

Appendix A

Traffic Counts

VOLUME

San Miguel Ranch Rd Bet. Proctor Valley Rd & SR-125 SB Off-Ramps

Day: Thursday

City: Chula Vista

Date: 3/12/2015

Project #: CA15_4080_012

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						4,509	3,820
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			10	8	18		12:00			46	30	76	
00:15			9	4	13		12:15			59	38	97	
00:30			7	2	9		12:30			49	47	96	
00:45			8	34	1	15	12:45			58	212	51	166
01:00			6	2	8		13:00			45	58	103	
01:15			6	5	11		13:15			56	36	92	
01:30			5	0	5		13:30			51	52	103	
01:45			5	22	6	13	13:45			48	200	51	197
02:00			6	0	6		14:00			64	49	113	
02:15			3	1	4		14:15			66	45	111	
02:30			5	1	6		14:30			69	57	126	
02:45			2	16	1	3	14:45			72	271	64	215
03:00			4	2	6		15:00			89	50	139	
03:15			5	2	7		15:15			91	67	158	
03:30			4	5	9		15:30			82	79	161	
03:45			2	15	2	11	15:45			100	362	67	263
04:00			6	8	14		16:00			101	84	185	
04:15			11	4	15		16:15			106	64	170	
04:30			6	7	13		16:30			117	67	184	
04:45			6	29	15	34	16:45			117	441	77	292
05:00			7	23	30		17:00			116	70	186	
05:15			15	31	46		17:15			124	83	207	
05:30			14	35	49		17:30			134	73	207	
05:45			33	69	41	130	17:45			102	476	69	295
06:00			24	61	85		18:00			84	84	168	
06:15			34	67	101		18:15			101	73	174	
06:30			47	67	114		18:30			99	65	164	
06:45			48	153	54	249	18:45			133	417	47	269
07:00			52	79	131		19:00			112	46	158	
07:15			64	55	119		19:15			66	60	126	
07:30			113	66	179		19:30			71	45	116	
07:45			78	307	79	279	19:45			64	313	53	204
08:00			52	62	114		20:00			52	36	88	
08:15			79	59	138		20:15			64	44	108	
08:30			53	75	128		20:30			50	45	95	
08:45			53	237	74	270	20:45			40	206	41	166
09:00			32	47	79		21:00			29	30	59	
09:15			39	39	78		21:15			30	42	72	
09:30			32	44	76		21:30			39	35	74	
09:45			42	145	37	167	21:45			28	126	35	142
10:00			33	50	83		22:00			32	30	62	
10:15			28	44	72		22:15			24	12	36	
10:30			38	42	80		22:30			21	12	33	
10:45			36	135	52	188	22:45			22	99	8	62
11:00			43	27	70		23:00			16	15	31	
11:15			45	33	78		23:15			20	11	31	
11:30			37	49	86		23:30			14	12	26	
11:45			37	162	40	149	23:45			12	62	3	41
TOTALS			1324	1508	2832		TOTALS			3185	2312	5497	
SPLIT %			46.8%	53.2%	34.0%		SPLIT %			57.9%	42.1%	66.0%	

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						4,509	3,820						8,329
AM Peak Hour			07:30	07:00	07:30		PM Peak Hour			16:45	17:15	16:45							
AM Pk Volume			322	279	588		PM Pk Volume			491	309	794							
Pk Hr Factor			0.712	0.883	0.821		Pk Hr Factor			0.916	0.920	0.959							
7 - 9 Volume	0	0	544	549	1093		4 - 6 Volume	0	0	917	587	1504							
7 - 9 Peak Hour			07:30	07:00	07:30		4 - 6 Peak Hour			16:45	16:45	16:45							
7 - 9 Pk Volume	0	0	322	279	588		4 - 6 Pk Volume	0	0	491	303	794							
Pk Hr Factor	0.000	0.000	0.712	0.883	0.821		Pk Hr Factor	0.000	0.000	0.916	0.913	0.959							

Project #: CA15_4080_012

City: Chula Vista

Location: San Miguel Ranch Rd Bet. Proctor Valley Rd

Date: 3/12/2015



VOLUME

San Miguel Ranch Rd Bet. SR-125 SB Off-Ramps & SR-125 NB On-Ramps

Day: Thursday

City: Chula Vista

Date: 3/12/2015

Project #: CA15_4080_013

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						5,916	3,548	9,464	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			17	6	23		12:00			55	28	83			
00:15			13	3	16		12:15			76	36	112			
00:30			9	2	11		12:30			69	41	110			
00:45			11	50	1	12	12:45			73	273	50	155	123	428
01:00			8	3	11		13:00			59	56	115			
01:15			8	4	12		13:15			72	32	104			
01:30			5	0	5		13:30			68	52	120			
01:45			7	28	4	11	13:45			64	263	45	185	109	448
02:00			8	0	8		14:00			79	47	126			
02:15			3	2	5		14:15			99	36	135			
02:30			6	0	6		14:30			89	47	136			
02:45			3	20	1	3	14:45			98	365	58	188	156	553
03:00			5	2	7		15:00			105	48	153			
03:15			4	0	4		15:15			124	62	186			
03:30			7	6	13		15:30			115	71	186			
03:45			4	20	0	8	15:45			135	479	64	245	199	724
04:00			9	10	19		16:00			137	66	203			
04:15			12	4	16		16:15			142	58	200			
04:30			7	7	14		16:30			181	64	245			
04:45			7	35	15	36	16:45			177	637	70	258	247	895
05:00			7	21	28		17:00			152	67	219			
05:15			13	33	46		17:15			158	79	237			
05:30			11	34	45		17:30			161	70	231			
05:45			30	61	42	130	17:45			145	616	58	274	203	890
06:00			28	63	91		18:00			121	73	194			
06:15			35	59	94		18:15			145	72	217			
06:30			44	67	111		18:30			142	54	196			
06:45			52	159	53	242	18:45			163	571	39	238	202	809
07:00			55	78	133		19:00			139	43	182			
07:15			88	50	138		19:15			97	54	151			
07:30			123	64	187		19:30			99	44	143			
07:45			88	354	83	275	19:45			84	419	45	186	129	605
08:00			82	56	138		20:00			84	36	120			
08:15			85	59	144		20:15			88	40	128			
08:30			63	74	137		20:30			70	41	111			
08:45			59	289	68	257	20:45			57	299	41	158	98	457
09:00			43	40	83		21:00			46	27	73			
09:15			54	38	92		21:15			44	38	82			
09:30			30	45	75		21:30			53	30	83			
09:45			52	179	32	155	21:45			42	185	33	128	75	313
10:00			37	45	82		22:00			46	29	75			
10:15			38	42	80		22:15			38	9	47			
10:30			44	39	83		22:30			28	11	39			
10:45			51	170	40	166	22:45			28	140	9	58	37	198
11:00			48	26	74		23:00			25	14	39			
11:15			67	34	101		23:15			27	11	38			
11:30			49	45	94		23:30			14	10	24			
11:45			54	218	37	142	23:45			20	86	3	38	23	124
TOTALS			1583	1437	3020		TOTALS			4333	2111	6444			
SPLIT %			52.4%	47.6%	31.9%		SPLIT %			67.2%	32.8%	68.1%			

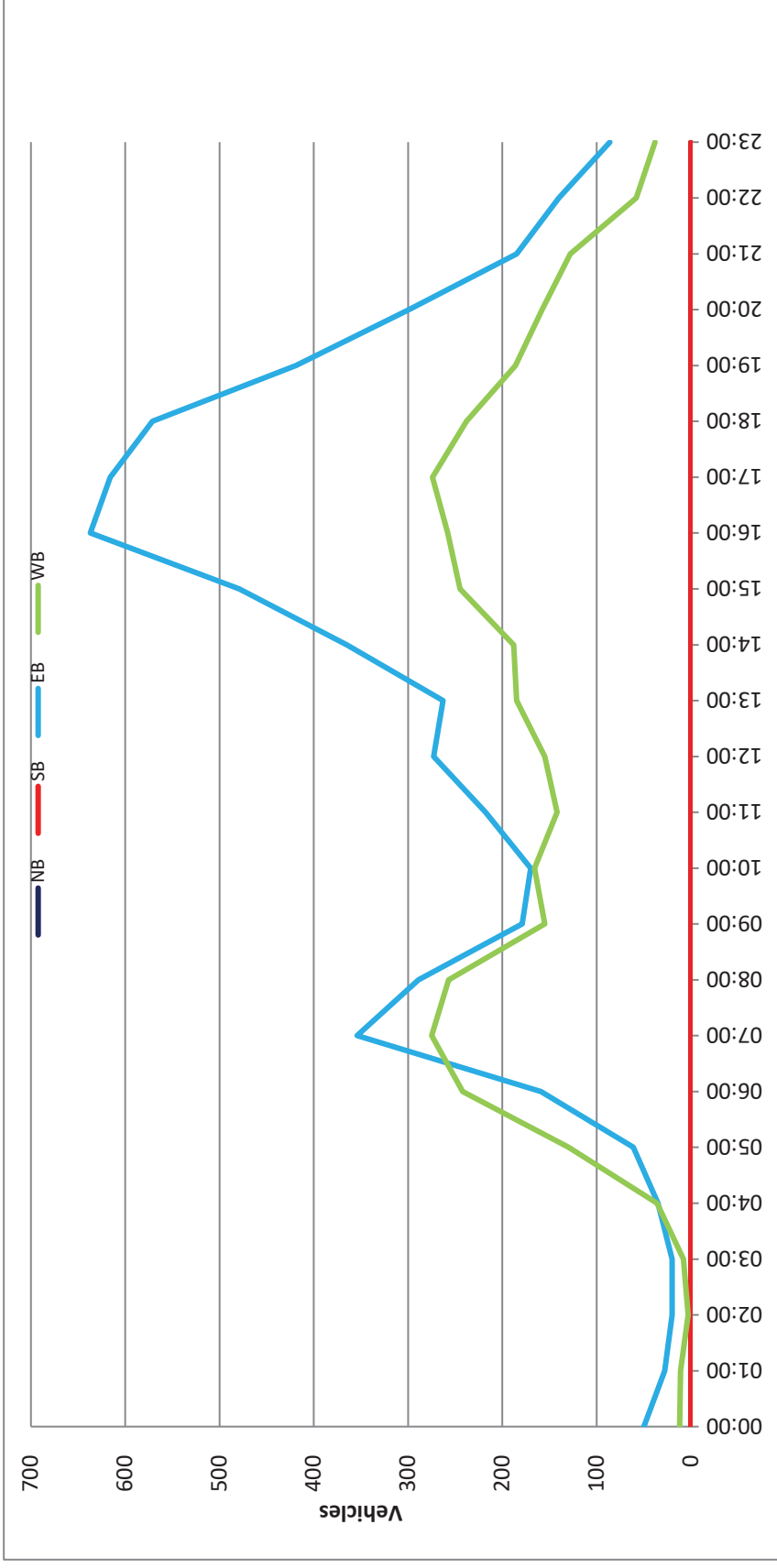
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						5,916	3,548	9,464	
AM Peak Hour			07:15	07:00	07:30		PM Peak Hour			16:30	16:45	16:30			
AM Pk Volume			381	275	640		PM Pk Volume			668	286	948			
Pk Hr Factor			0.774	0.828	0.856		Pk Hr Factor			0.923	0.905	0.960			
7 - 9 Volume	0	0	643	532	1175		4 - 6 Volume	0	0	1253	532	1785			
7 - 9 Peak Hour			07:15	07:00	07:30		4 - 6 Peak Hour			16:30	16:45	16:30			
7 - 9 Pk Volume	0	0	381	275	640		4 - 6 Pk Volume	0	0	668	286	948			
Pk Hr Factor	0.000	0.000	0.774	0.828	0.856		Pk Hr Factor	0.000	0.000	0.923	0.905	0.960			

Project #: CA15_4080_013

City: Chula Vista

Location: San Miguel Ranch Rd Bet. SR-125 SB Off-

Date: 3/12/2015



VOLUME

San Miguel Ranch/Mountain Miguel Road Bet. SR-125 NB On-Ramps & E. H Street

Day: Thursday

City: Chula Vista

Date: 3/12/2015

Project #: CA15_4080_014

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						5,214	4,904	10,118	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			14	7	21		12:00			49	38	87			
00:15			10	5	15		12:15			68	46	114			
00:30			7	3	10		12:30			58	53	111			
00:45			10	4	14	60	12:45			61	236	59	196	120	432
01:00			6	3	9		13:00			58	70	128			
01:15			6	3	9		13:15			74	53	127			
01:30			2	1	3		13:30			62	70	132			
01:45			6	5	11	32	13:45			63	257	59	252	122	509
02:00			7	1	8		14:00			71	62	133			
02:15			3	2	5		14:15			79	48	127			
02:30			6	1	7		14:30			87	57	144			
02:45			4	2	6	26	14:45			93	330	76	243	169	573
03:00			6	4	10		15:00			94	61	155			
03:15			2	0	2		15:15			116	81	197			
03:30			5	9	14		15:30			108	106	214			
03:45			3	2	5	31	15:45			124	442	85	333	209	775
04:00			10	8	18		16:00			123	87	210			
04:15			14	6	20		16:15			130	75	205			
04:30			6	10	16		16:30			147	85	232			
04:45			7	12	19	73	16:45			145	545	76	323	221	868
05:00			5	34	39		17:00			134	96	230			
05:15			11	37	48		17:15			130	99	229			
05:30			10	57	67		17:30			142	80	222			
05:45			24	66	90	244	17:45			129	535	90	365	219	900
06:00			25	88	113		18:00			115	88	203			
06:15			31	94	125		18:15			135	98	233			
06:30			42	99	141		18:30			117	78	195			
06:45			59	99	158	537	18:45			136	503	51	315	187	818
07:00			52	139	191		19:00			115	66	181			
07:15			74	91	165		19:15			80	63	143			
07:30			107	105	212		19:30			86	62	148			
07:45			87	463	215	783	19:45			74	355	63	254	137	609
08:00			55	69	124		20:00			78	54	132			
08:15			75	94	169		20:15			73	57	130			
08:30			71	110	181		20:30			69	62	131			
08:45			52	366	145	619	20:45			57	277	58	231	115	508
09:00			43	54	97		21:00			39	29	68			
09:15			42	64	106		21:15			33	51	84			
09:30			32	54	86		21:30			42	50	92			
09:45			38	218	84	373	21:45			40	154	43	173	83	327
10:00			27	52	79		22:00			33	39	72			
10:15			37	45	82		22:15			28	20	48			
10:30			41	49	90		22:30			26	21	47			
10:45			37	194	85	336	22:45			26	113	12	92	38	205
11:00			45	42	87		23:00			18	17	35			
11:15			63	52	115		23:15			23	10	33			
11:30			41	48	89		23:30			14	8	22			
11:45			39	183	80	371	23:45			13	68	6	41	19	109
TOTALS			1399	2086	3485		TOTALS			3815	2818	6633			
SPLIT %			40.1%	59.9%	34.4%		SPLIT %			57.5%	42.5%	65.6%			

