	15.6		8.7	19.7	
Actuated g/C Ratio	0.13	0.29		0.11	0.27		0.07	0.23		0.13	0.29	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	230	1002		198	879		122	404		446	502	
v/s Ratio Prot	0.08	0.15		0.06	0.20		0.03	0.13		0.07	0.05	
v/s Ratio Perm												
v/c Ratio	0.61	0.53		0.51	0.74		0.43	0.55		0.57	0.16	
Uniform Delay, d1	27.6	20.1		28.0	22.4		29.9	22.6		27.4	17.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.8	0.5		2.2	3.3		2.4	1.5		1.8	0.2	
Delay (s)	32.3	20.6		30.2	25.6		32.3	24.1		29.2	17.7	
Level of Service	C	C		C	C		C	C		C	B	
Approach Delay (s)		23.0			26.1			25.5			25.3	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control Delay	25.0		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.63											
Actuated Cycle Length (s)	67.0		Sum of lost time (s)		16.0							
Intersection Capacity Utilization	63.6%		ICU Level of Service		B							
Analysis Period (min)	15											
c Critical Lane Group												

Movement	WBL	WBR	SEL	SET	NWT	NWR	NWR2	SWL	SWR
Lane Configurations			TT	TT	TT			TT	TT
Volume (vph)	0	0	269	494	621	0	190	147	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor			0.97	0.95	0.95		1.00	0.97	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)			3433	3539	3539		1583	3433	1583
Flt Permitted			0.95	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)			3433	3539	3539		1583	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	299	549	690	0	211	163	274
RTOR Reduction (vph)	0	0	0	0	0	0	136	0	225
Lane Group Flow (vph)	0	0	299	549	690	0	75	163	49
Turn Type			Prot			Perm			Perm
Protected Phases			5	2	6		4		
Permitted Phases						6			4
Actuated Green, G (s)			9.5	29.8	16.3		16.3	8.2	8.2
Effective Green, g (s)			9.5	29.8	16.3		16.3	8.2	8.2
Actuated g/C Ratio			0.21	0.65	0.35		0.35	0.18	0.18
Clearance Time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			709	2293	1254		561	612	282
v/s Ratio Prot			0.09	0.16	0.19		0.05		0.03
v/s Ratio Perm						0.05		0.03	
v/c Ratio			0.42	0.24	0.55		0.13	0.27	0.17
Uniform Delay, d1			15.9	3.4	11.9		10.1	16.3	16.0
Progression Factor			1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2			0.4	0.1	0.5		0.1	0.2	0.3
Delay (s)			16.3	3.4	12.4		10.2	16.5	16.3
Level of Service			B	A	B		B	B	B
Approach Delay (s)	0.0			8.0	11.9			16.4	
Approach LOS	A			A	B			B	
Intersection Summary									
HCM Average Control Delay			11.3						B
HCM Volume to Capacity ratio			0.45						
Actuated Cycle Length (s)			46.0					Sum of lost time (s)	12.0
Intersection Capacity Utilization			39.1%					ICU Level of Service	A
Analysis Period (min)			15						
c Critical Lane Group									

Movement	EBL2	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations				TT	TT				TT		
Volume (vph)	399	0	241	268	375		0	0	401	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0				4.0	4.0	
Lane Util. Factor			0.95	0.95	1.00		0.97	0.95	0.95	1.00	
Frt			1.00	1.00	0.85		1.00	1.00	1.00	0.85	
Flt Protected			0.95	0.95	1.00		0.95	1.00	1.00	1.00	
Satd. Flow (prot)			1681	1681	1583		3433	3539	3539	1583	
Flt Permitted			0.95	0.95	1.00		0.95	1.00	1.00	1.00	
Satd. Flow (perm)			1681	1681	1583		3433	3539	3539	1583	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	443	0	268	298	417		0	0	446	283	0
RTOR Reduction (vph)	0	0	192	0	0		0	0	0	200	0
Lane Group Flow (vph)	221	222	76	298	417		0	0	446	83	0
Turn Type	Split		Perm	Prot						Perm	
Protected Phases	4	4		1	6				2		
Permitted Phases				4						2	
Actuated Green, G (s)	11.4	11.4	11.4	5.2	21.0				11.8	11.8	
Effective Green, g (s)	11.4	11.4	11.4	5.2	21.0				11.8	11.8	
Actuated g/C Ratio	0.28	0.28	0.28	0.13	0.52				0.29	0.29	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0				4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	474	474	447	442	1840				1034	462	
v/s Ratio Prot	0.13	0.13		0.09	0.12				0.13		
v/s Ratio Perm				0.05						0.05	
v/c Ratio	0.47	0.47	0.17	0.67	0.23				0.43	0.18	
Uniform Delay, d1	12.0	12.0	10.9	16.8	5.3				11.6	10.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00				1.00	1.00	
Incremental Delay, d2	0.7	0.7	0.2	4.0	0.1				0.3	0.2	
Delay (s)	12.7	12.7	11.1	20.8	5.3				11.9	10.9	
Level of Service	B	B	B	C	A				B	B	
Approach Delay (s)		12.1			11.8				11.5		0.0
Approach LOS		B			B				B		A
Intersection Summary											
HCM Average Control Delay				11.8							B
HCM Volume to Capacity ratio				0.49							
Actuated Cycle Length (s)				40.4					Sum of lost time (s)	12.0	
Intersection Capacity Utilization				39.8%					ICU Level of Service	A	
Analysis Period (min)				15							
c Critical Lane Group											

ALL-WAY STOP CONTROL ANALYSIS									
General Information					Site Information				
Analyst	Jacob Swim				Intersection	Carmel Creek Rd./Del Mar Trail			
Agency/Co.	USAI				Jurisdiction	City of San Diego			
Date Performed	3/4/2011				Analysis Year	2011			
Analysis Time Period	36 Existing + Project Ph. 1 PM								
Project ID: 002407 - San Diego Corporate Center Lots									
East/West Street: Del Mar Trail					North/South Street: Carmel Creek Road				
Volume Adjustments and Site Characteristics									
Approach	Eastbound				Westbound				
Movement	L	T	R	L	T	R			
Volume (veh/h)	5	5	4	55	12	10			
%Thrus Left Lane									
Approach	Northbound				Southbound				
Movement	L	T	R	L	T	R			
Volume (veh/h)	12	742	100	15	415	10			
%Thrus Left Lane	50								
	Eastbound		Westbound		Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LTR		LTR		LT	TR	LT	TR	
PHF	0.90		0.90		0.90	0.90	0.90	0.90	
Flow Rate (veh/h)	14	85	425	523	246	242			
% Heavy Vehicles	2	2	2	2	2	2			
No. Lanes	1	1	2	2	2	2			
Geometry Group	2	2	5	5					
Duration, T	0.25								
Saturation Headway Adjustment Worksheet									
Prop. Left-Turns	0.4	0.7	0.0	0.0	0.1	0.0			
Prop. Right-Turns	0.3	0.1	0.0	0.2	0.0	0.0			
Prop. Heavy Vehicle	0.0	0.0	0.0	0.0	0.0	0.0			
hLT-adj	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5	
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
hadj, computed	-0.1	0.1	0.0	-0.1	0.1	0.0			
Departure Headway and Service Time									
hd, initial value (s)	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
k, initial	0.01	0.08	0.38	0.46	0.22	0.22			
hd, final value (s)	6.67	6.57	5.48	5.32	6.01	5.95			
k, final value	0.03	0.16	0.65	0.77	0.41	0.40			
Move-up time, m (s)	2.0	2.0	2.3	2.3					
Service Time, ts (s)	4.7	4.6	3.2	3.0	3.7	3.6			
Capacity and Level of Service									
	Eastbound		Westbound		Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Capacity (veh/h)	264	335	652	674	496	492			
Delay (s/veh)	9.84	10.77	17.66	23.65	12.84	12.55			
LOS	A	B	C	C	B	B			
Approach Delay (s/veh)	9.84		10.77		20.97		12.70		
LOS	A		B		C		B		
Intersection Delay (s/veh)	17.67								
Intersection LOS	C								



EXISTING + PROJECT

Phase 1 & 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑	↗	↘	↑	↗
Volume (vph)	2	352	372	291	448	8	370	5	150	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85			0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1858			1775	1583			1750
Fit Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1858			1775	1583			1750
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	391	413	323	498	9	411	6	167	1	1	1
RTOR Reduction (vph)	0	0	267	0	1	0	0	0	121	0	1	0
Lane Group Flow (vph)	2	391	146	323	506	0	0	417	46	0	2	0
Turn Type	Prot		Prot	Prot			Split		Prot	Split		
Protected Phases	7	4	4	3	8		2	2	2	6		6
Permitted Phases												
Actuated Green, G (s)	0.8	22.3	22.3	16.7	38.2			21.6	21.6			1.1
Effective Green, g (s)	0.8	22.3	22.3	16.7	38.2			21.6	21.6			1.1
Actuated g/C Ratio	0.01	0.29	0.29	0.21	0.49			0.28	0.28			0.01
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0			4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	18	535	454	380	913			493	440			25
v/s Ratio Prot	0.00	0.21	0.09	0.18	0.27			0.23	0.03			0.00
v/s Ratio Perm												
v/c Ratio	0.11	0.73	0.32	0.85	0.55			0.85	0.11			0.08
Uniform Delay, d1	38.1	25.0	21.8	29.3	13.8			26.5	20.9			37.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			1.00
Incremental Delay, d2	2.7	5.1	0.4	16.4	0.7			12.6	0.1			1.4
Delay (s)	40.8	30.1	22.2	45.7	14.5			39.1	21.0			39.2
Level of Service	D	C	C	D	B			D	C			D
Approach Delay (s)		26.4			26.7			33.9				39.2
Approach LOS		C			C			C				D
Intersection Summary												
HCM Average Control Delay	28.4		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.79											
Actuated Cycle Length (s)	77.7		Sum of lost time (s)		16.0							
Intersection Capacity Utilization	72.1%		ICU Level of Service		C							
Analysis Period (min)	15											
c. Critical Lane Group												

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↑	↑	↑	↔	↔
Volume (vph)	395	299	0	197	282	281	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00		1.00	1.00	1.00	0.95
Fit	1.00	0.85		1.00	0.85	1.00	1.00
Fit Protected	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583		1863	1583	1770	3539
Fit Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583		1863	1583	1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	439	332	0	219	313	312	479
RTOR Reduction (vph)	0	248	0	0	240	0	0
Lane Group Flow (vph)	439	84	0	219	73	312	479
Turn Type		Perm	Prot		Perm	Prot	
Protected Phases	1		3	8		7	
Permitted Phases		1			8		6
Actuated Green, G (s)	12.9	12.9		11.9	11.9	14.0	12.9
Effective Green, g (s)	12.9	12.9		11.9	11.9	14.0	12.9
Actuated g/C Ratio	0.25	0.25		0.23	0.23	0.28	0.25
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	872	402		436	371	488	899
v/s Ratio Prot	0.13			0.12		0.18	
v/s Ratio Perm		0.05			0.05		0.14
v/c Ratio	0.50	0.21		0.50	0.20	0.64	0.53
Uniform Delay, d1	16.2	14.9		16.9	15.6	16.2	16.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3		0.9	0.3	2.8	0.6
Delay (s)	16.7	15.2		17.8	15.9	18.9	17.0
Level of Service	B	B		B	B	B	B
Approach Delay (s)	16.0			16.7		17.7	
Approach LOS	B			B		B	
Intersection Summary							
HCM Average Control Delay		16.8		HCM Level of Service		B	
HCM Volume to Capacity ratio		0.56					
Actuated Cycle Length (s)		50.8		Sum of lost time (s)		12.0	
Intersection Capacity Utilization		47.2%		ICU Level of Service		A	
Analysis Period (min)		15					
c Critical Lane Group							

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↑	↑	↑	↔	↔
Volume (vph)	84	7	0	454	50	3	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0		4.0	4.0
Lane Util. Factor	0.97			0.95		1.00	0.95
Fit	0.99			0.98		1.00	1.00
Fit Protected	0.96			1.00		0.95	1.00
Satd. Flow (prot)	3414			3486		1770	3539
Fit Permitted	0.96			1.00		0.95	1.00
Satd. Flow (perm)	3414			3486		1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	93	8	0	504	56	3	928
RTOR Reduction (vph)	7	0	0	13	0	0	0
Lane Group Flow (vph)	94	0	0	547	0	3	928
Turn Type			Prot			Prot	
Protected Phases	8		5	2		1	6
Permitted Phases							
Actuated Green, G (s)	3.1			14.9		0.6	19.5
Effective Green, g (s)	3.1			14.9		0.6	19.5
Actuated g/C Ratio	0.10			0.49		0.02	0.64
Clearance Time (s)	4.0			4.0		4.0	4.0
Vehicle Extension (s)	3.0			3.0		3.0	3.0
Lane Grp Cap (vph)	346			1697		35	2255
v/s Ratio Prot	0.03			0.16		0.00	0.26
v/s Ratio Perm							
v/c Ratio	0.27			0.32		0.09	0.41
Uniform Delay, d1	12.7			4.8		14.7	2.7
Progression Factor	1.00			1.00		1.00	1.00
Incremental Delay, d2	0.4			0.1		1.1	0.1
Delay (s)	13.1			4.9		15.8	2.9
Level of Service	B			A		B	A
Approach Delay (s)	13.1			4.9		2.9	
Approach LOS	B			A		A	
Intersection Summary							
HCM Average Control Delay		4.2		HCM Level of Service		A	
HCM Volume to Capacity ratio		0.39					
Actuated Cycle Length (s)		30.6		Sum of lost time (s)		8.0	
Intersection Capacity Utilization		33.1%		ICU Level of Service		A	
Analysis Period (min)		15					
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↗	↘	↔	↗	↘	↔	↗	↘	↔	↗	↘
Volume (vph)	23	111	19	63	82	149	6	311	16	160	685	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.99	1.00	0.95	1.00
Frt	1.00	0.98	1.00	0.90	1.00	0.99	1.00	0.99	1.00	0.95	0.98	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1822	1770	1682	1770	1682	1770	3513	1770	3469	1770	3469
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1822	1770	1682	1770	1682	1770	3513	1770	3469	1770	3469
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	123	21	70	91	166	7	346	18	178	761	116
RTOR Reduction (vph)	0	11	0	0	114	0	0	6	0	0	17	0
Lane Group Flow (vph)	26	133	0	70	143	0	7	358	0	178	860	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3			5	2		1		6
Permitted Phases												
Actuated Green, G (s)	0.7	10.6		2.3	12.2		0.7	13.9		6.8	20.0	
Effective Green, g (s)	0.7	10.6		2.3	12.2		0.7	13.9		6.8	20.0	
Actuated g/C Ratio	0.01	0.21		0.05	0.25		0.01	0.28		0.14	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	25	389		82	414		25	984		243	1399	
v/s Ratio Prot	0.01	0.07		0.04	0.09		0.00	0.10		0.10	0.25	
v/s Ratio Perm												
v/c Ratio	1.04	0.34		0.85	0.35		0.28	0.36		0.73	0.61	
Uniform Delay, d1	24.4	16.5		23.5	15.4		24.2	14.3		20.5	11.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	192.8	0.5		53.6	0.5		6.0	0.2		10.8	0.8	
Delay (s)	217.2	17.1		77.1	15.9		30.2	14.5		31.4	12.5	
Level of Service	F	B		E	B		C	B		C	B	
Approach Delay (s)		47.7			29.0			14.8			15.7	
Approach LOS		D			C			B			B	
Intersection Summary												
HCM Average Control Delay	20.6			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.51											
Actuated Cycle Length (s)	48.6			Sum of lost time (s)			8.0					
Intersection Capacity Utilization	55.7%			ICU Level of Service			B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↗	↘	↔	↗	↘	↔	↗	↘	↔	↗	↘
Volume (vph)	5	83	70	93	137	36	40	331	55	41	774	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	1.00	0.85	1.00	0.97	1.00	0.98	0.98	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1805	1770	3464	3464	1770	3464	1770	3534
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1805	1770	3464	3464	1770	3464	1770	3534
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	92	78	103	152	40	44	368	61	46	860	8
RTOR Reduction (vph)	0	0	64	0	17	0	0	20	0	0	1	0
Lane Group Flow (vph)	6	92	14	103	175	0	44	409	0	46	867	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		4			3	8		5	2	6
Permitted Phases												
Actuated Green, G (s)	0.6	8.4		8.4	3.5	11.3	1.3	17.5		1.3	17.5	
Effective Green, g (s)	0.6	8.4		8.4	3.5	11.3	1.3	17.5		1.3	17.5	
Actuated g/C Ratio	0.01	0.18		0.18	0.07	0.24	0.03	0.37		0.03	0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	23	335		285	133	437	49	1298		49	1324	
v/s Ratio Prot	0.00	0.05		0.01	0.06	0.10	0.02	0.12		0.03	0.25	
v/s Ratio Perm												
v/c Ratio	0.26	0.27		0.05	0.77	0.40	0.90	0.32		0.94	0.65	
Uniform Delay, d1	22.8	16.5		15.8	21.2	14.9	22.6	10.4		22.7	12.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.0	0.4		0.1	24.0	0.6	90.0	0.1		104.4	1.2	
Delay (s)	28.8	17.0		15.9	45.2	15.5	112.6	10.5		127.1	13.3	
Level of Service	C	B		B	D	B	F	B		F	B	
Approach Delay (s)		16.9			25.8			20.0			19.0	
Approach LOS		B			C			B			B	
Intersection Summary												
HCM Average Control Delay	20.1			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.61											
Actuated Cycle Length (s)	46.7			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	46.8%			ICU Level of Service			A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑		↑↑	↑↑		↑	↑	↑	↑	↑	↑
Volume (vph)	83	851	23	88	856	197	68	56	79	441	22	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	1.00	0.95	0.95		
Frt	1.00	1.00		1.00	0.97		1.00	0.85	1.00	0.95		
Flt Protected	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.97		
Satd. Flow (prot)	1770	5065		1770	3440		1813	1583	1681	1638		
Flt Permitted	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.97		
Satd. Flow (perm)	1770	5065		1770	3440		1813	1583	1681	1638		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	103	946	26	98	951	219	76	62	88	490	24	91
RTOR Reduction (vph)	0	3	0	0	21	0	0	0	76	0	17	0
Lane Group Flow (vph)	103	969	0	98	1149	0	0	138	12	309	279	0
Turn Type	Prot			Prot			Split		Perm		Split	
Protected Phases	7	4		3	8		2	2			6	6
Permitted Phases									2			
Actuated Green, G (s)	6.4	30.1		8.0	31.7		11.5	11.5	17.8		17.8	
Effective Green, g (s)	6.4	30.1		8.0	31.7		11.5	11.5	17.8		17.8	
Actuated g/C Ratio	0.08	0.36		0.10	0.38		0.14	0.14	0.21		0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	136	1828		170	1308		250	218	359		350	
v/s Ratio Prot	0.06	0.19		0.06	0.33		0.06		0.18		0.17	
v/s Ratio Perm								0.01				
v/c Ratio	0.76	0.53		0.58	0.88		0.55	0.06	0.86		0.80	
Uniform Delay, d1	37.7	21.1		36.1	24.1		33.5	31.2	31.6		31.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	21.1	0.3		4.7	7.0		2.6	0.1	18.6		11.9	
Delay (s)	58.9	21.4		40.7	31.0		36.2	31.3	50.2		42.9	
Level of Service	E	C		D	C		D	C	D		D	
Approach Delay (s)		25.0			31.8		34.3				46.6	
Approach LOS		C			C		C				D	
Intersection Summary												
HCM Average Control Delay	32.5		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.76											
Actuated Cycle Length (s)	83.4		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	67.1%		ICU Level of Service				C					
Analysis Period (min)	15											
c Critical Lane Group												

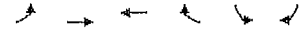
HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBT	EBR	WBT	WBR	NBT	NBR	
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑	↑	
Volume (veh/h)	1403	53	0	1360	0	134	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	1569	59	0	1511	0	149	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)	575			607			
pX, platoon unblocked			0.87		0.91	0.87	
vC, conflicting volume			1618		2344	549	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			1186		1419	0	
IC, single (s)			4.1		6.8	6.9	
IC, 2 stage (s)							
IF, (s)			2.2		3.5	3.3	
p0 queue free %			100		100	84	
cM capacity (veh/h)			508		116	943	
Direction Lane #							
Volume Total	624	624	371	756	756	149	
Volume Left	0	0	0	0	0	0	
Volume Right	0	0	59	0	0	149	
cSH	1700	1700	1700	1700	1700	943	
Volume to Capacity	0.37	0.37	0.22	0.44	0.44	0.16	
Queue Length 95th (ft)	0	0	0	0	0	14	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.5	
Lane LOS						A	
Approach Delay (s)	0.0			0.0		9.5	
Approach LOS						A	
Intersection Summary							
Average Delay	0.4						
Intersection Capacity Utilization	43.3%		ICU Level of Service				A
Analysis Period (min)	15						

HCM Signalized Intersection Capacity Analysis
8: Del Mar Heights Rd. & I-15 SB Ramps


Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBL	EBT	WBT	WBR	SBR	SBL
Lane Configurations		↑↑	↑↑		↑↑	↑
Volume (vph)	0	768	1024	0	931	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3	6.3		5.6	5.6
Lane Util. Factor		0.95	0.95		0.97	0.91
Flt		1.00	1.00		0.99	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3539	3539		3430	1441
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3539	3539		3430	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	853	1138	0	1034	362
RTOR Reduction (vph)	0	0	0	0	3	42
Lane Group Flow (vph)	0	853	1138	0	1067	284
Turn Type					Perm	
Protected Phases		2 6	6 2		4	
Permitted Phases						4
Actuated Green, G (s)		42.4	42.4		25.6	25.6
Effective Green, g (s)		42.4	42.4		25.6	25.6
Actuated g/C Ratio		0.53	0.53		0.32	0.32
Clearance Time (s)					5.6	5.6
Vehicle Extension (s)					3.0	3.0
Lane Grp Cap (vph)		1878	1878		1099	462
v/s Ratio Prot		0.24	0.32		0.31	
v/s Ratio Perm						0.20
v/c Ratio		0.45	0.61		0.97	0.61
Uniform Delay, d1		11.6	13.0		26.8	23.0
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.6		20.3	2.4
Delay (s)		11.8	13.5		47.1	25.4
Level of Service		B	B		D	C
Approach Delay (s)		11.8	13.5		42.0	
Approach LOS		B	B		D	
Intersection Summary						
HCM Average Control Delay			24.8		HCM Level of Service	C
HCM Volume to Capacity ratio			0.74			
Actuated Cycle Length (s)			79.9		Sum of lost time (s)	11.9
Intersection Capacity Utilization			67.8%		ICU Level of Service	C
Analysis Period (min)			15			
c - Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
9: Del Mar Heights Road & I-15 NB Ramps

Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑			↑↑↑	↑	↑	↑	↑			
Volume (vph)	224	1445	0	0	1468	910	373	0	927	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor		0.97	0.95		0.91	1.00	0.95	0.91	0.95			
Flt		1.00	1.00		1.00	0.85	1.00	0.86	0.85			
Flt Protected		0.95	1.00		1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)		3433	3539		5085	1583	1681	1455	1504			
Flt Permitted		0.95	1.00		1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)		3433	3539		5085	1583	1681	1455	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	249	1606	0	0	1631	1011	414	0	1030	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	455	0	12	12	0	0	0
Lane Group Flow (vph)	249	1606	0	0	1631	556	373	524	524	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	5	2			6	6	8	8	8			
Permitted Phases												
Actuated Green, G (s)	10.2	66.6			52.4	52.4	45.4	45.4	45.4			
Effective Green, g (s)	10.2	66.6			52.4	52.4	45.4	45.4	45.4			
Actuated g/C Ratio	0.08	0.55			0.44	0.44	0.38	0.38	0.38			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	292	1964			2220	691	636	550	569			
v/s Ratio Prot	0.07	0.45			0.32	0.35	0.22	0.36	0.35			
v/s Ratio Perm												
v/c Ratio	0.85	0.82			0.73	0.81	0.59	0.95	0.92			
Uniform Delay, d1	54.2	21.8			28.0	29.4	29.8	36.2	35.6			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	20.7	3.9			2.2	9.7	1.4	26.4	20.3			
Delay (s)	74.8	25.7			30.2	39.1	31.2	62.6	55.9			
Level of Service	E	C			C	D	C	E	E			
Approach Delay (s)		32.3			33.6		52.0					0.0
Approach LOS		C			C		D					A
Intersection Summary												
HCM Average Control Delay					37.7		HCM Level of Service	D				
HCM Volume to Capacity ratio					0.87							
Actuated Cycle Length (s)					120.0		Sum of lost time (s)	8.0				
Intersection Capacity Utilization					92.5%		ICU Level of Service	F				
Analysis Period (min)					15							
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
10: Del Mar Heights Road & High Bluff Drive

Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑	↑	↑↑↑	↑↑↑	↑	↑↑	↑↑	↑	↑	↑	↑
Volume (vph)	108	1534	674	100	1895	67	195	10	40	106	57	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	0.97	0.95	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99	1.00	0.89	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5059	3433	3115	1770	1863	1563	1563	1563
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5059	3433	3115	1770	1863	1563	1563	1563
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	120	1704	749	111	2106	74	217	11	44	118	63	337
RTOR Reduction (vph)	0	0	364	0	4	0	0	39	0	0	0	135
Lane Group Flow (vph)	120	1704	385	111	2176	0	217	16	0	118	63	202
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	7.9	42.1	42.1	6.9	41.1	7.0	9.8	13.3	16.1	16.1	16.1	16.1
Effective Green, g (s)	7.9	42.1	42.1	6.9	41.1	7.0	9.8	13.3	16.1	16.1	16.1	16.1
Actuated g/C Ratio	0.09	0.48	0.48	0.08	0.47	0.08	0.11	0.15	0.18	0.18	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	159	2430	756	139	2360	273	347	267	340	289	289	289
v/s Ratio Prot	0.07	0.34	0.24	0.06	0.43	0.06	0.01	0.07	0.03	0.13	0.13	0.13
v/s Ratio Perm												
v/c Ratio	0.75	0.70	0.51	0.80	0.92	0.79	0.05	0.44	0.19	0.70	0.70	0.70
Uniform Delay, d1	39.2	18.1	15.9	39.9	22.0	39.8	35.0	34.0	30.5	33.7	33.7	33.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	18.2	0.9	0.5	26.5	6.6	14.7	0.1	1.2	0.3	7.2	7.2	7.2
Delay (s)	57.4	19.0	16.4	66.4	28.6	54.5	35.0	35.2	30.7	40.9	40.9	40.9
Level of Service	E	B	B	E	C	D	D	D	C	C	C	D
Approach Delay (s)	20.0			30.5		50.6		38.4				
Approach LOS	C			C		D		D				

Intersection Summary			
HCM Average Control Delay	27.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	88.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
11: Del Mar Heights Road & Third Ave.

Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑	↑↑	↑
Volume (vph)	1864	165	128	2218	50	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1563
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	1770	5085	3433	1563
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2071	183	142	2464	56	43
RTOR Reduction (vph)	0	81	0	0	0	40
Lane Group Flow (vph)	2071	102	142	2464	56	3
Turn Type	Perm	Prot	Prot	Perm	Perm	Perm
Protected Phases	4	3	3	8	2	2
Permitted Phases						
Actuated Green, G (s)	26.4	26.4	5.1	35.5	3.7	3.7
Effective Green, g (s)	26.4	26.4	5.1	35.5	3.7	3.7
Actuated g/C Ratio	0.56	0.55	0.11	0.75	0.08	0.08
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2844	885	191	3825	269	124
v/s Ratio Prot	0.41		0.08	0.48	0.02	
v/s Ratio Perm			0.06			0.00
v/c Ratio	0.73	0.12	0.74	0.64	0.21	0.03
Uniform Delay, d1	7.7	4.9	20.4	2.8	20.4	20.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.1	14.5	0.4	0.4	0.1
Delay (s)	8.7	5.0	34.9	3.2	20.8	20.2
Level of Service	A	A	C	A	C	C
Approach Delay (s)	8.4		4.9	20.5		
Approach LOS	A		A	C		

Intersection Summary			
HCM Average Control Delay	6.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	47.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
12: Del Mar Heights Road & First Ave.

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Volume (vph)	1765	137	137	2304	41	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Flt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1961	152	152	2560	46	46
RTOR Reduction (vph)	0	60	0	0	0	42
Lane Group Flow (vph)	1961	92	152	2560	46	4
Turn Type	Perm		Prot		Perm	
Protected Phases	4		3		2	
Permitted Phases		4		8		2
Actuated Green, G (s)	29.3	29.3	3.1	36.4	4.1	4.1
Effective Green, g (s)	29.3	29.3	3.1	36.4	4.1	4.1
Actuated g/C Ratio	0.60	0.60	0.06	0.75	0.08	0.08
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3072	956	219	3816	150	134
v/s Ratio Prot	0.39		0.04	0.50	0.03	
v/s Ratio Perm		0.06				0.00
v/c Ratio	0.64	0.10	0.69	0.67	0.31	0.03
Uniform Delay, d1	6.2	4.0	22.2	3.0	20.9	20.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	9.2	0.5	1.2	0.1
Delay (s)	6.6	4.1	31.4	3.5	22.0	20.5
Level of Service	A	A	C	A	C	C
Approach Delay (s)	6.4			5.1	21.2	
Approach LOS	A			A	C	
Intersection Summary						
HCM Average Control Delay	6.0		HCM Level of Service		A	
HCM Volume to Capacity ratio	0.63					
Actuated Cycle Length (s)	48.5		Sum of lost time (s)		8.0	
Intersection Capacity Utilization	54.5%		ICU Level of Service		A	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
13: Del Mar Heights Road & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑↑	↑	↑↑	↑↑↑	↑	↑↑	↑↑↑	↑	↑↑	↑↑↑	↑
Volume (vph)	225	936	305	243	1550	92	257	104	87	159	323	423
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91	1.00	0.97	0.91	
Flt	1.00	0.96		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	4898		3433	5043		3433	5085	1583	3433	4653	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	4898		3433	5043		3433	5085	1583	3433	4653	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	250	1040	339	270	1722	102	286	116	97	177	359	470
RTOR Reduction (vph)	0	73	0	0	8	0	0	0	78	0	147	0
Lane Group Flow (vph)	250	1306	0	270	1816	0	286	116	19	177	682	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	7.1	28.3		8.8	30.0		8.0	15.5	15.5	10.4	17.9	
Effective Green, g (s)	7.1	28.3		8.8	30.0		8.0	15.5	15.5	10.4	17.9	
Actuated g/C Ratio	0.09	0.36		0.11	0.38		0.10	0.20	0.20	0.13	0.23	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	309	1755		382	1915		348	998	311	452	1054	
v/s Ratio Prot	0.07	0.27		0.08	0.36		0.08	0.02	0.01	0.05	0.15	
v/s Ratio Perm												
v/c Ratio	0.81	0.74		0.71	0.95		0.82	0.12	0.06	0.39	0.95	
Uniform Delay, d1	35.3	22.2		33.9	23.7		34.8	26.1	25.8	31.4	27.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	14.4	1.8		5.9	10.7		14.4	0.1	0.1	0.6	1.4	
Delay (s)	49.7	23.9		39.7	34.4		49.2	26.2	25.9	32.0	29.1	
Level of Service	D	C		D	C		D	C	C	C	C	
Approach Delay (s)		27.9			35.1			39.3			29.6	
Approach LOS		C			D			D			C	
Intersection Summary												
HCM Average Control Delay	32.2			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.74											
Actuated Cycle Length (s)	79.0			Sum of lost time (s)			8.0					
Intersection Capacity Utilization	74.8%			ICU Level of Service			D					
Analysis Period (min)	15											
dr Defacto Right Lane. Recode with 1 though lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis Existing + Project (Phase 1&2) AM
 14: Del Mar Heights Road & Carmel Country Rd. 12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	149	626	294	272	1226	169	427	183	108	142	180	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	1.00	0.95	0.95	0.95
Frt	1.00	0.95	1.00	0.98	1.00	0.94	1.00	0.94	1.00	0.93	1.00	0.93
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3433	4841	3433	4993	3433	4802	3433	4802	1770	3298	1770	3298
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3433	4841	3433	4993	3433	4802	3433	4802	1770	3298	1770	3298
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	166	696	327	302	1362	188	474	203	120	158	200	167
RTOR Reduction (vph)	0	107	0	0	22	0	0	98	0	0	139	0
Lane Group Flow (vph)	166	916	0	302	1528	0	474	225	0	158	228	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	5.0	20.1		9.0	24.1		11.9	12.3		9.4	9.8	
Effective Green, g (s)	5.0	20.1		9.0	24.1		11.9	12.3		9.4	9.8	
Actuated g/C Ratio	0.07	0.30		0.13	0.36		0.18	0.18		0.14	0.15	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	257	1457		463	1801		612	884		249	484	
v/s Ratio Prot	0.05	0.19		0.09	0.31		0.14	0.05		0.09	0.07	
v/s Ratio Perm												
v/c Ratio	0.65	0.63		0.65	0.85		0.77	0.25		0.63	0.47	
Uniform Delay, d1	30.0	20.1		27.4	19.7		26.2	23.3		27.1	26.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.5	0.9		3.3	3.9		6.1	0.2		5.2	0.7	
Delay (s)	35.5	21.0		30.7	23.6		32.3	23.5		32.3	26.8	
Level of Service	D	C		C	C		C	C		C	C	
Approach Delay (s)		23.0			24.8			28.7			28.5	
Approach LOS		C			C			C			C	
Intersection Summary:												
HCM Average Control Delay	25.5		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.74											
Actuated Cycle Length (s)	66.8		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	67.0%		ICU Level of Service				C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis Existing + Project (Phase 1&2) AM
 15: Del Mar Heights Road & Torrey Ridge Drive 12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	206	643	123	79	1075	210	113	151	11	54	60	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.91	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00
Frt	1.00	0.98	1.00	0.98	1.00	0.98	1.00	0.98	1.00	0.99	1.00	0.90
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	4962	1770	4961	1770	4844	1770	4844	1770	1844	1770	1674
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	4962	1770	4961	1770	4844	1770	4844	1770	1844	1770	1674
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	229	714	137	88	1194	233	126	168	12	60	67	139
RTOR Reduction (vph)	0	32	0	0	34	0	0	3	0	0	102	0
Lane Group Flow (vph)	229	819	0	88	1393	0	126	177	0	60	104	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.3	30.5		6.9	25.1		7.8	15.9		4.0	12.1	
Effective Green, g (s)	12.3	30.5		6.9	25.1		7.8	15.9		4.0	12.1	
Actuated g/C Ratio	0.17	0.42		0.09	0.34		0.11	0.22		0.05	0.17	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	297	2065		167	1699		188	400		97	276	
v/s Ratio Prot	0.13	0.17		0.05	0.28		0.07	0.10		0.03	0.06	
v/s Ratio Perm												
v/c Ratio	0.77	0.40		0.53	0.82		0.67	0.44		0.62	0.38	
Uniform Delay, d1	29.2	15.0		31.6	22.0		31.5	24.9		33.9	27.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.7	0.1		3.0	3.2		9.0	0.8		11.2	0.9	
Delay (s)	40.8	15.1		34.6	25.3		40.5	25.6		45.1	28.1	
Level of Service	D	B		C	C		D	C		D	C	
Approach Delay (s)		20.6			25.8			31.8			31.9	
Approach LOS		C			C			C			C	
Intersection Summary:												
HCM Average Control Delay	25.1		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.71											
Actuated Cycle Length (s)	73.3		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	67.3%		ICU Level of Service				C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↘	↘	↑↑↑	↘	↘	↑	↘	↘	↑	↘
Volume (vph)	156	560	34	65	1114	35	43	25	53	48	58	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt	1.00	0.99		1.00	1.00		1.00	0.90		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5041		1770	5062		1770	1673		1770	1623	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5041		1770	5062		1770	1673		1770	1623	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	173	622	38	72	1238	39	48	28	59	53	64	391
RTOR Reduction (vph)	0	9	0	0	5	0	0	47	0	0	236	0
Lane Group Flow (vph)	173	651	0	72	1272	0	48	40	0	53	219	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.2	22.4		2.7	18.9		1.7	11.0		2.4	11.7	
Effective Green, g (s)	6.2	22.4		2.7	18.9		1.7	11.0		2.4	11.7	
Actuated g/C Ratio	0.11	0.41		0.05	0.35		0.03	0.20		0.04	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	2072		88	1755		55	338		78	348	
v/s Ratio Prot	c0.10	c0.13		0.04	c0.25		0.03	0.02		c0.03	c0.13	
v/s Ratio Perm												
v/c Ratio	0.86	0.31		0.82	0.72		0.87	0.12		0.68	0.63	
Uniform Delay, d1	23.7	10.9		25.7	15.5		26.3	17.8		25.7	19.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	29.3	0.1		42.2	1.5		76.2	0.2		21.0	3.5	
Delay (s)	53.0	10.9		67.9	17.0		102.5	17.9		46.7	23.0	
Level of Service	D	B		E	B		F	B		D	C	
Approach Delay (s)		19.7			19.8			48.0			25.4	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	54.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		