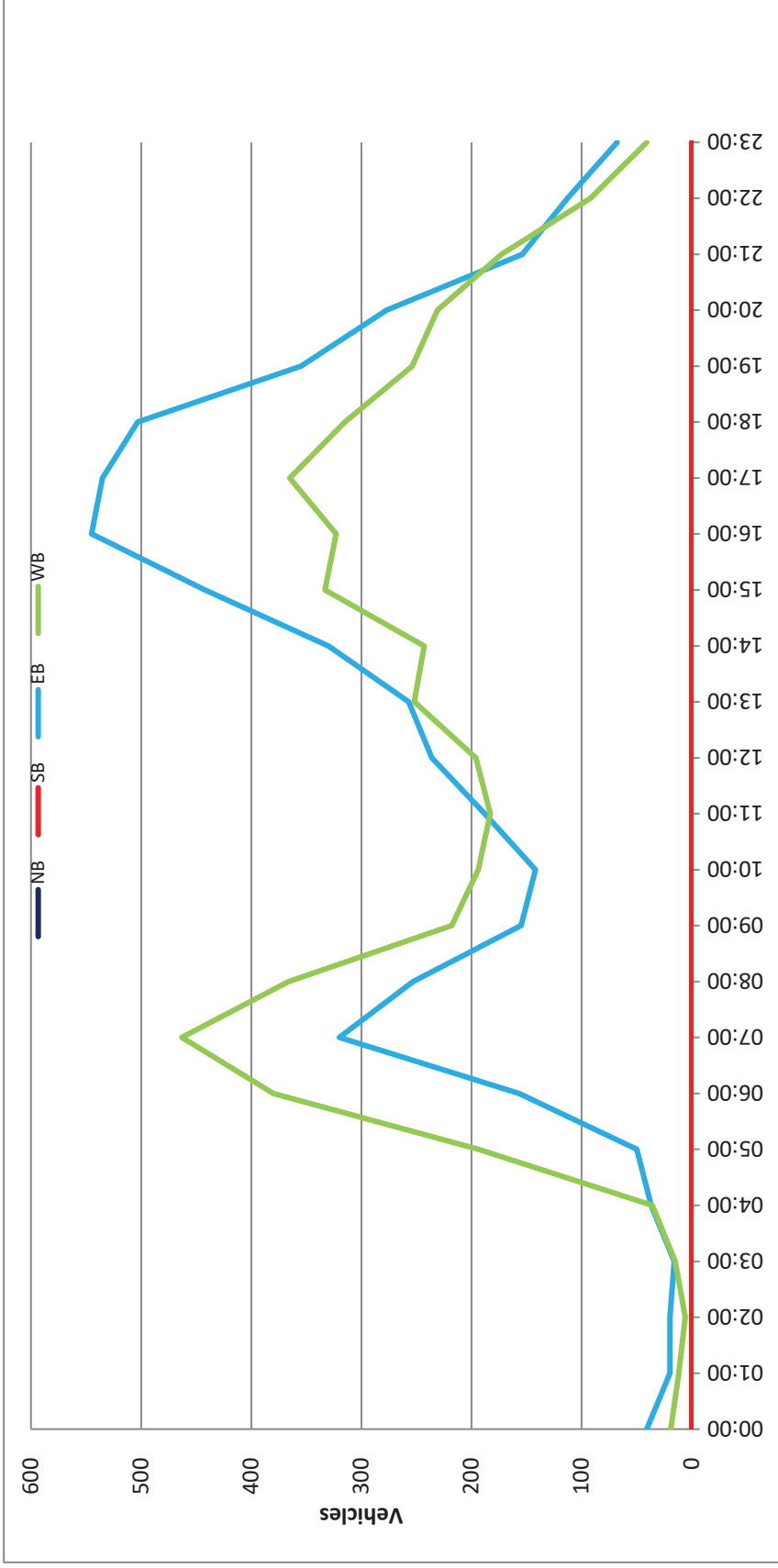
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						5,214	4,904	10,118	
AM Peak Hour			07:30	07:00	07:00		PM Peak Hour			16:15	17:00	16:30			
AM Pk Volume			324	463	783		PM Pk Volume			556	365	912			
Pk Hr Factor			0.757	0.833	0.910		Pk Hr Factor			0.946	0.922	0.983			
7 - 9 Volume	0	0	573	829	1402		4 - 6 Volume	0	0	1080	688	1768			
7 - 9 Peak Hour			07:30	07:00	07:00		4 - 6 Peak Hour			16:15	17:00	16:30			
7 - 9 Pk Volume	0	0	324	463	783		4 - 6 Pk Volume	0	0	556	365	912			
Pk Hr Factor	0.000	0.000	0.757	0.833	0.910		Pk Hr Factor	0.000	0.000	0.946	0.922	0.983			

Project #: CA15_4080_014

City: Chula Vista

Location: San Miguel Ranch/Mountain Miguel Road

Date: 3/12/2015



VOLUME

Mountain Miguel Road Bet. E. H Street & Rocking Horse Drive

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_015

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						2,626	2,427						5,053
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
00:00			5	4	9		12:00			27	24	51							
00:15			2	1	3		12:15			28	30	58							
00:30			0	7	7		12:30			24	30	54							
00:45			5	12	1	13	12:45			34	113	20	104	54	217				
01:00			4	1	5		13:00			46	31	77							
01:15			3	0	3		13:15			42	30	72							
01:30			2	2	4		13:30			56	46	102							
01:45			1	10	2	5	13:45			41	185	82	189	123	374				
02:00			2	2	4		14:00			46	58	104							
02:15			0	1	1		14:15			54	31	85							
02:30			1	1	2		14:30			50	53	103							
02:45			2	5	0	4	14:45			42	192	47	189	89	381				
03:00			1	0	1		15:00			48	32	80							
03:15			1	2	3		15:15			45	44	89							
03:30			2	0	2		15:30			51	43	94							
03:45			3	7	2	4	15:45			57	201	43	162	100	363				
04:00			3	3	6		16:00			43	40	83							
04:15			4	0	4		16:15			56	40	96							
04:30			1	3	4		16:30			52	41	93							
04:45			4	12	4	10	16:45			65	216	53	174	118	390				
05:00			3	3	6		17:00			47	54	101							
05:15			3	5	8		17:15			46	51	97							
05:30			3	10	13		17:30			63	50	113							
05:45			8	17	3	21	17:45			56	212	49	204	105	416				
06:00			8	15	23		18:00			44	46	90							
06:15			14	9	23		18:15			56	59	115							
06:30			39	20	59		18:30			46	35	81							
06:45			88	149	33	77	18:45			54	200	36	176	90	376				
07:00			46	40	86		19:00			58	55	113							
07:15			32	48	80		19:15			49	36	85							
07:30			50	34	84		19:30			21	31	52							
07:45			66	194	25	147	19:45			27	155	36	158	63	313				
08:00			54	39	93		20:00			39	39	78							
08:15			49	57	106		20:15			29	35	64							
08:30			57	112	169		20:30			32	21	53							
08:45			30	190	61	269	20:45			25	125	29	124	54	249				
09:00			32	28	60		21:00			9	34	43							
09:15			24	26	50		21:15			16	25	41							
09:30			34	21	55		21:30			11	11	22							
09:45			18	108	15	90	21:45			11	47	15	85	26	132				
10:00			28	26	54		22:00			13	16	29							
10:15			36	14	50		22:15			9	10	19							
10:30			28	17	45		22:30			9	15	24							
10:45			29	121	21	78	22:45			11	42	7	48	18	90				
11:00			27	23	50		23:00			4	6	10							
11:15			20	16	36		23:15			4	4	8							
11:30			25	18	43		23:30			5	6	11							
11:45			25	97	20	77	23:45			3	16	3	19	6	35				
TOTALS			922	795	1717		TOTALS			1704	1632	3336							
SPLIT %			53.7%	46.3%	34.0%		SPLIT %			51.1%	48.9%	66.0%							

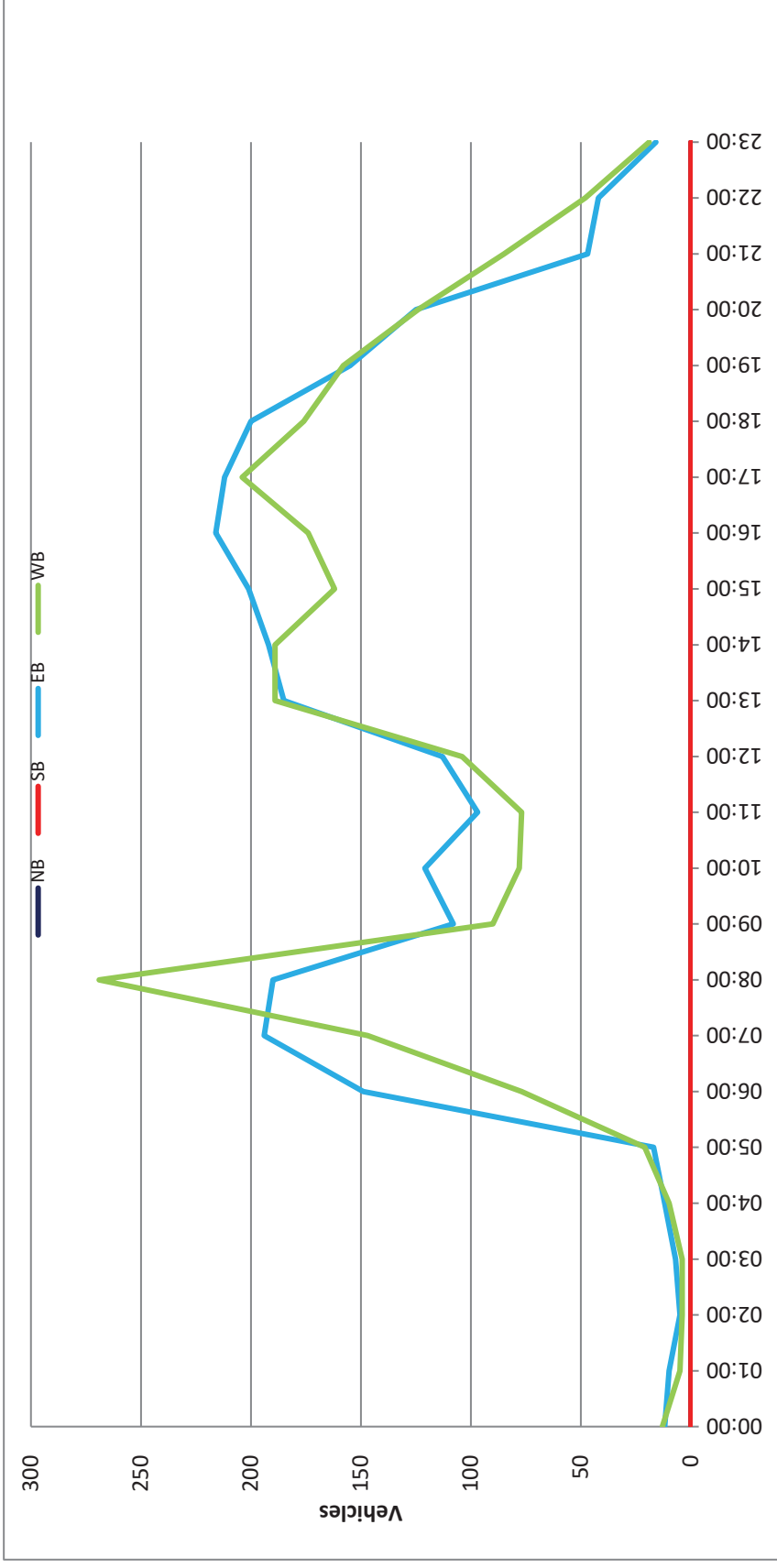
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						2,626	2,427						5,053
AM Peak Hour			07:45	08:00	07:45		PM Peak Hour			16:45	13:45	16:45							
AM Pk Volume			226	269	459		PM Pk Volume			221	224	429							
Pk Hr Factor			0.856	0.600	0.679		Pk Hr Factor			0.850	0.683	0.909							
7 - 9 Volume	0	0	384	416	800		4 - 6 Volume	0	0	428	378	806							
7 - 9 Peak Hour			07:45	08:00	07:45		4 - 6 Peak Hour			16:45	16:45	16:45							
7 - 9 Pk Volume	0	0	226	269	459		4 - 6 Pk Volume	0	0	221	208	429							
Pk Hr Factor	0.000	0.000	0.856	0.600	0.679		Pk Hr Factor	0.000	0.000	0.850	0.963	0.909							

Project #: CA15_4080_015

City: Chula Vista

Location: Mountain Miguel Road Bet. E. H Street &

Date: 3/12/2015



VOLUME

Mountain Miguel Road Bet. E. H Street & Rocking Horse Drive

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_015

DAILY TOTALS					NB	SB	EB					WB	Total		
					0	0						2,626	2,427	5,053	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			5	4	9		12:00			27	24	51			
00:15			2	1	3		12:15			28	30	58			
00:30			0	7	7		12:30			24	30	54			
00:45			5	12	1	13	6	25		34	113	20	104	54	217
01:00			4	1	5		13:00			46	31	77			
01:15			3	0	3		13:15			42	30	72			
01:30			2	2	4		13:30			56	46	102			
01:45			1	10	2	5	3	15		41	185	82	189	123	374
02:00			2	2	4		14:00			46	58	104			
02:15			0	1	1		14:15			54	31	85			
02:30			1	1	2		14:30			50	53	103			
02:45			2	5	0	4	2	9		42	192	47	189	89	381
03:00			1	0	1		15:00			48	32	80			
03:15			1	2	3		15:15			45	44	89			
03:30			2	0	2		15:30			51	43	94			
03:45			3	7	2	4	5	11		57	201	43	162	100	363
04:00			3	3	6		16:00			43	40	83			
04:15			4	0	4		16:15			56	40	96			
04:30			1	3	4		16:30			52	41	93			
04:45			4	12	4	10	8	22		65	216	53	174	118	390
05:00			3	3	6		17:00			47	54	101			
05:15			3	5	8		17:15			46	51	97			
05:30			3	10	13		17:30			63	50	113			
05:45			8	17	3	21	11	38		56	212	49	204	105	416
06:00			8	15	23		18:00			44	46	90			
06:15			14	9	23		18:15			56	59	115			
06:30			39	20	59		18:30			46	35	81			
06:45			88	149	33	77	121	226		54	200	36	176	90	376
07:00			46	40	86		19:00			58	55	113			
07:15			32	48	80		19:15			49	36	85			
07:30			50	34	84		19:30			21	31	52			
07:45			66	194	25	147	91	341		27	155	36	158	63	313
08:00			54	39	93		20:00			39	39	78			
08:15			49	57	106		20:15			29	35	64			
08:30			57	112	169		20:30			32	21	53			
08:45			30	190	61	269	91	459		25	125	29	124	54	249
09:00			32	28	60		21:00			9	34	43			
09:15			24	26	50		21:15			16	25	41			
09:30			34	21	55		21:30			11	11	22			
09:45			18	108	15	90	33	198		11	47	15	85	26	132
10:00			28	26	54		22:00			13	16	29			
10:15			36	14	50		22:15			9	10	19			
10:30			28	17	45		22:30			9	15	24			
10:45			29	121	21	78	50	199		11	42	7	48	18	90
11:00			27	23	50		23:00			4	6	10			
11:15			20	16	36		23:15			4	4	8			
11:30			25	18	43		23:30			5	6	11			
11:45			25	97	20	77	45	174		3	16	3	19	6	35
TOTALS			922	795	1717		TOTALS			1704	1632	3336			
SPLIT %			53.7%	46.3%	34.0%		SPLIT %			51.1%	48.9%	66.0%			

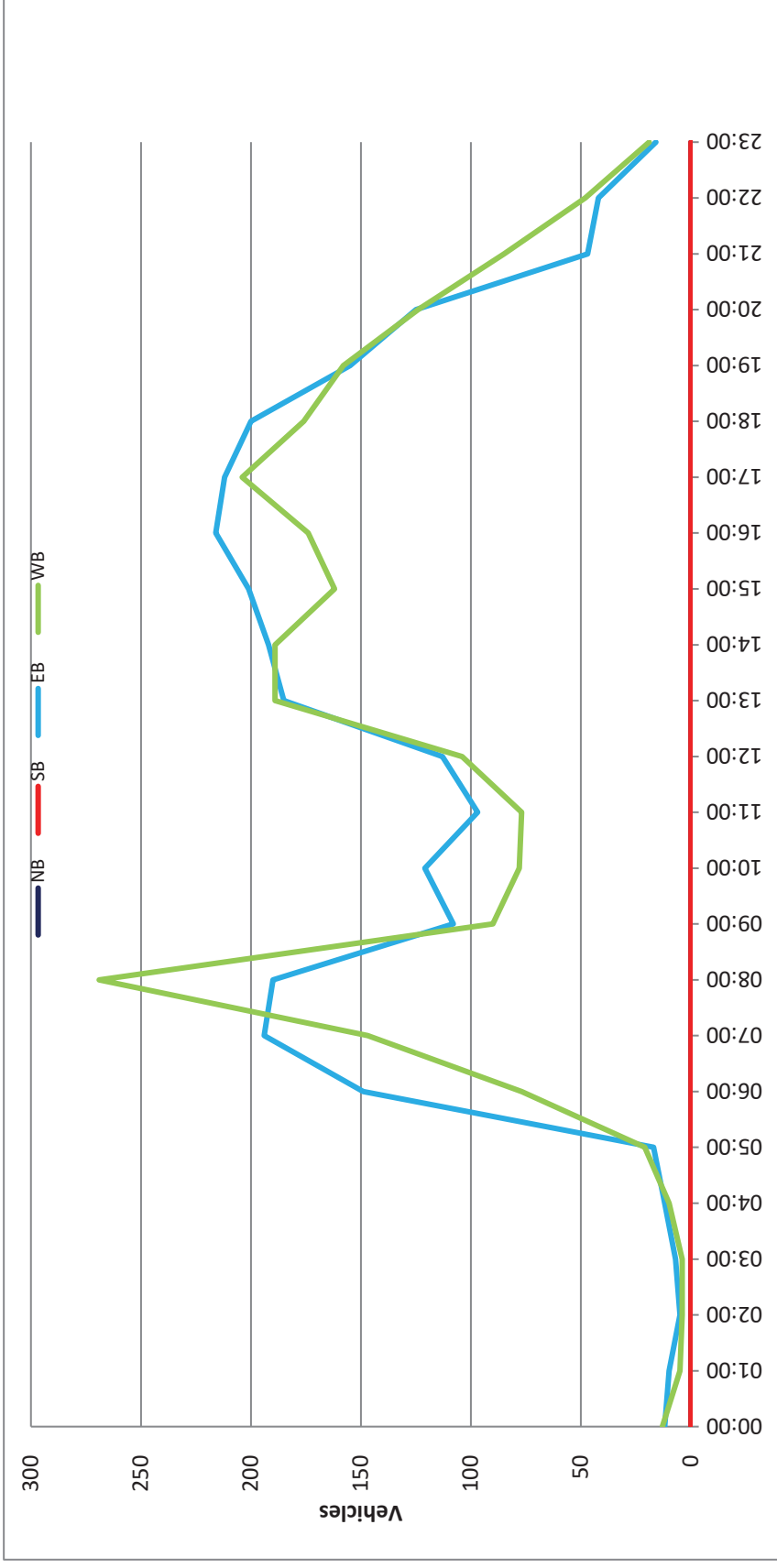
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						2,626	2,427						5,053
AM Peak Hour			07:45	08:00	07:45		PM Peak Hour			16:45	13:45	16:45							
AM Pk Volume			226	269	459		PM Pk Volume			221	224	429							
Pk Hr Factor			0.856	0.600	0.679		Pk Hr Factor			0.850	0.683	0.909							
7 - 9 Volume	0	0	384	416	800		4 - 6 Volume	0	0	428	378	806							
7 - 9 Peak Hour			07:45	08:00	07:45		4 - 6 Peak Hour			16:45	16:45	16:45							
7 - 9 Pk Volume	0	0	226	269	459		4 - 6 Pk Volume	0	0	221	208	429							
Pk Hr Factor	0.000	0.000	0.856	0.600	0.679		Pk Hr Factor	0.000	0.000	0.850	0.963	0.909							

Project #: CA15_4080_015

City: Chula Vista

Location: Mountain Miguel Road Bet. E. H Street &

Date: 3/12/2015



VOLUME

E. H Street Bet. Hilltop Drive & 805 SB On-Off Ramp

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_016

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						18,968	21,135						40,103
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00			40	41	81		12:00			346	305	651							
00:15			35	35	70		12:15			304	314	618							
00:30			31	26	57		12:30			300	337	637							
00:45			27	133 21 123	48 256		12:45			266 1216 343 1299		609 2515							
01:00			23	22	45		13:00			282	351	633							
01:15			18	10	28		13:15			316	345	661							
01:30			31	17	48		13:30			337	360	697							
01:45			20 92 13 62		33 154		13:45			324 1259 343 1399		667 2658							
02:00			8	21	29		14:00			289	358	647							
02:15			13	12	25		14:15			287	368	655							
02:30			16	6	22		14:30			339	438	777							
02:45			8 45 14 53		22 98		14:45			361 1276 437 1601		798 2877							
03:00			8	12	20		15:00			356	406	762							
03:15			14	12	26		15:15			378	396	774							
03:30			17	11	28		15:30			373	380	753							
03:45			18 57 20 55		38 112		15:45			373 1480 437 1619		810 3099							
04:00			20	14	34		16:00			365	368	733							
04:15			24	13	37		16:15			365	365	730							
04:30			33	22	55		16:30			396	395	791							
04:45			39 116 36 85		75 201		16:45			390 1516 351 1479		741 2995							
05:00			42	39	81		17:00			419	359	778							
05:15			74	37	111		17:15			359	374	733							
05:30			85	77	162		17:30			377	365	742							
05:45			95 296 116 269		211 565		17:45			341 1496 375 1473		716 2969							
06:00			136	146	282		18:00			322	370	692							
06:15			157	168	325		18:15			304	335	639							
06:30			191	189	380		18:30			280	270	550							
06:45			199 683 260 763		459 1446		18:45			295 1201 344 1319		639 2520							
07:00			210	326	536		19:00			281	269	550							
07:15			291	446	737		19:15			251	283	534							
07:30			331	424	755		19:30			228	258	486							
07:45			290 1122 446 1642		736 2764		19:45			251 1011 255 1065		506 2076							
08:00			304	413	717		20:00			243	217	460							
08:15			302	355	657		20:15			201	173	374							
08:30			235	311	546		20:30			200	171	371							
08:45			227 1068 368 1447		595 2515		20:45			193 837 166 727		359 1564							
09:00			219	287	506		21:00			180	163	343							
09:15			224	273	497		21:15			170	159	329							
09:30			219	258	477		21:30			134	139	273							
09:45			257 919 289 1107		546 2026		21:45			121 605 126 587		247 1192							
10:00			233	268	501		22:00			105	127	232							
10:15			217	273	490		22:15			96	99	195							
10:30			268	295	563		22:30			81	72	153							
10:45			217 935 297 1133		514 2068		22:45			59 341 90 388		149 729							
11:00			209	305	514		23:00			64	74	138							
11:15			296	289	585		23:15			41	60	101							
11:30			288	296	584		23:30			44	49	93							
11:45			291 1084 317 1207		608 2291		23:45			31 180 50 233		81 413							
TOTALS			6550	7946	14496		TOTALS			12418	13189	25607							
SPLIT %			45.2%	54.8%	36.1%		SPLIT %			48.5%	51.5%	63.9%							

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						18,968	21,135						40,103
AM Peak Hour			11:45	07:15	07:15		PM Peak Hour			16:15	14:30	14:30							
AM Pk Volume			1241	1729	2945		PM Pk Volume			1570	1677	3111							
Pk Hr Factor			0.897	0.969	0.975		Pk Hr Factor			0.937	0.957	0.975							
7 - 9 Volume	0	0	2190	3089	5279		4 - 6 Volume	0	0	3012	2952	5964							
7 - 9 Peak Hour			07:30	07:15	07:15		4 - 6 Peak Hour			16:15	16:00	16:30							
7 - 9 Pk Volume	0	0	1227	1729	2945		4 - 6 Pk Volume	0	0	1570	1479	3043							
Pk Hr Factor	0.000	0.000	0.927	0.969	0.975		Pk Hr Factor	0.000	0.000	0.937	0.936	0.962							

Project #: CA15_4080_016

City: Chula Vista

Location: E. H Street Bet. Hilltop Drive & 805 SB On-

Date: 3/12/2015



VOLUME

E. H Street Bet. 805 SB On-Off Ramp & 805 NB On-Off Ramp

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_017

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						33,536	18,654						52,190
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00			76	38	114		12:00			511	261	772							
00:15			87	42	129		12:15			506	287	793							
00:30			71	24	95		12:30			499	327	826							
00:45			61	118	179		12:45			466	1166	1632							
01:00			48	13	61		13:00			486	309	795							
01:15			50	13	63		13:15			516	304	820							
01:30			47	17	64		13:30			537	330	867							
01:45			41	64	105		13:45			550	1232	1782							
02:00			34	12	46		14:00			522	315	837							
02:15			35	7	42		14:15			552	342	894							
02:30			38	7	45		14:30			555	356	911							
02:45			26	35	61		14:45			619	1398	1004							
03:00			19	15	34		15:00			626	317	943							
03:15			23	6	29		15:15			670	327	997							
03:30			28	4	32		15:30			673	339	1012							
03:45			31	38	69		15:45			706	1334	1057							
04:00			27	7	34		16:00			723	339	1062							
04:15			41	16	57		16:15			747	331	1078							
04:30			41	18	59		16:30			727	319	1046							
04:45			51	76	127		16:45			758	1305	1074							
05:00			48	26	74		17:00			718	351	1069							
05:15			79	58	137		17:15			773	304	1077							
05:30			102	70	172		17:30			741	298	1039							
05:45			149	253	402		17:45			764	1257	1068							
06:00			156	125	281		18:00			630	292	922							
06:15			198	147	345		18:15			632	255	887							
06:30			238	163	401		18:30			586	241	827							
06:45			279	653	932		18:45			598	1065	875							
07:00			323	260	583		19:00			551	272	823							
07:15			405	362	767		19:15			518	242	760							
07:30			523	466	989		19:30			460	249	709							
07:45			463	1439	1902		19:45			401	986	624							
08:00			425	351	776		20:00			394	222	616							
08:15			411	316	727		20:15			369	190	559							
08:30			424	282	706		20:30			340	197	537							
08:45			396	1263	1659		20:45			370	795	556							
09:00			387	246	633		21:00			332	152	484							
09:15			404	245	649		21:15			301	163	464							
09:30			363	231	594		21:30			265	145	410							
09:45			426	952	1378		21:45			237	580	357							
10:00			387	246	633		22:00			209	107	316							
10:15			361	237	598		22:15			217	101	318							
10:30			377	243	620		22:30			139	66	205							
10:45			416	998	1414		22:45			144	345	215							
11:00			394	274	668		23:00			140	56	196							
11:15			443	297	740		23:15			99	53	152							
11:30			510	265	775		23:30			96	38	134							
11:45			503	1105	1608		23:45			98	197	148							
TOTALS			10465	6994	17459		TOTALS			23071	11660	34731							
SPLIT %			59.9%	40.1%	33.5%		SPLIT %			66.4%	33.6%	66.5%							

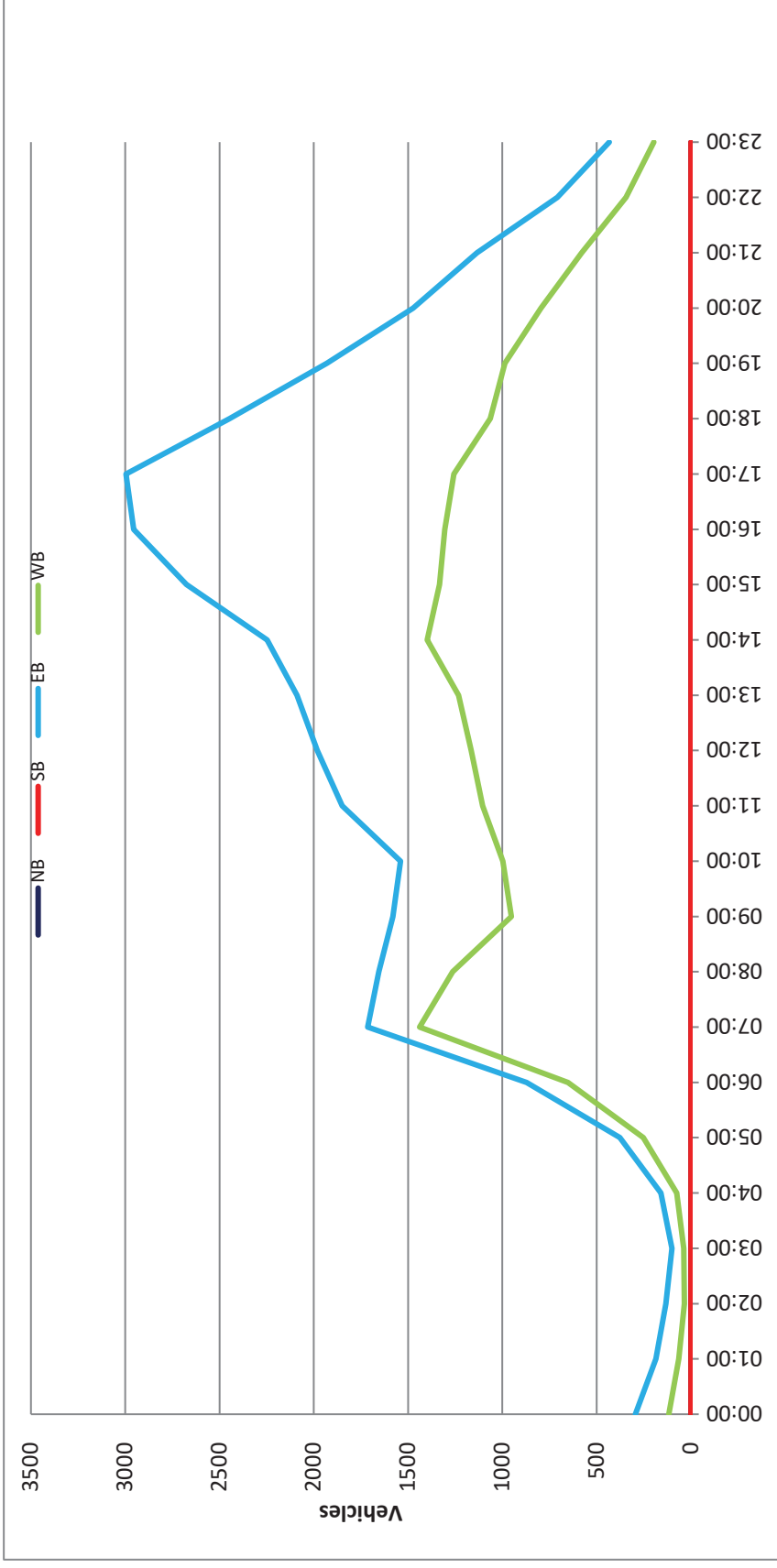
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						33,536	18,654						52,190
AM Peak Hour			11:30	07:15	07:15		PM Peak Hour			17:00	14:15	16:15							
AM Pk Volume			2030	1530	3346		PM Pk Volume			2996	1400	4267							
Pk Hr Factor			0.993	0.821	0.846		Pk Hr Factor			0.969	0.909	0.990							
7 - 9 Volume	0	0	3370	2702	6072		4 - 6 Volume	0	0	5951	2562	8513							
7 - 9 Peak Hour			07:30	07:15	07:15		4 - 6 Peak Hour			17:00	16:15	16:15							
7 - 9 Pk Volume	0	0	1822	1530	3346		4 - 6 Pk Volume	0	0	2996	1317	4267							
Pk Hr Factor	0.000	0.000	0.871	0.821	0.846		Pk Hr Factor	0.000	0.000	0.969	0.938	0.990							