Baseline

HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↘	↘	↑↑↑	↘	↘
Volume (vph)	551	124	385	994	267	332
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	0.97	1.00
Flt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4945		1770	5085	3433	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4945		1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	612	138	428	1104	297	369
RTOR Reduction (vph)	61	0	0	0	0	294
Lane Group Flow (vph)	689	0	428	1104	297	75
Turn Type	Prot		Prot		Prot	
Protected Phases	4		3		8	
Permitted Phases					2	
Actuated Green, G (s)	13.6		15.2		32.8	
Effective Green, g (s)	13.6		15.2		32.8	
Actuated g/C Ratio	0.27		0.30		0.64	
Clearance Time (s)	4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0	
Lane Grp Cap (vph)	1314		525		3258	
v/s Ratio Prot	c0.14		c0.24		0.22	
v/s Ratio Perm					c0.09	
v/c Ratio	0.52		0.82		0.34	
Uniform Delay, d1	16.0		16.7		4.2	
Progression Factor	1.00		1.00		1.00	
Incremental Delay, d2	0.4		9.5		0.1	
Delay (s)	16.4		26.2		4.3	
Level of Service	B		C		A	
Approach Delay (s)	16.4				10.4	
Approach LOS	B				B	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	51.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

Baseline

HCM Signalized Intersection Capacity Analysis
18: Del Mar Highlands Town Ctr. & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	41	8	8	94	27	107	137	44	310	98	188	625
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95		1.00	1.00	0.97	0.91		0.97	0.91		
Frt	1.00	0.96		1.00	0.85	1.00	0.96		1.00	0.99		
Flt Protected	0.95	0.98		0.96	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1681	1659		1793	1583	3433	4902		3433	5024		
Flt Permitted	0.95	0.98		0.96	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1681	1659		1793	1583	3433	4902		3433	5024		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	46	9	9	104	30	119	152	344	409	187	694	671
RTOR Reduction (vph)	0	8	0	0	0	98	0	67	0	0	11	0
Lane Group Flow (vph)	32	24	0	0	134	21	152	386	0	187	744	0
Turn Type	Split			Split		Perm	Prot		Prot			
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases						6						
Actuated Green, G (s)	6.0	6.8		9.7	9.7	5.3	14.3		8.1	17.1		
Effective Green, g (s)	6.8	6.8		9.7	9.7	5.3	14.3		8.1	17.1		
Actuated g/C Ratio	0.12	0.12		0.18	0.18	0.10	0.26		0.15	0.31		
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	208	205		317	280	331	1277		507	1565		
v/s Ratio Prot	c0.02	0.01		c0.07	0.04	0.08			c0.05	c0.15		
v/s Ratio Perm					0.01							
v/c Ratio	0.15	0.12		0.42	0.08	0.46	0.30		0.37	0.48		
Uniform Delay, d1	21.5	21.4		20.1	18.9	23.4	16.3		21.1	15.3		
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.3	0.3		0.9	0.1	1.0	0.1		0.5	0.2		
Delay (s)	21.8	21.6		21.0	19.0	24.5	16.4		21.6	15.5		
Level of Service	C	C		C	B	C	B		C	B		
Approach Delay (s)		21.7			20.1		18.4			16.7		
Approach LOS		C			C		B			B		
Intersection Summary												
HCM Average Control Delay	17.9		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.41											
Actuated Cycle Length (s)	54.9		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	40.5%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
19: Townsgate Drive & Carmel Country Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	168	83	113	45	189	149	111	437	7	100	455	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.85
Frt	1.00	1.00	0.85	1.00	0.93	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1739	1770	1739	1770	3531	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1739	1770	1739	1770	3531	1770	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	187	92	126	50	210	166	123	486	8	111	506	186
RTOR Reduction (vph)	0	0	77	0	36	0	2	0	0	0	0	144
Lane Group Flow (vph)	187	92	49	50	340	0	123	492	0	111	506	42
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8		6	2		1	6	6
Permitted Phases												
Actuated Green, G (s)	12.1	26.4	26.4	3.5	17.8		7.1	16.3		6.1	15.3	15.3
Effective Green, g (s)	12.1	26.4	26.4	3.5	17.8		7.1	16.3		6.1	15.3	15.3
Actuated g/C Ratio	0.18	0.39	0.39	0.05	0.26		0.10	0.24		0.09	0.22	0.22
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	314	720	612	91	453		184	843		158	793	355
v/s Ratio Prot	c0.11	0.05	0.03	0.03	c0.20		c0.07	0.14		0.06	c0.14	0.03
v/s Ratio Perm												
v/c Ratio	0.60	0.13	0.08	0.55	0.75		0.67	0.58		0.70	0.64	0.12
Uniform Delay, d1	25.8	13.5	13.3	31.6	23.2		29.5	23.0		30.2	24.0	21.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	0.1	0.1	6.6	6.9		8.9	1.0		13.2	1.7	0.1
Delay (s)	28.9	13.6	13.3	38.3	30.1		38.3	24.0		43.4	25.7	21.3
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		20.6			31.0			26.9			27.1	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control Delay	26.6		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.67											
Actuated Cycle Length (s)	68.3		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	60.4%		ICU Level of Service				B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
20: Townsgate Drive & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	SEU	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	3	2	6	2	2	2	2	2	2	2	2	2
Volume (vph)	38	67	6	226	45	140	14	323	52	151	471	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91
Flt	1.00	0.99	1.00	1.00	1.00	0.85	1.00	0.98	1.00	0.98	1.00	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1839	1770	1863	1583	1770	4979	1770	4979	1770	4992	1770
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1839	1770	1863	1583	1770	4979	1770	4979	1770	4992	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	74	7	251	50	156	16	359	58	168	523	73
RTOR Reduction (vph)	0	5	0	0	0	113	0	31	0	0	22	0
Lane Group Flow (vph)	42	76	0	251	50	43	16	386	0	168	574	0
Turn Type	Prot			Prot		Prot	Prot			Prot		
Protected Phases	1	6		5	2	2	7	4		3		8
Permitted Phases												
Actuated Green, G (s)	2.0	5.4		11.6	15.0	15.0	0.7	13.2		8.3		20.8
Effective Green, g (s)	2.0	5.4		11.6	15.0	15.0	0.7	13.2		8.3		20.8
Actuated g/C Ratio	0.04	0.10		0.21	0.28	0.28	0.01	0.24		0.15		0.38
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0		4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	85	182		377	513	436	23	1206		270		1905
vs Ratio Prot	0.02	0.04		0.14	0.03	0.03	0.01	0.08		0.09		0.11
vs Ratio Perm												
v/c Ratio	0.65	0.42		0.67	0.10	0.10	0.70	0.32		0.62		0.30
Uniform Delay, d1	25.9	23.1		19.7	14.7	14.7	26.8	17.0		21.6		11.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2	20.0	1.5		4.4	0.1	0.1	63.9	0.2		4.4		0.1
Delay (s)	45.9	24.6		24.1	14.8	14.8	90.7	17.1		26.0		11.9
Level of Service	D	C		C	B	B	F	B		C		B
Approach Delay (s)		31.9			19.9			19.8				15.0
Approach LOS		C			B			B				B
Intersection Summary												
HCM Average Control Delay	18.6			HCM Level of Service				B				
HCM Volume to Capacity ratio	0.47											
Actuated Cycle Length (s)	54.5			Sum of lost time (s)				12.0				
Intersection Capacity Utilization	45.0%			ICU Level of Service				A				
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
21: Carmel Creek Road & Carmel Country Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	2	2	3	2	2	3	2	2	3	2	2
Volume (vph)	306	118	123	60	291	29	269	418	28	66	406	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Flt	1.00	1.00	0.85	0.99	0.99	1.00	0.99	1.00	0.99	1.00	0.93	0.93
Flt Protected	0.95	1.00	1.00	0.99	0.99	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1829	1770	3506	1770	3506	1770	3279	1770	3279
Flt Permitted	0.95	1.00	1.00	0.99	0.99	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1829	1770	3506	1770	3506	1770	3279	1770	3279
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)	322	124	129	63	306	31	283	440	29	69	427	411
RTOR Reduction (vph)	0	0	103	0	4	0	6	0	0	0	216	0
Lane Group Flow (vph)	322	124	26	0	396	0	283	463	0	69	622	0
Turn Type	Split		Perm	Split			Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	16.1	16.1	16.1	17.4	13.2	24.2	6.6	17.6		6.6	17.6	
Effective Green, g (s)	16.1	16.1	16.1	17.4	13.2	24.2	6.6	17.6		6.6	17.6	
Actuated g/C Ratio	0.20	0.20	0.20	0.22	0.16	0.30	0.08	0.22		0.08	0.22	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	355	374	317	396	291	1067	145	719		145	719	
vs Ratio Prot	0.18	0.07		0.22	0.16	0.13	0.04	0.19		0.04	0.19	
vs Ratio Perm			0.02									
v/c Ratio	0.91	0.33	0.08	1.00	0.97	0.44	0.48	0.87		0.48	0.87	
Uniform Delay, d1	31.4	27.5	26.1	31.4	33.4	22.6	35.2	30.2		35.2	30.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	25.7	0.5	0.1	45.3	45.0	0.3	2.5	10.7		2.5	10.7	
Delay (s)	57.1	28.0	26.2	76.7	78.3	22.9	37.7	40.9		37.7	40.9	
Level of Service	E	C	C	E	E	C	D	D		D	D	
Approach Delay (s)		43.9		76.7		43.7		40.6			40.6	
Approach LOS		D		E		D		D			D	
Intersection Summary												
HCM Average Control Delay	47.7			HCM Level of Service				D				
HCM Volume to Capacity ratio	0.93											
Actuated Cycle Length (s)	80.3			Sum of lost time (s)				16.0				
Intersection Capacity Utilization	89.3%			ICU Level of Service				E				
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	30	110	245	94	221	99	212	324	29	79	884	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		0.97	0.91		1.00	0.91	
Flt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	3375		3433	5023		1770	5003	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	3375		3433	5023		1770	5003	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	122	272	104	246	110	236	360	32	88	982	119
RTOR Reduction (vph)	0	0	199	0	86	0	0	17	0	0	25	0
Lane Group Flow (vph)	33	122	73	104	270	0	236	375	0	88	1076	0
Turn Type	Prot	cuslom		Split		Prot	Prot		Prot			
Protected Phases	2	6		6		3	8		7		4	
Permitted Phases	2		2									
Actuated Green, G (s)	16.1	16.1	16.1	5.8	5.8		5.0	16.4		5.7	17.1	
Effective Green, g (s)	16.1	16.1	16.1	5.8	5.8		5.0	16.4		5.7	17.1	
Actuated g/C Ratio	0.27	0.27	0.27	0.10	0.10		0.08	0.27		0.10	0.29	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	475	500	425	171	326		286	1373		168	1426	
v/s Ratio Prot	0.02	0.06		0.08			0.07	0.07		0.05	0.22	
v/s Ratio Perm	0.07		0.05									
v/c Ratio	0.07	0.24	0.17	0.61	0.83		0.83	0.27		0.52	0.75	
Uniform Delay, d1	16.4	17.2	16.8	26.0	26.6		27.1	17.1		25.9	19.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.2	0.9	6.0	15.8		17.3	0.1		2.9	2.3	
Delay (s)	16.6	18.3	17.7	32.0	42.4		44.4	17.2		28.8	21.9	
Level of Service	B	B	B	C	D		D	B		C	C	
Approach Delay (s)	17.8		40.1				27.4				22.4	
Approach LOS	B		D				C				C	
Intersection Summary												
HCM Average Control Delay	25.8			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.54											
Actuated Cycle Length (s)	60.0			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	51.5%			ICU Level of Service			A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Sign Control	Stop											
Volume (vph)	49	6	70	13	26	14	123	30	2	3	16	193
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	54	7	78	14	29	16	137	33	2	3	18	214
Direction Lane #	SEL1	SET2	NWL3	NET1	SW1							
Volume Total (vph)	61	78	59	172	236							
Volume Left (vph)	54	0	14	137	3							
Volume Right (vph)	0	78	16	2	214							
Hadj (s)	0.48	-0.67	-0.08	0.18	-0.51							
Departure Headway (s)	6.0	4.8	5.1	4.9	4.1							
Degree Utilization, x	0.10	0.10	0.08	0.23	0.27							
Capacity (veh/h)	559	687	641	705	826							
Control Delay (s)	8.5	7.2	8.5	9.3	8.6							
Approach Delay (s)	7.8		8.5	9.3	8.6							
Approach LOS	A		A	A	A							
Intersection Summary												
Delay	8.6											
HCM Level of Service	A											
Intersection Capacity Utilization	41.1%			ICU Level of Service			A					
Analysis Period (min)	15											

HCM Signalized Intersection Capacity Analysis
24: Carmel Grove Road & Carmel Creek Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄
Volume (vph)	52	99	116	199	61	24	30	291	81	15	764	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	1.00	0.95	0.98	0.98
Flt	1.00	0.95	0.99	1.00	0.97	1.00	0.97	1.00	0.95	1.00	0.98	0.98
Flt Protected	0.98	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1829	1583	1779	1770	3424	1770	3424	1770	3457	3457	3457	3457
Flt Permitted	0.98	1.00	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1829	1583	1779	1770	3424	1770	3424	1770	3457	3457	3457	3457
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	58	99	129	221	68	27	33	323	90	17	849	156
RTOR Reduction (vph)	0	0	108	0	4	0	0	29	0	0	17	0
Lane Group Flow (vph)	0	157	21	0	312	0	33	384	0	17	988	0
Turn Type	Split		Prot		Split		Prot		Prot		Split	
Protected Phases	4	4	4	8	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	11.5	11.5	15.5	15.5	15.5	1.6	25.4	0.8	24.6	24.6	24.6	24.6
Effective Green, g (s)	11.5	11.5	15.5	15.5	15.5	1.6	25.4	0.8	24.6	24.6	24.6	24.6
Actuated g/C Ratio	0.17	0.17	0.22	0.22	0.22	0.02	0.37	0.01	0.36	0.36	0.36	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	304	263	398	41	1257	20	1229	20	1229	705	675	631
w/s Ratio Prot	c0.09	0.04	c0.18	c0.02	0.11	0.01	c0.29	0.01	c0.29	0.34	c0.35	0.04
w/s Ratio Perm												
w/c Ratio	0.52	0.08	0.78	0.80	0.31	0.85	0.80	0.85	0.80	0.80	0.83	0.10
Uniform Delay, d1	26.3	24.4	25.3	33.6	15.6	34.1	20.1	20.9	23.3	11.3	15.0	15.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	0.1	9.7	69.0	0.1	131.5	3.9	1.1	4.8	0.2	6.5	8.5
Delay (s)	27.8	24.5	35.0	102.6	15.8	165.6	24.0	22.1	28.1	11.5	21.5	23.8
Level of Service	C	C	D	F	B	F	C	C	C	B	C	C
Approach Delay (s)	26.3		35.0		22.2		26.4				21.2	
Approach LOS	C		D		C		C				A	
Intersection Summary												
HCM Average Control Delay	26.8		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.74											
Actuated Cycle Length (s)	69.2		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	58.5%		ICU Level of Service				B					
Analysis Period (min)	15											
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
25: Carmel Valley Road & I-5 SB Ramps

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄	⇄
Volume (vph)	0	304	176	382	620	0	0	0	0	997	3	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.97	0.95	0.97	0.95	0.95	1.00	1.00	0.95	0.91	0.95	0.95
Flt	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00
Satd. Flow (prot)	3344	3433	3539	3433	3539	3433	3539	3433	3539	1681	1610	1504
Flt Permitted	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00
Satd. Flow (perm)	3344	3433	3539	3433	3539	3433	3539	3433	3539	1681	1610	1504
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	338	196	424	689	0	0	0	0	1108	3	160
RTOR Reduction (vph)	0	135	0	0	0	0	0	0	0	0	2	84
Lane Group Flow (vph)	0	399	0	424	689	0	0	0	0	565	560	80
Turn Type	Split		Prot		Split		Prot		Prot		Split	
Protected Phases	4	4	4	8	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	12.3	9.9	26.2	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7
Effective Green, g (s)	12.3	9.9	26.2	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7
Actuated g/C Ratio	0.21	0.17	0.44	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	698	577	1574	705	675	631	705	675	631	705	675	631
w/s Ratio Prot	c0.12	c0.12	0.19	0.34	c0.35	0.04	0.34	c0.35	0.04	0.34	c0.35	0.04
w/s Ratio Perm												
w/c Ratio	0.57	0.73	0.44	0.80	0.83	0.10	0.80	0.83	0.10	0.80	0.83	0.10
Uniform Delay, d1	20.9	23.3	11.3	15.0	15.2	10.3	15.0	15.2	10.3	15.0	15.2	10.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	4.8	0.2	6.5	8.5	0.1	6.5	8.5	0.1	6.5	8.5	0.1
Delay (s)	22.1	28.1	11.5	21.5	23.8	10.4	21.5	23.8	10.4	21.5	23.8	10.4
Level of Service	C	C	B	C	C	B	C	C	B	C	C	B
Approach Delay (s)	22.1		17.8		0.0		21.2					
Approach LOS	C		B		A		C					
Intersection Summary												
HCM Average Control Delay	20.1		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.74											
Actuated Cycle Length (s)	58.9		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	73.6%		ICU Level of Service				D					
Analysis Period (min)	15											
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
26: Carmel Valley Road & I-5 NB Ramps

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↑↑	↑↑	0	0	↑↑	↑↑	↑	↑	↑	0	0	0	
Volume (vph)	61	1185	0	0	930	834	106	2	547	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95				
Flt	1.00	1.00			1.00	0.85	1.00	0.86	0.85				
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00				
Satd. Flow (prot)	3433	3539			3539	1583	1681	1449	1504				
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00				
Satd. Flow (perm)	3433	3539			3539	1583	1681	1449	1504				
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	68	1317	0	0	1033	927	118	2	608	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	494	0	37	37	0	0	0	
Lane Group Flow (vph)	68	1317	0	0	1033	433	106	275	273	0	0	0	
Turn Type	Prot				Prot	Split			Prot				
Protected Phases	7	4			8	8	2	2	2				
Permitted Phases													
Actuated Green, G (s)	2.4	31.6			25.2	25.2	14.4	14.4	14.4				
Effective Green, g (s)	2.4	31.6			25.2	25.2	14.4	14.4	14.4				
Actuated g/C Ratio	0.04	0.59			0.47	0.47	0.27	0.27	0.27				
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	153	2071			1652	739	448	386	401				
v/s Ratio Prot	0.02	0.37			0.29	0.27	0.06	0.19	0.18				
v/s Ratio Perm													
v/c Ratio	0.44	0.64			0.63	0.59	0.24	0.71	0.68				
Uniform Delay, d1	25.2	7.4			10.8	10.6	15.5	17.9	17.7				
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	2.1	0.6			0.7	1.2	0.3	6.1	4.5				
Delay (s)	27.2	8.0			11.6	11.8	15.8	24.0	22.3				
Level of Service	C	A			B	B	B	C	C				
Approach Delay (s)		9.0			11.7		22.1			0.0			
Approach LOS		A			B		C			A			
Intersection Summary													
HCM Average Control Delay	12.6		HCM Level of Service					B					
HCM Volume to Capacity ratio	0.66												
Actuated Cycle Length (s)	54.0		Sum of lost time (s)					8.0					
Intersection Capacity Utilization	73.6%		ICU Level of Service					D					
Analysis Period (min)	15												
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
27: Valley Centre Drive & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑↑↑	↑↑↑	↑	↑↑↑	↑	
Volume (vph)	20	6	16	704	14	160	69	912	145	119	1057	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	1.00	0.91	1.00	0.91	
Flt	1.00	0.97	0.85	1.00	0.99	0.85	1.00	0.98	1.00	0.91	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1617	1504	1681	1610	1504	1770	4981	1770	4981	1770	5073	
Flt Permitted	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1617	1504	1681	1610	1504	1770	4981	1770	4981	1770	5073	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	22	7	18	782	16	178	77	1013	161	132	1174	19	
RTOR Reduction (vph)	0	3	14	0	2	107	0	21	0	0	1	0	
Lane Group Flow (vph)	16	13	1	407	407	53	77	1153	0	132	1192	0	
Turn Type	Split		Prot	Split		Prot	Prot		Prot		Prot		
Protected Phases	4	4	4	8	8	8	5	2		6			
Permitted Phases													
Actuated Green, G (s)	3.6	3.6	3.6	23.8	23.8	23.8	4.4	32.1		23.7		6	
Effective Green, g (s)	3.6	3.6	3.6	23.8	23.8	23.8	4.4	32.1		23.7		23.7	
Actuated g/C Ratio	0.05	0.05	0.05	0.33	0.33	0.33	0.06	0.45		0.33		0.33	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	85	81	76	560	536	501	109	2236		587		1682	
v/s Ratio Prot	0.01	0.01	0.00	0.24	0.25	0.04	0.04	0.23		0.07		0.07	
v/s Ratio Perm												0.23	
v/c Ratio	0.19	0.16	0.01	0.73	0.76	0.11	0.71	0.52		0.22		0.71	
Uniform Delay, d1	32.5	32.5	32.3	21.0	21.3	16.5	32.9	14.1		17.3		20.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00	
Incremental Delay, d2	1.1	0.9	0.1	4.7	6.1	0.1	18.8	0.2		0.2		1.4	
Delay (s)	33.6	33.5	32.3	25.7	27.4	16.6	51.7	14.3		17.5		22.3	
Level of Service	C	C	C	C	C	B	D	B		B		C	
Approach Delay (s)			33.1			24.9		16.6				21.8	
Approach LOS			C			C		B				C	
Intersection Summary													
HCM Average Control Delay	21.0		HCM Level of Service					C					
HCM Volume to Capacity ratio	0.70												
Actuated Cycle Length (s)	71.5		Sum of lost time (s)					16.0					
Intersection Capacity Utilization	65.6%		ICU Level of Service					C					
Analysis Period (min)	15												
! Phase conflict between lane groups.													
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
28: Carmel Valley Road & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	0	0	0	308	1008	200	147	824	0	0	555	634
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.91	1.00	0.97	0.95			0.86	0.86
Frb, ped/bikes				1.00	1.00	1.00	1.00	1.00			0.93	0.80
Fllb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			0.95	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	5085	1583	3433	3539			4210	1086
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	5085	1583	3433	3539			4210	1086
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	342	1120	222	163	916	0	0	617	704
RTOR Reduction (vph)	0	0	0	0	0	84	0	0	0	0	14	14
Lane Group Flow (vph)	0	0	0	342	1120	130	163	916	0	0	955	338
Confl. Peds. (#/hr)												200
Turn Type				Prot.		Perm	Prot.		2		Prot.	Perm
Protected Phases				3		8	5		2		6	
Permitted Phases												6
Actuated Green, G (s)				16.1	16.1	16.1	3.4	27.7			20.3	20.3
Effective Green, g (s)				16.1	16.1	16.1	3.4	27.7			20.3	20.3
Actuated g/C Ratio				0.31	0.31	0.31	0.07	0.53			0.39	0.39
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				1067	1580	492	225	1892			1650	426
v/s Ratio Prot				0.10	0.22		0.05	0.26			0.23	
v/s Ratio Perm						0.09					0.31	
v/c Ratio				0.32	0.71	0.28	0.72	0.48			0.58	0.79
Uniform Delay, d1				13.7	15.8	13.5	23.7	7.6			12.4	13.9
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.2	1.5	0.3	11.0	0.2			0.5	9.8
Delay (s)				13.8	17.3	13.8	34.7	7.8			12.9	23.7
Level of Service				B	B	B	C	A			B	C
Approach Delay (s)	0.0				16.1			11.8				15.8
Approach LOS	A				B			B				B
Intersection Summary												
HCM Average Control Delay	14.9			HCM Level of Service				B				
HCM Volume to Capacity ratio	0.75											
Actuated Cycle Length (s)	51.8			Sum of lost time (s)				12.0				
Intersection Capacity Utilization	95.9%			ICU Level of Service				F				
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
29: SR-56 EB on ramp & El Camino Real

Existing + Project (Phase 1&2) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	589	896	265	0	0	0	0	364	192	116	681	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0			4.0		4.0	4.0
Lane Util. Factor	0.91	0.86	0.91						0.86		1.00	0.91
Frt	1.00	1.00	0.85						0.95		1.00	1.00
Flt Protected	0.95	1.00	1.00						1.00		0.95	1.00
Satd. Flow (prot)	1610	3176	1441						6076		1770	5085
Flt Permitted	0.95	1.00	1.00						1.00		0.95	1.00
Satd. Flow (perm)	1610	3176	1441						6076		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	654	996	294	0	0	0	0	404	213	129	757	0
RTOR Reduction (vph)	0	3	70	0	0	0	0	55	0	0	0	0
Lane Group Flow (vph)	543	1133	195	0	0	0	0	562	0	129	757	0
Turn Type	Split		Prot							Prot		
Protected Phases	4		4							2		6
Permitted Phases												
Actuated Green, G (s)	23.7	23.7	23.7						11.8		4.5	20.3
Effective Green, g (s)	23.7	23.7	23.7						11.8		4.5	20.3
Actuated g/C Ratio	0.46	0.46	0.46						0.23		0.09	0.39
Clearance Time (s)	4.0	4.0	4.0						4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0						3.0		3.0	3.0
Lane Grp Cap (vph)	734	1448	657						1379		153	1985
v/s Ratio Prot	0.34	0.36	0.14						0.09		0.07	0.15
v/s Ratio Perm												
v/c Ratio	0.74	0.78	0.30						0.41		0.84	0.38
Uniform Delay, d1	11.6	12.0	8.9						17.1		23.4	11.4
Progression Factor	1.00	1.00	1.00						1.00		1.00	1.00
Incremental Delay, d2	3.9	2.8	0.3						0.2		32.3	0.1
Delay (s)	15.5	14.8	9.2						17.3		55.7	11.5
Level of Service	B	B	A						B		E	B
Approach Delay (s)		14.2					0.0		17.3			17.9
Approach LOS		B					A		B			B
Intersection Summary												
HCM Average Control Delay	15.7			HCM Level of Service				B				
HCM Volume to Capacity ratio	0.63											
Actuated Cycle Length (s)	52.0			Sum of lost time (s)				8.0				
Intersection Capacity Utilization	95.8%			ICU Level of Service				F				
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
30: Valley Centre Drive & Carmel View Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	1	2	1	2	2	1	2
Volume (vph)	16	210	0	427	24	94	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		0.95		1.00	1.00
Flt	1.00	1.00		0.99		1.00	0.85
Flt Protected	0.95	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1770	3539		3511		1770	1583
Flt Permitted	0.95	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1770	3539		3511		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	18	233	0	474	27	104	124
RTOR Reduction (vph)	0	0	0	8	0	0	105
Lane Group Flow (vph)	18	233	0	493	0	104	19
Turn Type	Prot		Prot			Prot	
Protected Phases	7	4	3	8		6	6
Permitted Phases							
Actuated Green, G (s)	0.5	12.7		8.2		3.8	3.8
Effective Green, g (s)	0.5	12.7		8.2		3.8	3.8
Actuated g/C Ratio	0.02	0.52		0.33		0.16	0.16
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	36	1835		1175		275	246
v/s Ratio Prot	0.01	0.07		0.14		0.06	0.01
v/s Ratio Perm							
v/c Ratio	0.50	0.13		0.42		0.38	0.08
Uniform Delay, d1	11.9	3.0		6.3		9.3	8.9
Progression Factor	1.00	1.00		1.00		1.00	1.00
Incremental Delay, d2	10.5	0.0		0.2		0.9	0.1
Delay (s)	22.4	3.1		6.6		10.2	9.0
Level of Service	C	A		A		B	A
Approach Delay (s)		4.5		6.6		9.5	
Approach LOS		A		A		A	
Intersection Summary							
HCM Average Control Delay	6.7			HCM Level of Service		A	
HCM Volume to Capacity ratio	0.41						
Actuated Cycle Length (s)	24.5			Sum of lost time (s)		12.0	
Intersection Capacity Utilization	26.2%			ICU Level of Service		A	
Analysis Period (min)	15						
c - Critical Lane Group							

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations	1	2	2	1	2	2	1	2	2	1	2	2
Volume (vph)	74	214	142	157	362	97	316	327	209	1070	188	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00		1.00	0.95	1.00	0.97	0.95	1.00
Flt	1.00	0.85	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	2787	1583	1770	1804		1770	3539	1583	3433	3539	1583
Flt Permitted	0.31	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	577	2787	1583	1770	1804		1770	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	82	238	158	174	402	108	351	363	232	1189	209	223
RTOR Reduction (vph)	0	0	130	0	11	0	0	0	193	0	0	162
Lane Group Flow (vph)	82	238	28	174	499	0	351	363	39	1189	209	61
Turn Type	custom	custom	custom	Prot			Prot		Prot	Prot	Prot	Prot
Protected Phases				3	8		5	2	2	1	6	6
Permitted Phases	4	4	4									
Actuated Green, G (s)	15.3	15.3	15.3	9.4	28.7		21.9	14.4	14.4	31.1	23.6	23.6
Effective Green, g (s)	15.3	15.3	15.3	9.4	28.7		21.9	14.4	14.4	31.1	23.6	23.6
Actuated g/C Ratio	0.18	0.18	0.18	0.11	0.33		0.25	0.17	0.17	0.36	0.27	0.27
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	102	495	281	193	601		450	591	264	1239	969	433
v/s Ratio Prot				0.10	0.28		0.20	0.10	0.02	0.35	0.09	0.04
v/s Ratio Perm	0.14	0.09	0.02									
v/c Ratio	0.80	0.48	0.40	0.90	0.83		0.78	0.61	0.15	0.96	0.22	0.14
Uniform Delay, d1	34.0	31.9	29.7	37.9	26.5		29.9	33.3	30.7	26.9	24.2	23.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	35.2	0.7	0.2	38.4	9.5		8.5	1.9	0.3	16.6	0.1	0.2
Delay (s)	69.2	32.6	29.8	76.4	36.0		38.4	35.2	30.9	43.5	24.3	23.8
Level of Service	E	C	C	E	D		D	D	C	D	C	C
Approach Delay (s)				46.3				35.4			38.3	
Approach LOS				D				D			D	
Intersection Summary												
HCM Average Control Delay	39.0			HCM Level of Service		D						
HCM Volume to Capacity ratio	0.84											
Actuated Cycle Length (s)	86.2			Sum of lost time (s)		12.0						
Intersection Capacity Utilization	81.9%			ICU Level of Service		D						
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	437	0	180	0	0	0	0	412	74	183	274	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.95		0.97	0.95	
Frt	1.00	1.00	0.85					0.98		1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					3459		3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					3459		3433	3539	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	486	0	200	0	0	0	0	458	82	203	304	0
RTOR Reduction (vph)	0	0	139	0	0	0	0	31	0	0	0	0
Lane Group Flow (vph)	243	243	61	0	0	0	0	509	0	203	304	0
Turn Type	Split			Prot			Prot			Prot		
Protected Phases	4	4	4					2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.2	12.2	12.2					12.0		3.6	19.6	
Effective Green, g (s)	12.2	12.2	12.2					12.0		3.6	19.6	
Actuated g/C Ratio	0.31	0.31	0.31					0.30		0.09	0.49	
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)	515	515	485					1043		311	1743	
v/s Ratio Prot	0.14	0.14	0.04					0.15		0.06	0.09	
v/s Ratio Perm												
v/c Ratio	0.47	0.47	0.13					0.49		0.65	0.17	
Uniform Delay, d1	11.2	11.2	10.0					11.4		17.5	5.6	
Progression Factor	1.00	1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.7	0.1					0.4		4.9	0.0	
Delay (s)	11.9	11.9	10.1					11.7		22.3	5.7	
Level of Service	B	B	B					B		C	A	
Approach Delay (s)		11.3				0.0		11.7			12.3	
Approach LOS		B				A		B			B	
Intersection Summary												
HCM Average Control Delay	11.8			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.50											
Actuated Cycle Length (s)	39.8			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	41.1%			ICU Level of Service			A					
Analysis Period (min)	15											
c. Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
33: Carmel Country Road & Carmel Canyon Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	86	497	36	141	458	335	57	64	236	623	139	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		0.97	1.00	
Frt	1.00	0.99		1.00	0.94		1.00	0.88		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3503		1770	3315		1770	1643		3433	1706	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3503		1770	3315		1770	1643		3433	1706	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	96	552	40	157	509	372	63	71	262	692	154	198
RTOR Reduction (vph)	0	6	0	0	137	0	0	150	0	0	48	0
Lane Group Flow (vph)	96	586	0	157	744	0	63	183	0	692	304	0
Turn Type	Prot		Prot		Prot		Prot		Prot		Prot	
Protected Phases	4	6		5	2		7	4		3	6	
Permitted Phases												
Actuated Green, G (s)	8.1	19.8		12.1	23.8		6.7	13.6		18.8	25.7	
Effective Green, g (s)	8.1	19.8		12.1	23.8		6.7	13.6		18.8	25.7	
Actuated g/C Ratio	0.10	0.25		0.15	0.30		0.08	0.17		0.23	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	179	864		267	983		148	278		804	546	
v/s Ratio Prot	0.05	0.17		0.09	0.22		0.04	0.11		0.20	0.18	
v/s Ratio Perm												
v/c Ratio	0.54	0.68		0.59	0.76		0.43	0.66		0.86	0.56	
Uniform Delay, d1	34.3	27.4		31.8	25.6		35.0	31.2		29.5	22.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.1	2.1		3.3	3.4		2.0	5.5		9.3	1.2	
Delay (s)	37.4	29.5		35.1	29.0		36.9	36.7		38.8	23.8	
Level of Service	D	C		D	C		D	D		D	C	
Approach Delay (s)		30.6			29.9			36.7			33.8	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM Average Control Delay	32.2			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.71											
Actuated Cycle Length (s)	80.3			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	77.2%			ICU Level of Service			D					
Analysis Period (min)	15											
c. Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
34: SR-56 WB Ramps & Carmel Country Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	WBL	WBR	SEL	SET	NWL	NWR	NWR2	SWL	SWR
Lane Configurations			T	T	T			T	T
Volume (vph)	0	0	754	580	742	0	306	133	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor			0.97	0.95	0.95		1.00	0.97	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)			3433	3539	3539		1583	3433	1583
Flt Permitted			0.95	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)			3433	3539	3539		1583	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	838	644	824	0	340	148	252
RTOR Reduction (vph)	0	0	0	0	0	0	230	0	215
Lane Group Flow (vph)	0	0	838	644	824	0	110	148	37
Turn Type			Prot			Perm		Perm	
Protected Phases			5	2	6		4		
Permitted Phases						6		4	
Actuated Green, G (s)			17.2	39.0	17.8		17.8	8.1	8.1
Effective Green, g (s)			17.2	39.0	17.8		17.8	8.1	8.1
Actuated g/C Ratio			0.31	0.71	0.32		0.32	0.15	0.15
Clearance Time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			1072	2505	1143		511	505	233
v/s Ratio Prot			0.24	0.18	0.23		0.04		
v/s Ratio Perm						0.07		0.02	
v/c Ratio			0.78	0.26	0.72		0.21	0.29	0.16
Uniform Delay, d1			17.2	2.9	16.5		13.6	20.9	20.5
Progression Factor			1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2			3.8	0.1	2.3		0.2	0.3	0.3
Delay (s)			21.0	2.9	18.7		13.8	21.3	20.8
Level of Service			C	A	B		B	C	C
Approach Delay (s)	0.0		13.2	17.3			21.0		
Approach LOS	A		B	B			C		
Intersection Summary									
HCM Average Control Delay			15.8		HCM Level of Service			B	
HCM Volume to Capacity ratio			0.66						
Actuated Cycle Length (s)			55.1		Sum of lost time (s)			12.0	
Intersection Capacity Utilization			55.8%		ICU Level of Service			B	
Analysis Period (min)			15						
c - Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
35: SR-56 EB Ramps & Carmel Country Road