Project #: CA15_4080_017

City: Chula Vista

Location: E. H Street Bet. 805 SB On-Off Ramp & 805

Date: 3/12/2015



VOLUME

E. H Street Bet. 805 On-Off Ramp & Terra Nova Drive

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_018

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						25,574	26,715
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			67	68	135		12:00			322	340	662	
00:15			65	62	127		12:15			378	375	753	
00:30			49	41	90		12:30			336	408	744	
00:45			50	231	26	197	12:45			323	1359	377	1500
01:00			43	17	60		13:00			376	408	784	
01:15			39	24	63		13:15			382	399	781	
01:30			35	15	50		13:30			368	409	777	
01:45			32	149	28	84	13:45			357	1483	361	1577
02:00			24	17	41		14:00			401	385	786	
02:15			32	20	52		14:15			411	363	774	
02:30			25	19	44		14:30			364	430	794	
02:45			23	104	16	72	14:45			460	1636	463	1641
03:00			14	23	37		15:00			460	401	861	
03:15			21	19	40		15:15			530	430	960	
03:30			20	21	41		15:30			401	455	856	
03:45			32	87	27	90	15:45			509	1900	406	1692
04:00			20	44	64		16:00			583	425	1008	
04:15			24	45	69		16:15			608	409	1017	
04:30			24	74	98		16:30			624	422	1046	
04:45			40	108	111	274	16:45			670	2485	380	1636
05:00			27	161	188		17:00			586	469	1055	
05:15			45	219	264		17:15			642	400	1042	
05:30			46	265	311		17:30			671	380	1051	
05:45			87	205	275	920	17:45			653	2552	365	1614
06:00			78	417	495		18:00			536	377	913	
06:15			108	380	488		18:15			458	372	830	
06:30			149	403	552		18:30			488	345	833	
06:45			203	538	448	1648	18:45			432	1914	336	1430
07:00			198	473	671		19:00			480	344	824	
07:15			355	516	871		19:15			427	291	718	
07:30			514	559	1073		19:30			332	307	639	
07:45			451	1518	508	2056	19:45			324	1563	268	1210
08:00			304	563	867		20:00			269	295	564	
08:15			293	486	779		20:15			323	266	589	
08:30			320	463	783		20:30			250	247	497	
08:45			352	1269	457	1969	20:45			295	1137	270	1078
09:00			280	398	678		21:00			240	227	467	
09:15			300	422	722		21:15			241	221	462	
09:30			243	387	630		21:30			224	209	433	
09:45			300	1123	333	1540	21:45			175	880	132	789
10:00			262	350	612		22:00			182	129	311	
10:15			242	341	583		22:15			165	117	282	
10:30			284	375	659		22:30			117	105	222	
10:45			267	1055	379	1445	22:45			123	587	88	439
11:00			279	435	714		23:00			98	73	171	
11:15			349	363	712		23:15			88	70	158	
11:30			360	386	746		23:30			74	62	136	
11:45			358	1346	359	1543	23:45			85	345	66	271
TOTALS			7733	11838	19571		TOTALS			17841	14877	32718	
SPLIT %			39.5%	60.5%	37.4%		SPLIT %			54.5%	45.5%	62.6%	

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						25,574	26,715

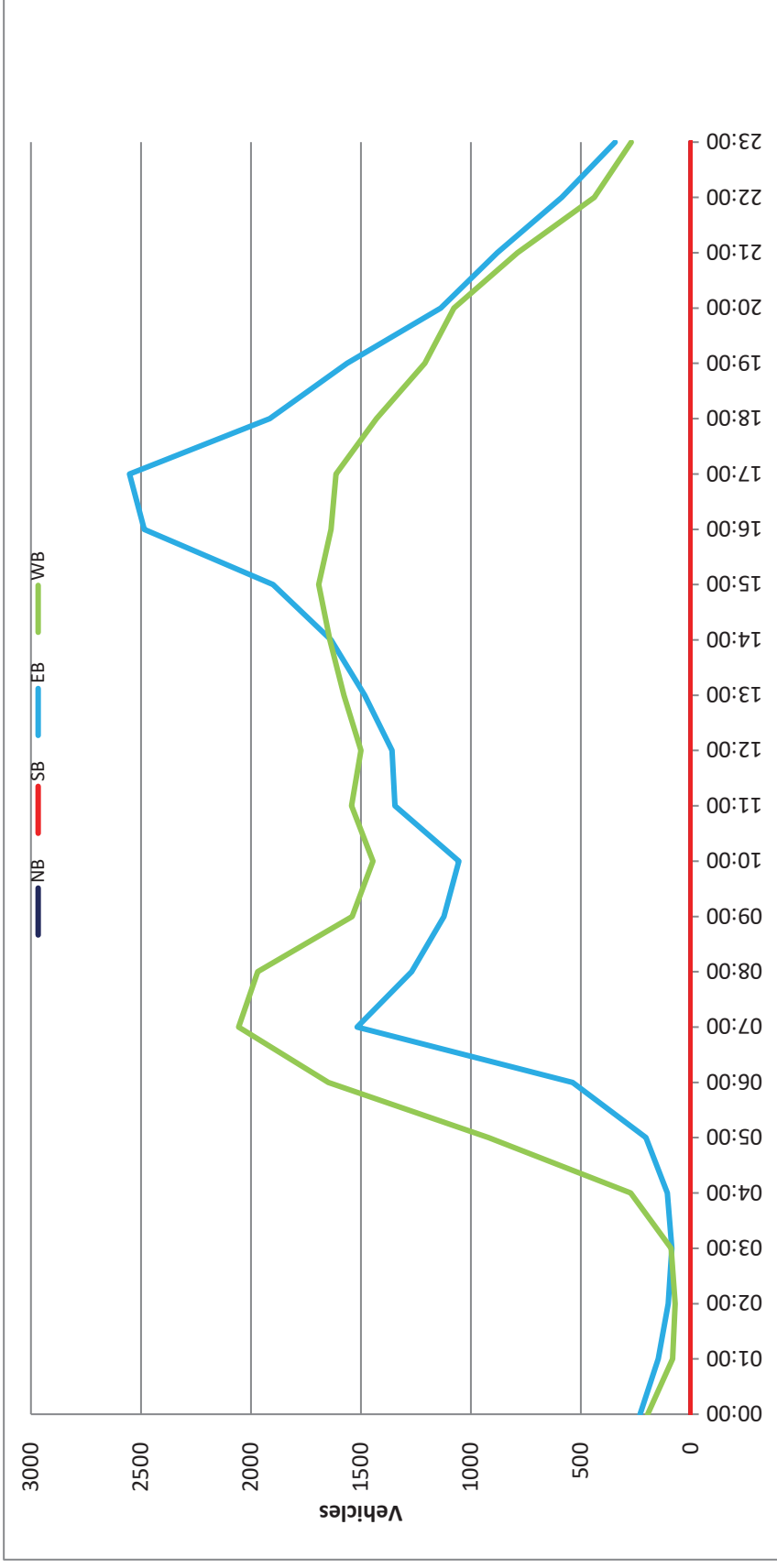
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						25,574	26,715						52,289
AM Peak Hour			07:15	07:15	07:15		PM Peak Hour			16:45	14:45	16:45							
AM Pk Volume			1624	2146	3770		PM Pk Volume			2569	1749	4198							
Pk Hr Factor			0.790	0.953	0.878		Pk Hr Factor			0.957	0.944	0.995							
7 - 9 Volume	0	0	2787	4025	6812		4 - 6 Volume	0	0	5037	3250	8287							
7 - 9 Peak Hour			07:15	07:15	07:15		4 - 6 Peak Hour			16:45	16:15	16:45							
7 - 9 Pk Volume	0	0	1624	2146	3770		4 - 6 Pk Volume	0	0	2569	1680	4198							
Pk Hr Factor	0.000	0.000	0.790	0.953	0.878		Pk Hr Factor	0.000	0.000	0.957	0.896	0.995							

Project #: CA15_4080_018

City: Chula Vista

Location: E. H Street Bet. 805 On-Off Ramp & Terra

Date: 3/12/2015



VOLUME

E. H Street Bet. Terra Nova Drive & Del Rey Blvd

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_019

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						25,250	24,698
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			61	61	122		12:00			313	316	629	
00:15			52	57	109		12:15			361	356	717	
00:30			49	34	83		12:30			350	373	723	
00:45			45	207	27	179	12:45			337	1361	342	1387
					72	386						679	2748
01:00			42	19	61		13:00			384	387	771	
01:15			31	19	50		13:15			418	363	781	
01:30			30	11	41		13:30			375	395	770	
01:45			29	132	28	77	13:45			379	1556	375	1520
					57	209						754	3076
02:00			21	14	35		14:00			374	337	711	
02:15			29	19	48		14:15			449	328	777	
02:30			23	18	41		14:30			419	434	853	
02:45			20	93	14	65	14:45			451	1693	393	1492
					34	158						844	3185
03:00			12	18	30		15:00			498	376	874	
03:15			20	14	34		15:15			497	385	882	
03:30			16	17	33		15:30			437	432	869	
03:45			28	76	21	70	15:45			478	1910	378	1571
					49	146						856	3481
04:00			19	40	59		16:00			577	364	941	
04:15			23	36	59		16:15			558	390	948	
04:30			23	67	90		16:30			630	414	1044	
04:45			37	102	93	236	16:45			564	2329	394	1562
					130	338						958	3891
05:00			23	143	166		17:00			554	464	1018	
05:15			41	192	233		17:15			592	352	944	
05:30			49	220	269		17:30			633	361	994	
05:45			79	192	244	799	17:45			623	2402	367	1544
					323	991						990	3946
06:00			79	315	394		18:00			521	312	833	
06:15			102	351	453		18:15			458	361	819	
06:30			151	354	505		18:30			484	323	807	
06:45			228	560	402	1422	18:45			420	1883	325	1321
					630	1982						745	3204
07:00			223	438	661		19:00			451	320	771	
07:15			345	476	821		19:15			433	274	707	
07:30			539	501	1040		19:30			354	275	629	
07:45			472	1579	512	1927	19:45			326	1564	259	1128
					984	3506						585	2692
08:00			289	538	827		20:00			294	258	552	
08:15			293	465	758		20:15			286	258	544	
08:30			291	439	730		20:30			275	248	523	
08:45			328	1201	442	1884	20:45			283	1138	253	1017
					770	3085						536	2155
09:00			264	344	608		21:00			247	190	437	
09:15			287	359	646		21:15			251	218	469	
09:30			256	348	604		21:30			213	166	379	
09:45			269	1076	306	1357	21:45			193	904	121	695
					575	2433						314	1599
10:00			276	314	590		22:00			166	126	292	
10:15			248	316	564		22:15			162	105	267	
10:30			290	346	636		22:30			113	95	208	
10:45			272	1086	367	1343	22:45			118	559	86	412
					639	2429						204	971
11:00			248	402	650		23:00			92	65	157	
11:15			369	381	750		23:15			86	61	147	
11:30			329	321	650		23:30			65	66	131	
11:45			381	1327	333	1437	23:45			77	320	61	253
					714	2764						138	573
TOTALS			7631	10796	18427		TOTALS			17619	13902	31521	
SPLIT %			41.4%	58.6%	36.9%		SPLIT %			55.9%	44.1%	63.1%	

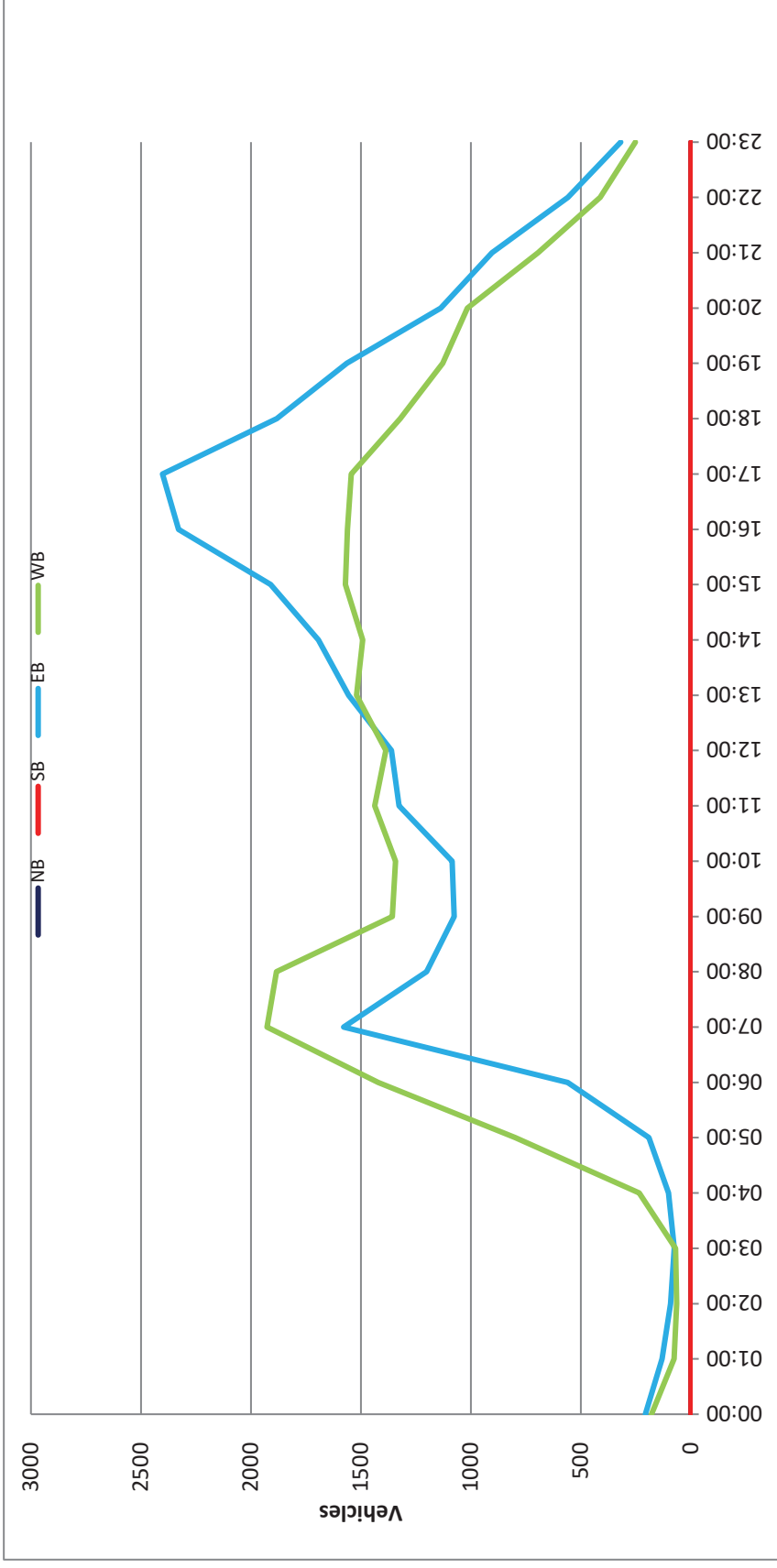
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						25,250	24,698						49,948
AM Peak Hour			07:15	07:15	07:15		PM Peak Hour			17:00	16:15	16:15							
AM Pk Volume			1645	2027	3672		PM Pk Volume			2402	1662	3968							
Pk Hr Factor			0.763	0.942	0.883		Pk Hr Factor			0.949	0.895	0.950							
7 - 9 Volume	0	0	2780	3811	6591		4 - 6 Volume	0	0	4731	3106	7837							
7 - 9 Peak Hour			07:15	07:15	07:15		4 - 6 Peak Hour			17:00	16:15	16:15							
7 - 9 Pk Volume	0	0	1645	2027	3672		4 - 6 Pk Volume	0	0	2402	1662	3968							
Pk Hr Factor	0.000	0.000	0.763	0.942	0.883		Pk Hr Factor	0.000	0.000	0.949	0.895	0.950							