Existing + Project (Phase 1&2) AM
12/11/2011

Movement	EBL2	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations	T	T	T	T	T			T	T		
Volume (vph)	300	0	161	342	370	0	0	723	214	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Lane Util. Factor	0.95	0.95	1.00	0.97	0.95			0.95	1.00		
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		
Flt Protected	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (prot)	1681	1681	1583	3433	3539			3539	1583		
Flt Permitted	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (perm)	1681	1681	1583	3433	3539			3539	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	333	0	179	380	411	0	0	803	238	0	0
RTOR Reduction (vph)	0	0	141	0	0	0	0	0	156	0	0
Lane Group Flow (vph)	166	167	38	380	411	0	0	803	82	0	0
Turn Type	Split			Prot	Prot				Prot		
Protected Phases	4	4	4	1	6			2	2		
Permitted Phases											
Actuated Green, G (s)	10.1	10.1	10.1	8.9	29.3			16.4	16.4		
Effective Green, g (s)	10.1	10.1	10.1	8.9	29.3			16.4	16.4		
Actuated g/C Ratio	0.21	0.21	0.21	0.19	0.62			0.35	0.35		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		
Lane Grp Cap (vph)	358	358	337	645	2188			1224	548		
v/s Ratio Prot	0.10	0.10	0.02	0.11	0.12			0.23	0.05		
v/s Ratio Perm											
v/c Ratio	0.46	0.47	0.11	0.59	0.19			0.66	0.15		
Uniform Delay, d1	16.3	16.3	15.0	17.6	3.9			13.1	10.7		
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	1.0	1.0	0.1	1.4	0.0			1.3	0.1		
Delay (s)	17.2	17.3	15.2	19.0	4.0			14.4	10.8		
Level of Service	B	B	B	B	A			B	B		
Approach Delay (s)	16.5			11.2				13.6	0.0		
Approach LOS	B			B				B	A		
Intersection Summary											
HCM Average Control Delay			13.4		HCM Level of Service			B			
HCM Volume to Capacity ratio			0.69								
Actuated Cycle Length (s)			47.4		Sum of lost time (s)			12.0			
Intersection Capacity Utilization			48.1%		ICU Level of Service			A			
Analysis Period (min)			15								
c - Critical Lane Group											

ALL-WAY STOP CONTROL ANALYSIS									
General Information				Site Information					
Analyst	Jacob Swin			Intersection	Carmel Creek Rd./Del Mar Trail				
Agency/Co.	USAI			Jurisdiction	City of San Diego				
Date Performed	3/4/2011			Analysis Year	2011				
Analysis Time Period	36 Existing + Project (1&2) AM								
Project ID 002407 - San Diego Corporate Center Lots									
East/West Street: Del Mar Trail				North/South Street: Carmel Creek Road					
Volume Adjustments and Site Characteristics									
Eastbound				Westbound					
Approach	L	T	R	L	T	R	R		
Movement									
Volume (veh/h)	10	10	10	200	2	25			
% Thru Left Lane									
Northbound				Southbound					
Approach	L	T	R	L	T	R	R		
Movement									
Volume (veh/h)	3	264	100	15	932	3			
% Thru Left Lane	50			50					
		Eastbound		Westbound		Northbound		Southbound	
		L1	L2	L1	L2	L1	L2	L1	L2
Configuration		LTR		LTR		LT	TR	LT	TR
PHF		0.90		0.90		0.90	0.90	0.90	0.90
Flow Rate (veh/h)		33		251		149	257	533	520
% Heavy Vehicles		2		2		2	2	2	2
No. Lanes		1		1		2	2	2	2
Geometry Group		2		2		5	5	5	5
Duration, T		0.25							
Saturation Headway Adjustment Worksheet									
Prop. Left-Turns	0.3		0.9		0.0	0.0	0.0	0.0	0.0
Prop. Right-Turns	0.3		0.1		0.0	0.4	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.0	0.0	0.0	0.0	0.0
hLT-adj	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5	0.5
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
adj _i , computed	-0.1		0.1		0.0	-0.3	0.0	0.0	0.0
Departure Headway and Service Time									
hd, initial value (s)	3.20		3.20		3.20	3.20	3.20	3.20	3.20
κ, initial	0.03		0.22		0.13	0.23	0.47	0.46	0.46
hd, final value (s)	7.42		6.80		7.08	6.76	6.28	6.26	6.26
κ, final value	0.07		0.47		0.29	0.48	0.93	0.90	0.90
Move-up time, m (s)	2.0		2.0		2.3		2.3		
Service Time, L _s (s)	5.4		4.8		4.8	4.5	4.0	4.0	4.0
Capacity and Level of Service									
		Eastbound		Westbound		Northbound		Southbound	
		L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)		283		501		399	507	573	575
Delay (s/veh)		10.96		15.77		12.69	15.60	46.73	42.23
LOS		B		C		B	C	E	E
Approach Delay (s/veh)		10.96		15.77		14.53		44.51	
LOS		B		C		B		E	
Intersection Delay (s/veh)		32.75							
Intersection LOS		D							

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HCM Signalized Intersection Capacity Analysis
1: Via De La Valle & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	6	397	500	169	363	3	537	2	405	1	2	1	
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Total Lost time (s)	1.00	1.00	0.85	1.00	1.00	1.00	1.00	0.85	1.00	0.85	0.97	0.97	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.99	0.99	
Fr _t	1770	1863	1583	1770	1861	1774	1583	1778	1778	1778	1778	1778	
Satd. Flow (prot)	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.99	0.99	
Fill Permitted	1770	1863	1583	1770	1861	1774	1583	1778	1778	1778	1778	1778	
Satd. Flow (perm)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Peak-hour factor, PHF	7	441	556	188	403	3	597	2	450	1	2	1	
Adj. Flow (vph)	0	0	262	0	0	0	0	0	276	0	1	0	
RTOR Reduction (vph)	7	441	294	188	406	0	0	599	174	0	3	0	
Lane Group Flow (vph)													
Turn Type	Prot		Prot	Prot			Split		Prot	Split			
Protected Phases	7	4	4	3	8		2	2	2	6	6		
Permitted Phases													
Actuated Green, G (s)	0.8	29.4	29.4	12.2	40.8				37.1	37.1	1.1		
Effective Green, g (s)	0.8	29.4	29.4	12.2	40.8				37.1	37.1	1.1		
Actuated g/C Ratio	0.01	0.31	0.31	0.13	0.43				0.39	0.39	0.01		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0				4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				3.0	3.0	3.0		
Lane Grp Cap (vph)	15	572	486	225	793				687	613	20		
v/s Ratio Prot	0.00	0.24	0.19	0.11	0.22				0.34	0.11	0.00		
v/s Ratio Perm													
w/c Ratio	0.47	0.77	0.60	0.84	0.51				0.87	0.28	0.15		
Uniform Delay, d1	47.3	30.1	28.3	40.8	20.2				27.2	20.2	46.9		
Progression Factor	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00		
Incremental Delay, d2	21.2	6.4	2.1	22.7	0.6				11.7	0.3	3.5		
Delay (s)	68.5	36.5	30.4	63.5	20.8				38.9	20.5	50.4		
Level of Service	E	D	C	E	C				D	C	D		
Approach Delay (s)		33.3			34.3				31.0		50.4		
Approach LOS		C			C				C		D		
Intersection Summary													
HCM Average Control Delay	32.6					HCM Level of Service							C
HCM Volume to Capacity ratio	0.82												
Actuated Cycle Length (s)	95.8					Sum of lost time (s)							16.0
Intersection Capacity Utilization	76.8%					ICU Level of Service							D
Analysis Period (min)	15												
c Critical Lane Group													

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
2: San Dieguito Road & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↑	↑	↔	↔	↔
Volume (vph)	208	256	0	559	367	332	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95	0.95
Fit	1.00	0.85	1.00	0.85	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	231	284	0	621	408	369	327
RTOR Reduction (vph)	0	235	0	245	0	0	0
Lane Group Flow (vph)	231	49	0	621	163	369	327
Turn Type	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	1	3	8	7	7	7	6
Permitted Phases	1	3	8	7	7	7	6
Actuated Green, G (s)	12.1	12.1	28.2	28.2	18.3	12.1	12.1
Effective Green, g (s)	12.1	12.1	28.2	28.2	18.3	12.1	12.1
Actuated g/C Ratio	0.17	0.17	0.40	0.40	0.26	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	588	271	744	632	459	807	807
v/s Ratio Prot	0.07	0.03	0.33	0.10	0.21	0.09	0.09
v/s Ratio Perm	0.39	0.18	0.83	0.26	0.80	0.54	0.54
Uniform Delay, d1	26.0	25.0	19.1	14.2	24.5	26.7	26.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.3	8.0	0.2	9.8	0.9	0.9
Delay (s)	26.4	25.3	27.1	14.4	34.3	27.6	27.6
Level of Service	C	C	C	B	C	C	C
Approach Delay (s)	25.8	22.1	22.1	31.2	31.2	31.2	31.2
Approach LOS	C	C	C	B	C	C	C

Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	70.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Derby Downs Road & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↑	↑	↔	↔	↔
Volume (vph)	63	6	0	887	108	8	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	0.95
Flt	0.99	0.98	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.96	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3409	3482	1770	3482	1770	3539	3539
Flt Permitted	0.96	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3409	3482	1770	3482	1770	3539	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	7	0	986	120	9	556
RTOR Reduction (vph)	7	0	0	12	0	0	0
Lane Group Flow (vph)	70	0	0	1094	0	9	556
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	8	5	2	1	6	6	6
Permitted Phases	8	5	2	1	6	6	6
Actuated Green, G (s)	1.9	18.3	0.5	22.8	0.5	22.8	22.8
Effective Green, g (s)	1.9	18.3	0.5	22.8	0.5	22.8	22.8
Actuated g/C Ratio	0.06	0.56	0.02	0.70	0.02	0.70	0.70
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	1949	27	2468	27	2468	2468
v/s Ratio Prot	0.02	0.31	0.01	0.16	0.01	0.16	0.16
v/s Ratio Perm	0.36	0.56	0.33	0.23	0.33	0.23	0.23
Uniform Delay, d1	14.8	4.6	15.9	1.8	15.9	1.8	1.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.4	7.2	0.0	7.2	0.0	0.0
Delay (s)	15.9	5.0	23.1	1.8	23.1	1.8	1.8
Level of Service	B	A	C	A	C	A	A
Approach Delay (s)	15.9	5.0	2.2	2.2	2.2	2.2	2.2
Approach LOS	B	A	A	A	A	A	A

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	32.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	2		7	2		7	2		7	2	
Volume (vph)	22	21	14	21	20	150	25	805	61	86	446	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.87		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1748		1770	1616		1770	3502		1770	3509	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1748		1770	1616		1770	3502		1770	3509	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	24	23	16	23	22	167	28	894	68	96	496	30
RTOR Reduction (vph)	0	14	0	0	148	0	7	0	0	5	0	0
Lane Group Flow (vph)	24	25	10	23	41	0	28	955	0	96	521	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	6		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	0.8	5.2		0.8	5.2		0.6	20.2		3.6	23.2	
Effective Green, g (s)	0.8	5.2		0.8	5.2		0.6	20.2		3.6	23.2	
Actuated g/C Ratio	0.02	0.11		0.02	0.11		0.01	0.44		0.08	0.51	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	31	198		31	183		23	1545		139	1777	
v/s Ratio Prot	0.01	0.01		0.01	0.03		0.02	0.27		0.05	0.15	
v/s Ratio Perm												
v/c Ratio	0.77	0.13		0.74	0.22		1.22	0.62		0.69	0.29	
Uniform Delay, d1	22.4	18.3		22.4	18.5		22.6	9.8		20.6	6.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	73.6	0.3		64.1	0.6		261.7	0.7		13.8	0.1	
Delay (s)	96.1	18.5		86.5	19.1		284.3	10.6		34.3	6.6	
Level of Service	F	B		F	B		F	B		C	A	
Approach Delay (s)		48.1			26.4			18.3			10.9	
Approach LOS		D			C			B			B	
Intersection Summary												
HCM Average Control Delay	17.8			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.61			Sum of lost time (s)			20.0					
Actuated Cycle Length (s)	45.8			ICU Level of Service			B					
Intersection Capacity Utilization	55.9%			Analysis Period (min)			15					
c Critical Lane Group												

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	2		7	2		7	2		7	2	
Volume (vph)	7	41	32	47	29	19	47	950	127	22	474	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1752		1770	3477		1770	3528	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1752		1770	3477		1770	3528	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	8	46	36	52	32	21	52	1056	141	24	527	11
RTOR Reduction (vph)	0	0	33	0	19	0	0	12	0	0	2	0
Lane Group Flow (vph)	8	46	3	52	34	0	52	1185	0	24	536	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		4	3		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	0.8	4.3	4.3	1.7	5.2		1.8	24.1		0.6	22.9	
Effective Green, g (s)	0.8	4.3	4.3	1.7	5.2		1.8	24.1		0.6	22.9	
Actuated g/C Ratio	0.02	0.09	0.09	0.04	0.11		0.04	0.52		0.01	0.49	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	30	172	146	64	195		68	1794		23	1730	
v/s Ratio Prot	0.00	0.02	0.00	0.03	0.02		0.03	0.34		0.01	0.15	
v/s Ratio Perm												
v/c Ratio	0.27	0.27	0.02	0.81	0.18		0.76	0.66		1.04	0.31	
Uniform Delay, d1	22.7	19.7	19.3	22.3	18.8		22.2	8.3		23.0	7.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.7	0.8	0.1	52.3	0.4		39.2	0.9		201.7	0.1	
Delay (s)	27.4	20.6	19.4	74.7	19.2		61.4	9.2		224.8	7.3	
Level of Service	C	C	B	E	B		E	A		F	A	
Approach Delay (s)		20.7			46.7			11.4			16.5	
Approach LOS		C			D			B			B	
Intersection Summary												
HCM Average Control Delay	15.1			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.57			Sum of lost time (s)			12.0					
Actuated Cycle Length (s)	46.7			ICU Level of Service			A					
Intersection Capacity Utilization	52.9%			Analysis Period (min)			15					
c Critical Lane Group												

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑	↔	↔	↑↑	↑↑	↔	↔	↔	↔	↔	↔
Volume (vph)	124	834	16	139	903	207	40	31	57	389	35	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0				4.0	4.0		4.0
Lane Util. Factor	1.00	0.91		1.00	0.95				1.00	0.95		0.95
Frt	1.00	1.00		1.00	0.97				1.00	0.85		0.93
Flt Protected	0.95	1.00		0.95	1.00				0.97	1.00		0.95
Satd. Flow (prot)	1770	5071		1770	3440				1812	1583		1681
Flt Permitted	0.95	1.00		0.95	1.00				0.97	1.00		0.95
Satd. Flow (perm)	1770	5071		1770	3440				1812	1583		1681
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	138	927	18	154	1003	230	44	34	63	432	39	144
RTOR Reduction (vph)	0	2	0	0	20	0	0	0	57	0	36	0
Lane Group Flow (vph)	138	943	0	154	1213	0	0	78	6	315	264	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6		6
Permitted Phases									2			
Actuated Green, G (s)	8.1	27.5		11.8	31.2		7.4	7.4	17.5	17.5		
Effective Green, g (s)	8.1	27.5		11.8	31.2		7.4	7.4	17.5	17.5		
Actuated g/C Ratio	0.10	0.34		0.15	0.39		0.09	0.09	0.22	0.22		
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	179	1739		260	1338		167	146	367	352		
v/s Ratio Prot	c0.08	0.19		0.09	c0.35		c0.04		c0.19	0.16		
v/s Ratio Perm								0.00				
v/c Ratio	0.77	0.54		0.59	0.91		0.47	0.04	0.86	0.75		
Uniform Delay, d1	35.1	21.3		32.0	23.1		34.5	33.2	30.2	29.3		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		
Incremental Delay, d2	18.3	0.3		3.6	9.0		2.1	0.1	17.7	8.7		
Delay (s)	53.5	21.6		35.5	32.1		36.6	33.3	47.8	38.0		
Level of Service	D	C		D	C		D	C	D	D		
Approach Delay (s)		25.7			32.5		35.1			43.0		
Approach LOS		C			C		D			D		
Intersection Summary:												
HCM Average Control Delay	32.3		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.83											
Actuated Cycle Length (s)	80.2		Sum of lost time (s)		16.0							
Intersection Capacity Utilization	71.3%		ICU Level of Service		C							
Analysis Period (min)	15											
c. Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑↑	↑↑	↑↑	↑↑	↔	↔	
Volume (veh/h)	1250	62	0	1556	0	98	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	1389	69	0	1729	0	109	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)	575			607			
pX, platoon unblocked		0.87		0.78	0.87		
vC, conflicting volume		1458		2288	497		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCU, unblocked vol		1009		1109	0		
IC, single (s)		4.1		6.8	6.9		
IC, 2 stage (s)							
IF (s)		2.2		3.5	3.3		
pD queue free %		100		100	88		
cm capacity (veh/h)		595		160	945		
Direction/Lane #							
	EB-1	EB-2	EBR	WBR	WB-1	WB-2	
Volume Total	550	556	347	864	864	109	
Volume Left	0	0	0	0	0	0	
Volume Right	0	0	69	0	0	109	
cSH	1700	1700	1700	1700	1700	945	
Volume to Capacity	0.33	0.33	0.20	0.51	0.51	0.12	
Queue Length 95th (ft)	0	0	0	0	0	10	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.3	
Lane LOS						A	
Approach Delay (s)	0.0			0.0		9.3	
Approach LOS						A	
Intersection Summary:							
Average Delay	0.3		ICU Level of Service				A
Intersection Capacity Utilization	46.3%		ICU Level of Service				A
Analysis Period (min)	15						

HCM Signalized Intersection Capacity Analysis
8: Del Mar Heights Rd. & I-15 SB Ramps

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑
Volume (vph)	0	965	1286	0	916	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3	6.3		5.6	5.6
Lane Util. Factor		0.95	0.95		0.97	0.91
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3539	3539		3431	1441
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3539	3539		3431	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1072	1429	0	1018	322
RTOR Reduction (vph)	0	0	0	0	3	20
Lane Group Flow (vph)	0	1072	1429	0	1047	270
Turn Type					Perm	
Protected Phases		2 6	6 2		4	
Permitted Phases					4	
Actuated Green, G (s)		42.7	42.7		25.4	25.4
Effective Green, g (s)		42.7	42.7		25.4	25.4
Actuated g/C Ratio		0.53	0.53		0.32	0.32
Clearance Time (s)					5.6	5.6
Vehicle Extension (s)					3.0	3.0
Lane Grp Cap (vph)		1889	1889		1089	458
v/s Ratio Prot		0.30	0.40		0.31	
v/s Ratio Perm					0.19	
v/c Ratio		0.57	0.76		0.96	0.59
Uniform Delay, d1		12.5	14.6		26.8	22.9
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.4	1.8		18.7	1.9
Delay (s)		12.9	16.4		45.5	24.9
Level of Service		B	B		D	C
Approach Delay (s)		12.9	16.4		41.0	
Approach LOS		B	B		D	
Intersection Summary						
HCM Average Control Delay		24.0			HCM Level of Service	C
HCM Volume to Capacity ratio		0.83				
Actuated Cycle Length (s)		80.0			Sum of lost time (s)	11.9
Intersection Capacity Utilization		72.4%			ICU Level of Service	C
Analysis Period (min)		15				
c. Critical Lane Group						

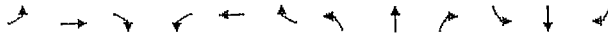
HCM Signalized Intersection Capacity Analysis
9: Del Mar Heights Road & I-15 NB Ramps

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑			↑↑↑	↑	↔	↔	↑			
Volume (vph)	235	1620	0	0	1284	911	615	10	884	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.88	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3433	3539			5085	1583	1681	1479	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3433	3539			5085	1583	1681	1479	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	261	1800	0	0	1427	1012	683	11	982	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	508	0	7	7	0	0	0
Lane Group Flow (vph)	261	1800	0	0	1427	504	581	548	533	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	5	2			6	6	8	8	8			
Permitted Phases												
Actuated Green, G (s)	10.5	64.5			50.0	50.0	47.5	47.5	47.5			
Effective Green, g (s)	10.5	64.5			50.0	50.0	47.5	47.5	47.5			
Actuated g/C Ratio	0.09	0.54			0.42	0.42	0.40	0.40	0.40			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	300	1902			2119	660	665	585	595			
v/s Ratio Prot	0.08	0.51			0.28	0.32	0.35	0.37	0.35			
v/s Ratio Perm												
v/c Ratio	0.87	0.95			0.67	0.76	0.87	0.94	0.90			
Uniform Delay, d1	54.1	26.1			28.4	29.9	33.5	34.8	33.9			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	22.9	11.4			1.7	8.2	12.2	22.7	16.0			
Delay (s)	76.9	37.5			30.1	38.1	45.7	57.5	50.0			
Level of Service	E	D			C	D	D	E	D			
Approach Delay (s)		42.5			33.4			51.0				0.0
Approach LOS		D			C			D				A
Intersection Summary												
HCM Average Control Delay		41.2			HCM Level of Service				D			
HCM Volume to Capacity ratio		0.94										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)				8.0			
Intersection Capacity Utilization		99.4%			ICU Level of Service				F			
Analysis Period (min)		15										
c. Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
10: Del Mar Heights Road & High Bluff Drive

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑	↑	↑	↑↑↑	↑	↑↑	↑↑	↑	↑	↑	↑
Volume (vph)	242	2276	251	53	1637	66	618	65	156	49	29	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	0.97	0.95	1.00	1.00	1.00	1.00	1.00
Fri	1.00	1.00	0.85	1.00	0.99	1.00	0.89	1.00	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5056	3433	3164	1770	1863	1583	1583	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5056	3433	3164	1770	1863	1583	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	269	2529	279	59	1819	73	687	72	173	54	32	89
RTOR Reduction (vph)	0	0	77	0	3	0	0	98	0	0	0	83
Lane Group Flow (vph)	269	2529	202	59	1889	0	687	147	0	54	32	6
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	20.7	65.0	65.0	5.1	49.4	26.0	27.4	7.1	8.5	8.5	8.5	8.5
Effective Green, g (s)	20.7	65.0	65.0	5.1	49.4	26.0	27.4	7.1	8.5	8.5	8.5	8.5
Actuated g/C Ratio	0.17	0.54	0.54	0.04	0.41	0.22	0.23	0.06	0.07	0.07	0.07	0.07
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	304	2741	853	75	2071	740	719	104	131	112	112	112
v/s Ratio Prot	c0.15	c0.50	0.13	0.03	0.37	c0.20	c0.05	0.03	0.02	0.00	0.00	0.00
v/s Ratio Perm												
v/c Ratio	0.88	0.92	0.24	0.79	0.91	0.93	0.20	0.52	0.24	0.06	0.06	0.06
Uniform Delay, d1	48.8	25.5	14.7	57.2	33.6	46.4	37.8	55.1	53.0	52.3	52.3	52.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.9	5.8	0.1	40.6	6.6	17.7	0.1	4.3	1.0	0.2	0.2	0.2
Delay (s)	73.6	31.3	14.8	97.8	40.2	64.1	37.9	59.4	54.0	52.5	52.5	52.5
Level of Service	E	C	B	F	D	E	D	E	D	C	C	D
Approach Delay (s)		33.5			41.9		57.2		54.9			
Approach LOS		C			D		E		D			

Intersection Summary			
HCM Average Control Delay	40.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
11: Del Mar Heights Road & Third Ave.

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑↑	↑	↑
Volume (vph)	2490	137	107	1614	231	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Fri	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2767	152	119	1793	257	200
RTOR Reduction (vph)	0	55	0	0	0	110
Lane Group Flow (vph)	2767	97	119	1793	257	90
Turn Type	Perm	Prot	Prot	Perm	Perm	Perm
Protected Phases	4	3	8	2	2	2
Permitted Phases						
Actuated Green, G (s)	45.1	45.1	6.0	55.1	11.2	11.2
Effective Green, g (s)	45.1	45.1	6.0	55.1	11.2	11.2
Actuated g/C Ratio	0.61	0.81	0.08	0.74	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3087	961	143	3771	517	239
v/s Ratio Prot	c0.54		c0.07	0.35	c0.07	
v/s Ratio Perm		0.06				0.06
v/c Ratio	0.90	0.10	0.83	0.48	0.50	0.38
Uniform Delay, d1	12.6	6.1	33.7	3.8	29.0	28.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.8	0.0	31.9	0.1	0.8	1.0
Delay (s)	16.4	6.2	65.6	3.9	29.7	29.4
Level of Service	B	A	E	A	C	C
Approach Delay (s)	15.9		7.8		29.6	
Approach LOS	B		A		C	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	74.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
12: Del Mar Heights Road & First Ave.

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↖↗	↑↑↑	↖	↗
Volume (vph)	2556	114	114	1527	193	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2840	127	127	1697	214	214
RTOR Reduction (vph)	0	50	0	0	0	77
Lane Group Flow (vph)	2840	77	127	1697	214	137
Turn Type	Perm	Prot	Prot	Perm	Perm	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	43.1	43.1	4.0	51.1	13.1	13.1
Effective Green, g (s)	43.1	43.1	4.0	51.1	13.1	13.1
Actuated g/C Ratio	0.60	0.60	0.06	0.71	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3036	945	190	3599	321	287
v/s Ratio Prot	0.56		0.04	0.33	0.12	
v/s Ratio Perm		0.05				0.09
v/c Ratio	0.94	0.08	0.67	0.47	0.67	0.48
Uniform Delay, d1	13.3	6.2	33.4	4.6	27.5	26.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.3	0.0	8.6	0.1	5.2	1.3
Delay (s)	19.6	6.2	42.0	4.7	32.7	27.7
Level of Service	B	A	D	A	C	C
Approach Delay (s)	19.0			7.3	30.2	
Approach LOS	B			A	C	
Intersection Summary						
HCM Average Control Delay	15.8		HCM Level of Service		B	
HCM Volume to Capacity ratio	0.86					
Actuated Cycle Length (s)	72.2		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	68.0%		ICU Level of Service		C	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
13: Del Mar Heights Road & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Volume (vph)	490	1672	435	147	916	176	426	419	289	147	161	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt	1.00	0.97	1.00	0.98	1.00	0.98	1.00	1.00	0.85	1.00	0.91	0.91
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	4928	3433	4962	3433	4962	3433	5085	1583	3433	4644	4644
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	4928	3433	4962	3433	4962	3433	5085	1583	3433	4644	4644
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	544	1858	483	163	1018	196	473	466	321	163	179	246
RTOR Reduction (vph)	0	44	0	0	27	0	0	0	100	0	214	0
Lane Group Flow (vph)	544	2297	0	163	1187	0	473	466	221	163	211	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	3	8	5	2	2	1	6			
Permitted Phases												
Actuated Green, G (s)	18.2	45.2	5.8	32.8	14.6	19.8	19.8	7.2	12.4			
Effective Green, g (s)	18.2	45.2	5.8	32.8	14.6	19.8	19.8	7.2	12.4			
Actuated g/C Ratio	0.19	0.48	0.06	0.35	0.16	0.21	0.21	0.08	0.13			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	665	2370	212	1731	533	1071	333	263	613			
v/s Ratio Prot	0.16	0.47	0.05	0.24	0.14	0.09	0.14	0.05	0.05			
v/s Ratio Perm												
v/c Ratio	0.82	0.97	0.77	0.69	0.89	0.44	0.66	0.62	0.34			
Uniform Delay, d1	36.3	23.7	43.4	26.2	38.9	32.2	34.0	42.1	37.1			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	7.7	12.0	15.4	1.1	16.3	0.3	4.9	4.3	0.3			
Delay (s)	44.1	35.7	58.8	27.3	55.2	32.5	38.9	46.4	37.4			
Level of Service	D	D	E	C	E	C	D	D	D			
Approach Delay (s)		37.3		31.1		42.7		39.9				
Approach LOS		D		C		D		D				
Intersection Summary												
HCM Average Control Delay	37.3			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.89											
Actuated Cycle Length (s)	94.0			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	79.8%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
14: Del Mar Heights Road & Carmel Country Rd.

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	134	1235	572	80	626	72	389	167	145	78	124	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	1.00	0.95	1.00	0.95
Flt	1.00	0.95	1.00	0.98	1.00	0.93	1.00	0.93	1.00	0.92	1.00	0.92
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3433	4044	3433	5007	3433	4731	1770	3270				
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3433	4044	3433	5007	3433	4731	1770	3270				
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	149	1372	636	89	696	80	432	186	161	87	138	142
RTOR Reduction (vph)	0	96	0	16	0	16	0	131	0	0	123	0
Lane Group Flow (vph)	149	1912	0	89	760	0	432	216	0	87	167	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	5.4	28.9		5.3	28.8		10.5	13.1		6.8	9.4	
Effective Green, g (s)	5.4	28.9		5.3	28.8		10.5	13.1		6.8	9.4	
Actuated g/C Ratio	0.08	0.41		0.08	0.41		0.15	0.19		0.10	0.13	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	264	1997		260	2057		514	884		172	438	
v/s Ratio Prot	0.04	0.39		0.03	0.15		0.13	0.05		0.05	0.05	
v/s Ratio Perm												
v/c Ratio	0.56	0.96		0.34	0.37		0.84	0.24		0.51	0.36	
Uniform Delay, d1	31.2	20.0		30.7	14.3		29.0	24.3		30.1	27.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.8	11.6		0.8	0.1		11.8	0.1		2.3	0.5	
Delay (s)	34.0	31.6		31.5	14.5		40.8	24.4		32.4	28.1	
Level of Service	C	C		C	B		D	C		C	C	
Approach Delay (s)		31.8			16.2			33.5			29.1	
Approach LOS		C			B			C			C	
Intersection Summary												
HCM Average Control Delay	28.6			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.76											
Actuated Cycle Length (s)	70.1			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	72.0%			ICU Level of Service			C					
Analysis Period (min)	15											
c Critical Lane Group												

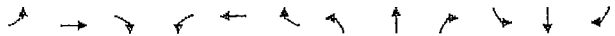
HCM Signalized Intersection Capacity Analysis
15: Del Mar Heights Road & Torrey Ridge Drive

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	48	1261	156	8	668	22	66	14	31	27	8	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.90	1.00	0.90	1.00	0.88
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	5001	1770	5061	1770	5061	1770	1673	1770	1673	1770	1643
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	5001	1770	5061	1770	5061	1770	1673	1770	1673	1770	1643
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	53	1401	173	9	742	24	73	16	34	30	9	33
RTOR Reduction (vph)	0	16	0	0	3	0	0	31	0	0	31	0
Lane Group Flow (vph)	53	1558	0	9	763	0	73	19	0	30	11	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.3	23.2		0.6	22.5		1.6	3.3		1.0	2.7	
Effective Green, g (s)	1.3	23.2		0.6	22.5		1.6	3.3		1.0	2.7	
Actuated g/C Ratio	0.03	0.53		0.01	0.51		0.04	0.07		0.02	0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	52	2631		24	2582		64	125		40	101	
v/s Ratio Prot	0.03	0.31		0.01	0.15		0.04	0.01		0.02	0.01	
v/s Ratio Perm												
v/c Ratio	1.02	0.59		0.38	0.30		1.14	0.15		0.75	0.11	
Uniform Delay, d1	21.4	7.2		21.6	6.2		21.2	19.1		21.4	19.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	130.4	0.4		9.6	0.1		155.9	0.6		55.2	0.5	
Delay (s)	151.8	7.6		31.1	6.3		177.1	19.6		76.7	20.0	
Level of Service	F	A		C	A		F	B		E	C	
Approach Delay (s)		12.3			6.6			113.1			43.6	
Approach LOS		B			A			F			D	
Intersection Summary												
HCM Average Control Delay	16.2			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.48											
Actuated Cycle Length (s)	44.1			Sum of lost time (s)			8.0					
Intersection Capacity Utilization	51.5%			ICU Level of Service			A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑↑↑		↔	↑↑↑		↔	↑		↔	↑	↔
Volume (vph)	288	965	63	21	476	24	39	45	34	23	32	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.94		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Sald. Flow (prot)	1770	5039		1770	5048		1770	1742		1770	1624	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Sald. Flow (perm)	1770	5039		1770	5048		1770	1742		1770	1624	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	320	1072	70	23	529	27	43	50	38	26	36	210
RTOR Reduction (vph)	0	8	0	0	8	0	0	32	0	0	177	0
Lane Group Flow (vph)	320	1134	0	23	548	0	43	56	0	26	69	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.6	23.8		0.9	16.1		1.8	8.0		1.8	8.0	
Effective Green, g (s)	8.6	23.8		0.9	16.1		1.8	8.0		1.8	8.0	
Actuated g/C Ratio	0.17	0.47		0.02	0.32		0.04	0.16		0.04	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	301	2375		32	1609		63	276		63	257	
v/s Ratio Prot	c0.18	c0.22		0.01	0.11		c0.02	0.03		0.01	c0.04	
v/s Ratio Perm												
v/c Ratio	1.06	0.48		0.72	0.34		0.68	0.20		0.41	0.27	
Uniform Delay, d1	21.0	9.1		24.7	13.1		24.1	18.5		23.8	18.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	69.5	0.2		55.4	0.1		26.3	0.4		4.3	0.6	
Delay (s)	90.5	9.3		80.1	13.3		50.4	18.8		28.2	19.2	
Level of Service	F	A		F	B		D	B		C	B	
Approach Delay (s)		27.0			15.9			29.2			20.4	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	50.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c - Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↔	↑↑↑	↔	↔
Volume (vph)	825	180	89	421	116	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	0.97	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Sald. Flow (prot)	4949		1770	5085	3433	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Sald. Flow (perm)	4949		1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	917	200	99	468	129	276
RTOR Reduction (vph)	57	0	0	0	0	230
Lane Group Flow (vph)	1060	0	99	468	129	46
Turn Type			Prot			Prot
Protected Phases			4		3	8
Permitted Phases					2	2
Actuated Green, G (s)	16.4		2.4	22.8	5.7	5.7
Effective Green, g (s)	16.4		2.4	22.8	5.7	5.7
Actuated g/C Ratio	0.45		0.07	0.62	0.16	0.16
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2224		116	3176	536	247
v/s Ratio Prot	c0.21		c0.06	0.09	c0.04	0.03
v/s Ratio Perm						
v/c Ratio	0.48		0.85	0.15	0.24	0.18
Uniform Delay, d1	7.0		16.9	2.8	13.5	13.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		42.0	0.0	0.2	0.4
Delay (s)	7.2		58.8	2.9	13.7	13.7
Level of Service	A		E	A	B	B
Approach Delay (s)	7.2		12.6		13.7	
Approach LOS	A		B		B	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	36.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		
c - Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
18: Del Mar Highlands Town Ctr. & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NBR	SWL	SWT	SWR
Lane Configurations	↔	↔		↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	193	38	38	188	22	248	114	634	163	324	373	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95		1.00	1.00	0.97	0.91		0.97	0.91		
Frt	1.00	0.96		1.00	0.85	1.00	0.97		1.00	0.98		
Flt Protected	0.95	0.98		0.96	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1681	1658		1783	1583	3433	4929		3433	5003		
Flt Permitted	0.95	0.98		0.96	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1681	1658		1783	1583	3433	4929		3433	5003		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	214	42	42	209	24	276	127	704	181	360	414	50
RTOR Reduction (vph)	0	18	0	0	0	218	0	50	0	16	0	0
Lane Group Flow (vph)	160	130	0	0	233	58	127	835	0	360	448	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	2	2		6		6	3			7		4
Permitted Phases						6						
Actuated Green, G (s)	11.6	11.6		15.1		15.1	4.6			11.3		24.7
Effective Green, g (s)	11.6	11.6		15.1		15.1	4.6			11.3		24.7
Actuated g/C Ratio	0.16	0.16		0.21		0.21	0.06			0.16		0.34
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0			4.0		4.0
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0			3.0		3.0
Lane Grp Cap (vph)	271	267		374		332	219			539		1716
v/s Ratio Prot	0.09	0.08		0.13		0.04	0.17			0.10		0.09
v/s Ratio Perm						0.04						
v/c Ratio	0.55	0.49		0.62		0.17	0.58			0.67		0.26
Uniform Delay, d1	27.8	27.5		25.9		23.3	32.8			28.6		17.1
Progression Factor	1.00	1.00		1.00		1.00	1.00			1.00		1.00
Incremental Delay, d2	2.4	1.4		3.2		0.3	3.7			3.1		0.1
Delay (s)	30.3	28.9		29.1		23.6	36.5			31.7		17.1
Level of Service	C	C		C		C	D			C		B
Approach Delay (s)		29.6		26.1		27.2				23.5		
Approach LOS		C		C		C				C		C
Intersection Summary												
HCM Average Control Delay	26.1			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.64											
Actuated Cycle Length (s)	72.0			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	53.4%			ICU Level of Service			A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
19: Townsgate Drive & Carmel Country Road