Project #: CA15_4080_019

City: Chula Vista

Location: E. H Street Bet. Terra Nova Drive & Del Rey

Date: 3/12/2015



VOLUME

E. H Street Bet. Del Rey Blvd & Paseo Del Rey

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_020

DAILY TOTALS					NB	SB	EB					WB	Total				
					0	0						23,781					
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL					
00:00			49	62	111		12:00			314	299	613					
00:15			54	55	109		12:15			323	335	658					
00:30			45	34	79		12:30			327	340	667					
00:45			34	182	25	176	12:45			319	1283	329	1303	648	2586		
01:00			35	20	55		13:00			374	351	725					
01:15			26	17	43		13:15			366	384	750					
01:30			23	9	32		13:30			355	385	740					
01:45			26	110	27	73	13:45			371	1466	338	1458	709	2924		
02:00			15	13	28		14:00			368	334	702					
02:15			25	16	41		14:15			388	348	736					
02:30			18	16	34		14:30			403	409	812					
02:45			22	80	14	59	14:45			438	1597	402	1493	840	3090		
03:00			13	10	23		15:00			443	352	795					
03:15			17	12	29		15:15			486	373	859					
03:30			16	17	33		15:30			433	416	849					
03:45			23	69	26	65	15:45			475	1837	356	1497	831	3334		
04:00			19	43	62		16:00			518	370	888					
04:15			23	33	56		16:15			530	367	897					
04:30			19	61	80		16:30			571	369	940					
04:45			34	95	85	222	16:45			543	2162	373	1479	916	3641		
05:00			20	129	149		17:00			569	470	1039					
05:15			41	183	224		17:15			551	353	904					
05:30			43	211	254		17:30			594	354	948					
05:45			83	187	227	750	17:45			594	2308	358	1535	952	3843		
06:00			79	302	381		18:00			470	324	794					
06:15			95	294	389		18:15			456	345	801					
06:30			134	317	451		18:30			426	334	760					
06:45			211	519	330	1243	18:45			404	1756	324	1327	728	3083		
07:00			242	397	639		19:00			431	297	728					
07:15			338	429	767		19:15			385	301	686					
07:30			506	444	950		19:30			345	260	605					
07:45			423	1509	413	1683	19:45			322	1483	257	1115	579	2598		
08:00			265	476	741		20:00			277	270	547					
08:15			291	412	703		20:15			271	239	510					
08:30			292	362	654		20:30			260	252	512					
08:45			288	1136	452	1702	20:45			250	1058	244	1005	494	2063		
09:00			247	335	582		21:00			217	203	420					
09:15			305	343	648		21:15			221	210	431					
09:30			248	342	590		21:30			185	164	349					
09:45			271	1071	304	1324	21:45			158	781	117	694	275	1475		
10:00			257	319	576		22:00			143	131	274					
10:15			261	275	536		22:15			140	99	239					
10:30			250	324	574		22:30			105	101	206					
10:45			271	1039	360	1278	22:45			100	488	81	412	181	900		
11:00			268	400	668		23:00			80	60	140					
11:15			330	353	683		23:15			79	56	135					
11:30			331	334	665		23:30			59	60	119					
11:45			354	1283	329	1416	23:45			64	282	58	234	122	516		
TOTALS			7280	9991	17271		TOTALS			16501	13552	30053					
SPLIT %			42.2%	57.8%	36.5%		SPLIT %			54.9%	45.1%	63.5%					

DAILY TOTALS					NB	SB	EB					WB	Total				
					0	0						23,781					

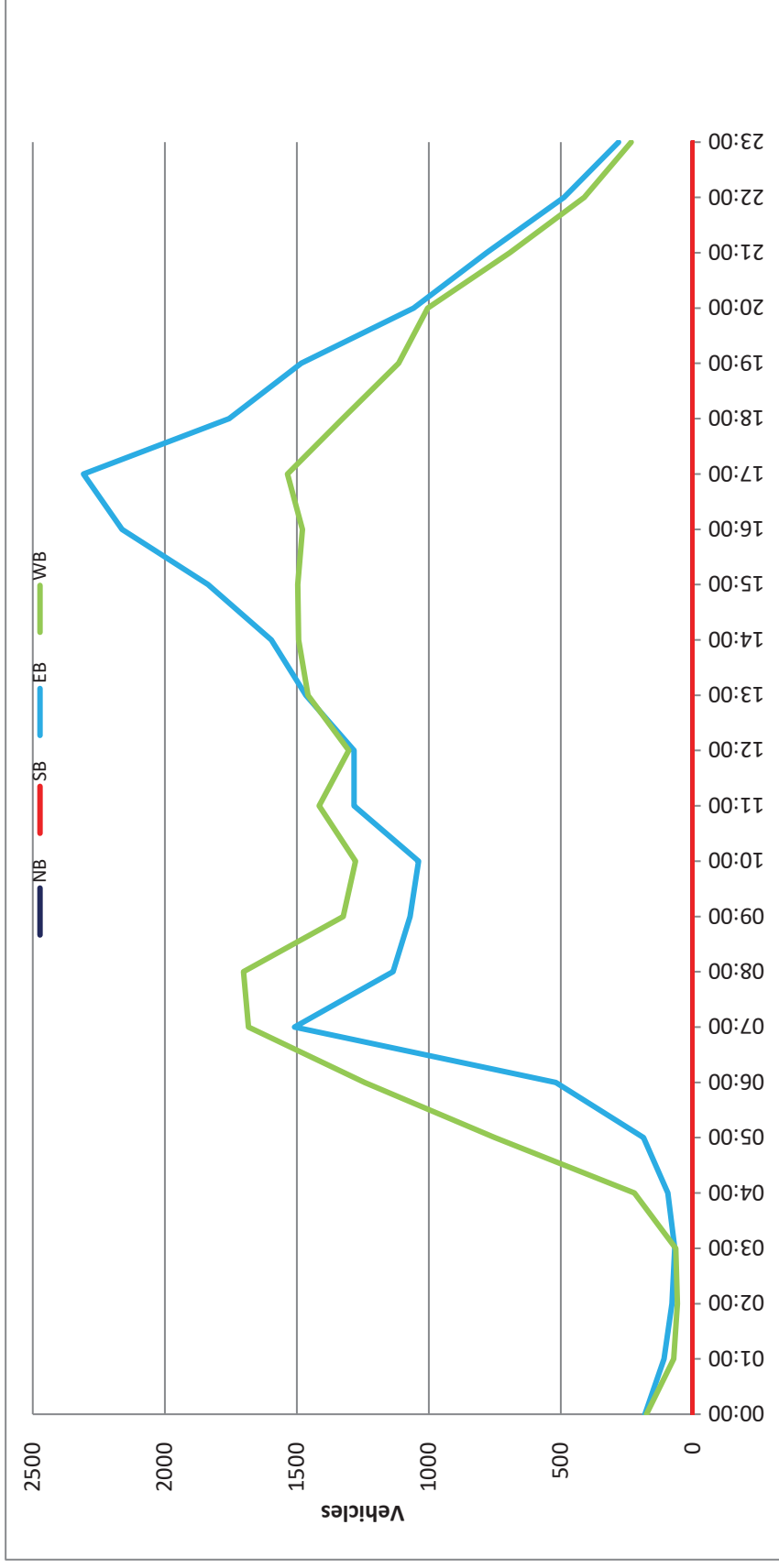
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						23,781	23,543						47,324
AM Peak Hour			07:15	07:15	07:15		PM Peak Hour			17:00	16:15	17:00							
AM Pk Volume			1532	1762	3294		PM Pk Volume			2308	1579	3843							
Pk Hr Factor			0.757	0.925	0.867		Pk Hr Factor			0.971	0.840	0.925							
7 - 9 Volume	0	0	2645	3385	6030		4 - 6 Volume	0	0	4470	3014	7484							
7 - 9 Peak Hour			07:15	07:15	07:15		4 - 6 Peak Hour			17:00	16:15	17:00							
7 - 9 Pk Volume	0	0	1532	1762	3294		4 - 6 Pk Volume	0	0	2308	1579	3843							
Pk Hr Factor	0.000	0.000	0.757	0.925	0.867		Pk Hr Factor	0.000	0.000	0.971	0.840	0.925							

Project #: CA15_4080_020

City: Chula Vista

Location: E. H Street Bet. Del Rey Blvd & Paseo Del

Date: 3/12/2015



VOLUME

E. H Street Bet. Paseo del Rey & Paseo Ranchero

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_021

DAILY TOTALS					NB	SB	EBWB								Total
					0	0									44,733
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			44	22	66		12:00			284	332	616			
00:15			54	25	79		12:15			332	316	648			
00:30			44	12	56		12:30			314	306	620			
00:45			30	172	16	75	12:45			338	1268	335	1289		
01:00			26	9	35		13:00			336	380	716			
01:15			21	10	31		13:15			370	342	712			
01:30			20	8	28		13:30			348	379	727			
01:45			25	92	15	42	13:45			341	1395	313	1414		
02:00			11	16	27		14:00			355	297	652			
02:15			23	12	35		14:15			392	329	721			
02:30			17	10	27		14:30			399	365	764			
02:45			20	71	14	52	14:45			415	1561	348	1339		
03:00			12	8	20		15:00			377	356	733			
03:15			15	14	29		15:15			517	349	866			
03:30			17	21	38		15:30			421	386	807			
03:45			24	68	21	64	15:45			389	1704	333	1424		
04:00			17	37	54		16:00			453	357	810			
04:15			26	35	61		16:15			466	339	805			
04:30			15	78	93		16:30			516	395	911			
04:45			34	92	92	242	16:45			469	1904	344	1435		
05:00			22	112	134		17:00			563	382	945			
05:15			39	185	224		17:15			519	382	901			
05:30			43	186	229		17:30			569	343	912			
05:45			68	172	211	694	17:45			488	2139	358	1465		
06:00			87	254	341		18:00			434	326	760			
06:15			94	251	345		18:15			433	328	761			
06:30			141	266	407		18:30			426	318	744			
06:45			229	551	306	1077	18:45			389	1682	325	1297		
07:00			208	386	594		19:00			379	318	697			
07:15			246	392	638		19:15			390	316	706			
07:30			417	446	863		19:30			352	233	585			
07:45			482	1353	488	1712	19:45			295	1416	234	1101		
08:00			291	512	803		20:00			266	242	508			
08:15			272	400	672		20:15			255	200	455			
08:30			285	359	644		20:30			230	187	417			
08:45			323	1171	410	1681	20:45			235	986	180	809		
09:00			274	328	602		21:00			211	163	374			
09:15			326	319	645		21:15			203	160	363			
09:30			244	320	564		21:30			170	106	276			
09:45			269	1113	317	1284	21:45			149	733	83	512		
10:00			253	349	602		22:00			130	97	227			
10:15			244	284	528		22:15			135	86	221			
10:30			265	336	601		22:30			86	60	146			
10:45			260	1022	368	1337	22:45			102	453	64	307		
11:00			302	364	666		23:00			72	44	116			
11:15			295	322	617		23:15			66	37	103			
11:30			316	327	643		23:30			55	30	85			
11:45			378	1291	262	1275	23:45			68	261	25	136		
TOTALS			7168	9535	16703		TOTALS			15502	12528	28030			
SPLIT %			42.9%	57.1%	37.3%		SPLIT %			55.3%	44.7%	62.7%			