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	125	105	173	14	54	115	113	512	10	182	595	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.85
Frt	1.00	1.00	0.85	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1673	1770	3529	1770	3529	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1673	1770	3529	1770	3529	1770	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	139	117	192	16	60	128	126	569	11	202	661	103
RTOR Reduction (vph)	0	0	133	0	105	0	0	2	0	0	0	73
Lane Group Flow (vph)	139	117	59	16	83	0	126	578	0	202	661	30
Turn Type	Prot		Prot		Prot		Prot			Prot		Prot
Protected Phases	7	4	4	3	8		5	2		1	6	6
Permitted Phases												
Actuated Green, G (s)	8.1	18.1	18.1	0.7	10.7		6.6	14.3		9.6	17.3	17.3
Effective Green, g (s)	8.1	18.1	18.1	0.7	10.7		6.6	14.3		9.6	17.3	17.3
Actuated g/C Ratio	0.14	0.31	0.31	0.01	0.18		0.11	0.24		0.16	0.29	0.29
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	244	574	488	21	305		199	860		289	1043	467
v/s Ratio Prot	0.08	0.06	0.04	0.01	0.05		0.07	0.16		0.11	0.19	0.02
v/s Ratio Perm												
v/c Ratio	0.57	0.20	0.12	0.76	0.27		0.63	0.67		0.70	0.63	0.07
Uniform Delay, d1	23.7	15.0	14.6	28.9	20.7		24.9	20.1		23.2	18.0	14.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	0.2	0.1	92.1	0.5		6.4	2.1		7.2	1.3	0.1
Delay (s)	26.7	15.2	14.7	121.0	21.1		31.3	22.2		30.4	19.2	14.9
Level of Service	C	B	B	F	C		C	C		C	B	B
Approach Delay (s)		18.5			29.0		23.8			21.1		
Approach LOS		B			C		C			C		C
Intersection Summary												
HCM Average Control Delay	22.1			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.57											
Actuated Cycle Length (s)	58.7			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	54.7%			ICU Level of Service			A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
20: Townsgate Drive & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	11	6	10	140	0	108	7	766	200	145	535	2
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91	1.00
Flt	1.00	0.91	1.00	0.85	1.00	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1692	1770	1583	1770	1583	1770	1583	1770	1583	1770	1583
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1692	1770	1583	1770	1583	1770	1583	1770	1583	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	12	7	11	156	0	120	8	851	222	161	594	2
RTOR Reduction (vph)	0	11	0	0	102	0	60	0	60	0	0	0
Lane Group Flow (vph)	12	7	0	156	0	18	8	1013	0	161	596	0
Turn Type	Prot			Prot		Prot		Prot		Prot		
Protected Phases	1	6		5	2	2	7	4		3		0
Permitted Phases												
Actuated Green, G (s)	0.7	1.1		7.1		7.5	0.7	19.0		7.9	26.2	
Effective Green, g (s)	0.7	1.1		7.1		7.5	0.7	19.0		7.9	26.2	
Actuated g/C Ratio	0.01	0.02		0.14		0.15	0.01	0.37		0.15	0.51	
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	24	36		246		232	24	1832		274	2606	
v/s Ratio Prot	0.01	0.00		0.09		0.01	0.00	0.21		0.09	0.12	
v/s Ratio Perm												
v/c Ratio	0.50	0.20		0.63		0.08	0.33	0.55		0.59	0.23	
Uniform Delay, d1	25.0	24.6		20.8		18.8	25.0	12.7		20.1	6.9	
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.4	2.7		5.3		0.1	8.0	0.4		3.2	0.0	
Delay (s)	40.5	27.3		26.0		19.0	33.0	13.1		23.3	6.9	
Level of Service	D	C		C		B	C	B		C	A	
Approach Delay (s)		32.6		23.0		13.2		10.4				
Approach LOS		C		C		B		B				
Intersection Summary												
HCM Average Control Delay	13.7			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.51											
Actuated Cycle Length (s)	51.1			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	51.7%			ICU Level of Service			A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
21: Carmel Creek Road & Carmel Country Road

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1
Volume (vph)	306	237	123	32	99	17	94	381	39	25	445	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Flt	1.00	1.00	0.85	1.00	0.98	1.00	0.98	1.00	0.99	1.00	0.94	1.00
Flt Protected	0.95	1.00	1.00	0.89	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1814	1770	3490	1770	3490	1770	3490	1770	3490
Flt Permitted	0.95	1.00	1.00	0.99	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1583	1814	1770	3490	1770	3490	1770	3490	1770	3490
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	340	263	137	36	110	19	104	423	43	28	494	288
RTOR Reduction (vph)	0	0	102	0	7	0	0	9	0	0	106	0
Lane Group Flow (vph)	340	263	35	0	158	0	104	457	0	28	676	0
Turn Type	Split		Prot	Split			Prot			Prot		
Protected Phases	4	4	4	8	8		5	2		4	6	
Permitted Phases												
Actuated Green, G (s)	16.6	16.6	16.6	8.8	8.8		4.3	22.2		1.8	19.7	
Effective Green, g (s)	16.6	16.6	16.6	8.8	8.8		4.3	22.2		1.8	19.7	
Actuated g/C Ratio	0.25	0.25	0.25	0.13	0.13		0.07	0.34		0.03	0.30	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	449	473	402	244	244		116	1185		49	1007	
v/s Ratio Prot	0.19	0.14	0.02	0.09	0.09		0.06	0.13		0.02	0.20	
v/s Ratio Perm												
v/c Ratio	0.76	0.56	0.09	0.65	0.65		0.90	0.39		0.57	0.67	
Uniform Delay, d1	22.5	21.2	18.6	26.8	26.8		30.3	16.4		31.4	20.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.2	1.4	0.1	5.8	5.8		52.2	0.2		15.1	1.8	
Delay (s)	29.7	22.6	18.7	32.6	32.6		82.6	16.6		46.5	21.8	
Level of Service	C	C	B	C	C		F	B		D	C	
Approach Delay (s)		25.1		32.6			28.7			22.7		
Approach LOS		C		C			C			C		
Intersection Summary												
HCM Average Control Delay	25.7			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.70											
Actuated Cycle Length (s)	65.4			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	64.1%			ICU Level of Service			C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBR	EBR2	NWL2	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	72	271	315	96	168	122	258	1012	92	164	579	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.97	0.91	0.91	1.00	0.91	0.99	1.00
Frt	1.00	0.85	0.85	1.00	0.94	1.00	0.99	0.99	1.00	0.99	1.00	0.99
Flt Protected	0.95	1.00	1.00	0.95	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1583	1770	3290	3433	5022	5022	1770	5032	5032	5032
Flt Permitted	0.95	1.00	1.00	0.95	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1583	1770	3290	3433	5022	5022	1770	5032	5032	5032
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	80	301	350	107	187	136	287	1124	102	182	643	48
RTOR Reduction (vph)	0	0	250	0	123	0	16	0	0	13	0	0
Lane Group Flow (vph)	80	301	100	107	200	0	287	1210	0	182	678	0
Turn Type		Perm	Perm	Split			Prot			Prot		
Protected Phases	2			6	6		3	8		7	4	
Permitted Phases		2	2									
Actuated Green, G (s)	18.0	18.0	18.0	6.0	6.0		7.8	17.0		8.0	17.2	
Effective Green, g (s)	18.0	18.0	18.0	6.0	6.0		7.8	17.0		8.0	17.2	
Actuated g/C Ratio	0.28	0.28	0.28	0.09	0.09		0.12	0.26		0.12	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	490	438	438	163	304		412	1313		218	1332	
v/s Ratio Prot	0.05			0.06	0.06		0.08	0.24		0.10	0.13	
v/s Ratio Perm		0.19	0.06									
v/c Ratio	0.16	0.69	0.23	0.66	0.66		0.70	0.92		0.83	0.51	
Uniform Delay, d1	17.8	21.0	18.1	28.5	28.5		27.5	23.3		27.9	20.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	8.5	1.2	9.2	5.0		5.1	10.7		23.2	0.3	
Delay (s)	18.5	29.5	19.3	37.7	33.5		32.5	34.1		51.0	20.6	
Level of Service	B	C	B	D	C		C	C		D	C	
Approach Delay (s)	23.4			34.6			33.8			27.0		
Approach LOS	C			C			C			C		
Intersection Summary												
HCM Average Control Delay	30.1			HCM Level of Service				C				
HCM Volume to Capacity ratio	0.79											
Actuated Cycle Length (s)	65.0			Sum of lost time (s)				16.0				
Intersection Capacity Utilization	57.5%			ICU Level of Service				B				
Analysis Period (min)	15											
c Critical Lane Group												

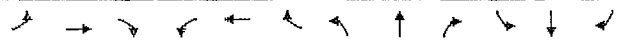
HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	SEL	SET	SER	NWL	NWL	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Volume (vph)	203	25	150	4	11	4	105	24	8	2	7	101
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	226	28	167	4	12	4	117	27	9	2	8	112
Direction, Lane #	SE1	SE2	NW1	NE1	SW1							
Volume Total (vph)	253	167	21	152	122							
Volume Left (vph)	226	0	4	117	2							
Volume Right (vph)	0	167	4	9	112							
Hadj (s)	0.48	-0.67	-0.05	0.15	-0.51							
Departure Headway (s)	5.7	4.6	5.2	5.3	4.7							
Degree Utilization, x	0.40	0.21	0.03	0.22	0.16							
Capacity (veh/h)	606	757	634	645	712							
Control Delay (s)	11.3	7.6	8.4	9.8	8.5							
Approach Delay (s)	9.8		8.4	9.8	8.5							
Approach LOS	A		A	A	A							
Intersection Summary												
Delay	9.5											
HCM Level of Service	A											
Intersection Capacity Utilization	40.1%			ICU Level of Service				A				
Analysis Period (min)	15											

HCM Signalized Intersection Capacity Analysis
24: Carmel Grove Road & Carmel Creek Road

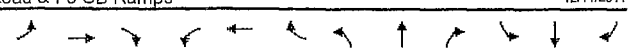
Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		←	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	116	50	70	55	26	9	108	742	134	6	359	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	0.85	0.99	0.99	1.00	0.98	1.00	0.97	1.00	0.97	1.00	0.85
Flt Protected	0.97	1.00	0.97	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	1.00
Satd. Flow (prot)	1800	1583	1783	1770	1770	3458	1770	3441	1770	3441	1770	3441
Flt Permitted	0.97	1.00	0.97	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	1.00
Satd. Flow (perm)	1800	1583	1783	1770	1770	3458	1770	3441	1770	3441	1770	3441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	129	56	78	61	29	10	120	824	149	7	399	91
RTOR Reduction (vph)	0	0	66	0	6	0	0	16	0	0	22	0
Lane Group Flow (vph)	0	185	12	0	94	0	120	957	0	7	468	0
Turn Type	Split	Prot	Split	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	4	4	4	8	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	8.7	8.7	6.5	5.7	25.7	0.7	20.7	16.3	12.8	33.1	18.6	18.6
Effective Green, g (s)	8.7	8.7	6.5	5.7	25.7	0.7	20.7	16.3	12.8	33.1	18.6	18.6
Actuated g/C Ratio	0.15	0.15	0.11	0.10	0.45	0.01	0.36	0.27	0.21	0.55	0.31	0.31
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	272	239	201	175	1543	22	1237	940	736	1962	524	502
v/s Ratio Prot	0.10	0.01	0.05	0.07	0.28	0.00	0.14	0.24	0.20	0.27	0.28	0.29
v/s Ratio Perm												
v/c Ratio	0.68	0.05	0.47	0.69	0.62	0.32	0.38	0.87	0.91	0.50	0.90	0.92
Uniform Delay, d1	23.1	20.9	23.9	25.1	12.2	28.2	13.7	20.7	22.9	8.2	19.7	19.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.8	0.1	1.7	10.6	0.8	8.2	0.2	8.6	15.5	0.2	18.7	22.5
Delay (s)	30.0	21.0	25.6	35.7	13.0	36.4	13.9	29.3	38.4	8.4	38.4	42.3
Level of Service	C	C	C	D	B	D	B	C	D	A	D	B
Approach Delay (s)	27.3		25.6		15.5		14.2	29.3		20.6	0.0	38.5
Approach LOS	C		C		B		B	C		C	A	D
Intersection Summary												
HCM Average Control Delay	17.3		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.60											
Actuated Cycle Length (s)	57.6		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	49.7%		ICU Level of Service				A					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
25: Carmel Valley Road & I-5 SB Ramps

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		←	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	0	626	137	604	876	0	0	0	0	835	1	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.97	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.91	0.95
Frt	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85
Flt Protected	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00
Satd. Flow (prot)	3444	3433	3539	1681	1612	1504	1681	1612	1504	1681	1612	1504
Flt Permitted	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00
Satd. Flow (perm)	3444	3433	3539	1681	1612	1504	1681	1612	1504	1681	1612	1504
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	696	152	671	973	0	0	0	0	928	1	81
RTOR Reduction (vph)	0	31	0	0	0	0	0	0	0	0	0	1
Lane Group Flow (vph)	0	817	0	671	973	0	0	0	0	473	463	50
Turn Type		Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases		4	3	8	6	6	6	6	6	6	6	6
Permitted Phases												
Actuated Green, G (s)		16.3	12.8	33.1	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
Effective Green, g (s)		16.3	12.8	33.1	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
Actuated g/C Ratio		0.27	0.21	0.55	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		940	736	1962	524	502	469	524	502	469	524	469
v/s Ratio Prot		0.24	0.20	0.27	0.28	0.29	0.02	0.28	0.29	0.02	0.28	0.29
v/s Ratio Perm												
v/c Ratio		0.87	0.91	0.50	0.90	0.92	0.05	0.90	0.92	0.05	0.90	0.92
Uniform Delay, d1		20.7	22.9	8.2	19.7	19.8	14.4	19.7	19.8	14.4	19.7	19.8
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		8.6	15.5	0.2	18.7	22.5	0.0	18.7	22.5	0.0	18.7	22.5
Delay (s)		29.3	38.4	8.4	38.4	42.3	14.4	29.3	38.4	8.4	38.4	42.3
Level of Service		C	D	A	D	D	B	C	D	A	D	B
Approach Delay (s)		29.3		20.6	0.0		38.5	29.3		20.6	0.0	38.5
Approach LOS		C		C	A		D	C		C	A	D
Intersection Summary												
HCM Average Control Delay	27.9		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.90											
Actuated Cycle Length (s)	59.7		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	80.9%		ICU Level of Service				D					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
26: Carmel Valley Road & I-5 NB Ramps

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕		↔	↕		↔	↕	
Volume (vph)	123	1370	0	0	992	780	439	7	667	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3433	3539			3539	1583	1681	1472	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1681	1472	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	137	1522	0	0	1102	867	488	8	741	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	524	0	13	13	0	0	0
Lane Group Flow (vph)	137	1522	0	0	1102	343	429	395	387	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	7	4			8	2	2	2				
Permitted Phases												
Actuated Green, G (s)	3.4	30.2			22.8	22.8	19.5	19.5	19.5			
Effective Green, g (s)	3.4	30.2			22.8	22.8	19.5	19.5	19.5			
Actuated g/C Ratio	0.06	0.52			0.40	0.40	0.34	0.34	0.34			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	202	1852			1398	626	568	497	508			
v/s Ratio Prot	0.04	0.43			0.31	0.22	0.26	0.27	0.26			
v/s Ratio Perm												
v/c Ratio	0.68	0.82			0.79	0.55	0.76	0.80	0.76			
Uniform Delay, d1	26.6	11.5			15.3	13.5	17.0	17.3	17.0			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	8.7	3.1			3.0	1.0	5.7	8.6	6.7			
Delay (s)	35.3	14.6			18.4	14.4	22.7	25.9	23.7			
Level of Service	D	B			B	B	C	C	C			
Approach Delay (s)		16.3			16.6		24.1			0.0		
Approach LOS		B			B		C			A		

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
27: Valley Centre Drive & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	38	30	28	476	22	114	75	919	214	191	1377	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	0.95	1.00	0.91	0.91
Frt	1.00	0.99	0.85	1.00	0.99	0.85	1.00	0.97	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1681	1668	1504	1681	1613	1504	1770	4941	1770	5072	1770	5072
Flt Permitted	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1681	1668	1504	1681	1613	1504	1770	4941	1770	5072	1770	5072
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	33	31	529	24	127	83	1021	238	212	1530	28
RTOR Reduction (vph)	0	3	26	0	2	87	0	38	0	0	2	0
Lane Group Flow (vph)	38	37	2	286	278	27	83	1221	0	212	1556	0
Turn Type	Split		Prot	Split		Prot	Prot			Prot		
Protected Phases	4	4	4	8	8	6	5	2		6		
Permitted Phases												
Actuated Green, G (s)	5.7	5.7	5.7	17.4	17.4	17.4	4.3	39.7		31.4	31.4	
Effective Green, g (s)	5.7	5.7	5.7	17.4	17.4	17.4	4.3	39.7		31.4	31.4	
Actuated g/C Ratio	0.08	0.08	0.08	0.23	0.23	0.23	0.06	0.53		0.42	0.42	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	128	127	115	391	375	350	102	2622		743	2129	
v/s Ratio Prot	0.02	0.02	0.00	0.17	0.17	0.02	0.05	0.25		0.12		
v/s Ratio Perm												
v/c Ratio	0.30	0.29	0.02	0.73	0.74	0.08	0.81	0.47		0.29	0.73	
Uniform Delay, d1	32.7	32.6	32.0	26.5	26.6	22.4	34.9	10.9		14.3	18.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	1.3	0.1	6.9	7.7	0.1	37.2	0.1		0.2	1.3	
Delay (s)	34.0	33.9	32.0	33.4	34.4	22.5	72.0	11.1		14.5	19.5	
Level of Service	C	C	C	C	C	C	E	B		B	B	
Approach Delay (s)		33.4			32.0		14.8				18.9	
Approach LOS		C			C		B				B	

Intersection Summary			
HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		
l Phase conflict between lane groups			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
28: Carmel Valley Road & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↑↑↑	↔	↔	↑↑↑			↑↑↑	↔
Volume (vph)	0	0	0	166	807	170	341	994	0	0	642	769
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.91	1.00	0.97	0.95			0.86	0.86
Frpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			0.90	0.73
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Flt				1.00	1.00	0.85	1.00	1.00			0.94	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	5085	1583	3433	3539			4085	1001
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	5085	1583	3433	3539			4085	1001
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	184	897	189	379	1104	0	0	713	854
RTOR Reduction (vph)	0	0	0	0	0	88	0	0	0	0	6	6
Lane Group Flow (vph)	0	0	0	184	897	101	379	1104	0	0	1134	421
Confl. Peds. (#/hr)												200
Turn Type				Prot	Perm	Prot		Perm			Prot	Perm
Protected Phases				3	8		5	2				6
Permitted Phases					8							6
Actuated Green, G (s)				16.2	16.2	16.2	9.0	44.7			31.7	31.7
Effective Green, g (s)				16.2	16.2	16.2	9.0	44.7			31.7	31.7
Actuated g/C Ratio				0.24	0.24	0.24	0.13	0.65			0.46	0.46
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				807	1196	372	448	2296			1879	461
v/s Ratio Prot				0.05	0.18		0.11	0.31			0.28	
v/s Ratio Perm					0.06							0.42
v/c Ratio				0.23	0.75	0.27	0.85	0.48			0.60	0.91
Uniform Delay, d1				21.3	24.5	21.5	29.3	6.2			13.9	17.3
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.1	2.7	0.4	13.7	0.2			0.6	22.4
Delay (s)				21.4	27.2	21.9	43.0	6.3			14.5	39.7
Level of Service				C	C	C	D	A			B	D
Approach Delay (s)		0.0			25.6			15.7			21.3	
Approach LOS		A			C			B			C	
Intersection Summary												
HCM Average Control Delay				20.6		HCM Level of Service		C				
HCM Volume to Capacity ratio				0.86								
Actuated Cycle Length (s)				68.9		Sum of lost time (s)		12.0				
Intersection Capacity Utilization				105.8%		ICU Level of Service		G				
Analysis Period (min)				15								
dr Defacto Right Lane. Recode with 1 though lane as a right lane.												
c Critical Lane Group												

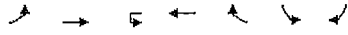
HCM Signalized Intersection Capacity Analysis
29: SR-56 EB on ramp & El Camino Real

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔					↑↑↑			↑↑↑	↔
Volume (vph)	492	989	92	0	0	0	0	807	385	218	575	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	4.0
Lane Util. Factor				0.91	0.86	0.91		0.86			1.00	0.91
Frpb, ped/bikes				1.00	1.00	1.00		0.95			1.00	1.00
Flpb, ped/bikes				1.00	1.00	1.00		0.95			1.00	1.00
Flt				0.95	1.00	1.00		1.00			0.95	1.00
Satd. Flow (prot)				1610	3192	1441		6097			1770	5085
Flt Permitted				0.95	1.00	1.00		1.00			0.95	1.00
Satd. Flow (perm)				1610	3192	1441		6097			1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	547	1099	102	0	0	0	0	897	428	242	639	0
RTOR Reduction (vph)	0	1	55	0	0	0	0	52	0	0	0	0
Lane Group Flow (vph)	492	1163	37	0	0	0	0	1273	0	242	639	0
Turn Type	Split		Prot								Prot	
Protected Phases	4	4	4					2			1	6
Permitted Phases												
Actuated Green, G (s)	30.0	30.0	30.0					20.0			12.5	36.5
Effective Green, g (s)	30.0	30.0	30.0					20.0			12.5	36.5
Actuated g/C Ratio	0.40	0.40	0.40					0.27			0.17	0.49
Clearance Time (s)	4.0	4.0	4.0					4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Lane Grp Cap (vph)	648	1285	580					1637			297	2491
v/s Ratio Prot	0.31	0.36	0.03					0.21			0.14	0.13
v/s Ratio Perm												
v/c Ratio	0.76	0.91	0.06					0.88			0.81	0.26
Uniform Delay, d1	19.1	20.9	13.6					25.2			29.9	11.1
Progression Factor	1.00	1.00	1.00					1.00			1.00	1.00
Incremental Delay, d2	5.1	9.2	0.0					2.4			15.6	0.1
Delay (s)	24.2	30.2	13.7					27.6			45.5	11.1
Level of Service	C	C	B					C			D	B
Approach Delay (s)		27.6			0.0			27.6			20.6	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM Average Control Delay				26.0		HCM Level of Service		C				
HCM Volume to Capacity ratio				0.85								
Actuated Cycle Length (s)				74.5		Sum of lost time (s)		12.0				
Intersection Capacity Utilization				105.8%		ICU Level of Service		G				
Analysis Period (min)				15								

HCM Signalized Intersection Capacity Analysis
30: Valley Centre Drive & Carmel View Road

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗	↗
Volume (vph)	66	386	0	360	94	30	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Flt	1.00	1.00	0.97	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	3539	3430	1770	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	3539	3430	1770	1583	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	73	429	0	400	104	33	51
RTOR Reduction (vph)	0	0	0	43	0	0	47
Lane Group Flow (vph)	73	429	0	461	0	33	4
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	3	8	6	6	6
Permitted Phases							
Actuated Green, G (s)	1.2	14.0	8.8	1.7	1.7	1.7	1.7
Effective Green, g (s)	1.2	14.0	8.8	1.7	1.7	1.7	1.7
Actuated g/C Ratio	0.05	0.59	0.37	0.07	0.07	0.07	0.07
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	90	2091	1274	127	114	127	114
v/s Ratio Prot	0.04	0.12	0.13	0.02	0.00	0.00	0.00
v/s Ratio Perm							
w/c Ratio	0.81	0.21	0.36	0.26	0.03	0.03	0.03
Uniform Delay, d1	11.1	2.3	5.4	10.4	10.2	10.4	10.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	40.5	0.0	0.2	1.1	0.1	1.1	0.1
Delay (s)	51.6	2.3	5.6	11.5	10.3	11.5	10.3
Level of Service	D	A	A	B	B	B	B
Approach Delay (s)		9.5	5.6	10.8		10.8	
Approach LOS		A	A	B		B	

Intersection Summary	
HCM Average Control Delay	7.8
HCM Volume to Capacity ratio	0.39
Actuated Cycle Length (s)	23.7
Intersection Capacity Utilization	29.9%
Analysis Period (min)	15
c Critical Lane Group	

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing + Project (Phase 1&2) PM
12/11/2011



Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations	↖	↗	↗	↖	↗	↖	↖	↗	↗	↖	↗	↗
Volume (vph)	114	284	290	31	157	96	312	811	111	264	130	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Flt	1.00	0.85	0.85	1.00	0.94	1.00	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	2787	1583	1770	1756	1770	3539	1583	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1094	2787	1583	1770	1756	1770	3539	1583	1583	3433	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	127	316	322	34	174	107	347	901	123	293	144	156
RTOR Reduction (vph)	0	0	254	0	34	0	0	0	80	0	0	118
Lane Group Flow (vph)	127	316	68	34	247	0	347	901	43	293	144	38
Turn Type	custom	custom	custom	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases				3	8	5	2	2	1	6	6	6
Permitted Phases	4	4	4									
Actuated Green, G (s)	12.6	12.6	12.6	1.5	18.1	15.1	21.0	21.0	8.5	14.4	14.4	14.4
Effective Green, g (s)	12.6	12.6	12.6	1.5	18.1	15.1	21.0	21.0	8.5	14.4	14.4	14.4
Actuated g/C Ratio	0.21	0.21	0.21	0.03	0.30	0.25	0.35	0.35	0.14	0.24	0.24	0.24
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	231	589	335	45	533	448	1247	558	490	855	382	382
v/s Ratio Prot				0.02	0.14	0.20	0.25	0.03	0.09	0.04	0.02	0.02
v/s Ratio Perm	0.12	0.11	0.04									
w/c Ratio	0.55	0.54	0.20	0.76	0.46	0.77	0.72	0.08	0.60	0.17	0.10	0.10
Uniform Delay, d1	21.0	20.9	19.4	28.9	16.8	20.7	16.8	12.9	23.9	17.9	17.6	17.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.7	0.9	0.3	51.4	0.6	8.2	2.1	0.1	2.0	0.1	0.1	0.1
Delay (s)	23.6	21.8	19.7	80.3	17.5	28.8	18.9	12.9	25.9	18.0	17.7	17.7
Level of Service	C	C	B	F	B	C	B	B	C	B	B	B
Approach Delay (s)				24.2			20.9			21.8		
Approach LOS				C			C			C		

Intersection Summary	
HCM Average Control Delay	21.5
HCM Volume to Capacity ratio	0.63
Actuated Cycle Length (s)	59.6
Intersection Capacity Utilization	63.7%
Analysis Period (min)	15
c Critical Lane Group	

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	908	0	92	0	0	0	0	332	43	348	98	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.95	0.95
Frt	1.00	1.00	0.85	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1681	1681	1583	3478	3433	3539	3478	3433	3539	3478	3433	3539
Flt Permitted	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1681	1681	1583	3478	3433	3539	3478	3433	3539	3478	3433	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1009	0	102	0	0	0	0	369	48	387	109	0
RTOR Reduction (vph)	0	0	64	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	504	505	38	0	0	0	0	394	0	387	109	0
Turn Type	Split		Perm							Prot		
Protected Phases	4	4						2		1		6
Permitted Phases			4									
Actuated Green, G (s)	16.2	16.2	16.2					10.6		5.0		19.6
Effective Green, g (s)	16.2	16.2	16.2					10.6		5.0		19.6
Actuated g/C Ratio	0.37	0.37	0.37					0.24		0.11		0.45
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		3.0
Lane Grp Cap (vph)	622	622	585					842		392		1584
v/s Ratio Prot	0.30	0.30						0.11		0.11		0.03
v/s Ratio Perm			0.02									
v/c Ratio	0.01	0.01	0.06					0.47		0.99		0.07
Uniform Delay, d1	12.4	12.4	8.9					19.4		6.9		18.2
Progression Factor	1.00	1.00	1.00					1.00		1.00		1.00
Incremental Delay, d2	7.9	7.9	0.0					0.4		41.7		0.0
Delay (s)	20.3	20.4	9.0					14.6		61.0		6.9
Level of Service	C	C	A					B		E		A
Approach Delay (s)		19.3			0.0			14.6				49.1
Approach LOS		B			A			B				D
Intersection Summary												
HCM Average Control Delay	25.6		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.73											
Actuated Cycle Length (s)	43.8		Sum of lost time (s)		12.0							
Intersection Capacity Utilization	55.6%		ICU Level of Service		B							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
33: Carmel Country Road & Carmel Canyon Road

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	127	458	43	91	406	400	51	128	104	230	52	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.93	1.00	0.92	0.95
Frt	1.00	0.99	1.00	0.93	1.00	0.93	1.00	0.93	1.00	0.95	1.00	0.92
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	3493	1770	3276	1770	3276	1770	1737	3433	1708	1708	1708
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	3493	1770	3276	1770	3276	1770	1737	3433	1708	1708	1708
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	141	509	48	101	451	444	57	142	116	256	58	72
RTOR Reduction (vph)	0	8	0	213	0	0	0	37	0	0	50	0
Lane Group Flow (vph)	141	549	0	101	682	0	57	221	0	256	80	0
Turn Type	Prot		Prot		Prot		Prot		Prot		Prot	
Protected Phases	4	6	5	2	7	4	3	8				
Permitted Phases												
Actuated Green, G (s)	8.8	20.1	7.6	18.9	4.8	15.5	8.7	19.4				
Effective Green, g (s)	8.8	20.1	7.6	18.9	4.8	15.5	8.7	19.4				
Actuated g/C Ratio	0.13	0.30	0.11	0.28	0.07	0.23	0.13	0.29				
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	229	1034	198	912	125	397	440	488				
v/s Ratio Prot	0.06	0.16	0.06	0.21	0.03	0.13	0.07	0.05				
v/s Ratio Perm												
v/c Ratio	0.62	0.53	0.51	0.75	0.46	0.56	0.58	0.16				
Uniform Delay, d1	28.0	20.0	28.4	22.3	30.3	23.2	27.9	18.2				
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	4.9	0.5	2.2	3.4	2.6	1.7	2.0	0.2				
Delay (s)	32.8	20.5	30.6	25.7	32.9	24.9	29.8	18.3				
Level of Service	C	C	C	C	C	C	C	B				
Approach Delay (s)		23.0		26.2		26.3		26.0				
Approach LOS		C		C		C		C				
Intersection Summary												
HCM Average Control Delay	25.2		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.67											
Actuated Cycle Length (s)	67.9		Sum of lost time (s)		20.0							
Intersection Capacity Utilization	64.1%		ICU Level of Service		C							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
34: SR-56 WB Ramps & Carmel Country Road

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	WBL	WBR	SEL	SET	NWT	NWR	NWR2	SWL	SWR
Lane Configurations			↑↑	↑↑	↑↑			↑↑	↑↑
Volume (vph)	0	0	269	494	621	0	190	147	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor			0.97	0.95	0.95		1.00	0.97	1.00
Friction			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)			3433	3539	3539		1583	3433	1583
Flt Permitted			0.95	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)			3433	3539	3539		1583	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	299	549	690	0	211	163	284
RTOR Reduction (vph)	0	0	0	0	0	0	136	0	233
Lane Group Flow (vph)	0	0	299	549	690	0	75	163	51
Turn Type			Prot			Perm			Perm
Protected Phases			5	2	6			4	
Permitted Phases								6	4
Actuated Green, G (s)			9.5	29.8	16.3		16.3	8.3	8.3
Effective Green, g (s)			9.5	29.8	16.3		16.3	8.3	8.3
Actuated g/C Ratio			0.21	0.65	0.35		0.35	0.18	0.18
Clearance Time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			707	2288	1251		560	618	285
v/s Ratio Prot			c0.09	0.16	c0.19		c0.05		
v/s Ratio Perm							0.05	0.03	
w/c Ratio			0.42	0.24	0.55		0.13	0.26	0.18
Uniform Delay, d1			15.9	3.4	12.0		10.1	16.3	16.0
Progression Factor			1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2			0.4	0.1	0.5		0.1	0.2	0.3
Delay (s)			16.3	3.5	12.5		10.2	16.5	16.3
Level of Service			B	A	B		B	B	B
Approach Delay (s)	0.0			8.0	12.0			16.4	
Approach LOS	A			A	B			B	
Intersection Summary									
HCM Average Control Delay			11.3						B
HCM Volume to Capacity ratio			0.45						
Actuated Cycle Length (s)			46.1		Sum of lost time (s)			12.0	
Intersection Capacity Utilization			39.7%		ICU Level of Service				A
Analysis Period (min)			15						
c Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
35: SR-56 EB Ramps & Carmel Country Road

Existing + Project (Phase 1&2) PM
12/11/2011

Movement	EBL2	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations				↑↑	↑↑			↑↑	↑↑		
Volume (vph)	399	0	241	275	375	0	0	401	255	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00	0.97	0.95			0.95	1.00		
Friction	1.00	1.00	0.85	1.00	1.00			1.00	0.85		
Flt Protected	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (prot)	1681	1681	1583	3433	3539			3539	1583		
Flt Permitted	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (perm)	1681	1681	1583	3433	3539			3539	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	443	0	268	306	417	0	0	446	283	0	0
RTOR Reduction (vph)	0	0	192	0	0	0	0	0	200	0	0
Lane Group Flow (vph)	221	222	76	306	417	0	0	446	83	0	0
Turn Type		Split		Perm	Prot				Perm		
Protected Phases		4	4		1			6			
Permitted Phases				4					2		2
Actuated Green, G (s)		11.4	11.4	11.4	5.2	21.0		11.8	11.8		
Effective Green, g (s)		11.4	11.4	11.4	5.2	21.0		11.8	11.8		
Actuated g/C Ratio		0.28	0.28	0.28	0.13	0.52		0.29	0.29		
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)		474	474	447	442	1840		1034	462		
v/s Ratio Prot		0.13	c0.13		c0.09	0.12		c0.13			
v/s Ratio Perm				0.05					0.05		
w/c Ratio		0.47	0.47	0.17	0.69	0.23		0.43	0.18		
Uniform Delay, d1		12.0	12.0	10.9	16.8	5.3		11.6	10.7		
Progression Factor		1.00	1.00	1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2		0.7	0.7	0.2	4.6	0.1		0.3	0.2		
Delay (s)		12.7	12.7	11.1	21.5	5.3		11.9	10.9		
Level of Service		B	B	B	C	A		B	B		
Approach Delay (s)			12.1			12.2		11.5		0.0	
Approach LOS			B			B		B		A	
Intersection Summary											
HCM Average Control Delay						11.9					B
HCM Volume to Capacity ratio						0.49					
Actuated Cycle Length (s)						40.4		Sum of lost time (s)			12.0
Intersection Capacity Utilization						40.0%		ICU Level of Service			A
Analysis Period (min)						15					
c Critical Lane Group											

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	Jacob Swim			Intersection	Carmel Creek Rd /Del Mar Trail			
Agency/Co	USAI			Jurisdiction	City of San Diego			
Date Performed	3/4/2011			Analysis Year	2011			
Analysis Time Period	36 Existing + Project(1&2) PM							
Project ID 002407 - San Diego Corporate Center Lots								
East/West Street: Del Mar Trail				North/South Street: Carmel Creek Road				
Volume Adjustments and Site Characteristics								
Approach	Eastbound			Westbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	5	5	4	55	12	10		
%Thrus Left Lane								
Approach	Northbound			Southbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	12	755	100	15	427	10		
%Thrus Left Lane	50			50				
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.90		0.90		0.90	0.90	0.90	0.90
Flow Rate (veh/h)	14		85		431	531	252	248
% Heavy Vehicles	2		2		2	2	2	2
No. Lanes	1		1		2	2	2	2
Geometry Group	2		2		5	5	5	5
Duration, T								0.25
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.4		0.7		0.0	0.0	0.1	0.0
Prop. Right-Turns	0.3		0.1		0.0	0.2	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.0	0.0	0.0	0.0
hlT-adj	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5
hlRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7
hlHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.1		0.0	-0.1	0.1	0.0
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20	3.20	3.20	3.20
x, initial	0.01		0.08		0.38	0.47	0.22	0.22
hd, final value (s)	6.70		6.60		5.50	5.34	6.04	5.97
x, final value	0.03		0.16		0.66	0.79	0.42	0.41
Move-up time, m (s)	2.0		2.0		2.3		2.3	
Service Time, L _s (s)	4.7		4.6		3.2	3.0	3.7	3.7
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	264		335		649	671	502	498
Delay (s/veh)	9.88		10.81		18.16	24.85	13.09	12.79
LOS	A		B		C	C	B	B
Approach: Delay (s/veh)	9.88		10.81		21.86		12.94	
LOS	A		B		C		B	
Intersection Delay (s/veh)								18.29
Intersection LOS								C

HCM Signalized Intersection Capacity Analysis
 1: Via De La Valle & El Camino Real

Existing + Project (Buildout) AM
 12/11/2011



EXISTING + PROJECT

Build-out

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	2	352	375	293	448	0	375	5	155	1	1	1
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	1.00	0.85	1.00	0.85	1.00	0.96
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.98	0.98
Satd. Flow (prot)	1770	1863	1583	1770	1858	1770	1775	1583	1775	1583	1750	1750
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.98	0.98
Satd. Flow (perm)	1770	1863	1583	1770	1858	1770	1775	1583	1775	1583	1750	1750
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	391	417	326	498	9	417	6	172	1	1	1
RTOR Reduction (vph)	0	0	271	0	1	0	0	0	124	0	1	0
Lane Group Flow (vph)	2	391	146	326	506	0	0	423	48	0	2	0
Turn Type	Prot		Prot	Prot			Split		Prot	Split		
Protected Phases	7	4	4	3	8		2	2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	0.8	22.3	22.3	16.8	38.3			21.9	21.9		1.1	
Effective Green, g (s)	0.8	22.3	22.3	16.8	38.3			21.9	21.9		1.1	
Actuated g/C Ratio	0.01	0.29	0.29	0.22	0.49			0.28	0.28		0.01	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	18	532	452	381	911			498	444		25	
v/s Ratio Prot	0.00	0.21	0.09	0.18	0.27			0.24	0.03		0.00	
v/s Ratio Perm												
w/c Ratio	0.11	0.73	0.32	0.86	0.66			0.86	0.11		0.08	
Uniform Delay, d1	38.3	25.2	22.0	29.5	13.9			26.5	20.9		38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	2.7	5.2	0.4	16.9	0.7			12.8	0.1		1.4	
Delay (s)	41.0	30.5	22.4	46.4	14.7			39.3	21.0		39.4	
Level of Service	D	C	C	D	B			D	C		D	
Approach Delay (s)		26.3			27.1			34.0			39.4	
Approach LOS		C			C			C			D	
Intersection Summary												
HCM Average Control Delay	28.7		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.80											
Actuated Cycle Length (s)	78.1		Sum of lost time (s)		16.0							
Intersection Capacity Utilization	72.5%		ICU Level of Service		C							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
2: San Dieguito Road & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	397	290	0	203	287	281	436
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95	0.95
Flt	1.00	0.85	1.00	0.85	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	1583		1863	1583	1770	3539
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583		1863	1583	1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	441	332	0	226	319	312	484
RTOR Reduction (vph)	0	248	0	0	243	0	0
Lane Group Flow (vph)	441	84	0	226	76	312	484
Turn Type	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	1	3	8	7			
Permitted Phases	1		8		6		
Actuated Green, G (s)	12.9	12.9	12.1	12.1	14.0	12.9	
Effective Green, g (s)	12.9	12.9	12.1	12.1	14.0	12.9	
Actuated g/C Ratio	0.25	0.25	0.24	0.24	0.27	0.25	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	868	400	442	376	486	895	
v/s Ratio Prot	0.13		0.12		0.18		
v/s Ratio Perm		0.05		0.05	0.14		
v/c Ratio	0.51	0.21	0.51	0.20	0.64	0.54	
Uniform Delay, d1	16.3	15.0	16.9	15.6	16.3	16.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	0.3	1.0	0.3	2.9	0.7	
Delay (s)	16.8	15.3	17.9	15.8	19.2	17.2	
Level of Service	B	B	B	B	B	B	
Approach Delay (s)	16.2		16.7		18.0		
Approach LOS	B		B		B		
Intersection Summary							
HCM Average Control Delay	17.0			HCM Level of Service			B
HCM Volume to Capacity ratio	0.57			Sum of lost time (s)			12.0
Actuated Cycle Length (s)	51.0			ICU Level of Service			A
Intersection Capacity Utilization	47.6%			Analysis Period (min)			15
Analysis Period (min)	15			c - Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
3: Derby Downs Road & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	84	7	0	462	50	3	841
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	0.95
Flt	0.99	0.99	1.00	0.99	1.00	1.00	1.00
Flt Protected	0.96	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3414		3487		1770	3539	
Flt Permitted	0.96	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3414		3487		1770	3539	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	93	8	0	513	56	3	934
RTOR Reduction (vph)	7	0	0	13	0	0	0
Lane Group Flow (vph)	94	0	0	556	0	3	934
Turn Type	Perm	Prot	Perm	Prot	Perm	Prot	Perm
Protected Phases	8	5	2	1	6		
Permitted Phases							
Actuated Green, G (s)	3.1		14.9		0.6	19.5	
Effective Green, g (s)	3.1		14.9		0.6	19.5	
Actuated g/C Ratio	0.10		0.49		0.02	0.64	
Clearance Time (s)	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	346		1698		35	2255	
v/s Ratio Prot	0.03		0.16		0.00	0.26	
v/s Ratio Perm							
v/c Ratio	0.27		0.39		0.09	0.41	
Uniform Delay, d1	12.7		4.8		14.7	2.7	
Progression Factor	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.4		0.1		1.1	0.1	
Delay (s)	13.1		4.9		15.8	2.9	
Level of Service	B		A		B	A	
Approach Delay (s)	13.1		4.9		2.9		
Approach LOS	B		A		A		
Intersection Summary							
HCM Average Control Delay	4.3			HCM Level of Service			A
HCM Volume to Capacity ratio	0.39			Sum of lost time (s)			8.0
Actuated Cycle Length (s)	30.6			ICU Level of Service			A
Intersection Capacity Utilization	33.2%			Analysis Period (min)			15
Analysis Period (min)	15			c - Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Volume (vph)	23	111	19	65	82	149	6	319	16	160	691	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Frt	1.00	0.98	1.00	0.90	1.00	0.99	1.00	0.99	1.00	0.98	1.00	0.98
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1822	1770	1682	1770	1682	1770	3511	1770	3470	1770	3470
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	1822	1770	1682	1770	1682	1770	3511	1770	3470	1770	3470
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	123	21	72	91	166	7	354	20	178	768	116
RTOR Reduction (vph)	0	11	0	0	114	0	0	6	0	0	17	0
Lane Group Flow (vph)	26	133	0	72	143	0	7	368	0	178	867	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	0.7	10.6		2.3	12.2		0.7	14.0		6.8	20.1	
Effective Green, g (s)	0.7	10.6		2.3	12.2		0.7	14.0		6.8	20.1	
Actuated g/C Ratio	0.01	0.21		0.05	0.25		0.01	0.28		0.14	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	25	389		82	413		25	989		242	1403	
vs Ratio Prot	0.01	0.07		0.04	0.09		0.00	0.10		0.10	0.25	
vs Ratio Perm												
w/C Ratio	1.04	0.34		0.88	0.35		0.28	0.37		0.74	0.62	
Uniform Delay, d1	24.5	16.6		23.6	15.5		24.3	14.3		20.6	11.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	192.8	0.5		59.9	0.5		6.0	0.2		11.0	0.8	
Delay (s)	217.3	17.1		83.4	16.0		30.3	14.5		31.6	12.6	
Level of Service	F	B		F	B		C	B		C	B	
Approach Delay (s)	47.7			30.7			14.8			15.8		
Approach LOS	D			C			B			B		
Intersection Summary												
HCM Average Control Delay	20.9		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.51											
Actuated Cycle Length (s)	49.7		Sum of lost time (s)				8.0					
Intersection Capacity Utilization	55.9%		ICU Level of Service				B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Volume (vph)	5	83	70	95	137	36	40	341	57	41	781	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	1.00	0.85	1.00	0.97	1.00	0.98	1.00	0.98	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1805	1770	1805	1770	3464	1770	3534	1770
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1805	1770	1805	1770	3464	1770	3534	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	92	78	106	152	40	44	379	63	46	868	8
RTOR Reduction (vph)	0	0	64	0	17	0	0	20	0	0	1	0
Lane Group Flow (vph)	6	92	14	106	175	0	44	422	0	46	875	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		4	3		8			5	2	
Permitted Phases												
Actuated Green, G (s)	0.6	8.4	8.4	3.5	11.3		1.3	17.6		1.3	17.6	
Effective Green, g (s)	0.6	8.4	8.4	3.5	11.3		1.3	17.6		1.3	17.6	
Actuated g/C Ratio	0.01	0.18	0.18	0.07	0.24		0.03	0.38		0.03	0.38	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	23	334	284	132	436		49	1303		49	1329	
vs Ratio Prot	0.00	0.05	0.01	0.06	0.10		0.02	0.12		0.03	0.25	
vs Ratio Perm												
w/C Ratio	0.26	0.28	0.05	0.80	0.40		0.90	0.32		0.94	0.66	
Uniform Delay, d1	22.9	16.6	15.9	21.3	14.9		22.7	10.4		22.7	12.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.0	0.5	0.1	28.6	0.6		90.0	0.1		104.4	1.2	
Delay (s)	28.8	17.0	16.0	49.9	15.5		112.7	10.5		127.1	13.3	
Level of Service	C	B	B	D	B		F	B		F	B	
Approach Delay (s)	17.0			27.7			19.8			19.0		
Approach LOS	B			C			B			B		
Intersection Summary												
HCM Average Control Delay	20.4		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.62											
Actuated Cycle Length (s)	46.8		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	47.1%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

Existing + Project (Buildout) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	93	654	23	93	861	202	68	56	82	440	22	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	1.00	0.95	0.95		0.95
Fit	1.00	1.00		1.00	0.97		1.00	0.95	1.00	0.95		0.95
Fit Protected	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.97		0.97
Satd. Flow (prot)	1770	5065		1770	3439		1813	1583	1681	1638		1638
Fit Permitted	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.97		0.97
Satd. Flow (perm)	1770	5065		1770	3439		1813	1583	1681	1638		1638
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	103	949	26	103	957	224	76	62	91	489	24	91
RTOR Reduction (vph)	0	3	0	0	21	0	0	0	78	0	17	0
Lane Group Flow (vph)	103	972	0	103	1160	0	138	13	308	279	0	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6		6
Permitted Phases								2				
Actuated Green, G (s)	6.4	30.1		8.3	32.0		11.6	11.6	17.7	17.7		17.7
Effective Green, g (s)	6.4	30.1		8.3	32.0		11.6	11.6	17.7	17.7		17.7
Actuated g/C Ratio	0.08	0.36		0.10	0.38		0.14	0.14	0.21	0.21		0.21
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	135	1821		176	1315		251	219	355	346		346
v/s Ratio Prot	0.06	0.19		0.06	0.34		0.08		0.18	0.17		
v/s Ratio Perm								0.01				
v/c Ratio	0.76	0.53		0.59	0.88		0.55	0.06	0.87	0.81		0.81
Uniform Delay, d1	37.9	21.2		36.1	24.1		33.6	31.3	31.9	31.4		31.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	22.2	0.3		4.9	7.3		2.5	0.1	19.4	12.8		12.8
Delay (s)	60.1	21.5		40.9	31.4		36.1	31.4	51.3	44.1		44.1
Level of Service	E	C		D	C		D	C	D	D		D
Approach Delay (s)		25.2			32.1			34.2		47.8		
Approach LOS		C			C			C		D		
Intersection Summary												
HCM Average Control Delay	32.9			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.76											
Actuated Cycle Length (s)	83.7			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	67.3%			ICU Level of Service			C					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

Existing + Project (Buildout) AM
12/11/2011



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕	↕	↔	↕	↔	↔
Volume (veh/h)	1416	53	0	1384	0	139
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1573	59	0	1538	0	154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	575			607		
pX, platoon unblocked			0.87		0.90	0.87
vC, conflicting volume			1632		2372	554
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1199		1422	0
IC, single (s)			4.1		6.8	6.9
IC, 2 stage (s)						
IF (s)			2.2		3.5	3.3
p0 queue free %			100		100	84
cm capacity (veh/h)			502		114	942
Direction Lane #						
Volume Total	629	629	374	769	769	154
Volume Left	0	0	0	0	0	0
Volume Right	0	0	58	0	0	154
cSH	1700	1700	1700	1700	1700	942
Volume to Capacity	0.37	0.37	0.22	0.45	0.45	0.16
Queue Length 95th (ft)	0	0	0	0	0	15
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.6
Lane LOS	A					
Approach Delay (s)	0.0		0.0			
Approach LOS	A		A			
Intersection Summary						
Average Delay	0.4					
Intersection Capacity Utilization	43.8%			ICU Level of Service		
Analysis Period (min)	15					
A						

HCM Signalized Intersection Capacity Analysis
8: Del Mar Heights Rd. & I-15 SB Ramps

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Volume (vph)	0	786	1049	0	944	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	6.3	6.3	6.3	6.3
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95
Frt	1.00	1.00	1.00	1.00	0.85	1.00
Flt Protected	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3539	3539	3430	1441	3430	1441
Flt Permitted	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3539	3539	3430	1441	3430	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	873	1166	0	1049	362
RTOR Reduction (vph)	0	0	0	0	3	39
Lane Group Flow (vph)	0	873	1166	0	1082	287
Turn Type	Perm					
Protected Phases	2.6	6.2	4.			
Permitted Phases	4					
Actuated Green, G (s)	42.2	42.2	25.9	25.9		
Effective Green, g (s)	42.2	42.2	25.9	25.9		
Actuated g/C Ratio	0.53	0.53	0.32	0.32		
Clearance Time (s)			5.6	5.6		
Vehicle Extension (s)			3.0	3.0		
Lane Grp Cap (vph)	1867	1867	1110	467		
v/s Ratio Prot	0.25	0.33	0.32			
v/s Ratio Perm	0.20					
v/c Ratio	0.47	0.62	0.97	0.62		
Uniform Delay, d1	11.9	13.3	26.7	22.8		
Progression Factor	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.7	20.9	2.4		
Delay (s)	12.0	14.0	47.6	25.3		
Level of Service	B	B	D	C		
Approach Delay (s)	12.0	14.0	42.5			
Approach LOS	B	B	D			
Intersection Summary						
HCM Average Control Delay	25.1		HCM Level of Service		C	
HCM Volume to Capacity ratio	0.76					
Actuated Cycle Length (s)	80.0		Sum of lost time (s)		11.9	
Intersection Capacity Utilization	68.6%		ICU Level of Service		C	
Analysis Period (min)	15					
c Critical Lane Group						

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
9: Del Mar Heights Road & I-15 NB Ramps

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Volume (vph)	224	1486	0	0	1512	929	373	0	953	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	0.91	1.00	0.95	0.91	0.95	0.91	0.95	0.95	0.95	0.95
Frt	1.00	1.00	1.00	0.85	1.00	0.86	1.00	0.86	0.85	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot)	3433	3539	5085	1583	1681	1454	1504	1454	1504	1454	1504	1504
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (perm)	3433	3539	5085	1583	1681	1454	1504	1454	1504	1454	1504	1504
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	249	1651	0	0	1680	1032	414	0	1059	0	0	0
RTOR Reduction (vph)	0	0	0	0	447	0	9	9	0	0	0	0
Lane Group Flow (vph)	249	1651	0	0	1680	585	373	540	542	0	0	0
Turn Type	Prot			Prot				Split		Prot		
Protected Phases	5	2	6				6	8	8			
Permitted Phases	8											
Actuated Green, G (s)	10.2	64.1	49.9		49.9	47.9	47.9	47.9	47.9			
Effective Green, g (s)	10.2	64.1	49.9		49.9	47.9	47.9	47.9	47.9			
Actuated g/C Ratio	0.08	0.53	0.42		0.42	0.40	0.40	0.40	0.40			
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	292	1890	2115		658	671	580	600	600			
v/s Ratio Prot	0.07	0.47	0.33		0.37	0.22	0.37	0.36	0.36			
v/s Ratio Perm	0.20											
v/c Ratio	0.85	0.87	0.79		0.89	0.56	0.93	0.90	0.90			
Uniform Delay, d1	54.2	24.4	30.6		32.5	27.8	34.5	33.9	33.9			
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	20.7	6.0	3.2		16.4	1.0	21.8	16.9	16.9			
Delay (s)	74.8	30.4	33.8		48.9	28.8	56.3	50.8	50.8			
Level of Service	E	C	C		D	C	E	D	D			
Approach Delay (s)	36.2			39.5				47.3		0.0		
Approach LOS	D			D				D		A		
Intersection Summary												
HCM Average Control Delay	40.4				HCM Level of Service				D			
HCM Volume to Capacity ratio	0.90											
Actuated Cycle Length (s)	120.0				Sum of lost time (s)				8.0			
Intersection Capacity Utilization	94.0%				ICU Level of Service				F			
Analysis Period (min)	15											
c Critical Lane Group												

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
10: Del Mar Heights Road & High Bluff Drive

Existing + Project (Buildout) AM
12/11/2011

Movement	EBB	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘
Volume (vph)	108	1591	674	106	1977	73	195	10	45	111	57	303
Ideal Flow (vph/pl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	0.97	0.95	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99	1.00	0.88	1.00	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5058	3433	3104	1770	1863	1583	1770	5058
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5058	3433	3104	1770	1863	1583	1770	5058
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	120	1768	749	118	2197	81	217	11	50	123	63	337
RTOR Reduction (vph)	0	0	377	0	4	0	0	43	0	0	0	130
Lane Group Flow (vph)	120	1768	372	118	2274	0	217	18	0	123	63	207
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	6	5	2	1	0	6	6	6
Permitted Phases												
Actuated Green, G (s)	7.6	40.0	40.0	8.8	41.2	6.8	12.5	9.8	15.5	15.5	15.5	15.5
Effective Green, g (s)	7.6	40.0	40.0	8.8	41.2	6.8	12.5	9.8	15.5	15.5	15.5	15.5
Actuated g/C Ratio	0.09	0.46	0.46	0.10	0.47	0.08	0.14	0.11	0.18	0.18	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	154	2335	727	179	2393	268	445	199	332	282	282	282
v/s Ratio Prot	0.07	0.35	0.24	0.07	0.45	0.06	0.01	0.07	0.03	0.13	0.13	0.13
v/s Ratio Perm												
w/C Ratio	0.78	0.76	0.51	0.66	0.95	0.81	0.04	0.62	0.19	0.73	0.73	0.73
Uniform Delay, d1	38.9	19.5	16.6	37.7	22.0	39.5	32.1	36.9	30.5	33.9	33.9	33.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	21.6	1.4	0.6	8.5	9.3	16.3	0.0	5.6	0.3	9.5	9.5	9.5
Delay (s)	60.5	21.0	17.3	46.2	31.3	55.8	32.2	42.5	30.7	43.4	43.4	43.4
Level of Service	E	C	B	D	C	E	C	D	C	D	D	D
Approach Delay (s)		21.7			32.0		50.6		41.8			
Approach LOS		C			C		D		D			
Intersection Summary												
HCM Average Control Delay	29.1			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.83											
Actuated Cycle Length (s)	87.1			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	74.1%			ICU Level of Service			D					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
11: Del Mar Heights Road & Third Ave.

Existing + Project (Buildout) AM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘
Volume (vph)	1902	190	147	2273	86	67
Ideal Flow (vph/pl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2113	211	163	2526	96	74
RTOR Reduction (vph)	0	102	0	0	0	66
Lane Group Flow (vph)	2113	109	163	2526	96	8
Turn Type	Perm	Prot	Prot	Perm	Perm	Perm
Protected Phases	4	3	8	2	2	2
Permitted Phases						
Actuated Green, G (s)	25.3	25.3	6.1	35.4	5.4	5.4
Effective Green, g (s)	25.3	25.3	6.1	35.4	5.4	5.4
Actuated g/C Ratio	0.52	0.52	0.12	0.73	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2636	821	221	3689	380	175
v/s Ratio Prot	0.42		0.09	0.50	0.03	
v/s Ratio Perm		0.07				0.01
w/C Ratio	0.80	0.13	0.74	0.88	0.25	0.05
Uniform Delay, d1	9.7	6.1	20.6	3.7	19.9	19.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8	0.1	12.1	0.5	0.4	0.1
Delay (s)	11.5	6.2	32.7	4.2	20.2	19.5
Level of Service	B	A	C	A	C	B
Approach Delay (s)	11.0		5.9	19.9		
Approach LOS	B		A	B		
Intersection Summary						
HCM Average Control Delay	8.7		HCM Level of Service		A	
HCM Volume to Capacity ratio	0.73					
Actuated Cycle Length (s)	48.8		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	58.2%		ICU Level of Service		B	
Analysis Period (min)	15					
c - Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
12: Del Mar Heights Road & First Ave.

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBR	WBL	WBR	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑	↑	↑
Volume (vph)	1811	158	158	2348	72	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2012	176	176	2609	80	80
RTOR Reduction (vph)	0	75	0	0	0	70
Lane Group Flow (vph)	2012	101	176	2609	80	10
Turn Type	Perm	Prot	Prot	Prot	Perm	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	29.6	29.6	3.8	37.4	6.3	6.3
Effective Green, g (s)	29.6	29.6	3.8	37.4	6.3	6.3
Actuated g/C Ratio	0.57	0.57	0.07	0.72	0.12	0.12
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2911	906	252	3679	216	193
v/s Ratio Prot	0.40		0.05	c0.51	c0.05	
v/s Ratio Perm		0.06			0.01	
v/c Ratio	0.69	0.11	0.70	0.71	0.37	0.05
Uniform Delay, d1	7.8	5.0	23.4	4.1	20.9	20.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	8.2	0.6	1.1	0.1
Delay (s)	8.5	5.1	31.6	4.7	22.0	20.2
Level of Service	A	A	C	A	C	C
Approach Delay (s)	8.3			6.4	21.1	
Approach LOS	A			A	C	
Intersection Summary						
HCM Average Control Delay	7.7		HCM Level of Service		A	
HCM Volume to Capacity ratio	0.66					
Actuated Cycle Length (s)	51.7		Sum of lost time (s)		8.0	
Intersection Capacity Utilization	56.0%		ICU Level of Service		B	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
13: Del Mar Heights Road & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑↑	↑	↑↑	↑↑	↑	↑↑	↑↑↑	↑	↑↑	↑↑	↑↑↑
Volume (vph)	233	987	321	251	1583	92	285	108	95	159	308	447
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt	1.00	0.96	1.00	0.99	1.00	0.99	1.00	1.00	0.85	1.00	0.91	0.91
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95
Satd. Flow (prot)	3433	4898	3433	5043	3433	5085	3433	5085	1583	3433	4633	4633
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95
Satd. Flow (perm)	3433	4898	3433	5043	3433	5085	3433	5085	1583	3433	4633	4633
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	259	1097	357	279	1759	102	317	120	106	177	342	497
RTOR Reduction (vph)	0	72	0	0	8	0	0	0	81	0	149	0
Lane Group Flow (vph)	259	1382	0	279	1853	0	317	120	25	177	690	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	3	8	5	2	2	1	6			
Permitted Phases												
Actuated Green, G (s)	7.2	28.2	9.0	30.0	8.7	18.2	18.2	7.2	16.7			
Effective Green, g (s)	7.2	28.2	9.0	30.0	8.7	18.2	18.2	7.2	16.7			
Actuated g/C Ratio	0.09	0.36	0.11	0.38	0.11	0.23	0.23	0.09	0.21			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	314	1757	393	1925	380	1177	367	314	984			
v/s Ratio Prot	0.08	0.28	c0.08	c0.37	c0.09	0.02	0.02	0.05	c0.15			
v/s Ratio Perm												
v/c Ratio	0.82	0.79	0.71	0.96	0.83	0.10	0.07	0.56	1.03dr			
Uniform Delay, d1	35.1	22.5	33.5	23.8	34.2	23.8	23.6	34.2	28.6			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	16.0	2.4	5.8	12.8	14.5	0.0	0.1	2.3	2.3			
Delay (s)	51.1	24.9	39.3	36.5	48.8	23.8	23.6	36.5	30.9			
Level of Service	D	C	D	D	D	C	C	D	C			
Approach Delay (s)	28.9			36.9		38.3		31.9				
Approach LOS	C			D		D		C				
Intersection Summary												
HCM Average Control Delay	33.6			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.81											
Actuated Cycle Length (s)	78.6			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	76.8%			ICU Level of Service			D					
Analysis Period (min)	15											
dr Defacto Right Lane - Recode with 1 though lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
14: Del Mar Heights Road & Carmel Country Rd.

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑↑↑			↑↑		
Volume (vph)	157	654	315	272	1245	169	442	183	108	142	180	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91		1.00	0.95	
Frt	1.00	0.95		1.00	0.98		1.00	0.94		1.00	0.93	
Frt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	4837		3433	4994		3433	4802		1770	3293	
Frt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	4837		3433	4994		3433	4802		1770	3293	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	174	727	350	302	1383	188	491	203	120	158	200	173
RTOR Reduction (vph)	0	102	0	0	20	0	0	98	0	0	149	0
Lane Group Flow (vph)	174	975	0	302	1551	0	491	225	0	158	224	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.0	22.6		9.5	26.1		12.8	12.8		10.0	10.0	
Effective Green, g (s)	6.0	22.6		9.5	26.1		12.8	12.8		10.0	10.0	
Actuated g/C Ratio	0.08	0.32		0.13	0.37		0.18	0.18		0.14	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	291	1542		460	1838		620	867		250	464	
v/s Ratio Prot	0.05	0.20		0.09	0.31		0.14	0.05		0.09	0.07	
v/s Ratio Perm												
v/c Ratio	0.60	0.63		0.66	0.84		0.79	0.26		0.63	0.48	
Uniform Delay, d1	31.3	20.6		29.2	20.5		27.8	25.0		28.7	28.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.3	0.9		3.4	3.7		6.9	0.2		5.1	0.8	
Delay (s)	34.6	21.5		32.5	24.3		34.6	25.1		33.8	28.9	
Level of Service	C	C		C	C		C	C		C	C	
Approach Delay (s)	23.3			25.6			30.9			30.3		
Approach LOS	C			C			C			C		
Intersection Summary												
HCM Average Control Delay	26.5			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.80											
Actuated Cycle Length (s)	70.9			Sum of lost time (s)			20.0					
Intersection Capacity Utilization	88.2%			ICU Level of Service			C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Del Mar Heights Road & Torrey Ridge Drive

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑↑			↑↑		
Volume (vph)	206	662	131	79	1088	210	119	151	11	54	60	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.99		1.00	0.90	
Frt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4959		1770	4962		1770	1844		1770	1674	
Frt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	4959		1770	4962		1770	1844		1770	1674	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	229	736	146	88	1209	233	132	168	12	60	67	139
RTOR Reduction (vph)	0	33	0	0	34	0	0	3	0	0	102	0
Lane Group Flow (vph)	229	849	0	88	1408	0	132	177	0	60	104	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.3	30.5		6.9	25.1		7.9	15.9		4.0	12.0	
Effective Green, g (s)	12.3	30.5		6.9	25.1		7.9	15.9		4.0	12.0	
Actuated g/C Ratio	0.17	0.42		0.09	0.34		0.11	0.22		0.05	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	297	2063		167	1699		191	400		97	274	
v/s Ratio Prot	0.13	0.17		0.05	0.28		0.07	0.10		0.03	0.06	
v/s Ratio Perm												
v/c Ratio	0.77	0.41		0.53	0.83		0.69	0.44		0.62	0.38	
Uniform Delay, d1	29.2	15.1		31.6	22.1		31.5	24.9		33.9	27.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.7	0.1		3.0	3.5		10.3	0.8		11.2	0.9	
Delay (s)	40.8	15.2		34.6	25.6		41.8	25.6		45.1	28.2	
Level of Service	D	B		C	C		D	C		D	C	
Approach Delay (s)	20.5			26.1			32.5			32.0		
Approach LOS	C			C			C			C		
Intersection Summary												
HCM Average Control Delay	25.3			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.72											
Actuated Cycle Length (s)	73.3			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	67.9%			ICU Level of Service			C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing + Project (Buildout) AM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	164	570	34	65	1121	35	43	25	53	48	58	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Flt	1.00	0.99		1.00	1.00		1.00	0.90		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5042		1770	5062		1770	1673		1770	1622	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5042		1770	5062		1770	1673		1770	1622	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	182	633	38	72	1246	39	48	28	59	53	64	398
RTOR Reduction (vph)	0	9	0	0	5	0	0	47	0	0	236	0
Lane Group Flow (vph)	182	662	0	72	1280	0	48	40	0	53	226	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.2	22.4		2.7	18.9		1.7	11.1		2.4	11.8	
Effective Green, g (s)	6.2	22.4		2.7	18.9		1.7	11.1		2.4	11.8	
Actuated g/C Ratio	0.11	0.41		0.05	0.35		0.03	0.20		0.04	0.22	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	2069		88	1752		55	340		78	351	
v/s Ratio Prot	0.10	0.13		0.04	0.25		0.03	0.02		0.03	0.14	
v/s Ratio Perm												
v/c Ratio	0.91	0.32		0.82	0.73		0.87	0.12		0.68	0.64	
Uniform Delay, d1	23.9	10.9		25.7	15.6		26.3	17.8		25.7	19.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	38.0	0.1		42.2	1.6		76.2	0.2		21.0	4.0	
Delay (s)	61.9	11.0		68.0	17.2		102.6	17.9		46.7	23.5	
Level of Service	E	B		E	B		F	B		D	C	
Approach Delay (s)		21.9			19.9			46.0			25.9	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	54.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing + Project (Buildout) AM
12/11/2011



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕	↕	↕	↕	↕	↕
Volume (vph)	557	129	385	999	270	332
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.91		1.00	0.91	0.97	1.00
Flt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	4942		1770	5085	3433	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	4942		1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	619	143	428	1110	300	369
RTOR Reduction (vph)	64	0	0	0	0	294
Lane Group Flow (vph)	698	0	428	1110	300	75
Turn Type	Prot		Prot		Prot	
Protected Phases	4		3	8	2	2
Permitted Phases						
Actuated Green, G (s)	13.7		15.2	32.9	10.4	10.4
Effective Green, g (s)	13.7		15.2	32.9	10.4	10.4
Actuated g/C Ratio	0.27		0.30	0.64	0.20	0.20
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1320		524	3261	696	321
v/s Ratio Prot	0.14		0.24	0.22	0.09	0.05
v/s Ratio Perm						
v/c Ratio	0.53		0.82	0.34	0.43	0.23
Uniform Delay, d1	16.0		16.8	4.2	17.9	17.1
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4		9.6	0.1	0.4	0.4
Delay (s)	16.4		26.3	4.3	18.3	17.5
Level of Service	B		C	A	B	B
Approach Delay (s)	16.4			10.4	17.8	
Approach LOS	B			B	B	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	51.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis Existing + Project (Buildout) AM
 18: Del Mar Highlands Town Ctr. & El Camino Real 12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SWL	SWT	SWR
Lane Configurations	↔	↕		↔	↕		↔	↕		↔	↕	
Volume (vph)	72	14	14	94	31	107	158	313	98	174	634	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95		1.00	1.00	0.97	0.91			0.97	0.91	
Frt	1.00	0.96		1.00	0.85	1.00	0.96			1.00	0.99	
Flt Protected	0.95	0.98		0.96	1.00	0.95	1.00			0.95	1.00	
Satd. Flow (prot)	1681	1658		1795	1583	3433	4903			3433	5016	
Flt Permitted	0.95	0.98		0.96	1.00	0.95	1.00			0.95	1.00	
Satd. Flow (perm)	1681	1658		1795	1583	3433	4903			3433	5016	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	80	16	16	104	34	119	176	348	109	193	704	70
RTOR Reduction (vph)	0	14	0	0	0	98	0	65	0	0	14	0
Lane Group Flow (vph)	57	41	0	0	138	21	176	392	0	193	760	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	2	2		6	6		3	8		7	4	
Permitted Phases						6						
Actuated Green, G (s)	7.6	7.6		10.0	10.0		7.0	14.8		8.4	16.2	
Effective Green, g (s)	7.6	7.6		10.0	10.0		7.0	14.8		8.4	16.2	
Actuated g/C Ratio	0.13	0.13		0.18	0.18		0.12	0.26		0.15	0.29	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	225	222		316	279		423	1278		508	1431	
v/s Ratio Prot	c0.03	0.02		c0.08			0.05	0.08		c0.06	c0.15	
v/s Ratio Perm						0.01						
v/c Ratio	0.25	0.19		0.44	0.08		0.42	0.31		0.38	0.53	
Uniform Delay, d1	22.1	21.9		20.9	19.5		23.0	16.9		21.8	17.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.4		1.0	0.1		0.7	0.1		0.5	0.4	
Delay (s)	22.7	22.3		21.9	19.7		23.7	17.0		22.3	17.5	
Level of Service	C	C		C	B		C	B		C	B	
Approach Delay (s)		22.5			20.8			18.9			18.5	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay	19.1		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.40											
Actuated Cycle Length (s)	56.8		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	41.7%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis Existing + Project (Buildout) AM
 19: Townsgate Drive & Carmel Country Road 12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕		↔	↕		↔	↕	
Volume (vph)	171	83	113	45	189	149	111	449	7	100	472	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1739		1770	3531		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1739		1770	3531		1770	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	190	92	126	50	210	166	123	499	8	111	524	191
RTOR Reduction (vph)	0	0	77	0	36	0	0	2	0	0	0	148
Lane Group Flow (vph)	190	92	49	50	340	0	123	505	0	111	524	43
Turn Type	Prot			Prot			Prot			Prot		Prot
Protected Phases	7	4		4	3		8	5	2		1	6
Permitted Phases												
Actuated Green, G (s)	12.2	26.5	26.5	3.5	17.8		7.1	16.5		6.1	15.5	15.5
Effective Green, g (s)	12.2	26.5	26.5	3.5	17.8		7.1	16.5		6.1	15.5	15.5
Actuated g/C Ratio	0.18	0.39	0.39	0.05	0.26		0.10	0.24		0.09	0.23	0.23
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	315	720	612	90	451		183	849		157	800	358
v/s Ratio Prot	c0.11	0.05	0.03	0.03	c0.20		c0.07	0.14		0.06	c0.15	0.03
v/s Ratio Perm												
v/c Ratio	0.60	0.13	0.08	0.56	0.75		0.67	0.60		0.71	0.66	0.12
Uniform Delay, d1	26.0	13.6	13.3	31.8	23.4		29.6	23.1		30.4	24.1	21.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.2	0.1	0.1	7.2	7.0		9.3	1.1		13.5	1.9	0.2
Delay (s)	29.2	13.7	13.4	39.0	30.4		39.0	24.2		43.9	26.1	21.3
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		20.8			31.4			27.1			27.4	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control Delay	26.9		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.68											
Actuated Cycle Length (s)	68.6		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	61.1%		ICU Level of Service				B					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
20: Townsgate Drive & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔		↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	38	67	6	226	45	146	14	342	52	159	499	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.91		1.00	0.91	
Flt	1.00	0.99		1.00	1.00	0.85	1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1839		1770	1863	1583	1770	4984		1770	4996	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1839		1770	1863	1583	1770	4984		1770	4996	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	74	7	251	50	162	16	380	58	177	554	73
RTOR Reduction (vph)	0	5	0	0	0	118	0	28	0	0	20	0
Lane Group Flow (vph)	42	76	0	251	50	44	16	409	0	177	607	0
Turn Type	Prot			Prot		Prot	Prot			Prot		
Protected Phases	1	6		5	2	2	7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	2.0	5.4		11.6	15.0	15.0	0.7	13.6		8.3	21.2	
Effective Green, g (s)	2.0	5.4		11.6	15.0	15.0	0.7	13.6		8.3	21.2	
Actuated g/C Ratio	0.04	0.10		0.21	0.27	0.27	0.01	0.25		0.15	0.39	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	64	181		374	509	433	23	1235		268	1929	
vs Ratio Prot	0.02	c0.04		c0.14	0.03	0.03	0.01	0.08		c0.10	c0.12	
vs Ratio Perm												
v/c Ratio	0.66	0.42		0.67	0.10	0.10	0.70	0.33		0.66	0.31	
Uniform Delay, d1	26.1	23.3		19.9	14.9	14.9	27.0	16.9		22.0	11.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	21.7	1.6		4.7	0.1	0.1	63.9	0.2		6.0	0.1	
Delay (s)	47.8	24.8		24.6	15.0	15.0	90.9	17.1		28.0	11.9	
Level of Service	D	C		C	B	B	F	B		C	B	
Approach Delay (s)		32.7			20.2			19.7			15.4	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay	18.8		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.48											
Actuated Cycle Length (s)	54.9		Sum of lost time (s)				12.0					
Intersection Capacity Utilization	45.8%		ICU Level of Service				A					
Analysis Period (min)	15											
c: Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
21: Carmel Creek Road & Carmel Country Road