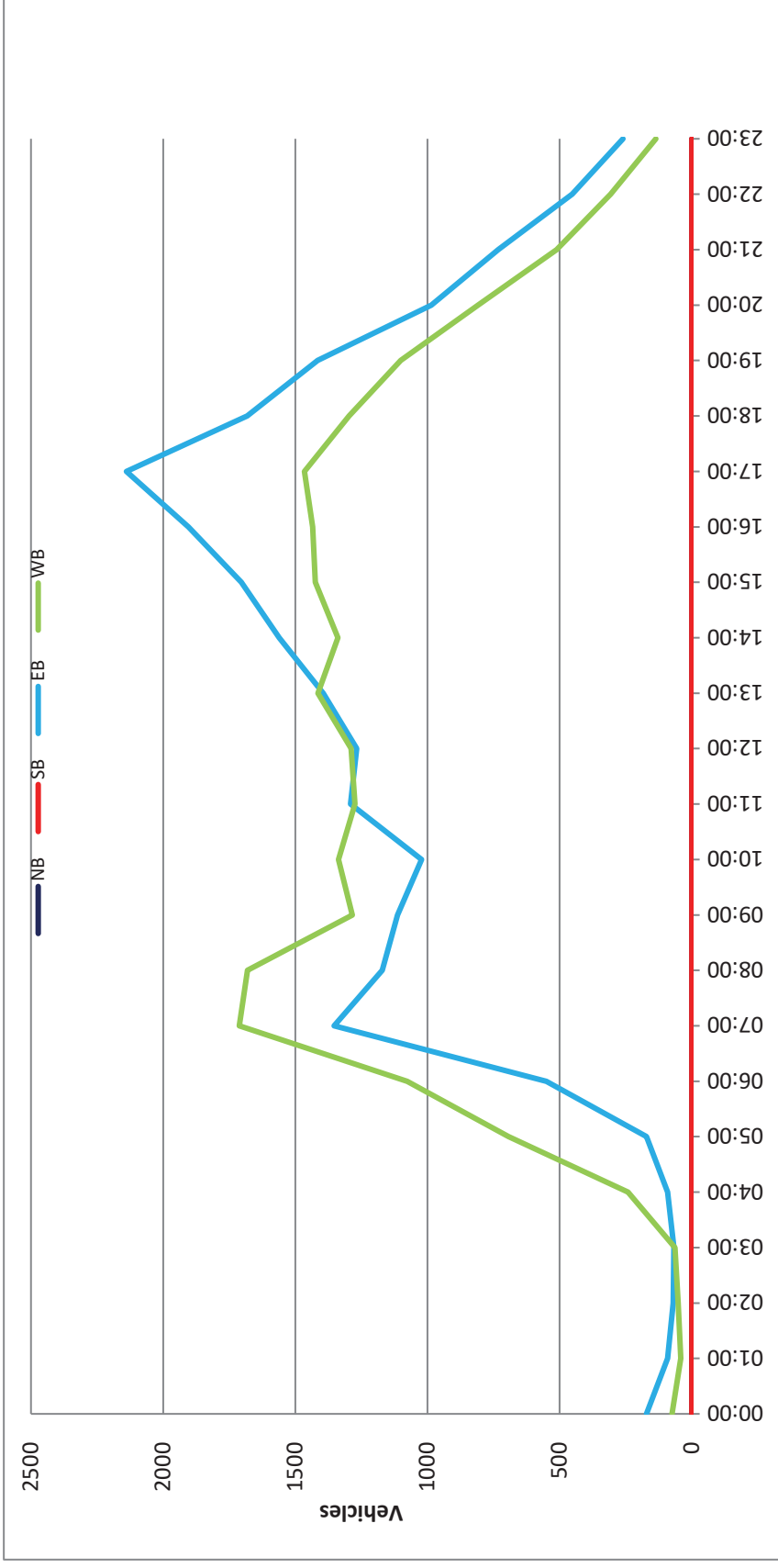
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						22,670	22,063						44,733
AM Peak Hour			07:30	07:30	07:30		PM Peak Hour			17:00	16:30	17:00							
AM Pk Volume			1462	1846	3308		PM Pk Volume			2139	1503	3604							
Pk Hr Factor			0.758	0.901	0.853		Pk Hr Factor			0.940	0.951	0.953							
7 - 9 Volume	0	0	2524	3393	5917		4 - 6 Volume	0	0	4043	2900	6943							
7 - 9 Peak Hour			07:30	07:30	07:30		4 - 6 Peak Hour			17:00	16:30	17:00							
7 - 9 Pk Volume	0	0	1462	1846	3308		4 - 6 Pk Volume	0	0	2139	1503	3604							
Pk Hr Factor	0.000	0.000	0.758	0.901	0.853		Pk Hr Factor	0.000	0.000	0.940	0.951	0.953							

Project #: CA15_4080_021

City: Chula Vista

Location: E. H Street Bet. Paseo del Rey & Paseo

Date: 3/12/2015



VOLUME

E. H Street Bet. Paseo Ranchero & Otay Lakes Road

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_022

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						18,901	18,556						37,457
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
00:00			34	16	50		12:00			281	281	562							
00:15			40	29	69		12:15			248	288	536							
00:30			29	20	49		12:30			268	240	508							
00:45			27	130	12	77	12:45			308	1105	321	1130	629	2235				
01:00			17	15	32		13:00			300	293	593							
01:15			17	13	30		13:15			294	330	624							
01:30			16	12	28		13:30			290	353	643							
01:45			22	72	9	49	13:45			287	1171	268	1244	555	2415				
02:00			8	13	21		14:00			260	292	552							
02:15			8	12	20		14:15			325	330	655							
02:30			9	9	18		14:30			329	340	669							
02:45			14	39	12	46	14:45			362	1276	306	1268	668	2544				
03:00			8	12	20		15:00			364	319	683							
03:15			8	10	18		15:15			375	347	722							
03:30			10	17	27		15:30			317	382	699							
03:45			16	42	14	53	15:45			289	1345	318	1366	607	2711				
04:00			9	20	29		16:00			345	321	666							
04:15			15	23	38		16:15			359	303	662							
04:30			8	49	57		16:30			389	324	713							
04:45			18	50	52	144	16:45			368	1461	261	1209	629	2670				
05:00			17	65	82		17:00			402	322	724							
05:15			27	102	129		17:15			451	335	786							
05:30			31	121	152		17:30			445	300	745							
05:45			48	123	113	401	17:45			382	1680	332	1289	714	2969				
06:00			77	137	214		18:00			350	287	637							
06:15			84	142	226		18:15			304	280	584							
06:30			138	164	302		18:30			329	273	602							
06:45			266	565	219	662	18:45			303	1286	259	1099	562	2385				
07:00			224	315	539		19:00			361	249	610							
07:15			299	297	596		19:15			269	289	558							
07:30			486	331	817		19:30			277	216	493							
07:45			529	1538	357	1300	19:45			238	1145	212	966	450	2111				
08:00			344	413	757		20:00			200	216	416							
08:15			230	277	507		20:15			216	175	391							
08:30			241	255	496		20:30			194	192	386							
08:45			284	1099	329	1274	20:45			206	816	173	756	379	1572				
09:00			268	294	562		21:00			170	142	312							
09:15			325	277	602		21:15			154	156	310							
09:30			199	238	437		21:30			129	102	231							
09:45			219	1011	258	1067	21:45			112	565	95	495	207	1060				
10:00			171	241	412		22:00			90	94	184							
10:15			185	247	432		22:15			84	80	164							
10:30			214	271	485		22:30			76	69	145							
10:45			216	786	337	1096	22:45			73	323	63	306	136	629				
11:00			244	324	568		23:00			55	43	98							
11:15			238	278	516		23:15			49	38	87							
11:30			284	241	525		23:30			33	35	68							
11:45			322	1088	276	1119	23:45			48	185	24	140	72	325				
TOTALS			6543	7288	13831		TOTALS			12358	11268	23626							
SPLIT %			47.3%	52.7%	36.9%		SPLIT %			52.3%	47.7%	63.1%							

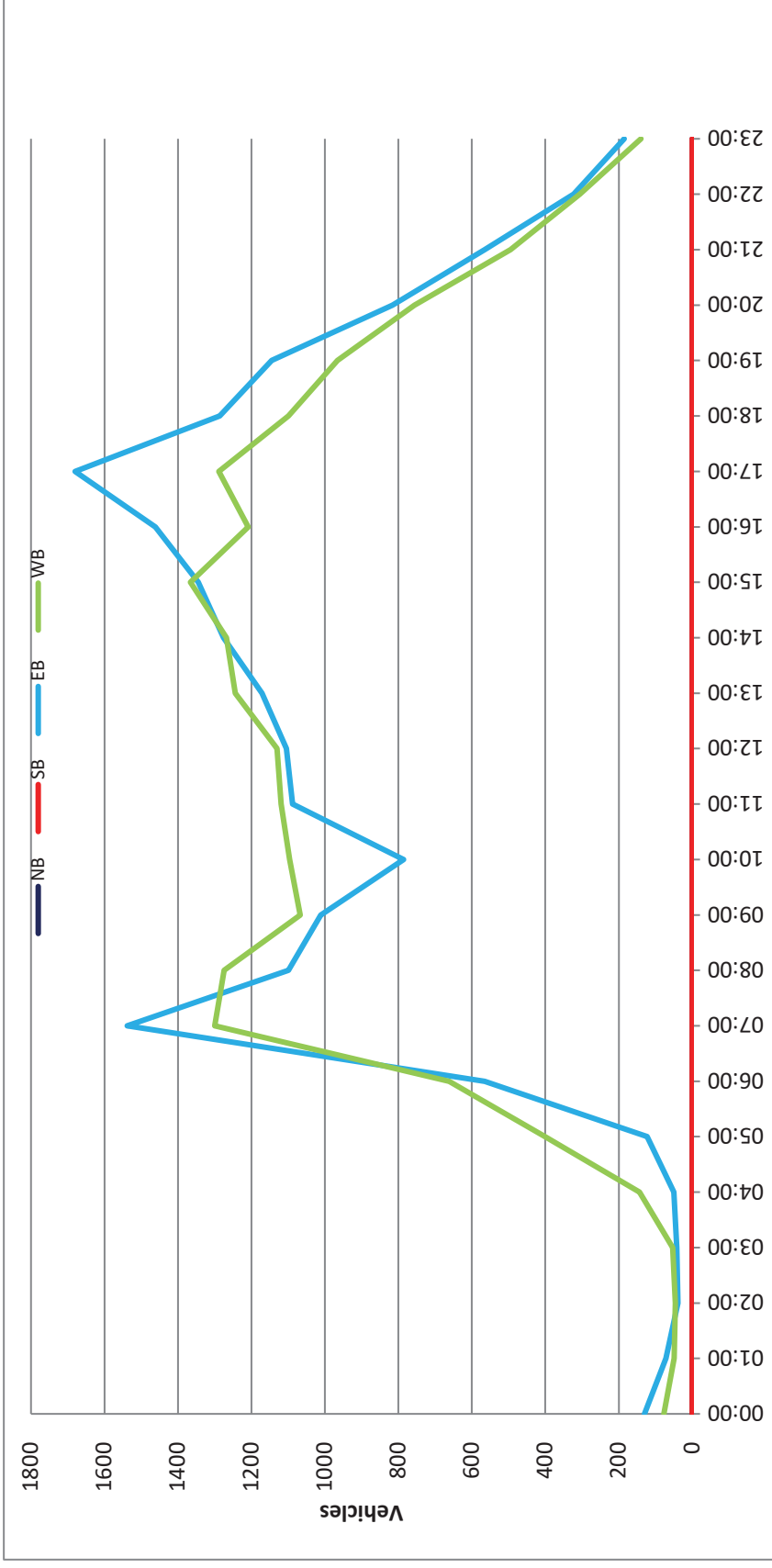
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						18,901	18,556						37,457
AM Peak Hour			07:15	07:15	07:15		PM Peak Hour			17:00	15:15	17:00							
AM Pk Volume			1658	1398	3056		PM Pk Volume			1680	1368	2969							
Pk Hr Factor			0.784	0.846	0.862		Pk Hr Factor			0.931	0.895	0.944							
7 - 9 Volume	0	0	2637	2574	5211		4 - 6 Volume	0	0	3141	2498	5639							
7 - 9 Peak Hour			07:15	07:15	07:15		4 - 6 Peak Hour			17:00	17:00	17:00							
7 - 9 Pk Volume	0	0	1658	1398	3056		4 - 6 Pk Volume	0	0	1680	1289	2969							
Pk Hr Factor	0.000	0.000	0.784	0.846	0.862		Pk Hr Factor	0.000	0.000	0.931	0.962	0.944							

Project #: CA15_4080_022

City: Chula Vista

Location: E. H Street Bet. Paseo Ranchero & Otay

Date: 3/12/2015



VOLUME

E. H Street Bet. Otay Lakes Road & SR-125 SB On-Off-Ramps

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_023

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						12,492	11,932						24,424
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00			24	15	39		12:00			192	178	370							
00:15			25	17	42		12:15			191	165	356							
00:30			25	8	33		12:30			178	148	326							
00:45			19	9	28	142	12:45			230	791	423	1475						
01:00			10	9	19		13:00			193	191	384							
01:15			14	5	19		13:15			217	170	387							
01:30			7	7	14		13:30			232	166	398							
01:45			17	6	23	75	13:45			197	839	376	1545						
02:00			5	8	13		14:00			190	174	364							
02:15			10	5	15		14:15			210	198	408							
02:30			9	6	15		14:30			223	196	419							
02:45			12	6	18	61	14:45			226	849	397	1588						
03:00			12	9	21		15:00			249	188	437							
03:15			9	3	12		15:15			224	207	431							
03:30			7	12	19		15:30			252	192	444							
03:45			12	9	21	73	15:45			242	967	490	1802						
04:00			12	17	29		16:00			195	203	398							
04:15			13	19	32		16:15			246	225	471							
04:30			11	31	42		16:30			221	213	434							
04:45			22	38	60	163	16:45			229	891	425	1728						
05:00			7	47	54		17:00			219	227	446							
05:15			16	74	90		17:15			270	217	487							
05:30			20	80	100		17:30			233	222	455							
05:45			37	94	131	375	17:45			283	1005	495	1883						
06:00			49	90	139		18:00			279	192	471							
06:15			54	113	167		18:15			286	206	492							
06:30			96	137	233		18:30			258	193	451							
06:45			84	196	280	819	18:45			219	1042	401	1815						
07:00			128	187	315		19:00			257	180	437							
07:15			167	224	391		19:15			252	189	441							
07:30			169	238	407		19:30			184	138	322							
07:45			197	923	471	1584	19:45			156	849	300	1500						
08:00			186	234	420		20:00			160	116	276							
08:15			180	219	399		20:15			190	101	291							
08:30			186	221	407		20:30			159	129	288							
08:45			179	889	394	1620	20:45			148	657	243	1098						
09:00			156	190	346		21:00			129	83	212							
09:15			145	183	328		21:15			109	89	198							
09:30			152	160	312		21:30			106	72	178							
09:45			123	694	284	1270	21:45			92	436	147	735						
10:00			116	159	275		22:00			69	88	157							
10:15			116	140	256		22:15			63	47	110							
10:30			130	157	287		22:30			65	44	109							
10:45			162	605	311	1129	22:45			51	248	88	464						
11:00			156	143	299		23:00			50	32	82							
11:15			163	120	283		23:15			44	20	64							
11:30			156	177	333		23:30			21	25	46							
11:45			168	595	323	1238	23:45			30	145	50	242						
TOTALS			3773	4776	8549		TOTALS			8719	7156	15875							
SPLIT %			44.1%	55.9%	35.0%		SPLIT %			54.9%	45.1%	65.0%							

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						12,492	11,932						24,424
AM Peak Hour			07:45	07:15	07:30		PM Peak Hour			17:45	15:45	17:30							
AM Pk Volume			749	970	1697		PM Pk Volume			1106	889	1913							
Pk Hr Factor			0.951	0.885	0.901		Pk Hr Factor			0.967	0.896	0.966							
7 - 9 Volume	0	0	1392	1812	3204		4 - 6 Volume	0	0	1896	1715	3611							
7 - 9 Peak Hour			07:45	07:15	07:30		4 - 6 Peak Hour			17:00	17:00	17:00							
7 - 9 Pk Volume	0	0	749	970	1697		4 - 6 Pk Volume	0	0	1005	878	1883							
Pk Hr Factor	0.000	0.000	0.951	0.885	0.901		Pk Hr Factor	0.000	0.000	0.888	0.967	0.951							