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	311	118	123	60	291	29	269	425	28	66	416	396
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Flt	1.00	1.00	0.85		0.99		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583		1829		1770	3507		1770	3280	
Flt Permitted	0.95	1.00	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583		1829		1770	3507		1770	3280	
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)	327	124	129	63	306	31	283	447	29	69	438	417
RTOR Reduction (vph)	0	0	104	0	3	0	0	5	0	0	191	0
Lane Group Flow (vph)	327	124	25	0	397	0	283	471	0	69	664	0
Turn Type	Split	Perm	Split		Prot		Prot			Prot		
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	17.8	17.8	17.8		20.2		15.6	29.5		6.9	20.8	
Effective Green, g (s)	17.8	17.8	17.8		20.2		15.6	29.5		6.9	20.8	
Actuated g/C Ratio	0.20	0.20	0.20		0.22		0.17	0.33		0.08	0.23	
Clearance Time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	349	367	312		409		305	1144		135	755	
vs Ratio Prot	c0.18	0.07			c0.22		c0.16	0.13		0.04	c0.20	
vs Ratio Perm			0.02									
v/c Ratio	0.94	0.34	0.08		0.97		0.93	0.41		0.51	0.88	
Uniform Delay, d1	35.7	31.2	29.6		34.8		36.8	23.7		40.1	33.6	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	32.0	0.5	0.1		36.6		32.9	0.2		3.2	11.4	
Delay (s)	67.7	31.8	29.7		71.4		69.7	23.9		43.4	46.0	
Level of Service	E	C	C		E		E	C		D	D	
Approach Delay (s)		51.6			71.4			41.0			44.9	
Approach LOS		D			E			D			D	
Intersection Summary												
HCM Average Control Delay	49.2		HCM Level of Service				D					
HCM Volume to Capacity ratio	0.93											
Actuated Cycle Length (s)	90.4		Sum of lost time (s)				16.0					
Intersection Capacity Utilization	90.1%		ICU Level of Service				E					
Analysis Period (min)	15											
c: Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	3	1	2	1	1	1	1	1	1	1	1	1
Volume (vph)	30	110	245	94	221	105	212	337	29	87	903	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.97	0.91	1.00	0.91	1.00	0.91	0.98
Frl	1.00	1.00	0.85	1.00	0.95	1.00	0.99	1.00	0.98	1.00	0.98	0.98
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	3368	3433	5025	1770	5004	1770	5004	1770
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	3368	3433	5025	1770	5004	1770	5004	1770
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	122	272	104	246	117	236	374	32	97	1003	119
RTOR Reduction (vph)	0	0	200	0	95	0	0	16	0	0	24	0
Lane Group Flow (vph)	33	122	72	104	268	0	236	390	0	97	1098	0
Turn Type	Prot	custm	Split			Prot		Prot		Prot		
Protected Phases	2		6	6		3	8	7	4			
Permitted Phases	2	2										
Actuated Green, G (s)	15.9	15.9	15.9	5.8	5.8	5.0	15.6	6.7	17.3			
Effective Green, g (s)	15.9	15.9	15.9	5.8	5.8	5.0	15.6	6.7	17.3			
Actuated g/C Ratio	0.26	0.26	0.26	0.10	0.10	0.08	0.26	0.11	0.29			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	469	494	419	171	326	286	1307	198	1443			
v/s Ratio Prot	0.02		0.06	0.08		0.05	0.08		0.22			
v/s Ratio Perm		0.07	0.05									
v/c Ratio	0.07	0.25	0.17	0.61	0.82	0.83	0.30	0.49	0.76			
Uniform Delay, d1	16.5	17.3	17.0	26.0	26.6	27.1	17.8	25.0	19.5			
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.3	1.2	0.9	6.0	15.3	17.3	0.1	1.9	2.4			
Delay (s)	16.8	18.5	17.9	32.0	41.9	44.4	17.9	26.9	21.9			
Level of Service	B	B	B	C	D	D	B	C	C			
Approach Delay (s)		18.0		39.7		27.7		22.3				
Approach LOS		B		D		C		C				
Intersection Summary												
HCM Average Control Delay	25.8			HCM Level of Service				C				
HCM Volume to Capacity ratio	0.54											
Actuated Cycle Length (s)	60.0											
Sum of lost time (s)	12.0											
Intersection Capacity Utilization	52.0%			ICU Level of Service				A				
Analysis Period (min)	15											
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road

Existing + Project (Buildout) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	4	1	1	1	1	1	1	1	1	1	1	1
Sign Control	Stop		Stop				Stop			Stop		Stop
Volume (vph)	54	6	75	13	26	14	126	30	2	3	16	196
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	60	7	83	14	29	16	140	33	2	3	18	218
Direction Lane #	SE 3	SE 2	NW 1	NW 1	SW 1							
Volume Total (vph)	67	83	59	176	239							
Volume Left (vph)	60	0	14	140	3							
Volume Right (vph)	0	83	16	2	218							
Hadj (s)	0.48	0.67	0.08	0.19	0.51							
Departure Headway (s)	6.0	4.9	5.1	4.9	4.2							
Degree Utilization, x	0.11	0.11	0.08	0.24	0.28							
Capacity (veh/h)	556	684	635	699	817							
Control Delay (s)	8.6	7.3	8.6	9.4	8.7							
Approach Delay (s)	7.8		8.6	9.4	8.7							
Approach LOS	A		A	A	A							
Intersection Summary												
Delay	8.7											
HCM Level of Service	A											
Intersection Capacity Utilization	41.5%			ICU Level of Service				A				
Analysis Period (min)	15											

HCM Signalized Intersection Capacity Analysis
24: Carmel Grove Road & Carmel Creek Road

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	7	7	4	4	4	4	4	4	4	4	4
Volume (vph)	52	89	116	199	61	24	30	296	81	15	770	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85		0.99	1.00		0.97	1.00		1.00	0.98	
Flt Protected	0.98	1.00		0.97	0.95		1.00	0.95		1.00	1.00	
Sald. Flow (prot)	1829	1583		1779	1770		3425	1770		3457	3457	
Flt Permitted	0.98	1.00		0.97	0.95		1.00	0.95		1.00	1.00	
Sald. Flow (perm)	1829	1583		1779	1770		3425	1770		3457	3457	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	99	129	221	68	27	33	329	90	17	856	156
RTOR Reduction (vph)	0	0	108	0	4	0	0	28	0	0	17	0
Lane Group Flow (vph)	0	167	21	0	312	0	33	391	0	17	995	0
Turn Type	Split		Prot	Split		Prot		Prot		Split		Prot
Protected Phases	4		4	8		8		5		2		6
Permitted Phases												
Actuated Green, G (s)	11.5	11.5		15.5		1.6	25.6	0.8	24.8			
Effective Green, g (s)	11.5	11.5		15.5		1.6	25.6	0.8	24.8			
Actuated g/C Ratio	0.17	0.17		0.22		0.02	0.37	0.01	0.36			
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	303	262		397		41	1263	20	1235			
v/s Ratio Prot	0.09	0.01		0.18		0.02	0.11	0.01	0.29			
v/s Ratio Perm												
v/c Ratio	0.52	0.08		0.79		0.80	0.31	0.85	0.81			
Uniform Delay, d1	26.4	24.5		25.4		33.7	15.6	34.2	20.1			
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00	1.00			
Incremental Delay, d2	1.5	0.1		9.9		69.0	0.1	131.5	3.9			
Delay (s)	27.9	24.6		35.2		102.7	15.7	165.7	24.0			
Level of Service	C	C		D		F	B	F	C			
Approach Delay (s)	26.4			35.2		22.1		26.4				
Approach LOS	C			D		C		C				
Intersection Summary												
HCM Average Control Delay	26.8		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.74		Sum of lost time (s)		16.0							
Actuated Cycle Length (s)	69.4		ICU Level of Service		B							
Intersection Capacity Utilization	58.6%		Analysis Period (min)		15							
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
25: Carmel Valley Road & I-5 SB Ramps

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	4								4	4
Volume (vph)	0	307	176				0	0	0	0	997	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0								4.0	4.0
Lane Util. Factor		0.95	0.97								0.95	0.91
Frt		1.00	1.00								1.00	1.00
Flt Protected		1.00	0.95								0.95	0.95
Sald. Flow (prot)		3345	3433								1681	1504
Flt Permitted		1.00	0.95								0.95	0.95
Sald. Flow (perm)		3345	3433								1681	1504
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	341	196				0	0	0	0	1108	160
RTOR Reduction (vph)	0	132	0				0	0	0	0	0	2
Lane Group Flow (vph)	0	405	0				424	694	0	0	565	60
Turn Type						Prot					Split	Prot
Protected Phases						4		3			6	6
Permitted Phases												
Actuated Green, G (s)						12.4		9.9			24.8	24.8
Effective Green, g (s)						12.4		9.9			24.8	24.8
Actuated g/C Ratio						0.21		0.17			0.42	0.42
Clearance Time (s)						4.0		4.0			4.0	4.0
Vehicle Extension (s)						3.0		3.0			3.0	3.0
Lane Grp Cap (vph)						702		575			705	676
v/s Ratio Prot						0.12		0.20			0.34	0.35
v/s Ratio Perm												
v/c Ratio						0.58		0.74			0.80	0.83
Uniform Delay, d1						21.0		23.4			15.0	15.3
Progression Factor						1.00		1.00			1.00	1.00
Incremental Delay, d2						1.2		4.9			6.5	8.3
Delay (s)						22.1		28.3			21.5	23.5
Level of Service						C		C			C	C
Approach Delay (s)						22.1		17.9		0.0	21.2	21.2
Approach LOS						C		B		A	C	C
Intersection Summary												
HCM Average Control Delay	20.1		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.74		Sum of lost time (s)		12.0							
Actuated Cycle Length (s)	59.1		ICU Level of Service		D							
Intersection Capacity Utilization	73.6%		Analysis Period (min)		15							
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
26: Carmel Valley Road & I-5 NB Ramps

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑↑	↑↑	↑↑	↑↑	↑↑			
Volume (vph)	61	1188	0	0	935	834	106	2	547	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.86	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	3433	3539			3539	1583	1681	1449	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1681	1449	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	68	1320	0	0	1039	927	118	2	608	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	494	0	37	37	0	0	0
Lane Group Flow (vph)	68	1320	0	0	1039	433	106	275	273	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	7	4			8	8	2	2	2			
Permitted Phases												
Actuated Green, G (s)	2.4	31.6			25.2	25.2	14.4	14.4	14.4			
Effective Green, g (s)	2.4	31.6			25.2	25.2	14.4	14.4	14.4			
Actuated g/C Ratio	0.04	0.59			0.47	0.47	0.27	0.27	0.27			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	153	2071			1652	739	448	386	401			
v/s Ratio Prot	0.02	0.37			0.29	0.27	0.06	0.19	0.18			
v/s Ratio Perm												
v/c Ratio	0.44	0.64			0.63	0.59	0.24	0.71	0.68			
Uniform Delay, d1	25.2	7.4			10.9	10.6	15.5	17.9	17.7			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	2.1	0.7			0.8	1.2	0.3	6.1	4.7			
Delay (s)	27.2	8.1			11.6	11.8	15.8	24.1	22.5			
Level of Service	C	A			B	B	B	C	C			
Approach Delay (s)		9.0				11.7		22.2			0.0	
Approach LOS		A				B		C			A	
Intersection Summary												
HCM Average Control Delay	12.6			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.66			Sum of lost time (s)			8.0					
Actuated Cycle Length (s)	54.0			ICU Level of Service			D					
Intersection Capacity Utilization	73.6%			Analysis Period (min)			15					
c Critical Lane Group												

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
27: Valley Centre Drive & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Volume (vph)	20	6	16	704	14	165	69	920	145	125	1070	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	1.00	0.91	1.00	0.91
Frt	1.00	0.97	0.85	1.00	0.99	0.85	1.00	0.98	1.00	0.98	1.00	1.00
Flt Protected	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1681	1617	1504	1681	1610	1504	1770	4981	1770	4981	1770	5073
Flt Permitted	0.95	0.98	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1681	1617	1504	1681	1610	1504	1770	4981	1770	4981	1770	5073
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	7	18	782	16	183	77	1022	161	139	1189	19
RTOR Reduction (vph)	0	3	14	0	2	110	0	21	0	0	1	0
Lane Group Flow (vph)	16	13	1	407	55	77	1162	0	139	1207	0	0
Turn Type	Split		Prot	Split		Prot	Prot		Prot			
Protected Phases	4	4	4	8	8	8	5	2	6			
Permitted Phases												
Actuated Green, G (s)	3.6	3.6	3.6	23.8	23.8	23.8	4.4	32.2	23.8	23.8		
Effective Green, g (s)	3.6	3.6	3.6	23.8	23.8	23.8	4.4	32.2	23.8	23.8		
Actuated g/C Ratio	0.05	0.05	0.05	0.33	0.33	0.33	0.06	0.45	0.33	0.33		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	85	81	76	559	535	500	109	2240	588	1686		
v/s Ratio Prot	0.01	0.01	0.00	0.24	0.25	0.04	0.04	0.23	0.08			
v/s Ratio Perm												
v/c Ratio	0.19	0.16	0.01	0.73	0.76	0.11	0.71	0.52	0.24	0.72		
Uniform Delay, d1	32.6	32.6	32.3	21.1	21.4	16.6	33.0	14.1	17.3	20.9		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	1.1	0.9	0.1	4.7	6.3	0.1	18.8	0.2	0.2	1.5		
Delay (s)	33.7	33.5	32.4	25.8	27.7	16.7	51.8	14.3	17.5	22.4		
Level of Service	C	C	C	C	C	B	D	B	B	C		
Approach Delay (s)				33.2		25.0		16.6			21.9	
Approach LOS				C		C		B			C	
Intersection Summary												
HCM Average Control Delay	21.1			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.70			Sum of lost time (s)			16.0					
Actuated Cycle Length (s)	71.6			ICU Level of Service			C					
Intersection Capacity Utilization	66.1%			Analysis Period (min)			15					
l Phase conflict between lane groups												
c Critical Lane Group												

Baseline

Synchro 7 - Report
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HCM Signalized Intersection Capacity Analysis
28: Carmel Valley Road & El Camino Real

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	308	1008	200	147	830	0	0	563	639
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.91	1.00	0.97	0.95			0.86	0.86
Frb, ped/bikes				1.00	1.00	1.00	1.00	1.00			0.93	0.80
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			0.95	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	5085	1583	3433	3539			4212	1086
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	5085	1583	3433	3539			4212	1086
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	342	1120	222	163	922	0	0	626	710
RTOR Reduction (vph)	0	0	0	0	0	83	0	0	0	0	14	14
Lane Group Flow (vph)	0	0	0	342	1120	139	163	922	0	0	967	341
Confl. Peds. (#/hr)												200
Turn Type				Prot		Perm	Prot				Perm	
Protected Phases				3		8	5				6	
Permitted Phases						8						6
Actuated Green, G (s)				16.1	16.1	16.1	3.4	27.8			20.4	20.4
Effective Green, g (s)				16.1	16.1	16.1	3.4	27.8			20.4	20.4
Actuated g/C Ratio				0.31	0.31	0.31	0.07	0.54			0.39	0.39
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				1065	1577	491	225	1896			656	427
v/s Ratio Prot				0.10	0.22		0.05	0.26			0.23	
v/s Ratio Perm						0.09					0.31	
w/c Ratio				0.32	0.71	0.28	0.72	0.49			0.58	0.80
Uniform Delay, d1				13.7	15.8	13.5	23.6	7.6			12.4	13.9
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.2	1.5	0.3	11.0	0.2			0.5	10.0
Delay (s)				13.9	17.4	13.9	34.8	7.8			12.9	24.0
Level of Service				B	B	B	C	A			B	C
Approach Delay (s)		0.0			16.2			11.8			15.9	
Approach LOS		A			B			B			B	
Intersection Summary												
HCM Average Control Delay				14.9								B
HCM Volume to Capacity ratio				0.76								
Actuated Cycle Length (s)				51.9					12.0			
Intersection Capacity Utilization				96.1%					F			
Analysis Period (min)				15								
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
29: SR-56 EB on ramp & El Camino Real

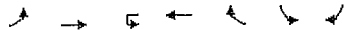
Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	589	896	265	0	0	0	0	0	367	192	121	686
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0			4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	0.86	0.91						0.86	1.00	0.91	
Frt	1.00	1.00	0.85						0.95	1.00	1.00	
Flt Protected	0.95	1.00	1.00						1.00	0.95	1.00	
Satd. Flow (prot)	1610	3176	1441						6078	1770	5085	
Flt Permitted	0.95	1.00	1.00						1.00	0.95	1.00	
Satd. Flow (perm)	1610	3176	1441						6078	1770	5085	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	654	996	294	0	0	0	0	0	408	213	134	762
RTOR Reduction (vph)	0	3	68	0	0	0	0	0	53	0	0	0
Lane Group Flow (vph)	543	1133	197	0	0	0	0	0	568	0	134	762
Turn Type		Split				Prot					Prot	
Protected Phases		4	4			4					2	1
Permitted Phases												6
Actuated Green, G (s)		24.2	24.2			24.2					11.9	4.6
Effective Green, g (s)		24.2	24.2			24.2					11.9	4.6
Actuated g/C Ratio		0.46	0.46			0.46					0.23	0.09
Clearance Time (s)		4.0	4.0			4.0					4.0	4.0
Vehicle Extension (s)		3.0	3.0			3.0					3.0	3.0
Lane Grp Cap (vph)		739	1458			662					1372	154
v/s Ratio Prot		0.34	0.36			0.14					0.09	0.08
v/s Ratio Perm												0.15
w/c Ratio		0.73	0.78			0.30					0.41	0.39
Uniform Delay, d1		11.6	12.0			8.9					17.4	23.8
Progression Factor		1.00	1.00			1.00					1.00	1.00
Incremental Delay, d2		3.8	2.7			0.3					0.2	37.7
Delay (s)		15.4	14.7			9.2					17.6	61.5
Level of Service		B	B			A					B	E
Approach Delay (s)			14.1					0.0			17.6	19.1
Approach LOS			B					A			B	B
Intersection Summary												
HCM Average Control Delay						16.1						HCM Level of Service
HCM Volume to Capacity ratio						0.63						B
Actuated Cycle Length (s)						52.7						Sum of lost time (s)
Intersection Capacity Utilization						96.1%						8.0
Analysis Period (min)												F
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
30: Valley Centre Drive & Carmel View Road

Existing + Project (Buildout) AM
12/11/2011



Movement	EBL	EBT	WBL	WBT	WBR	SBL	SBR
Lane Configurations	T	T	T	T	T	T	T
Volume (vph)	16	212	0	429	24	94	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		0.95		1.00	1.00
Frt	1.00	1.00		0.99		1.00	0.85
Flt Protected	0.95	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1770	3539		3511		1770	1583
Flt Permitted	0.95	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1770	3539		3511		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	18	236	0	477	27	104	124
RTOR Reduction (vph)	0	0	0	8	0	0	105
Lane Group Flow (vph)	18	236	0	496	0	104	19
Turn Type	Prot		Prot			Prot	
Protected Phases	7	4	3	8		6	6
Permitted Phases							
Actuated Green, G (s)	0.5	12.7		8.2		3.8	3.8
Effective Green, g (s)	0.5	12.7		8.2		3.8	3.8
Actuated g/C Ratio	0.02	0.52		0.33		0.16	0.16
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	36	1835		1175		275	246
v/s Ratio Prot	0.01	0.07		0.14		0.06	0.01
v/s Ratio Perm							
v/c Ratio	0.50	0.13		0.42		0.38	0.08
Uniform Delay, d1	11.9	3.0		6.3		9.3	8.9
Progression Factor	1.00	1.00		1.00		1.00	1.00
Incremental Delay, d2	10.5	0.0		0.2		0.9	0.1
Delay (s)	22.4	3.1		6.6		10.2	9.0
Level of Service	C	A		A		B	A
Approach Delay (s)		4.4		6.6		9.5	
Approach LOS		A		A		A	

Intersection Summary			
HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	24.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing + Project (Buildout) AM
12/11/2011



Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	T
Volume (vph)	76	214	142	157	362	97	316	330	209	1070	193	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00		1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.85	0.85	1.00	0.97		1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	2787	1583	1770	1804		1770	3539	1583	3433	3539	1583
Flt Permitted	0.31	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	579	2787	1583	1770	1804		1770	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	84	238	158	174	402	108	351	367	232	1189	214	226
RTOR Reduction (vph)	0	0	130	0	11	0	0	0	193	0	0	164
Lane Group Flow (vph)	84	238	28	174	499	0	351	367	39	1189	214	62
Turn Type	custom	custom	custom	Prot			Prot		Prot	Prot		Prot
Protected Phases				3	8		5	2	2	1	6	6
Permitted Phases	4	4	4									
Actuated Green, G (s)	15.5	15.5	15.5	9.4	28.9		21.9	14.5	14.5	31.1	23.7	23.7
Effective Green, g (s)	15.5	15.5	15.5	9.4	28.9		21.9	14.5	14.5	31.1	23.7	23.7
Actuated g/C Ratio	0.18	0.18	0.18	0.11	0.33		0.25	0.17	0.17	0.36	0.27	0.27
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	104	499	284	192	603		448	593	265	1234	970	434
v/s Ratio Prot				0.10	0.28		0.20	0.10	0.02	0.35	0.06	0.04
v/s Ratio Perm	0.15	0.09	0.02				0.78	0.62	0.15	0.96	0.22	0.14
v/c Ratio	0.81	0.48	0.10	0.91	0.83		0.78	0.62	0.15	0.96	0.22	0.14
Uniform Delay, d1	34.1	31.9	29.7	38.1	26.5		30.1	33.4	30.7	27.1	24.3	23.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	35.2	0.7	0.2	39.4	9.2		8.7	1.9	0.3	17.5	0.1	0.2
Delay (s)	69.2	32.6	29.8	77.5	35.7		38.8	35.4	31.0	44.6	24.4	23.9
Level of Service	E	C	C	E	D		D	D	C	D	C	C
Approach Delay (s)					46.3			35.6			39.1	
Approach LOS					D			D			D	

Intersection Summary			
HCM Average Control Delay	39.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	86.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	437	0	180	0	0	0	0	415	74	183	279	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.95		0.97	0.95	
Frt	1.00	1.00	0.85					0.98		1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					3459		3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					3459		3433	3539	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	486	0	200	0	0	0	0	461	82	203	310	0
RTOR Reduction (vph)	0	0	139	0	0	0	0	30	0	0	0	0
Lane Group Flow (vph)	243	243	61	0	0	0	0	513	0	203	310	0
Turn Type	Split		Prot					Prot				
Protected Phases	4	4	4					2		1	6	
Permitted Phases												
Actuated Green, G (s)	12.2	12.2	12.2					12.0		3.6	19.6	
Effective Green, g (s)	12.2	12.2	12.2					12.0		3.6	19.6	
Actuated g/C Ratio	0.31	0.31	0.31					0.30		0.09	0.49	
Clearance Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)	515	515	485					1043		311	1743	
v/s Ratio Prot	0.14	0.14	0.04					0.15		0.05	0.09	
v/s Ratio Perm												
v/c Ratio	0.47	0.47	0.13					0.49		0.65	0.18	
Uniform Delay, d1	11.2	11.2	10.0					11.4		17.5	5.6	
Progression Factor	1.00	1.00	1.00					1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.7	0.1					0.4		4.9	0.0	
Delay (s)	11.9	11.9	10.1					11.8		22.3	5.7	
Level of Service	B	B	B					B		C	A	
Approach Delay (s)		11.3				0.0		11.8			12.3	
Approach LOS		B				A		B			B	
Intersection Summary												
HCM Average Control Delay	11.7		HCM Level of Service		B							
HCM Volume to Capacity ratio	0.50											
Actuated Cycle Length (s)	39.8		Sum of lost time (s)		12.0							
Intersection Capacity Utilization	41.2%		ICU Level of Service		A							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
33: Carmel Country Road & Carmel Canyon Road

Existing + Project (Buildout) AM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	86	505	38	141	464	335	59	64	236	823	139	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.88		1.00	0.92	
Frt	1.00	0.99		1.00	0.94		1.00	0.88		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3502		1770	3317		1770	1643		3433	1706	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3502		1770	3317		1770	1643		3433	1706	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	96	561	42	157	516	372	66	71	262	692	154	198
RTOR Reduction (vph)	0	6	0	0	134	0	0	151	0	0	48	0
Lane Group Flow (vph)	96	597	0	157	754	0	66	182	0	692	304	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	8.1	19.9		12.1	23.9		6.8	13.5		18.9	25.6	
Effective Green, g (s)	8.1	19.9		12.1	23.9		6.8	13.5		18.9	25.6	
Actuated g/C Ratio	0.10	0.25		0.15	0.30		0.08	0.17		0.24	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	178	867		266	986		150	276		807	543	
v/s Ratio Prot	0.05	0.17		0.09	0.23		0.04	0.11		0.20	0.16	
v/s Ratio Perm												
v/c Ratio	0.54	0.69		0.59	0.77		0.44	0.66		0.88	0.56	
Uniform Delay, d1	34.4	27.4		31.8	25.7		35.0	31.3		29.5	22.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.1	2.3		3.5	3.6		2.1	5.8		9.0	1.3	
Delay (s)	37.5	29.7		35.3	29.3		37.0	37.1		38.4	24.0	
Level of Service	D	C		D	C		D	D		D	C	
Approach Delay (s)		30.8			30.2			37.1			33.5	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM Average Control Delay	32.3		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.72											
Actuated Cycle Length (s)	80.4		Sum of lost time (s)		12.0							
Intersection Capacity Utilization	77.3%		ICU Level of Service		D							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
34: SR-56 WB Ramps & Carmel Country Road

Existing + Project (Buildout) AM
12/11/2011

Movement	WBL	WBR	SEL	SET	NWT	NWR	NWR2	SWL	SWR
Lane Configurations			TT	TT	TT			TT	TT
Volume (vph)	0	0	754	580	742	0	306	133	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor			0.97	0.95	0.95		1.00	0.97	1.00
Flt			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)			3433	3539	3539		1583	3433	1583
Flt Permitted			0.95	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)			3433	3539	3539		1583	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	838	644	824	0	340	148	256
RTOR Reduction (vph)	0	0	0	0	0	0	230	0	218
Lane Group Flow (vph)	0	0	838	644	824	0	110	148	38
Turn Type			Prot				Perm		Perm
Protected Phases			5	2	6		4		4
Permitted Phases							6		4
Actuated Green, G (s)			17.2	39.0	17.8		17.8	8.2	8.2
Effective Green, g (s)			17.2	39.0	17.8		17.8	8.2	8.2
Actuated g/C Ratio			0.31	0.71	0.32		0.32	0.15	0.15
Clearance Time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			1070	2500	1141		510	510	235
v/s Ratio Prot			0.24	0.18	0.23		0.04		
v/s Ratio Perm							0.07		0.02
v/c Ratio			0.78	0.26	0.72		0.21	0.29	0.16
Uniform Delay, d1			17.3	2.9	16.5		13.6	20.9	20.5
Progression Factor			1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2			3.8	0.1	2.3		0.2	0.3	0.3
Delay (s)			21.1	3.0	18.8		13.8	21.2	20.8
Level of Service			C	A	B		B	C	C
Approach Delay (s)	0.0		13.2	17.3			21.0		
Approach LOS	A		B	B			C		
Intersection Summary									
HCM Average Control Delay			15.8		HCM Level of Service				B
HCM Volume to Capacity ratio			0.66						
Actuated Cycle Length (s)			55.2		Sum of lost time (s)			12.0	
Intersection Capacity Utilization			55.8%		ICU Level of Service				B
Analysis Period (min)			15						
c Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
35: SR-56 EB Ramps & Carmel Country Road

Existing + Project (Buildout) AM
12/11/2011

Movement	EBL2	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations	TT	TT	TT	TT	TT			TT	TT		
Volume (vph)	300	0	161	347	370	0	0	723	214	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Lane Util. Factor	0.95	0.95	1.00	0.97	0.95			0.95	1.00		
Flt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		
Flt Protected	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (prot)	1681	1681	1583	3433	3539			3539	1583		
Flt Permitted	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (perm)	1681	1681	1583	3433	3539			3539	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	333	0	179	386	411	0	0	803	238	0	0
RTOR Reduction (vph)	0	0	141	0	0	0	0	0	156	0	0
Lane Group Flow (vph)	166	167	38	386	411	0	0	803	82	0	0
Turn Type	Split		Prot	Prot				Prot			
Protected Phases	4	4	4	1	6			2	2		
Permitted Phases											
Actuated Green, G (s)	10.1	10.1	10.1	8.9	29.3			16.4	16.4		
Effective Green, g (s)	10.1	10.1	10.1	8.9	29.3			16.4	16.4		
Actuated g/C Ratio	0.21	0.21	0.21	0.19	0.62			0.35	0.35		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		
Lane Grp Cap (vph)	358	358	337	645	2188			1224	548		
v/s Ratio Prot	0.10	0.10	0.02	0.11	0.12			0.23	0.05		
v/s Ratio Perm											
v/c Ratio	0.46	0.47	0.11	0.60	0.19			0.66	0.15		
Uniform Delay, d1	16.3	16.3	15.0	17.6	3.9			13.1	10.7		
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Incremental Delay, d2	1.0	1.0	0.1	1.5	0.0			1.3	0.1		
Delay (s)	17.2	17.3	15.2	19.1	4.0			14.4	10.8		
Level of Service	B	B	B	B	A			B	B		
Approach Delay (s)	16.5			11.3				13.6	0.0		
Approach LOS	B			B				B	A		
Intersection Summary											
HCM Average Control Delay			13.4		HCM Level of Service				B		
HCM Volume to Capacity ratio			0.59								
Actuated Cycle Length (s)			47.4		Sum of lost time (s)			12.0			
Intersection Capacity Utilization			48.2%		ICU Level of Service				A		
Analysis Period (min)			15								
c Critical Lane Group											

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	Jacob Swim			Intersection	Carmel Creek Rd./Del Mar Trail			
Agency/Co.	USAF			Jurisdiction	City of San Diego			
Date Performed	3/4/2011			Analysis Year	2011			
Analysis Time Period	36 Existing + Project (BC) AM							
Project ID 002407 - San Diego Corporate Center Lots								
East/West Street: Del Mar Trail				North/South Street: Carmel Creek Road				
Volume Adjustments and Site Characteristics								
Approach Movement	Eastbound			Westbound				
	L	T	R	L	T	R		
Volume (veh/h)	10	10	10	200	2	25		
%Thrus Left Lane								
Approach Movement	Northbound			Southbound				
	L	T	R	L	T	R		
Volume (veh/h)	3	269	100	15	938	3		
%Thrus Left Lane	50			50				
Configuration	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.90		0.90		0.90	0.90	0.90	0.90
Flow Rate (veh/h)	33		251		151	261	537	524
% Heavy Vehicles	2		2		2	2	2	2
No. Lanes	1		1		2		2	
Geometry Group	2		2		5		5	
Duration, T								0.25
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.3		0.9		0.0	0.0	0.0	0.0
Prop. Right-Turns	0.3		0.1		0.0	0.4	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.0	0.0	0.0	0.0
hLT-adj	0.2	0.2	0.2		0.5	0.5	0.5	0.5
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.1		0.0	-0.3	0.0	0.0
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20	3.20	3.20	3.20
x, initial	0.03		0.22		0.13	0.23	0.48	0.47
hd, final value (s)	7.44		6.81		7.09	6.78	6.29	6.27
x, final value	0.07		0.47		0.30	0.49	0.94	0.91
Move-up time, m (s)	2.0		2.0		2.3		2.3	
Service Time, I _s (s)	5.4		4.8		4.8	4.5	4.0	4.0
Capacity and Level of Service								
Capacity (veh/h)	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	283		501		401	511	572	574
Delay (s/veh)	10.98		15.82		12.77	15.86	48.51	43.79
LOS	B		C		B	C	E	E
Approach Delay (s/veh)	10.98		15.82		14.73		46.18	
LOS	B		C		B		E	
Intersection Delay (s/veh)								33.80
Intersection LOS								D

HCM Signalized Intersection Capacity Analysis
1: Via De La Valle & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑		↔	↑		↔	↑	↔	↔	↔	↔
Volume (vph)	6	397	510	174	363		546	2	409	1	2	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Flt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)	1770	1863	1583	1770	1861			1774	1583		1778	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (perm)	1770	1863	1583	1770	1861			1774	1583		1778	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	441	567	193	403	3	607	2	454	1	2	1
RTOR Reduction (vph)	0	0	269	0	0	0	0	0	277	0	1	0
Lane Group Flow (vph)	7	441	298	193	406	0	0	609	177	0	3	0
Turn Type	Prot		Prot	Prot			Split		Prot	Split		
Protected Phases	7	4	4	3	8			2	2	2	6	6
Permitted Phases												
Actuated Green, G (s)	0.8	29.4	29.4	12.4	41.0			37.7	37.7		1.2	
Effective Green, g (s)	0.8	29.4	29.4	12.4	41.0			37.7	37.7		1.2	
Actuated g/C Ratio	0.01	0.30	0.30	0.13	0.42			0.39	0.39		0.01	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	15	566	481	227	789			692	617		22	
v/s Ratio Prot	0.00	c0.24	0.19	c0.11	0.22			c0.34	0.11		c0.00	
v/s Ratio Perm												
y/c Ratio	0.47	0.78	0.62	0.85	0.51			0.88	0.29		0.14	
Uniform Delay, d1	47.7	30.7	28.9	41.2	20.5			27.4	20.3		47.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	21.2	6.7	2.5	25.0	0.6			12.5	0.3		2.8	
Delay (s)	69.0	37.4	31.3	66.2	21.1			39.9	20.5		50.1	
Level of Service	E	D	C	E	C			D	C		D	
Approach Delay (s)	34.2		35.6		31.6		50.1					
Approach LOS	C		D		C		D					
Intersection Summary												
HCM Average Control Delay	33.5					HCM Level of Service					C	
HCM Volume to Capacity ratio	0.83											
Actuated Cycle Length (s)	96.7					Sum of lost time (s)					16.0	
Intersection Capacity Utilization	77.6%					ICU Level of Service					D	
Analysis Period (min)	15											
c. Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
2: San Dieguito Road & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↖ ↗	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	213	256	0	572	371	332	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00		1.00	1.00	1.00	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		1863	1583	1770	3539
Flt Permitted	0.95	1.00		1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583		1863	1583	1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	237	284	0	636	412	369	343
RTOR Reduction (vph)	0	235	0	0	246	0	0
Lane Group Flow (vph)	237	49	0	636	166	369	343
Turn Type	Perm		Prot		Perm		Prot
Protected Phases	1		3	8		7	
Permitted Phases		1			8		6
Actuated Green, G (s)	12.4	12.4		28.8	28.8	18.3	12.4
Effective Green, g (s)	12.4	12.4		28.8	28.8	18.3	12.4
Actuated g/C Ratio	0.17	0.17		0.40	0.40	0.26	0.17
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	595	275		750	638	453	614
v/s Ratio Prot	0.07			0.34		0.21	
v/s Ratio Perm		0.03			0.10		0.10
v/c Ratio	0.40	0.18		0.85	0.26	0.81	0.56
Uniform Delay, d1	26.2	25.2		19.4	14.2	25.0	27.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.3		8.8	0.2	10.8	1.1
Delay (s)	26.7	25.5		28.2	14.5	35.8	28.2
Level of Service	C	C		C	B	D	C
Approach Delay (s)	26.0			22.8		32.1	
Approach LOS	C			C		C	
Intersection Summary							
HCM Average Control Delay	26.4		HCM Level of Service		C		
HCM Volume to Capacity ratio	0.78						
Actuated Cycle Length (s)	71.5		Sum of lost time (s)		12.0		
Intersection Capacity Utilization	64.6%		ICU Level of Service		C		
Analysis Period (min)	15						
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis
3: Derby Downs Road & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations	↖ ↗	↖ ↗	↑	↑	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	63	6	0	904	108	8	519
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0		4.0	4.0
Lane Util. Factor	0.97			0.95		1.00	0.95
Frt	0.99			0.98		1.00	1.00
Flt Protected	0.96			1.00		0.95	1.00
Satd. Flow (prot)	3409			3483		1770	3539
Flt Permitted	0.95			1.00		0.95	1.00
Satd. Flow (perm)	3409			3483		1770	3539
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	7	0	1004	120	9	577
RTOR Reduction (vph)	6	0	0	12	0	0	0
Lane Group Flow (vph)	71	0	0	1112	0	9	577
Turn Type	Perm		Prot		Prot		
Protected Phases	8		5	2		1	6
Permitted Phases							
Actuated Green, G (s)	3.1			19.6		0.6	24.2
Effective Green, g (s)	3.1			19.6		0.6	24.2
Actuated g/C Ratio	0.09			0.56		0.02	0.69
Clearance Time (s)	4.0			4.0		4.0	4.0
Vehicle Extension (s)	3.0			3.0		3.0	3.0
Lane Grp Cap (vph)	299			1934		30	2426
v/s Ratio Prot	0.02			0.32		0.01	0.16
v/s Ratio Perm							
v/c Ratio	0.24			0.57		0.30	0.24
Uniform Delay, d1	15.0			5.1		17.1	2.1
Progression Factor	1.00			1.00		1.00	1.00
Incremental Delay, d2	0.4			0.4		5.6	0.1
Delay (s)	15.4			5.5		22.7	2.1
Level of Service	B			A		C	A
Approach Delay (s)	15.4			5.5		2.5	
Approach LOS	B			A		A	
Intersection Summary							
HCM Average Control Delay	5.0		HCM Level of Service		A		
HCM Volume to Capacity ratio	0.54						
Actuated Cycle Length (s)	35.3		Sum of lost time (s)		12.0		
Intersection Capacity Utilization	38.4%		ICU Level of Service		A		
Analysis Period (min)	15						
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis
4: Half Mile Road & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↕	↔	↔	↕	↔	↕	↕	↔	↕	↕	↔	
Volume (vph)	22	21	14	26	20	150	25	822	65	86	465	27	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Frt	1.00	0.94	1.00	0.87	1.00	0.99	1.00	0.99	1.00	0.99	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1748	1770	1616	1770	3500	1770	3510	1770	3510	1770	3510	
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1748	1770	1616	1770	3500	1770	3510	1770	3510	1770	3510	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	24	23	16	29	22	167	28	913	72	96	517	30	
RTOR Reduction (vph)	0	14	0	0	148	0	0	8	0	0	5	0	
Lane Group Flow (vph)	24	25	0	29	41	0	28	977	0	96	542	0	
Turn Type	Prot			Prot			Prot			Prot			
Protected Phases	7	4		3	8		5	2		1	6		
Permitted Phases													
Actuated Green, G (s)	0.8	5.2		0.8	5.2		0.6	20.6		3.6	23.6		
Effective Green, g (s)	0.8	5.2		0.8	5.2		0.6	20.6		3.6	23.6		
Actuated g/C Ratio	0.02	0.11		0.02	0.11		0.01	0.45		0.08	0.51		
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	31	197		31	182		23	1561		138	1793		
v/s Ratio Prot	0.01	0.01		0.02	0.03		0.02	0.28		0.05	0.15		
v/s Ratio Perm													
v/c Ratio	0.77	0.19		0.94	0.22		1.22	0.63		0.70	0.30		
Uniform Delay, d1	22.6	18.5		22.7	18.7		22.8	9.8		20.8	6.5		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Incremental Delay, d2	73.6	0.3		133.5	0.6		261.7	0.8		14.2	0.1		
Delay (s)	96.3	18.7		156.2	19.3		284.5	10.6		34.9	6.6		
Level of Service	F	B		F	B		F	B		C	A		
Approach Delay (s)		48.3			37.5			18.2			10.9		
Approach LOS		D			D			B			B		
Intersection Summary													
HCM Average Control Delay	18.9		HCM Level of Service					B					
HCM Volume to Capacity ratio	0.63												
Actuated Cycle Length (s)	46.2		Sum of lost time (s)					20.0					
Intersection Capacity Utilization	56.5%		ICU Level of Service					B					
Analysis Period (min)	15												
c - Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
5: Quarter Mile Road & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↕	↔	↔	↕	↔	↕	↕	↔	↕	↕	↔	
Volume (vph)	7	41	32	52	29	19	47	971	131	22	499	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.94	1.00	0.98	1.00	0.98	1.00	0.98	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	
Satd. Flow (prot)	1770	1863	1583	1770	1752	1770	3476	1770	3476	1770	3529	1770	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	
Satd. Flow (perm)	1770	1863	1583	1770	1752	1770	3476	1770	3476	1770	3529	1770	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	8	46	36	58	32	21	52	1079	146	24	554	11	
RTOR Reduction (vph)	0	0	32	0	18	0	0	12	0	0	2	0	
Lane Group Flow (vph)	8	46	4	58	35	0	52	1213	0	24	563	0	
Turn Type	Prot			Prot	Prot		Prot			Prot			
Protected Phases	7	4		4	8		5	2		1	6		
Permitted Phases													
Actuated Green, G (s)	0.8	5.0		5.0	2.8		1.9	25.3		0.7	24.1		
Effective Green, g (s)	0.8	5.0		5.0	2.8		1.9	25.3		0.7	24.1		
Actuated g/C Ratio	0.02	0.10		0.10	0.06		0.04	0.51		0.01	0.48		
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	28	187		159	100		68	1766		25	1708		
v/s Ratio Prot	0.00	0.02		0.00	0.03		0.03	0.35		0.01	0.16		
v/s Ratio Perm													
v/c Ratio	0.29	0.25		0.02	0.58		0.14	0.76		0.96	0.33		
Uniform Delay, d1	24.2	20.7		20.2	22.9		23.7	9.3		24.5	7.9		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Incremental Delay, d2	5.6	0.7		0.1	7.9		39.2	1.1		161.9	0.1		
Delay (s)	29.8	21.4		20.3	30.8		62.9	10.4		186.4	8.0		
Level of Service	C	C		C	C		E	B		F	A		
Approach Delay (s)		21.7			25.2			12.5			15.3		
Approach LOS		C			C			B			B		
Intersection Summary													
HCM Average Control Delay	14.4		HCM Level of Service					B					
HCM Volume to Capacity ratio	0.57												
Actuated Cycle Length (s)	49.8		Sum of lost time (s)					12.0					
Intersection Capacity Utilization	53.9%		ICU Level of Service					A					
Analysis Period (min)	15												
c - Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
6: Del Mar Heights Road & Mango Drive

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑		↑	↑↑		↑	↑↑	
Volume (vph)	124	845	16	149	913	217	40	31	68	400	35	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	1.00	0.95	0.95		0.95
Frt	1.00	1.00		1.00	0.97		1.00	0.85	1.00	0.93		0.93
Frt Protected	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.98		0.98
Satd. Flow (prot)	1770	5071		1770	3437		1812	1583	1681	1613		1613
Frt Permitted	0.95	1.00		0.95	1.00		0.97	1.00	0.95	0.98		0.98
Satd. Flow (perm)	1770	5071		1770	3437		1812	1583	1681	1613		1613
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	138	939	18	166	1014	241	44	34	76	444	39	144
RTOR Reduction (vph)	0	2	0	0	21	0	0	0	69	0	34	0
Lane Group Flow (vph)	138	955	0	166	1234	0	0	78	7	320	273	0
Turn Type	Prot			Prot			Split		Perm	Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			
Actuated Green, G (s)	7.9	28.2		11.3	31.6		7.5	7.5	17.8	17.8		
Effective Green, g (s)	7.9	28.2		11.3	31.6		7.5	7.5	17.8	17.8		
Actuated g/C Ratio	0.10	0.35		0.14	0.39		0.09	0.09	0.22	0.22		
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	173	1770		248	1344		168	147	370	355		
vs Ratio Prot	0.08	0.19		0.09	0.36		0.04		0.19	0.17		
vs Ratio Perm								0.00				
v/c Ratio	0.80	0.54		0.67	0.92		0.46	0.05	0.86	0.77		
Uniform Delay, d1	35.7	21.1		33.0	23.4		34.7	33.4	30.3	29.6		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		
Incremental Delay, d2	22.0	0.3		6.7	10.1		2.0	0.1	18.5	9.6		
Delay (s)	57.7	21.4		39.7	33.4		36.8	33.5	48.9	39.2		
Level of Service	E	C		D	C		D	C	D	D		
Approach Delay (s)		26.0			34.2			35.2		44.1		
Approach LOS		C			C			D		D		
Intersection Summary												
HCM Average Control Delay	33.4			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.84											
Actuated Cycle Length (s)	60.8			Sum of lost time (s)			16.0					
Intersection Capacity Utilization	72.2%			ICU Level of Service			C					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
7: Del Mar Heights Road & Portofino Drive

Existing + Project (Buildout) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	↑↑			↑↑		↑	
Volume (veh/h)	1294	62	0	1605	0	113	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	1438	69	0	1783	0	126	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)	575			607			
pX platoon unblocked			0.87		0.75	0.87	
vC, conflicting volume			1507		2364	514	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			1059		1122	0	
IC, single (s)			4.1		6.8	6.9	
IC, 2 stage (s)							
IF (s)			2.2		3.5	3.3	
p0 queue free %			100		100	87	
cm capacity (veh/h)			568		151	943	
Direction Lane							
Volume Total	575	575	856	892	892	126	
Volume Left	0	0	0	0	0	0	
Volume Right	0	0	69	0	0	126	
cSH	1700	1700	1700	1700	1700	943	
Volume to Capacity	0.34	0.34	0.21	0.52	0.52	0.13	
Queue Length 95th (ft)	0	0	0	0	0	11	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.4	
Lane LOS						A	
Approach Delay (s)	0.0			0.0		9.4	
Approach LOS						A	
Intersection Summary							
Average Delay	0.3						
Intersection Capacity Utilization	47.7%			ICU Level of Service			A
Analysis Period (min)	15						

HCM Signalized Intersection Capacity Analysis
8: Del Mar Heights Rd. & I-15 SB Ramps

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Volume (vph)	0	1023	1337	0	960	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3	6.3		5.6	5.6
Lane Util. Factor		0.95	0.95		0.97	0.91
Flt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3539	3539		3431	1441
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3539	3539		3431	1441
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1137	1486	0	1067	322
RTOR Reduction (vph)	0	0	0	0	3	16
Lane Group Flow (vph)	0	1137	1486	0	1096	274
Turn Type					Perm	
Protected Phases	2.6	6.2			4	
Permitted Phases					4	
Actuated Green, G (s)	42.1	42.1			26.0	26.0
Effective Green, g (s)	42.1	42.1			26.0	26.0
Actuated g/C Ratio	0.53	0.53			0.32	0.32
Clearance Time (s)					5.6	5.6
Vehicle Extension (s)					3.0	3.0
Lane Grp Cap (vph)	1862	1862			1115	468
v/s Ratio Prot	0.32	0.42			0.32	
v/s Ratio Perm						0.19
v/c Ratio	0.61	0.80			0.98	0.69
Uniform Delay, d1	13.2	15.5			26.8	22.5
Progression Factor	1.00	1.00			1.00	1.00
Incremental Delay, d2	0.6	2.5			22.8	1.9
Delay (s)	13.8	18.0			49.6	24.4
Level of Service	B	B			D	C
Approach Delay (s)	13.8	18.0			44.3	
Approach LOS	B	B			D	
Intersection Summary						
HCM Average Control Delay	25.9		HCM Level of Service		C	
HCM Volume to Capacity ratio	0.87					
Actuated Cycle Length (s)	80.0		Sum of lost time (s)		11.9	
Intersection Capacity Utilization	75.3%		ICU Level of Service		D	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
9: Del Mar Heights Road & I-15 NB Ramps

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑↑	↑↑	↑	↑	↑	↑	↑	↑	↑
Volume (vph)	235	1721	0	0	1374	949	615	10	971	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.91	1.00	0.95	0.91	0.95			
Flt	1.00	1.00			1.00	0.85	1.00	0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3433	3539			5085	583	1681	1467	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3433	3539			5085	583	1681	1467	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	261	1912	0	0	1527	1054	683	11	1079	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	509	0	4	4	0	0	0
Lane Group Flow (vph)	261	1912	0	0	1527	545	615	582	568	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	5	2			6	6	8	8	8			
Permitted Phases												
Actuated Green, G (s)	11.0	62.0			47.0	47.0	50.0	50.0	50.0			
Effective Green, g (s)	11.0	62.0			47.0	47.0	50.0	50.0	50.0			
Actuated g/C Ratio	0.09	0.52			0.39	0.39	0.42	0.42	0.42			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	315	1828			1992	620	700	611	627			
v/s Ratio Prot	0.08	0.54			0.30	0.34	0.37	0.40	0.38			
v/s Ratio Perm												
v/c Ratio	0.83	1.05			0.77	0.88	0.88	0.95	0.91			
Uniform Delay, d1	53.6	28.0			31.7	33.9	32.2	33.8	32.8			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	16.2	34.2			2.9	16.2	12.1	25.0	16.6			
Delay (s)	69.8	63.2			34.6	50.1	44.3	58.9	49.4			
Level of Service	E	E			C	D	D	E	D			
Approach Delay (s)	64.0				40.9			50.8				0.0
Approach LOS	E				D			D				A
Intersection Summary												
HCM Average Control Delay	51.3		HCM Level of Service		D							
HCM Volume to Capacity ratio	1.00											
Actuated Cycle Length (s)	120.0		Sum of lost time (s)		8.0							
Intersection Capacity Utilization	102.7%		ICU Level of Service		G							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
10: Del Mar Heights Road & High Bluff Drive

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑↑	↑	↑	↑↑↑	↑	↑↑	↑↑	↑	↑	↑	↑
Volume (vph)	242	2464	251	66	1803	79	618	65	171	64	29	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	0.97	0.95	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99	1.00	0.89	1.00	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5053	3433	3154	1770	1863	1583	1583	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5053	3433	3154	1770	1863	1583	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	269	2738	279	73	2003	88	687	72	190	71	32	89
RTOR Reduction (vph)	0	0	62	0	3	0	0	102	0	0	0	83
Lane Group Flow (vph)	269	2738	217	73	2088	0	687	160	0	71	32	16
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8	5	2	1	6	6	6	6
Permitted Phases												
Actuated Green, G (s)	23.4	79.0	79.0	7.0	62.6	30.0	29.8	9.0	8.8	8.8	8.8	8.8
Effective Green, g (s)	23.4	79.0	79.0	7.0	62.6	30.0	29.8	9.0	8.8	8.8	8.8	8.8
Actuated g/C Ratio	0.17	0.56	0.56	0.05	0.44	0.21	0.21	0.06	0.06	0.06	0.06	0.06
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	294	2853	888	88	2247	731	668	113	116	99	99	99
v/s Ratio Prot	0.15	0.54	0.14	0.04	0.41	0.20	0.05	0.04	0.02	0.02	0.02	0.02
v/s Ratio Perm												
w/c Ratio	0.91	0.96	0.24	0.83	0.93	0.94	0.24	0.63	0.28	0.06	0.07	0.07
Uniform Delay, d1	57.7	29.4	15.7	66.3	37.0	54.5	46.1	64.3	63.0	62.1	62.1	62.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	31.1	9.2	0.1	44.8	7.4	19.7	0.2	10.4	1.3	0.2	0.2	0.2
Delay (s)	88.8	38.6	15.9	111.1	44.5	74.3	46.3	74.7	64.3	62.3	62.3	62.3
Level of Service	F	D	B	F	D	E	D	E	E	E	E	E
Approach Delay (s)		40.8			46.7		66.5		67.2		67.2	
Approach LOS		D			D		E		E		E	
Intersection Summary:												
HCM Average Control Delay	47.2		HCM Level of Service				D					
HCM Volume to Capacity ratio	0.86											
Actuated Cycle Length (s)	140.8											
Intersection Capacity Utilization	85.6%		ICU Level of Service				E					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
11: Del Mar Heights Road & Third Ave.

Existing + Project (Buildout) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑↑	↑↑	↑
Volume (vph)	2617	221	172	1726	306	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	1.00	0.91	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	1770	5085	3433	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	1770	5085	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2908	246	191	1918	340	264
RTOR Reduction (vph)	0	80	0	0	0	150
Lane Group Flow (vph)	2908	166	191	1918	340	114
Turn Type	Perm		Prot	Perm		Perm
Protected Phases	4	3	8	2		
Permitted Phases	4			2		2
Actuated Green, G (s)	52.0	52.0	10.0	66.0	13.5	13.5
Effective Green, g (s)	52.0	52.0	10.0	66.0	13.5	13.5
Actuated g/C Ratio	0.59	0.59	0.11	0.75	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3022	941	202	3836	530	244
v/s Ratio Prot	0.57		0.11	0.38	0.10	
v/s Ratio Perm	0.10			0.07		
w/c Ratio	0.96	0.18	0.95	0.50	0.64	0.47
Uniform Delay, d1	16.8	8.0	38.5	4.2	34.7	33.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.2	0.1	47.6	0.1	2.7	1.4
Delay (s)	26.0	8.1	86.0	4.3	37.4	35.2
Level of Service	C	A	F	A	D	D
Approach Delay (s)	24.6			11.7	36.4	
Approach LOS	C			B	D	
Intersection Summary:						
HCM Average Control Delay	21.2		HCM Level of Service		C	
HCM Volume to Capacity ratio	0.90					
Actuated Cycle Length (s)	87.5					
Intersection Capacity Utilization	78.8%		ICU Level of Service		D	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
12: Del Mar Heights Road & First Ave.

Existing + Project (Buildout) PM
12/11/2011

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↓	↑↑↑	↓	↓
Volume (vph)	2671	184	184	1643	255	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2968	204	204	1826	283	283
RTOR Reduction (vph)	0	66	0	0	0	89
Lane Group Flow (vph)	2968	138	204	1826	283	194
Turn Type	Perm		Prot		Perm	
Protected Phases	4		3		8	2
Permitted Phases	4				2	
Actuated Green, G (s)	54.0	54.0	6.0	64.0	16.9	16.9
Effective Green, g (s)	54.0	54.0	6.0	64.0	16.9	16.9
Actuated g/C Ratio	0.61	0.61	0.07	0.72	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3089	962	232	3661	336	301
v/s Ratio Prot	c0.58		c0.06	0.36	c0.16	
v/s Ratio Perm	0.09				0.12	
v/c Ratio	0.95	0.14	0.88	0.50	0.84	0.64
Uniform Delay, d1	16.5	7.5	41.1	5.4	34.7	33.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.9	0.1	29.1	0.1	17.1	4.7
Delay (s)	25.3	7.6	70.2	5.5	51.9	37.9
Level of Service	C	A	E	A	D	D
Approach Delay (s)	24.2		12.0		44.9	
Approach LOS	C		B		D	
Intersection Summary						
HCM Average Control Delay	22.0		HCM Level of Service		C	
HCM Volume to Capacity ratio	0.93					
Actuated Cycle Length (s)	88.9		Sum of lost time (s)		12.0	
Intersection Capacity Utilization	81.0%		ICU Level of Service		D	
Analysis Period (min)	15					
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
13: Del Mar Heights Road & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↓	↑↑↑	↓	↑↓	↑↑↑	↓	↑↓	↑↑↑	↓	↑↓	↑↑↑	↓
Volume (vph)	507	1776	491	176	1024	176	485	428	306	147	170	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	0.97	0.91	0.97	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt	1.00	0.97	1.00	0.98	1.00	0.98	1.00	1.00	0.85	1.00	0.91	0.91
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	4920	3433	4973	3433	4973	3433	5085	1583	3433	4641	4641
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	4920	3433	4973	3433	4973	3433	5085	1583	3433	4641	4641
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	563	1973	546	196	1138	196	539	476	340	163	189	264
RTOR Reduction (vph)	0	39	0	0	19	0	0	0	102	0	224	0
Lane Group Flow (vph)	563	2480	0	196	1315	0	539	476	238	163	229	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	22.0	58.1		7.8	43.9		19.6	24.4	24.4	8.1	12.9	
Effective Green, g (s)	22.0	58.1		7.8	43.9		19.6	24.4	24.4	8.1	12.9	
Actuated g/C Ratio	0.19	0.51		0.07	0.38		0.17	0.21	0.21	0.07	0.11	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	660	2499		234	1908		588	1085	338	243	523	
v/s Ratio Prot	c0.16	c0.50		0.06	0.26		c0.16	0.09	c0.15	0.05	0.05	
v/s Ratio Perm												
v/c Ratio	0.85	0.99		0.84	0.69		0.92	0.44	0.70	0.67	0.44	
Uniform Delay, d1	44.6	27.9		52.7	29.5		46.6	39.1	41.7	51.8	47.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	10.4	16.1		22.2	1.1		19.1	0.3	6.5	7.1	0.6	
Delay (s)	56.0	44.1		74.8	30.6		65.7	39.3	48.2	58.9	47.9	
Level of Service	E	D		E	C		E	D	D	E	D	
Approach Delay (s)	46.1			36.3			52.0			50.9		
Approach LOS	D			D			D			D		
Intersection Summary												
HCM Average Control Delay	45.5			HCM Level of Service			D					
HCM Volume to Capacity ratio	0.92											
Actuated Cycle Length (s)	114.4			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	86.1%			ICU Level of Service			E					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
14: Del Mar Heights Road & Carmel Country Rd.

Existing + Project (Buildout) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	151	1290	615	80	689	72	437	167	145	78	124	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.91		0.97	0.91		0.97	0.91		1.00	0.95	
Frt	1.00	0.95		1.00	0.99		1.00	0.93		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	4839		3433	5013		3433	4731		1770	3252	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	4839		3433	5013		3433	4731		1770	3252	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	168	1433	683	89	766	80	486	186	161	87	138	163
RTOR Reduction (vph)	0	98	0	0	15	0	0	131	0	0	141	0
Lane Group Flow (vph)	168	2018	0	89	831	0	486	216	0	87	160	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	6.9	28.9		5.3	27.3		10.5	13.2		6.8	9.5	
Effective Green, g (s)	6.9	28.9		5.3	27.3		10.5	13.2		6.8	9.5	
Actuated g/C Ratio	0.10	0.41		0.08	0.39		0.15	0.19		0.10	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	337	1992		259	1950		513	890		171	440	
v/s Ratio Prot	0.05	0.42		0.03	0.17		0.14	0.05		0.05	0.05	
v/s Ratio Perm												
v/c Ratio	0.50	1.01		0.34	0.43		0.95	0.24		0.51	0.36	
Uniform Delay, d1	30.0	20.6		30.8	15.7		29.6	24.2		30.1	27.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	23.4		0.8	0.2		26.8	0.1		2.4	0.5	
Delay (s)	31.2	44.1		31.6	15.9		56.4	24.4		32.5	28.1	
Level of Service	C	D		C	B		E	C		C	C	
Approach Delay (s)		43.1			17.4			43.0			29.1	
Approach LOS		D			B			D			C	
Intersection Summary												
HCM Average Control Delay	36.5		HCM Level of Service		D							
HCM Volume to Capacity ratio	0.82		Sum of lost time (s)		16.0							
Actuated Cycle Length (s)	70.2		ICU Level of Service		D							
Intersection Capacity Utilization	76.0%		Analysis Period (min)		15							
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
15: Del Mar Heights Road & Torrey Ridge Drive

Existing + Project (Buildout) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	48	1299	173	8	712	22	85	14	31	27	8	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4996		1770	5063		1770	1673		1770	1643	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	4996		1770	5063		1770	1673		1770	1643	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	53	1443	192	9	791	24	94	16	34	30	9	33
RTOR Reduction (vph)	0	18	0	0	4	0	0	30	0	0	31	0
Lane Group Flow (vph)	53	1617	0	9	811	0	94	20	0	30	11	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.4	23.0		0.7	22.3		3.0	4.8		1.1	2.9	
Effective Green, g (s)	1.4	23.0		0.7	22.3		3.0	4.8		1.1	2.9	
Actuated g/C Ratio	0.03	0.50		0.02	0.49		0.07	0.11		0.02	0.06	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	54	2520		27	2476		116	176		43	104	
v/s Ratio Prot	0.03	0.32		0.01	0.16		0.05	0.01		0.02	0.04	
v/s Ratio Perm												
v/c Ratio	0.98	0.64		0.33	0.33		0.81	0.11		0.70	0.11	
Uniform Delay, d1	22.1	8.3		22.2	7.1		21.0	18.5		22.1	20.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	115.3	0.6		7.2	0.1		33.2	0.3		39.3	0.5	
Delay (s)	137.4	8.8		29.4	7.2		54.2	18.8		61.4	20.6	
Level of Service	F	A		C	A		D	B		E	C	
Approach Delay (s)		12.9			7.4			41.9			37.6	
Approach LOS		B			A			D			C	
Intersection Summary												
HCM Average Control Delay	13.4		HCM Level of Service		B							
HCM Volume to Capacity ratio	0.50		Sum of lost time (s)		8.0							
Actuated Cycle Length (s)	45.6		ICU Level of Service		A							
Intersection Capacity Utilization	53.7%		Analysis Period (min)		15							
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
16: Del Mar Heights Road & Lansdale Drive

Existing + Project (Buildout) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Volume (vph)	305	986	63	21	501	24	39	45	34	23	32	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.94		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5040		1770	5050		1770	1742		1770	1621	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5040		1770	5050		1770	1742		1770	1621	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	339	1096	70	23	557	27	43	50	38	26	36	231
RTOR Reduction (vph)	0	8	0	0	7	0	0	32	0	0	194	0
Lane Group Flow (vph)	339	1158	0	23	577	0	43	56	0	26	73	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.6	24.2		0.9	16.5		1.8	8.2		1.8	8.2	
Effective Green, g (s)	8.6	24.2		0.9	16.5		1.8	8.2		1.8	8.2	
Actuated g/C Ratio	0.17	0.47		0.02	0.32		0.04	0.16		0.04	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	298	2387		31	1631		62	280		62	260	
v/s Ratio Prot	c0.19	c0.23		0.01	0.11		c0.02	0.03		0.01	c0.05	
v/s Ratio Perm												
w/c Ratio	1.14	0.48		0.74	0.35		0.69	0.20		0.42	0.28	
Uniform Delay, d1	21.2	9.2		25.0	13.2		24.4	18.6		24.1	18.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	94.6	0.2		64.1	0.1		28.5	0.4		4.5	0.6	
Delay (s)	115.8	9.3		89.1	13.4		52.9	19.0		28.7	19.5	
Level of Service	F	A		F	B		D	B		C	B	
Approach Delay (s)		33.3			16.2			30.1			20.9	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	27.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	51.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
17: Del Mar Heights Road & Carmel Canyon Road

Existing + Project (Buildout) PM
12/11/2011



Movement	EBT	EBR	WBT	WBR	NBT	NBR
Lane Configurations	↖ ↗		↖ ↗		↖ ↗	↖ ↗
Volume (vph)	839	189	89	436	126	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0	
Lane Util. Factor	0.91		1.00		0.97	
Frt	0.97		1.00		1.00	
Flt Protected	1.00		0.95		0.95	
Satd. Flow (prot)	4945		1770		5085	
Flt Permitted	1.00		0.95		1.00	
Satd. Flow (perm)	4945		1770		5085	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	932	210	99	484	140	278
RTOR Reduction (vph)	59	0	0	0	0	229
Lane Group Flow (vph)	1083	0	99	484	140	47
Turn Type			Prot			Prot
Protected Phases			4			3
Permitted Phases						
Actuated Green, G (s)			16.6			2.4
Effective Green, g (s)			16.6			2.4
Actuated g/C Ratio			0.45			0.07
Clearance Time (s)			4.0			4.0
Vehicle Extension (s)			3.0			3.0
Lane Grp Cap (vph)			2231			115
v/s Ratio Prot			c0.22			c0.06
v/s Ratio Perm						
w/c Ratio			0.49			0.86
Uniform Delay, d1			7.1			17.0
Progression Factor			1.00			1.00
Incremental Delay, d2			0.2			44.1
Delay (s)			7.3			61.1
Level of Service			A			E
Approach Delay (s)			7.3			12.8
Approach LOS			A			B

Intersection Summary			
HCM Average Control Delay	10.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	36.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
18: Del Mar Highlands Town Ctr. & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗		↖	↗	↖	↖↗	↖↗	↖	↖↗	↖↗	↖
Volume (vph)	255	51	51	188	37	248	184	644	163	337	401	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95		1.00	1.00	0.97	0.97	0.91	0.97	0.97	0.91	
Frt	1.00	0.96		1.00	0.85	1.00	0.97	0.97	1.00	0.98	0.98	
Flt Protected	0.95	0.98		0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1658		1788	1583	3433	4931	3433	4967	3433	4967	
Flt Permitted	0.95	0.98		0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1658		1788	1583	3433	4931	3433	4967	3433	4967	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	283	57	57	209	41	276	204	716	181	374	446	82
RTOR Reduction (vph)	0	17	0	0	0	213	0	51	0	0	30	0
Lane Group Flow (vph)	201	179	0	0	250	63	204	846	0	374	498	0
Turn Type	Split			Split		Perm	Prot			Prot		
Protected Phases	2	2		6		6	3	8		7	4	
Permitted Phases												
Actuated Green, G (s)	13.1	13.1		16.2	16.2	7.1	17.3			11.6	21.8	
Effective Green, g (s)	13.1	13.1		16.2	16.2	7.1	17.3			11.6	21.8	
Actuated g/C Ratio	0.18	0.18		0.22	0.22	0.40	0.23			0.16	0.29	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0			4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)	297	293		390	346	328	1150			537	1459	
v/s Ratio Prot	c0.12	0.11		c0.14		0.06	c0.17			c0.11	0.10	
v/s Ratio Perm					0.04							
v/c Ratio	0.68	0.61		0.64	0.18	0.62	0.74			0.70	0.34	
Uniform Delay, d1	28.6	28.2		26.4	23.6	32.3	26.3			29.5	20.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	6.0	3.6		3.6	0.3	3.6	2.5			3.9	0.1	
Delay (s)	34.6	31.8		29.9	23.9	35.9	28.8			33.6	20.7	
Level of Service	C	C		C	C	D	C			C	C	
Approach Delay (s)		33.2			26.8		30.1				26.0	
Approach LOS		C			C		C				C	
Intersection Summary												
HCM Average Control Delay	28.7			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.69			Sum of lost time (s)			16.0					
Actuated Cycle Length (s)	74.2			ICU Level of Service			A					
Intersection Capacity Utilization	54.7%			Analysis Period (min)			15					
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
19: Townsgate Drive & Carmel Country Road

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	135	105	173	14	54	115	113	550	10	182	629	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.90	1.00	0.90	1.00	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1673	1770	1673	1770	3530	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1583	1770	1673	1770	1673	1770	3530	1770	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	150	117	192	16	60	128	126	611	11	202	699	113
RTOR Reduction (vph)	0	0	133	0	105	0	0	2	0	0	0	79
Lane Group Flow (vph)	150	117	59	16	83	0	126	620	0	202	699	34
Turn Type	Prot		Prot	Prot		Prot		Prot		Prot		Prot
Protected Phases	7	4	4	3	8	5	2	1	6	6		
Permitted Phases												
Actuated Green, G (s)	8.4	18.5	18.5	0.7	10.8	6.6	14.9		9.6	17.9	17.9	
Effective Green, g (s)	8.4	18.5	18.5	0.7	10.8	6.6	14.9		9.6	17.9	17.9	
Actuated g/C Ratio	0.14	0.31	0.31	0.01	0.18	0.11	0.25		0.16	0.30	0.30	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	249	577	491	21	303	196	881		285	1051	475	
v/s Ratio Prot	c0.08	0.06	0.04	0.01	c0.05	0.07	0.18		c0.11	c0.20	0.02	
v/s Ratio Perm												
v/c Ratio	0.60	0.20	0.12	0.76	0.27	0.64	0.70		0.71	0.66	0.07	
Uniform Delay, d1	24.1	15.2	14.8	29.4	21.1	25.4	20.4		23.7	18.2	15.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	4.1	0.2	0.1	92.1	0.5	7.0	2.6		7.8	1.5	0.1	
Delay (s)	28.2	15.3	14.9	121.5	21.6	32.5	23.0		31.6	19.7	15.0	
Level of Service	C	B	B	F	C	C	C		C	B	B	
Approach Delay (s)		19.3			29.4		24.6			21.6		
Approach LOS		B			C		C			C		
Intersection Summary												
HCM Average Control Delay	22.7			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.59			Sum of lost time (s)			16.0					
Actuated Cycle Length (s)	59.7			ICU Level of Service			B					
Intersection Capacity Utilization	56.3%			Analysis Period (min)			15					
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
20: Townsgate Drive & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	SE	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	11	6	10	140	0	127	7	829	200	162	590	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0		4.0		4.0		4.0
Lane Util. Factor	1.00	1.00		1.00		1.00		0.91		1.00		0.91
Frt	1.00	0.91		1.00		0.85		1.00		1.00		1.00
Flt Protected	0.95	1.00		0.95		1.00		0.95		1.00		1.00
Satd. Flow (prot)	1770	1692		1770		1583		1770		1770		5083
Flt Permitted	0.95	1.00		0.95		1.00		0.95		1.00		1.00
Satd. Flow (perm)	1770	1692		1770		1583		1770		1770		5083
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	12	7	11	156	0	141	8	921	222	180	656	2
RTOR Reduction (vph)	0	11	0	0	0	121	0	52	0	0	0	0
Lane Group Flow (vph)	12	7	0	156	0	20	8	1091	0	180	658	0
Turn Type	Prot			Prot		Prot	Prot			Prot		
Protected Phases	1	6		5	2	2	7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	0.7	1.1		7.1		7.5	0.7	19.5		8.1	26.9	
Effective Green, g (s)	0.7	1.1		7.1		7.5	0.7	19.5		8.1	26.9	
Actuated g/C Ratio	0.01	0.02		0.14		0.14	0.01	0.38		0.16	0.52	
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	24	36		243		229	24	1859		277	2640	
v/s Ratio Prot	0.01	0.00		0.09		0.01	0.00	0.22		0.10	0.13	
v/s Ratio Perm												
v/c Ratio	0.50	0.20		0.64		0.09	0.33	0.59		0.65	0.25	
Uniform Delay, d1	25.4	24.9		21.1		19.2	25.3	12.9		20.5	6.9	
Progression Factor	1.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.4	2.7		5.7		0.2	8.0	0.5		5.2	0.0	
Delay (s)	40.8	27.7		26.8		19.4	33.4	13.4		25.7	6.9	
Level of Service	D	C		C		B	C	B		C	A	
Approach Delay (s)		32.9			23.3			13.5			11.0	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay	14.1			HCM Level of Service			B					
HCM Volume to Capacity ratio	0.54											
Actuated Cycle Length (s)	51.8			Sum of lost time (s)			12.0					
Intersection Capacity Utilization	53.9%			ICU Level of Service			A					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
21: Carmel Creek Road & Carmel Country Road