Project #: CA15_4080_023

City: Chula Vista

Location: E. H Street Bet. Otay Lakes Road & SR-125

Date: 3/12/2015



VOLUME

E. H Street Bet. SR-125 SB On-Off-Ramps & SR-125 NB On-Off-Ramps

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_024

DAILY TOTALS					NB	SB	EB					WB	Total				
					0	0						11,461					
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL					
00:00			26	10	36		12:00			160	108	268					
00:15			23	8	31		12:15			153	119	272					
00:30			24	6	30		12:30			145	94	239					
00:45			16	89	5	29	12:45			146	604	135	456				
					21	118						281	1060				
01:00			14	5	19		13:00			126	140	266					
01:15			13	7	20		13:15			183	123	306					
01:30			11	1	12		13:30			178	126	304					
01:45			18	56	4	17	13:45			176	663	116	505				
					22	73						292	1168				
02:00			8	3	11		14:00			135	120	255					
02:15			10	2	12		14:15			157	115	272					
02:30			8	4	12		14:30			203	144	347					
02:45			8	34	4	13	14:45			193	688	121	500				
					12	47						314	1188				
03:00			7	4	11		15:00			204	112	316					
03:15			3	2	5		15:15			207	148	355					
03:30			8	6	14		15:30			214	171	385					
03:45			11	29	7	19	15:45			223	848	156	587				
					18	48						379	1435				
04:00			8	13	21		16:00			208	158	366					
04:15			5	14	19		16:15			238	159	397					
04:30			11	21	32		16:30			229	183	412					
04:45			16	40	23	71	16:45			222	897	138	638				
					39	111						360	1535				
05:00			20	40	60		17:00			239	178	417					
05:15			23	68	91		17:15			252	181	433					
05:30			35	53	88		17:30			271	143	414					
05:45			53	131	77	238	17:45			276	1038	174	676				
					130	369						450	1714				
06:00			71	62	133		18:00			259	147	406					
06:15			87	96	183		18:15			247	148	395					
06:30			105	112	217		18:30			250	140	390					
06:45			127	390	146	416	18:45			207	963	130	565				
					273	806						337	1528				
07:00			170	153	323		19:00			233	130	363					
07:15			182	156	338		19:15			219	129	348					
07:30			186	239	425		19:30			150	102	252					
07:45			195	733	221	769	19:45			162	764	99	460				
					416	1502						261	1224				
08:00			185	207	392		20:00			137	72	209					
08:15			177	183	360		20:15			176	74	250					
08:30			173	176	349		20:30			151	70	221					
08:45			177	712	159	725	20:45			132	596	78	294				
					336	1437						210	890				
09:00			132	122	254		21:00			117	54	171					
09:15			112	130	242		21:15			109	58	167					
09:30			118	120	238		21:30			94	47	141					
09:45			92	454	105	477	21:45			96	416	43	202				
					197	931						139	618				
10:00			101	105	206		22:00			65	62	127					
10:15			98	92	190		22:15			64	34	98					
10:30			104	101	205		22:30			63	41	104					
10:45			124	427	104	402	22:45			49	241	25	162				
					228	829						74	403				
11:00			110	88	198		23:00			44	22	66					
11:15			132	80	212		23:15			36	17	53					
11:30			122	114	236		23:30			22	18	40					
11:45			150	514	109	391	23:45			32	134	12	69				
					259	905						44	203				
TOTALS			3609	3567	7176		TOTALS			7852	5114	12966					
SPLIT %			50.3%	49.7%	35.6%		SPLIT %			60.6%	39.4%	64.4%					

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						11,461	8,681						20,142
AM Peak Hour			07:15	07:30	07:30		PM Peak Hour			17:15	16:30	17:00							
AM Pk Volume			748	850	1593		PM Pk Volume			1058	680	1714							
Pk Hr Factor			0.959	0.889	0.937		Pk Hr Factor			0.958	0.929	0.952							
7 - 9 Volume	0	0	1445	1494	2939		4 - 6 Volume	0	0	1935	1314	3249							
7 - 9 Peak Hour			07:15	07:30	07:30		4 - 6 Peak Hour			17:00	16:30	17:00							
7 - 9 Pk Volume	0	0	748	850	1593		4 - 6 Pk Volume	0	0	1038	680	1714							
Pk Hr Factor	0.000	0.000	0.959	0.889	0.937		Pk Hr Factor	0.000	0.000	0.940	0.929	0.952							

Project #: CA15_4080_024

City: Chula Vista

Location: E. H Street Bet. SR-125 SB On-Off-Ramps &

Date: 3/12/2015



VOLUME

E. H Street Bet. SR-125 NB On-Off-Ramps & Mountain Miguel Road

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_025

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						10,792	10,907						21,699
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00			29	10	39		12:00			152	118	270							
00:15			25	9	34		12:15			138	139	277							
00:30			25	8	33		12:30			148	119	267							
00:45			17	5	22	128	12:45			138	154	292	1106						
01:00			10	5	15		13:00			135	154	289							
01:15			12	12	24		13:15			177	138	315							
01:30			12	3	15		13:30			175	149	324							
01:45			17	5	22	76	13:45			175	662	315	1243						
02:00			6	4	10		14:00			130	140	270							
02:15			10	2	12		14:15			143	128	271							
02:30			7	4	11		14:30			188	170	358							
02:45			8	4	12	45	14:45			183	644	329	1228						
03:00			7	5	12		15:00			208	128	336							
03:15			3	4	7		15:15			211	161	372							
03:30			6	9	15		15:30			207	195	402							
03:45			10	10	20	54	15:45			223	849	394	1504						
04:00			5	19	24		16:00			213	183	396							
04:15			4	16	20		16:15			237	174	411							
04:30			4	34	38		16:30			237	190	427							
04:45			7	31	38	120	16:45			244	931	405	1639						
05:00			12	56	68		17:00			235	194	429							
05:15			11	96	107		17:15			265	205	470							
05:30			15	92	107		17:30			253	148	401							
05:45			27	130	157	439	17:45			257	1010	459	1759						
06:00			42	127	169		18:00			255	159	414							
06:15			42	169	211		18:15			238	182	420							
06:30			59	164	223		18:30			243	144	387							
06:45			85	239	324	927	18:45			199	935	338	1559						
07:00			120	241	361		19:00			230	141	371							
07:15			141	285	426		19:15			230	129	359							
07:30			153	364	517		19:30			164	113	277							
07:45			164	339	503	1807	19:45			156	780	262	1269						
08:00			162	302	464		20:00			152	89	241							
08:15			142	234	376		20:15			191	84	275							
08:30			160	231	391		20:30			148	76	224							
08:45			144	202	346	1577	20:45			140	631	228	968						
09:00			105	199	304		21:00			115	61	176							
09:15			105	219	324		21:15			112	68	180							
09:30			92	152	244		21:30			106	42	148							
09:45			98	142	240	1112	21:45			96	429	147	651						
10:00			93	128	221		22:00			72	71	143							
10:15			88	125	213		22:15			67	36	103							
10:30			86	127	213		22:30			62	50	112							
10:45			125	495	240	887	22:45			49	250	75	433						
11:00			100	123	223		23:00			43	22	65							
11:15			122	102	224		23:15			37	19	56							
11:30			105	139	244		23:30			25	22	47							
11:45			137	490	263	954	23:45			31	136	46	214						
TOTALS			2959	5167	8126		TOTALS			7833	5740	13573							
SPLIT %			36.4%	63.6%	37.4%		SPLIT %			57.7%	42.3%	62.6%							

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						10,792	10,907						21,699
AM Peak Hour			07:45	07:15	07:15		PM Peak Hour			17:15	16:30	17:00							
AM Pk Volume			628	1290	1910		PM Pk Volume			1030	750	1759							
Pk Hr Factor			0.957	0.886	0.924		Pk Hr Factor			0.972	0.915	0.936							
7 - 9 Volume	0	0	1186	2198	3384		4 - 6 Volume	0	0	1941	1457	3398							
7 - 9 Peak Hour			07:45	07:15	07:15		4 - 6 Peak Hour			17:00	16:30	17:00							
7 - 9 Pk Volume	0	0	628	1290	1910		4 - 6 Pk Volume	0	0	1010	750	1759							
Pk Hr Factor	0.000	0.000	0.957	0.886	0.924		Pk Hr Factor	0.000	0.000	0.953	0.915	0.936							

Project #: CA15_4080_025

City: Chula Vista

Location: E. H Street Bet. SR-125 NB On-Off-Ramps &

Date: 3/12/2015



VOLUME

Proctor Valley Road Bet. Mountain Miguel Road & Lane Avenue

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_026

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						9,935	10,021						19,956
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
00:00			36	9	45		12:00			117	131	248							
00:15			18	7	25		12:15			95	134	229							
00:30			22	6	28		12:30			107	131	238							
00:45			12	88	6	28	12:45			133	452	119	515	252	967				
01:00			11	8	19		13:00			151	124	275							
01:15			11	10	21		13:15			151	120	271							
01:30			8	4	12		13:30			151	127	278							
01:45			11	41	4	26	13:45			176	629	110	481	286	1110				
02:00			7	5	12		14:00			149	113	262							
02:15			7	2	9		14:15			142	106	248							
02:30			9	5	14		14:30			195	157	352							
02:45			8	31	4	16	14:45			170	656	144	520	314	1176				
03:00			6	4	10		15:00			192	138	330							
03:15			3	3	6		15:15			203	196	399							
03:30			6	9	15		15:30			201	214	415							
03:45			9	24	8	24	15:45			197	793	195	743	392	1536				
04:00			10	13	23		16:00			219	175	394							
04:15			5	13	18		16:15			198	178	376							
04:30			7	26	33		16:30			214	175	389							
04:45			10	32	35	87	16:45			221	852	156	684	377	1536				
05:00			10	43	53		17:00			187	213	400							
05:15			7	68	75		17:15			222	182	404							
05:30			14	79	93		17:30			252	139	391							
05:45			30	61	96	286	17:45			212	873	198	732	410	1605				
06:00			35	115	150		18:00			202	181	383							
06:15			47	147	194		18:15			209	166	375							
06:30			74	158	232		18:30			211	156	367							
06:45			102	258	189	609	18:45			200	822	131	634	331	1456				
07:00			79	224	303		19:00			210	128	338							
07:15			91	234	325		19:15			178	117	295							
07:30			160	263	423		19:30			158	123	281							
07:45			255	585	237	958	19:45			142	688	106	474	248	1162				
08:00			176	259	435		20:00			124	104	228							
08:15			151	198	349		20:15			160	78	238							
08:30			158	193	351		20:30			128	82	210							
08:45			167	652	167	817	20:45			133	545	86	350	219	895				
09:00			105	176	281		21:00			111	68	179							
09:15			99	225	324		21:15			96	79	175							
09:30			92	146	238		21:30			86	66	152							
09:45			82	378	115	662	21:45			80	373	63	276	143	649				
10:00			85	113	198		22:00			66	41	107							
10:15			73	111	184		22:15			66	38	104							
10:30			74	129	203		22:30			56	42	98							
10:45			94	326	105	458	22:45			39	227	21	142	60	369				
11:00			97	102	199		23:00			39	23	62							
11:15			116	96	212		23:15			30	22	52							
11:30			89	113	202		23:30			21	15	36							
11:45			129	431	120	431	23:45			28	118	8	68	36	186				
TOTALS			2907	4402	7309		TOTALS			7028	5619	12647							
SPLIT %			39.8%	60.2%	36.6%		SPLIT %			55.6%	44.4%	63.4%							

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						9,935	10,021						19,956
AM Peak Hour			07:30	07:15	07:30		PM Peak Hour			17:15	15:15	17:00							
AM Pk Volume			742	993	1699		PM Pk Volume			888	780	1605							
Pk Hr Factor			0.727	0.944	0.863		Pk Hr Factor			0.881	0.911	0.979							
7 - 9 Volume	0	0	1237	1775	3012		4 - 6 Volume	0	0	1725	1416	3141							
7 - 9 Peak Hour			07:30	07:15	07:30		4 - 6 Peak Hour			16:45	17:00	17:00							
7 - 9 Pk Volume	0	0	742	993	1699		4 - 6 Pk Volume	0	0	882	732	1605							
Pk Hr Factor	0.000	0.000	0.727	0.944	0.863		Pk Hr Factor	0.000	0.000	0.875	0.859	0.979							

Project #: CA15_4080_026

City: Chula Vista

Location: Proctor Valley Road Bet. Mountain Miguel

Date: 3/12/2015



VOLUME

Proctor Valley Rd from Lane Ave to Hunte Pkwy

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_001

DAILY TOTALS					NB	SB	EB					WB	Total				
					0	0						7,331					
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL					
00:00			12	5	17		12:00			77	66	143					
00:15			4	2	6		12:15			67	67	134					
00:30			6	4	10		12:30			71	68	139					
00:45			6	28	3	14	12:45			73	288	56	257				
					9	42						129	545				
01:00			7	1	8		13:00			65	65	130					
01:15			8	3	11		13:15			62	84	146					
01:30			2	1	3		13:30			79	76	155					
01:45			1	18	0	5	13:45			81	287	82	307				
					1	23						163	594				
02:00			4	1	5		14:00			89	80	169					
02:15			4	0	4		14:15			122	98	220					
02:30			5	0	5		14:30			105	98	203					
02:45			3	16	3	4	14:45			136	452	116	392				
					6	20						252	844				
03:00			1	6	7		15:00			164	83	247					
03:15			2	2	4		15:15			214	184	398					
03:30			3	4	7		15:30			183	235	418					
03:45			1	7	6	18	15:45			155	716	137	639				
					7	25						292	1355				
04:00			4	8	12		16:00			148	110	258					
04:15			2	12	14		16:15			149	111	260					
04:30			1	10	11		16:30			167	83	250					
04:45			5	12	20	50	16:45			152	616	109	413				
					25	62						261	1029				
05:00			4	30	34		17:00			155	102	257					
05:15			2	46	48		17:15			151	101	252					
05:30			6	44	50		17:30			179	99	278					
05:45			12	24	65	185	17:45			142	627	101	403				
					77	209						243	1030				
06:00			17	79	96		18:00			162	110	272					
06:15			23	88	111		18:15			148	91	239					
06:30			40	128	168		18:30			123	100	223					
06:45			61	141	147	442	18:45			129	562	96	397				
					208	583						225	959				
07:00			78	159	237		19:00			131	66	197					
07:15			76	176	252		19:15			131	78	209					
07:30			149	223	372		19:30			102	57	159					
07:45			212	515	464	1325	19:45			95	459	60	261				
					464	1325						155	720				
08:00			272	310	582		20:00			108	59	167					
08:15			145	208	353		20:15			87	47	134					
08:30			151	156	307		20:30			80	46	126					
08:45			172	740	120	794	20:45			90	365	38	190				
					292	1534						128	555				
09:00			125	124	249		21:00			75	43	118					
09:15			115	80	195		21:15			78	33	111					
09:30			109	108	217		21:30			70	34	104					
09:45			102	451	91	403	21:45			48	271	25	135				
					193	854						73	406				
10:00			75	86	161		22:00			52	23	75					
10:15			65	72	137		22:15			43	20	63					
10:30			64	63	127		22:30			36	23	59					
10:45			64	268	72	293	22:45			23	154	12	78				
					136	561						35	232				
11:00			56	59	115		23:00			16	12	28					
11:15			58	82	140		23:15			23	8	31					
11:30			62	76	138		23:30			16	5	21					
11:45			68	244	86	303	23:45			15	70	6	31				
					154	547						21	101				
TOTALS			2464	3321	5785		TOTALS			4867	3503	8370					
SPLIT %			42.6%	57.4%	40.9%		SPLIT %			58.1%	41.9%	59.1%					