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	321	237	123	32	99	17	94	406	39	25	466	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	1.00	0.85		0.98		1.00	0.99		1.00	0.94	
Flt Protected	0.95	1.00	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583		1814		1770	3493		1770	3344	
Flt Permitted	0.95	1.00	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583		1814		1770	3493		1770	3344	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	357	263	137	36	110	19	104	451	43	28	518	302
RTOR Reduction (vph)	0	0	103	0	6	0	9	0	0	101	0	0
Lane Group Flow (vph)	357	263	34	0	159	0	104	485	0	28	719	0
Turn Type	Split		Prot	Split			Prot			Prot		
Protected Phases	4	4	4	8	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	17.7	17.7	17.7		11.6		5.1	24.2		1.9	21.0	
Effective Green, g (s)	17.7	17.7	17.7		11.6		5.1	24.2		1.9	21.0	
Actuated g/C Ratio	0.25	0.25	0.25		0.16		0.07	0.34		0.03	0.29	
Clearance Time (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	439	462	392		295		126	1184		47	984	
v/s Ratio Prot	0.20	0.14	0.02		0.09		0.06	0.14		0.02	0.22	
v/s Ratio Perm												
v/c Ratio	0.81	0.57	0.09		0.54		0.83	0.41		0.60	0.73	
Uniform Delay, d1	25.3	23.5	20.6		27.4		32.7	18.1		34.4	22.7	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.0	1.6	0.1		1.9		33.7	0.2		18.6	2.8	
Delay (s)	36.3	25.1	20.7		29.3		66.4	18.4		53.0	25.5	
Level of Service	D	C	C		C		E	B		D	C	
Approach Delay (s)		29.6			29.3			26.7			26.4	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control Delay	27.7			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.76											
Actuated Cycle Length (s)	71.4			Sum of lost time (s)			20.0					
Intersection Capacity Utilization	65.9%			ICU Level of Service			C					
Analysis Period (min)	15											
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
22: High Bluff Drive & El Camino Real

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBR	EBR2	NWL	NWL2	NWR	NEL	NET	NER	SWL	SWL2	SWR	
Lane Configurations	←	←	←	←	←	←	←	←	←	←	←	←	
Volume (vph)	72	271	315	96	168	141	258	1056	92	181	617	43	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.97	0.97	0.91	0.91	1.00	0.91	0.91	0.91	
Frt	1.00	0.85	0.85	1.00	0.93	0.93	1.00	0.99	1.00	0.99	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	
Satd. Flow (prot)	1770	1583	1583	1770	3277	1770	3433	5024	1770	1770	5035	1770	
Flt Permitted	0.95	1.00	1.00	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	
Satd. Flow (perm)	1770	1583	1583	1770	3277	1770	3433	5024	1770	1770	5035	1770	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	80	301	350	107	187	157	287	1173	102	201	686	48	
RTOR Reduction (vph)	0	0	248	0	143	0	15	0	15	0	12	0	
Lane Group Flow (vph)	80	301	102	107	201	0	287	1260	0	201	722	0	
Turn Type	Perm	Perm	Perm	Split	Split	Prot	Prot	Prot	Prot	Prot	Prot	Prot	
Protected Phases	2	2	2	6	6	3	3	8	7	7	4	4	
Permitted Phases		2	2										
Actuated Green, G (s)	17.5	17.5	17.5	5.7	5.7	7.8	17.2	8.6	18.0	8.6	18.0	18.0	
Effective Green, g (s)	17.5	17.5	17.5	5.7	5.7	7.8	17.2	8.6	18.0	8.6	18.0	18.0	
Actuated g/C Ratio	0.27	0.27	0.27	0.09	0.09	0.12	0.26	0.13	0.28	0.13	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	477	426	426	155	287	412	1329	234	1394	234	1394	1394	
vs Ratio Prot	0.05			0.06	0.06	0.08	0.25	0.11	0.14	0.11	0.14	0.14	
vs Ratio Perm		0.19	0.06										
vic Ratio	0.17	0.71	0.24	0.69	0.70	0.70	0.95	0.86	0.52	0.86	0.52	0.52	
Uniform Delay, d1	18.2	21.4	18.5	28.8	28.8	27.5	23.5	27.6	19.8	27.6	19.8	19.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	9.5	1.3	12.5	7.3	5.1	13.9	25.4	0.3	25.4	0.3	0.3	
Delay (s)	18.9	30.9	19.9	41.2	36.1	32.5	37.4	53.0	20.2	53.0	20.2	20.2	
Level of Service	B	C	B	D	D	C	D	D	C	D	C	C	
Approach Delay (s)	24.3				37.3			36.5			27.2		
Approach LOS	C				D			D			C		
Intersection Summary													
HCM Average Control Delay	31.8		HCM Level of Service					C					
HCM Volume to Capacity ratio	0.82												
Actuated Cycle Length (s)	65.0		Sum of lost time (s)					16.0					
Intersection Capacity Utilization	59.3%		ICU Level of Service					B					
Analysis Period (min)	15												
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis
23: High Bluff Drive & Carmel Vista Road

Existing + Project (Buildout) PM
12/11/2011

Movement	SEU	SET	SER	NWL	NWL2	NWR	NEL	NET	NER	SWL	SWL2	SWR	
Lane Configurations	←	←	←	←	←	←	←	←	←	←	←	←	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	
Volume (vph)	212	25	159	4	11	4	115	24	8	2	7	111	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	236	28	177	4	12	4	128	27	9	2	8	123	
Direction Lane #	SE 1	SE 2	SER	NW 1	NW 2	NWR	NE 1	NE 2	NE 3	SW 1	SW 2	SW 3	
Volume Total (vph)	263	177	21	163	133								
Volume Left (vph)	236	0	4	128	2								
Volume Right (vph)	0	177	4	9	123								
Hadji (s)	0.48	0.67	0.05	0.16	0.52								
Departure Headway (s)	5.8	4.6	5.3	5.3	4.7								
Degree Utilization, x	0.42	0.23	0.03	0.24	0.17								
Capacity (veh/h)	599	746	618	635	702								
Control Delay (s)	11.8	7.8	8.5	10.0	8.7								
Approach Delay (s)	10.2		8.5	10.0	8.7								
Approach LOS	B		A	B	A								
Intersection Summary													
Delay	9.8												
HCM Level of Service	A												
Intersection Capacity Utilization	41.2%		ICU Level of Service					A					
Analysis Period (min)	15												

HCM Signalized Intersection Capacity Analysis
24: Carmel Grove Road & Carmel Creek Road

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		←	↑	←	↑	←	↑	↑	↑	↑	↑	↑
Volume (vph)	116	50	70	55	26	9	108	757	134	6	372	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0			4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00			1.00	0.95		1.00	0.95	
Frt	1.00	0.85		0.99			1.00	0.98		1.00	0.97	
Flt Protected	0.97	1.00		0.97			0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1800	1583		1783			1770	3459		1770	3449	
Flt Permitted	0.97	1.00		0.97			0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1800	1583		1783			1770	3459		1770	3449	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	129	56	78	61	29	10	120	841	149	7	413	91
RTOR Reduction (vph)	0	0	66	0	6	0	0	15	0	0	21	0
Lane Group Flow (vph)	0	185	12	0	94	0	120	975	0	7	483	0
Turn Type	Split		Prot	Split		Prot			Prot			
Protected Phases	4	4	4	8	8	5	2		6			
Permitted Phases												
Actuated Green, G (s)	8.7	8.7		6.6		5.7	26.2		0.7		21.2	
Effective Green, g (s)	8.7	8.7		6.6		5.7	26.2		0.7		21.2	
Actuated g/C Ratio	0.15	0.15		0.11		0.10	0.45		0.01		0.36	
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0		4.0		4.0	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	269	237		202		173	1557		21		1254	
v/s Ratio Prot	<0.10	0.01		<0.05		<0.07	<0.28		0.00		0.14	
v/s Ratio Perm												
v/c Ratio	0.69	0.05		0.46		0.69	0.63		0.33		0.39	
Uniform Delay, d1	23.5	21.2		24.1		25.4	12.3		28.5		13.7	
Progression Factor	1.00	1.00		1.00		1.00	1.00		1.00		1.00	
Incremental Delay, d2	7.1	0.1		1.7		11.4	0.8		9.1		0.2	
Delay (s)	30.6	21.3		25.8		36.8	13.0		37.7		13.9	
Level of Service	C	C		C		D	B		D		B	
Approach Delay (s)	27.8			25.8			15.6				14.2	
Approach LOS	C			C			B				B	
Intersection Summary												
HCM Average Control Delay	17.4		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.80											
Actuated Cycle Length (s)	58.2											
Intersection Capacity Utilization	50.2%		ICU Level of Service				A					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
25: Carmel Valley Road & I-5 SB Ramps

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		←	↑	←	↑	←	↑	↑	↑	↑	↑	↑
Volume (vph)	0	636	137	604	885	0	0	0	0	835	1	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0			4.0			4.0	4.0	
Lane Util. Factor		0.95		0.97			0.95			0.95	0.91	
Frt		0.97		1.00			1.00			1.00	1.00	
Flt Protected		1.00		0.95			1.00			0.95	0.95	
Satd. Flow (prot)		3445		3433			3539			1681	1612	1504
Flt Permitted		1.00		0.95			1.00			0.95	0.95	
Satd. Flow (perm)		3445		3433			3539			1681	1612	1504
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	707	152	671	983	0	0	0	0	928	1	81
RTOR Reduction (vph)	0	28	0	0	0	0	0	0	0	0	1	49
Lane Group Flow (vph)	0	831	0	671	983	0	0	0	0	473	463	24
Turn Type				Prot						Split		Prot
Protected Phases				4			3			6		6
Permitted Phases												
Actuated Green, G (s)		17.0		14.0			35.0			21.0	21.0	21.0
Effective Green, g (s)		17.0		14.0			35.0			21.0	21.0	21.0
Actuated g/C Ratio		0.27		0.22			0.55			0.33	0.33	0.33
Clearance Time (s)		4.0		4.0			4.0			4.0	4.0	4.0
Vehicle Extension (s)		3.0		3.0			3.0			3.0	3.0	3.0
Lane Grp Cap (vph)		915		751			1935			552	529	494
v/s Ratio Prot		<0.24		<0.20			<0.28			0.28	<0.29	0.02
v/s Ratio Perm												
v/c Ratio		0.91		0.89			0.51			0.86	0.88	0.05
Uniform Delay, d1		22.7		24.3			9.1			20.1	20.3	14.7
Progression Factor		1.00		1.00			1.00			1.00	1.00	1.00
Incremental Delay, d2		12.6		13.0			0.2			12.4	15.0	0.0
Delay (s)		35.3		37.3			9.3			32.5	35.3	14.7
Level of Service		D		D			A			C	D	B
Approach Delay (s)		35.3					20.7		0.0		32.5	
Approach LOS		D		C			A			C		
Intersection Summary												
HCM Average Control Delay	27.6		HCM Level of Service				C					
HCM Volume to Capacity ratio	0.89											
Actuated Cycle Length (s)	64.0											
Intersection Capacity Utilization	80.9%		ICU Level of Service				D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
26: Camel Valley Road & I-5 NB Ramps

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑			↑↑		↑	↑	↑	↑			
Volume (vph)	123	1390	0	0	1001	780	439	7	667	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.95			0.95	1.00	0.95	0.91	0.95			
Frt	1.00	1.00			1.00	0.85	1.00	0.87	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (prot)	3433	3539			3539	1583	1681	1472	1504			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.99	1.00			
Satd. Flow (perm)	3433	3539			3539	1583	1681	1472	1504			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	137	1533	0	0	1112	867	488	8	741	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	530	0	13	13	0	0	0
Lane Group Flow (vph)	137	1533	0	0	1112	337	429	395	387	0	0	0
Turn Type	Prot				Prot	Split		Prot				
Protected Phases	7	4			8	8	2	2	2			
Permitted Phases												
Actuated Green, G (s)	3.5	28.4			20.9	20.9	17.3	17.3	17.3			
Effective Green, g (s)	3.5	28.4			20.9	20.9	17.3	17.3	17.3			
Actuated g/C Ratio	0.07	0.53			0.39	0.39	0.32	0.32	0.32			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	224	1872			1377	616	542	474	485			
v/s Ratio Prot	0.04	0.43			0.31	0.21	0.26	0.27	0.26			
v/s Ratio Perm												
v/c Ratio	0.61	0.82			0.81	0.55	0.79	0.83	0.80			
Uniform Delay, d1	24.4	10.5			14.6	12.7	16.6	16.9	16.6			
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	4.9	2.9			3.6	1.0	7.8	11.9	8.9			
Delay (s)	29.3	13.4			18.2	13.7	24.3	28.8	25.5			
Level of Service	C	B			B	B	C	C	C			
Approach Delay (s)		14.7			16.2		26.2			0.0		
Approach LOS		B			B		C			A		
Intersection Summary												
HCM Average Control Delay	18.2		HCM Level of Service		B							
HCM Volume to Capacity ratio	0.82											
Actuated Cycle Length (s)	53.7		Sum of lost time (s)		8.0							
Intersection Capacity Utilization	80.9%		ICU Level of Service		D							
Analysis Period (min)	15											
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
27: Valley Centre Drive & El Camino Real

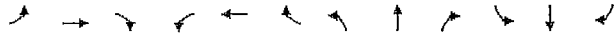
Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	38	30	28	476	22	129	75	948	214	204	1403	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.91	0.95	0.95	0.91	0.95	1.00	0.91	1.00	0.91	1.00	0.91
Frt	1.00	0.99	0.85	1.00	0.99	0.85	1.00	0.97	1.00	0.97	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1681	1668	1504	1681	1613	1504	1770	1770	1770	1770	1770	5072
Flt Permitted	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1681	1668	1504	1681	1613	1504	1770	1770	1770	1770	1770	5072
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	42	33	31	529	24	143	83	1053	238	227	1559	28
RTOR Reduction (vph)	0	3	26	0	2	99	0	36	0	0	2	0
Lane Group Flow (vph)	38	37	2	286	279	30	83	1255	0	227	1585	0
Turn Type	Split		Prot	Split	Prot	Prot	Prot	2i	Prot	6i	6	
Protected Phases	4	4	4	8	8	8	5	2i	6i	6		
Permitted Phases												
Actuated Green, G (s)	5.7	5.7	5.7	17.4	17.4	17.4	4.4	40.2	31.8	31.8	31.8	31.8
Effective Green, g (s)	5.7	5.7	5.7	17.4	17.4	17.4	4.4	40.2	31.8	31.8	31.8	31.8
Actuated g/C Ratio	0.08	0.08	0.08	0.23	0.23	0.23	0.06	0.53	0.42	0.42	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	127	126	114	388	373	348	103	2640	747	2142	747	2142
v/s Ratio Prot	0.02	0.02	0.00	0.17	0.17	0.02	0.05	0.25	0.13	0.31	0.13	0.31
v/s Ratio Perm												
v/c Ratio	0.30	0.30	0.02	0.74	0.75	0.09	0.81	0.48	0.30	0.74	0.30	0.74
Uniform Delay, d1	32.9	32.9	32.2	26.8	26.9	22.7	35.0	11.0	14.4	18.3	14.4	18.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	1.3	0.1	7.1	7.9	0.1	35.2	0.1	0.2	1.4	0.2	1.4
Delay (s)	34.2	34.2	32.3	34.0	34.9	22.8	70.2	11.1	14.6	19.7	14.6	19.7
Level of Service	C	C	C	C	C	C	E	B	B	B	B	B
Approach Delay (s)		33.7			32.3		14.7		19.1		19.1	
Approach LOS		C			C		B		B		B	
Intersection Summary												
HCM Average Control Delay	20.2		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.70											
Actuated Cycle Length (s)	75.3		Sum of lost time (s)		16.0							
Intersection Capacity Utilization	66.1%		ICU Level of Service		C							
Analysis Period (min)	15											
i Phase conflict between lane groups.												
c Critical Lane Group												

Baseline

HCM Signalized Intersection Capacity Analysis
28: Carmel Valley Road & El Camino Real

Existing + Project (Buildout) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	0	0	0	166	807	170	341	1013	0	0	659	778
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				0.97	0.91	1.00	0.97	0.95			0.86	0.86
Frbp, ped/bikes				1.00	1.00	1.00	1.00	1.00			0.90	0.73
Ftbp, ped/bikes				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			0.94	0.85
Fl Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				3433	5085	1583	3433	3539			4089	998
Fl Permitted				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				3433	5085	1583	3433	3539			4089	998
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	184	897	189	379	1126	0	0	732	864
RTOR Reduction (vph)	0	0	0	0	0	84	0	0	0	0	6	6
Lane Group Flow (vph)	0	0	0	184	897	105	379	1126	0	0	1158	426
Confl. Peds. (#/hr)												200
Turn Type				Prot		Perm	Prot				Perm	
Protected Phases				3		8	5				2	6
Permitted Phases												6
Actuated Green, G (s)				16.3	16.3	16.3	9.0	45.1			32.1	32.1
Effective Green, g (s)				16.3	16.3	16.3	9.0	45.1			32.1	32.1
Actuated g/C Ratio				0.23	0.23	0.23	0.13	0.65			0.46	0.46
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)				806	1194	372	445	2300			1891	462
v/s Ratio Prot				0.05	0.18		0.11	0.32			0.28	
v/s Ratio Perm						0.07						0.43
v/c Ratio				0.23	0.75	0.28	0.85	0.49			0.61	0.92
Uniform Delay, d1				21.5	24.7	21.8	29.5	6.2			14.0	17.5
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				0.1	2.7	0.4	14.5	0.2			0.6	23.9
Delay (s)				21.6	27.4	22.2	44.0	6.4			14.6	41.4
Level of Service				C	C	C	D	A			B	D
Approach Delay (s)		0.0			25.8			15.9				21.8
Approach LOS		A			C			B				C
Intersection Summary												
HCM Average Control Delay			20.9									
HCM Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			69.4									
Intersection Capacity Utilization			106.3%					12.0				
Analysis Period (min)			15									
ICU Level of Service G												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
29: SR-56 EB on ramp & El Camino Real

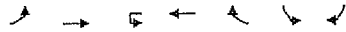
Existing + Project (Buildout) PM
12/11/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	492	989	92	0	0	0	0	817	385	227	584	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	4.0
Lane Util. Factor				0.91	0.86	0.91		0.86			1.00	0.91
Frt				1.00	1.00	0.85		0.95			1.00	1.00
Fl Protected				0.95	1.00	1.00		1.00			0.95	1.00
Satd. Flow (prot)				1610	3192	1441		6100			1770	5085
Fl Permitted				0.95	1.00	1.00		1.00			0.95	1.00
Satd. Flow (perm)				1610	3192	1441		6100			1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	547	1099	102	0	0	0	0	908	428	252	649	0
RTOR Reduction (vph)	0	1	55	0	0	0	0	49	0	0	0	0
Lane Group Flow (vph)	492	1163	37	0	0	0	0	1287	0	252	649	0
Turn Type				Split		Prot					Prot	
Protected Phases				4		4					2	1
Permitted Phases												6
Actuated Green, G (s)				30.0	30.0	30.0					20.0	12.6
Effective Green, g (s)				30.0	30.0	30.0					20.0	12.6
Actuated g/C Ratio				0.40	0.40	0.40					0.27	0.17
Clearance Time (s)				4.0	4.0	4.0					4.0	4.0
Vehicle Extension (s)				3.0	3.0	3.0					3.0	3.0
Lane Grp Cap (vph)				647	1284	579					1635	299
v/s Ratio Prot				0.31	0.36	0.03					0.21	0.14
v/s Ratio Perm												0.13
v/c Ratio				0.76	0.91	0.06					0.89	0.84
Uniform Delay, d1				19.2	21.0	13.7					25.3	30.0
Progression Factor				1.00	1.00	1.00					1.00	1.00
Incremental Delay, d2				5.3	9.3	0.0					2.6	18.9
Delay (s)				24.5	30.3	13.7					27.9	49.0
Level of Service				C	C	B					D	B
Approach Delay (s)					27.8			0.0			27.9	21.7
Approach LOS					C			A			C	C
Intersection Summary												
HCM Average Control Delay						26.5						
HCM Volume to Capacity ratio						0.86						
Actuated Cycle Length (s)						74.6						
Intersection Capacity Utilization						106.3%						
Analysis Period (min)						15						
ICU Level of Service G												
dr Defacto Right Lane. Recode with 1 through lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
30: Valley Centre Drive & Carmel View Road

Existing + Project (Buildout) PM
12/11/2011

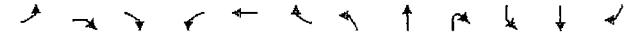


Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑↑	0	↑↑	94	30	46
Volume (vph)	66	391	0	364	94	30	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		0.95		1.00	1.00
Frt	1.00	1.00		0.97		1.00	0.85
Flt Protected	0.95	1.00		1.00		0.95	1.00
Satd. Flow (prot)	1770	3539		3431		1770	1583
Flt Permitted	0.95	1.00		1.00		0.95	1.00
Satd. Flow (perm)	1770	3539		3431		1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	73	434	0	404	104	33	51
RTOR Reduction (vph)	0	0	0	43	0	0	47
Lane Group Flow (vph)	73	434	0	465	0	33	4
Turn Type	Prot		Prot			Prot	
Protected Phases	7	4	3	8		6	6
Permitted Phases							
Actuated Green, G (s)	1.2	14.0		8.8		1.7	1.7
Effective Green, g (s)	1.2	14.0		8.8		1.7	1.7
Actuated g/C Ratio	0.05	0.59		0.37		0.07	0.07
Clearance Time (s)	4.0	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	90	2091		1274		127	114
v/s Ratio Prot	c0.04	0.12		c0.14		c0.02	0.00
v/s Ratio Perm							
v/c Ratio	0.81	0.21		0.36		0.26	0.03
Uniform Delay, d1	11.1	2.3		5.4		10.4	10.2
Progression Factor	1.00	1.00		1.00		1.00	1.00
Incremental Delay, d2	40.5	0.0		0.2		1.1	0.1
Delay (s)	51.6	2.3		5.6		11.5	10.3
Level of Service	D	A		A		B	B
Approach Delay (s)		9.4		5.6		10.8	
Approach LOS		A		A		B	

Intersection Summary	
HCM Average Control Delay	7.8 HCM Level of Service A
HCM Volume to Capacity ratio	0.40
Actuated Cycle Length (s)	23.7 Sum of lost time (s) 12.0
Intersection Capacity Utilization	30.1% ICU Level of Service A
Analysis Period (min)	15
c Critical Lane Group	

HCM Signalized Intersection Capacity Analysis
31: Valley Centre Drive & Carmel Creek Road

Existing + Project (Buildout) PM
12/11/2011



Movement	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑	↑	↑↑	↑↑	↑	↑↑	↑↑	↑
Volume (vph)	119	284	290	31	157	96	312	821	111	264	139	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.88	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.85	0.85	1.00	0.94	1.00	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	2787	1583	1770	1756	1770	3539	1583	3433	3539	1583	1583
Flt Permitted	0.59	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1094	2787	1583	1770	1756	1770	3539	1583	3433	3539	1583	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	132	316	322	34	174	107	347	912	123	293	154	160
RTOR Reduction (vph)	0	0	254	0	34	0	0	0	80	0	0	121
Lane Group Flow (vph)	132	316	68	34	247	0	347	912	43	293	154	39
Turn Type	custom	custom	custom	Prot			Prot		Prot		Prot	Prot
Protected Phases				3	8		5	2	2	1	6	6
Permitted Phases	4	4	4									
Actuated Green, G (s)	12.6	12.6	12.6	1.5	18.1		15.1	21.1	21.1	8.5	14.5	14.5
Effective Green, g (s)	12.6	12.6	12.6	1.5	18.1		15.1	21.1	21.1	8.5	14.5	14.5
Actuated g/C Ratio	0.21	0.21	0.21	0.03	0.30		0.25	0.35	0.35	0.14	0.24	0.24
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	231	588	334	44	532		448	1251	559	489	860	384
v/s Ratio Prot				0.02	c0.14		c0.20	c0.26	0.03	0.09	0.04	0.02
v/s Ratio Perm	c0.12	0.11	0.04									
v/c Ratio	0.57	0.54	0.20	0.77	0.46		0.77	0.73	0.08	0.60	0.18	0.10
Uniform Delay, d1	21.1	21.0	19.4	28.9	16.9		20.7	16.8	12.8	24.0	17.9	17.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.9	0.3	57.0	0.6		8.2	2.2	0.1	2.0	0.1	0.1
Delay (s)	24.5	21.9	19.7	85.9	17.5		28.9	19.0	12.9	26.0	18.0	17.7
Level of Service	C	C	B	F	B		C	B	B	C	B	B
Approach Delay (s)					24.9			20.9			21.8	
Approach LOS					C			C			C	

Intersection Summary	
HCM Average Control Delay	21.6 HCM Level of Service C
HCM Volume to Capacity ratio	0.69
Actuated Cycle Length (s)	59.7 Sum of lost time (s) 12.0
Intersection Capacity Utilization	64.3% ICU Level of Service C
Analysis Period (min)	15
c Critical Lane Group	

HCM Signalized Intersection Capacity Analysis
32: SR-56 EB Ramps & Carmel Creek Road

Existing + Project (Buildout) PM
12/11/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑	↔	↔	↔	↔	↑	↑	↔	↔	↑	↑
Volume (vph)	908	0	92	0	0	0	342	43	348	107	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0				0.95	0.97	0.95			
Lane Util. Factor	0.95	0.95	1.00				0.98	1.00	1.00			
Flt	1.00	1.00	0.85				1.00	0.95	1.00			
Flt Protected	0.95	0.95	1.00				0.98	1.00	1.00			
Satd. Flow (prot)	1681	1681	1583				3480	3433	3539			
Flt Permitted	0.95	0.95	1.00				1.00	0.95	1.00			
Satd. Flow (perm)	1681	1681	1583				3480	3433	3539			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1009	0	102	0	0	0	380	48	387	119	0	0
RTOR Reduction (vph)	0	0	64	0	0	0	22	0	0	0	0	0
Lane Group Flow (vph)	504	505	38	0	0	0	406	0	387	119	0	0
Turn Type	Split		Perm						Prot			
Protected Phases	4	4					2		1		6	
Permitted Phases			4									
Actuated Green, G (s)	16.2	16.2	16.2				10.8		5.0		19.8	
Effective Green, g (s)	16.2	16.2	16.2				10.8		5.0		19.8	
Actuated g/C Ratio	0.37	0.37	0.37				0.25		0.11		0.45	
Clearance Time (s)	4.0	4.0	4.0				4.0		4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0				3.0		3.0		3.0	
Lane Grp Cap (vph)	619	619	583				854		390		1593	
v/s Ratio Prot	0.30	0.30					0.12		0.11		0.03	
v/s Ratio Perm			0.02									
v/c Ratio	0.81	0.82	0.06				0.48		0.99		0.07	
Uniform Delay, d1	12.5	12.6	9.0				14.2		19.5		6.9	
Progression Factor	1.00	1.00	1.00				1.00		1.00		1.00	
Incremental Delay, d2	8.1	8.2	0.0				0.4		43.3		0.0	
Delay (s)	20.6	20.7	9.0				14.6		62.8		6.9	
Level of Service	C	C	A				B		E		A	
Approach Delay (s)		19.6			0.0		14.6		49.7			
Approach LOS		B			A		B		D			
Intersection Summary												
HCM Average Control Delay	26.0			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.73			Sum of lost time (s)			12.0					
Actuated Cycle Length (s)	44.0			ICU Level of Service			B					
Intersection Capacity Utilization	55.9%			Analysis Period (min)			15					
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
33: Carmel Country Road & Carmel Canyon Road

Existing + Project (Buildout) PM
12/11/2011

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	127	475	47	91	425	400	56	128	104	230	52	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00		
Flt	1.00	0.99	1.00	0.93	1.00	0.93	1.00	0.93	1.00	0.92		
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (prot)	1770	3492	1770	3282	1770	1737	1770	1737	3433	1708		
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (perm)	1770	3492	1770	3282	1770	1737	1770	1737	3433	1708		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	141	528	52	101	472	444	62	142	116	256	58	72
RTOR Reduction (vph)	0	8	0	0	203	0	0	37	0	50	0	0
Lane Group Flow (vph)	141	572	0	101	713	0	62	221	0	256	80	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases												
Actuated Green, G (s)	8.8	20.6		7.6	19.4		4.9	15.4		8.7	19.2	
Effective Green, g (s)	8.8	20.6		7.6	19.4		4.9	15.4		8.7	19.2	
Actuated g/C Ratio	0.13	0.30		0.11	0.28		0.07	0.23		0.13	0.28	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	228	1053		197	932		127	392		437	480	
v/s Ratio Prot	0.08	0.16		0.06	0.22		0.04	0.13		0.07	0.05	
v/s Ratio Perm												
v/c Ratio	0.62	0.54		0.51	0.77		0.49	0.56		0.59	0.17	
Uniform Delay, d1	28.2	19.9		28.6	22.4		30.5	23.5		28.1	18.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.9	0.6		2.2	3.8		2.9	1.9		2.0	0.2	
Delay (s)	33.1	20.5		30.9	26.2		33.4	25.3		30.1	18.7	
Level of Service	C	C		C	C		C	C		C	B	
Approach Delay (s)		23.0			26.6			26.9			26.3	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control Delay	25.5			HCM Level of Service			C					
HCM Volume to Capacity ratio	0.68			Sum of lost time (s)			20.0					
Actuated Cycle Length (s)	68.3			ICU Level of Service			C					
Intersection Capacity Utilization	64.6%			Analysis Period (min)			15					
c - Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 34: SR-56 WB Ramps & Carmel Country Road
 Existing + Project (Buildout) PM
 12/11/2011



Movement	WBL	WBR	SEL	SET	INWT	NWR	NWR2	SWL	SWR
Lane Configurations			↖↗	↖↗	↖↗			↖↗	↖↗
Volume (vph)	0	0	269	494	621	0	190	147	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor			0.97	0.95	0.95		1.00	0.97	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)			3433	3539	3539		1583	3433	1583
Flt Permitted			0.95	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)			3433	3539	3539		1583	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	299	549	690	0	211	163	296
RTOR Reduction (vph)	0	0	0	0	0	0	136	0	243
Lane Group Flow (vph)	0	0	299	549	690	0	75	163	53
Turn Type			Prot			Perm			Perm
Protected Phases			5	2	6		4		
Permitted Phases							6		4
Actuated Green, G (s)			9.5	29.8	16.3		16.3	8.3	8.3
Effective Green, g (s)			9.5	29.8	16.3		16.3	8.3	8.3
Actuated g/C Ratio			0.21	0.65	0.35		0.35	0.18	0.18
Clearance Time (s)			4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)			3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			707	2288	1251		560	618	285
v/s Ratio Prot			0.09	0.16	0.19		0.05		
v/s Ratio Perm							0.05	0.03	
v/c Ratio			0.42	0.24	0.55		0.13	0.26	0.19
Uniform Delay, d1			15.9	3.4	12.0		10.1	16.3	16.0
Progression Factor			1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2			0.4	0.1	0.5		0.1	0.2	0.3
Delay (s)			16.3	3.5	12.5		10.2	16.5	16.3
Level of Service			B	A	B		B	B	B
Approach Delay (s)	0.0			8.0	12.0		16.4		
Approach LOS	A			A	B		B		
Intersection Summary:									
HCM Average Control Delay			11.4		HCM Level of Service				B
HCM Volume to Capacity ratio			0.45						
Actuated Cycle Length (s)			46.1		Sum of lost time (s)				12.0
Intersection Capacity Utilization			40.3%		ICU Level of Service				A
Analysis Period (min)			15						
c - Critical Lane Group									

HCM Signalized Intersection Capacity Analysis
 35: SR-56 EB Ramps & Carmel Country Road
 Existing + Project (Buildout) PM
 12/11/2011



Movement	EBL2	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR
Lane Configurations				↖↗	↖↗	↖↗				↖↗	↖↗
Volume (vph)	399	0	241	285	375	0	0	401	255	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0		4.0	4.0		
Lane Util. Factor	0.95	0.95	1.00	0.97	0.95			0.95	1.00		
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		
Flt Protected	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (prot)	1681	1681	1583	3433	3539			3539	1583		
Flt Permitted	0.95	0.95	1.00	0.95	1.00			1.00	1.00		
Satd. Flow (perm)	1681	1681	1583	3433	3539			3539	1583		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	443	0	268	317	417	0	0	446	283	0	0
RTOR Reduction (vph)	0	0	192	0	0	0	0	0	200	0	0
Lane Group Flow (vph)	221	222	76	317	417	0	0	446	83	0	0
Turn Type	Split		Perm		Prot	Perm					
Protected Phases	4	4			1	6		2			
Permitted Phases				4				2			
Actuated Green, G (s)	11.4	11.4	11.4	5.2	21.0		11.8	11.8			
Effective Green, g (s)	11.4	11.4	11.4	5.2	21.0		11.8	11.8			
Actuated g/C Ratio	0.28	0.28	0.28	0.13	0.52		0.29	0.29			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			
Lane Grp Cap (vph)	474	474	447	442	1840		1034	462			
v/s Ratio Prot	0.13	0.13		0.09	0.12		0.13				
v/s Ratio Perm				0.05				0.05			
v/c Ratio	0.47	0.47	0.17	0.72	0.23		0.43	0.18			
Uniform Delay, d1	12.0	12.0	10.9	16.9	5.3		11.6	10.7			
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			
Incremental Delay, d2	0.7	0.7	0.2	5.5	0.1		0.3	0.2			
Delay (s)	12.7	12.7	11.1	22.4	5.3		11.9	10.9			
Level of Service	B	B	B	C	A		B	B			
Approach Delay (s)		12.1			12.7		11.5		0.0		
Approach LOS		B			B		B		A		
Intersection Summary:											
HCM Average Control Delay			12.1		HCM Level of Service						B
HCM Volume to Capacity ratio			0.50								
Actuated Cycle Length (s)			40.4		Sum of lost time (s)						12.0
Intersection Capacity Utilization			40.3%		ICU Level of Service						A
Analysis Period (min)			15								
c - Critical Lane Group											

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	Jacob Swim			Intersection	Carmel Creek Rd./Del Mar Trail			
Agency/Co.	USAI			Jurisdiction	City of San Diego			
Date Performed	3/4/2011			Analysis Year	2011			
Analysis Time Period	36 Existing + Project(BO) PM							
Project ID 002407 - San Diego Corporate Center Lots								
East/West Street: Del Mar Trail				North/South Street: Carmel Creek Road				
Volume Adjustments and Site Characteristics								
Approach	Eastbound			Westbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	5	5	4	55	12	10		
%Thrus Left Lane								
Approach	Northbound			Southbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	12	770	100	15	440	10		
%Thrus Left Lane	50			50				
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.90		0.90		0.90	0.90	0.90	0.90
Flow Rate (veh/h)	14		85		440	538	260	255
% Heavy Vehicles	2		2		2	2	2	2
No. Lanes	1		1		2	2	2	2
Geometry Group	2		2		5		5	
Duration, T								0.25
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.4		0.7		0.0	0.0	0.1	0.0
Prop. Right-Turns	0.3		0.1		0.0	0.2	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.0	0.0	0.0	0.0
hLT-adj	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.1		0.0	-0.1	0.1	0.0
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20	3.20	3.20	3.20
x, initial	0.01		0.08		0.39	0.48	0.23	0.23
hd, final value (s)	6.74		6.63		5.53	5.37	6.07	6.01
x, final value	0.03		0.16		0.68	0.80	0.44	0.43
Move-up time, m (s)	2.0		2.0		2.3		2.3	
Service Time, ts (s)	4.7		4.6		3.2	3.1	3.8	3.7
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	264		335		647	668	510	505
Delay (s/veh)	9.92		10.86		18.94	26.13	13.42	13.08
LOS	A		B		C	D	B	B
Approach Delay (s/veh)	9.92		10.86		22.89		13.25	
LOS	A		B		C		B	
Intersection Delay (s/veh)								19.02
Intersection LOS								C