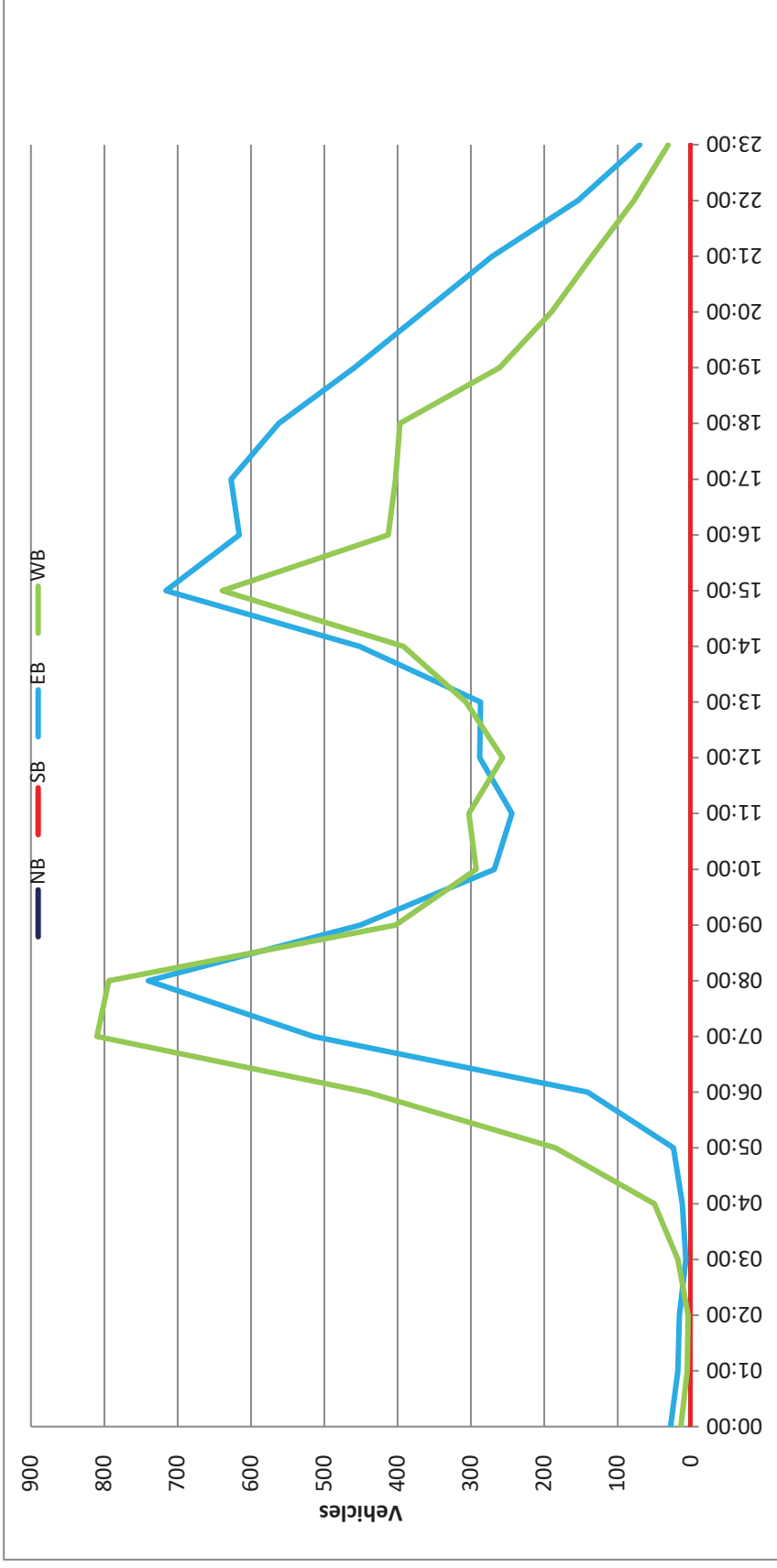
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						7,331	6,824						14,155
AM Peak Hour			07:45	07:30	07:30		PM Peak Hour			15:00	15:15	15:15							
AM Pk Volume			780	993	1771		PM Pk Volume			716	666	1366							
Pk Hr Factor			0.717	0.801	0.761		Pk Hr Factor			0.836	0.709	0.817							
7 - 9 Volume	0	0	1255	1604	2859		4 - 6 Volume	0	0	1243	816	2059							
7 - 9 Peak Hour			07:45	07:30	07:30		4 - 6 Peak Hour			16:45	16:00	16:45							
7 - 9 Pk Volume	0	0	780	993	1771		4 - 6 Pk Volume	0	0	637	413	1048							
Pk Hr Factor	0.000	0.000	0.717	0.801	0.761		Pk Hr Factor	0.000	0.000	0.890	0.930	0.942							

Project #: CA14_4115_001

City: Chula Vista

Location: Proctor Valley Rd from Lane Ave to Hunte

Date: 4/30/2014



VOLUME

Proctor Valley Road Bet. Hunte Parkway & Northwoods Drive

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_028

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						2,892	2,863
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			9	4	13		12:00			21	37	58	
00:15			8	2	10		12:15			27	34	61	
00:30			7	3	10		12:30			46	39	85	
00:45			5	29	3	12	12:45			36	130	38	148
01:00			3	1	4		13:00			35	39	74	
01:15			3	5	8		13:15			44	40	84	
01:30			1	0	1		13:30			43	49	92	
01:45			3	10	0	6	13:45			38	160	40	168
02:00			1	1	2		14:00			57	44	101	
02:15			1	0	1		14:15			47	30	77	
02:30			2	0	2		14:30			55	46	101	
02:45			1	5	1	2	14:45			55	214	59	179
03:00			0	1	1		15:00			43	33	76	
03:15			0	1	1		15:15			50	68	118	
03:30			1	0	1		15:30			72	64	136	
03:45			2	3	1	3	15:45			47	212	53	218
04:00			1	1	2		16:00			60	47	107	
04:15			0	1	1		16:15			55	42	97	
04:30			0	7	7		16:30			67	34	101	
04:45			1	2	1	10	16:45			49	231	56	179
05:00			0	11	11		17:00			68	47	115	
05:15			1	20	21		17:15			55	44	99	
05:30			4	14	18		17:30			70	43	113	
05:45			5	10	13	58	17:45			52	245	56	190
06:00			11	21	32		18:00			68	43	111	
06:15			7	37	44		18:15			38	50	88	
06:30			14	36	50		18:30			74	37	111	
06:45			24	56	56	150	18:45			57	237	40	170
07:00			29	67	96		19:00			67	33	100	
07:15			23	51	74		19:15			73	33	106	
07:30			22	101	123		19:30			64	20	84	
07:45			33	107	94	313	19:45			40	244	21	107
08:00			62	72	134		20:00			56	21	77	
08:15			42	75	117		20:15			50	25	75	
08:30			41	65	106		20:30			39	27	66	
08:45			40	185	52	264	20:45			42	187	20	93
09:00			44	63	107		21:00			34	12	46	
09:15			29	56	85		21:15			35	11	46	
09:30			40	37	77		21:30			34	7	41	
09:45			30	143	41	197	21:45			28	131	9	39
10:00			30	41	71		22:00			21	7	28	
10:15			22	42	64		22:15			19	11	30	
10:30			26	26	52		22:30			21	13	34	
10:45			23	101	39	148	22:45			15	76	2	33
11:00			37	38	75		23:00			11	9	20	
11:15			25	28	53		23:15			10	7	17	
11:30			36	47	83		23:30			8	5	13	
11:45			37	135	38	151	23:45			10	39	4	25
TOTALS			786	1314	2100		TOTALS			2106	1549	3655	
SPLIT %			37.4%	62.6%	36.5%		SPLIT %			57.6%	42.4%	63.5%	

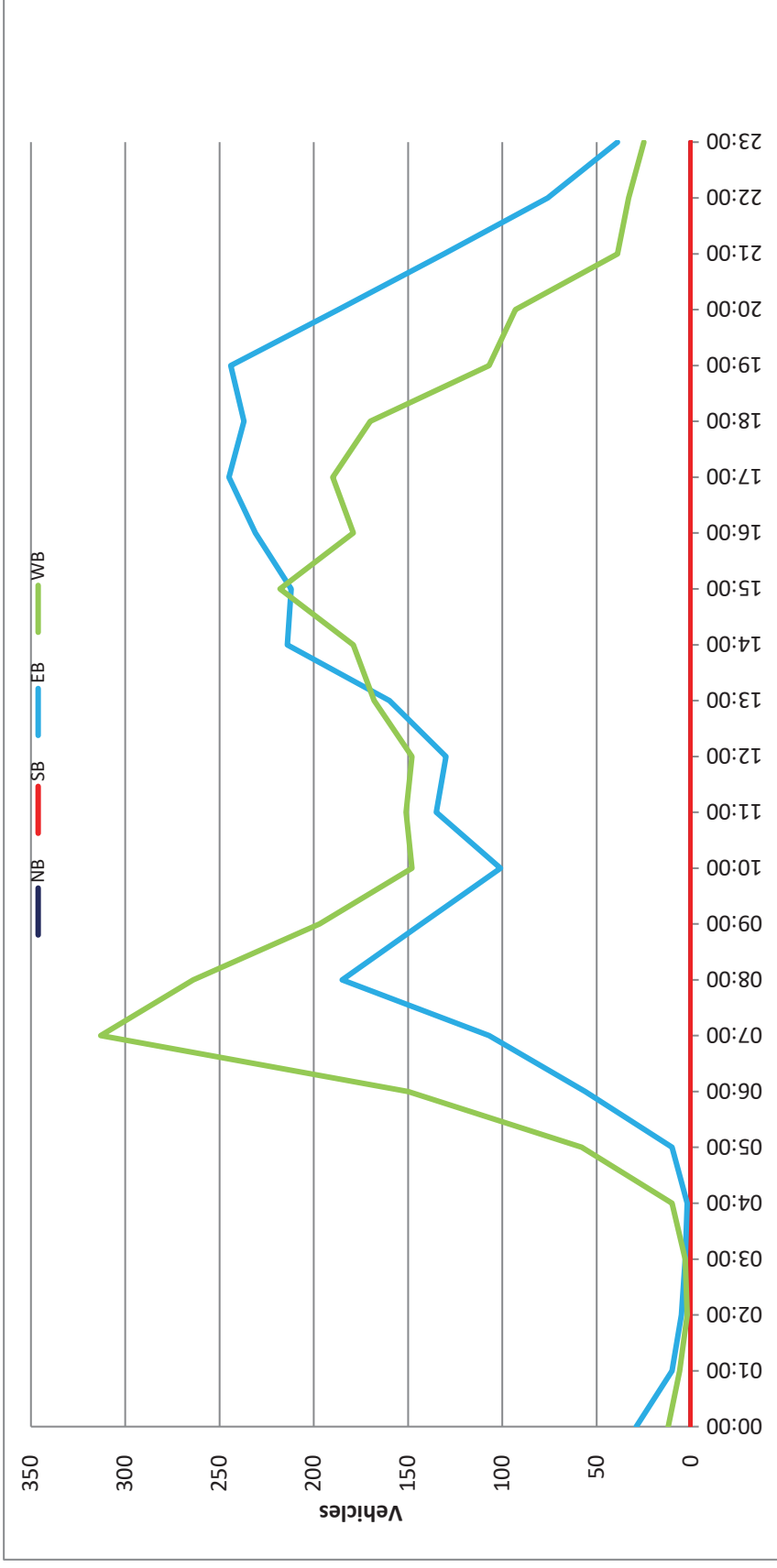
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						2,892	2,863						5,755
AM Peak Hour			08:00	07:30	07:30		PM Peak Hour			18:30	15:15	15:15							
AM Pk Volume			185	342	501		PM Pk Volume			271	232	461							
Pk Hr Factor			0.746	0.847	0.935		Pk Hr Factor			0.916	0.853	0.847							
7 - 9 Volume	0	0	292	577	869		4 - 6 Volume	0	0	476	369	845							
7 - 9 Peak Hour			08:00	07:30	07:30		4 - 6 Peak Hour			17:00	16:45	17:00							
7 - 9 Pk Volume	0	0	185	342	501		4 - 6 Pk Volume	0	0	245	190	435							
Pk Hr Factor	0.000	0.000	0.746	0.847	0.935		Pk Hr Factor	0.000	0.000	0.875	0.848	0.946							

Project #: CA15_4080_028

City: Chula Vista

Location: Proctor Valley Road Bet. Hunte Parkway &

Date: 3/12/2015



VOLUME

Proctor Valley Road Bet. Northwoods Drive & Melody Road

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_029

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0	100					98	198
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00			0	0	0	12:00			1	3	4		
00:15			1	0	1	12:15			0	1	1		
00:30			0	0	0	12:30			5	1	6		
00:45			0	1	0	12:45			1	7	8		
01:00			0	0	0	13:00			2	3	5		
01:15			0	2	2	13:15			0	2	2		
01:30			0	0	0	13:30			5	3	8		
01:45			0	0	0	13:45			3	10	13		
02:00			0	0	0	14:00			2	0	2		
02:15			0	0	0	14:15			0	1	1		
02:30			0	0	0	14:30			5	2	7		
02:45			0	0	0	14:45			2	9	11		
03:00			0	0	0	15:00			1	0	1		
03:15			0	0	0	15:15			1	1	2		
03:30			0	0	0	15:30			1	3	4		
03:45			0	0	0	15:45			0	3	3		
04:00			0	0	0	16:00			1	1	2		
04:15			0	0	0	16:15			4	2	6		
04:30			0	0	0	16:30			1	1	2		
04:45			0	0	0	16:45			0	6	6		
05:00			0	0	0	17:00			4	0	4		
05:15			0	1	1	17:15			2	3	5		
05:30			0	0	0	17:30			1	0	1		
05:45			0	0	0	17:45			2	9	11		
06:00			0	0	0	18:00			3	2	5		
06:15			0	1	1	18:15			1	3	4		
06:30			0	0	0	18:30			1	3	4		
06:45			1	1	2	18:45			2	7	9		
07:00			0	1	1	19:00			3	1	4		
07:15			1	0	1	19:15			5	1	6		
07:30			1	6	7	19:30			1	1	2		
07:45			2	4	6	19:45			0	9	9		
08:00			0	6	6	20:00			1	1	2		
08:15			1	0	1	20:15			2	1	3		
08:30			0	4	4	20:30			3	0	3		
08:45			3	4	7	20:45			2	8	10		
09:00			3	1	4	21:00			1	1	2		
09:15			2	1	3	21:15			0	1	1		
09:30			1	1	2	21:30			1	2	3		
09:45			4	10	14	21:45			0	2	2		
10:00			0	0	0	22:00			0	0	0		
10:15			1	0	1	22:15			1	0	1		
10:30			1	1	2	22:30			1	1	2		
10:45			1	3	4	22:45			0	2	2		
11:00			0	1	1	23:00			2	1	3		
11:15			1	1	2	23:15			0	0	0		
11:30			1	0	1	23:30			0	1	1		
11:45			1	3	4	23:45			0	2	2		
TOTALS	26				38	64	TOTALS	74				60	134
SPLIT %	40.6%				59.4%	32.3%	SPLIT %	55.2%				44.8%	67.7%

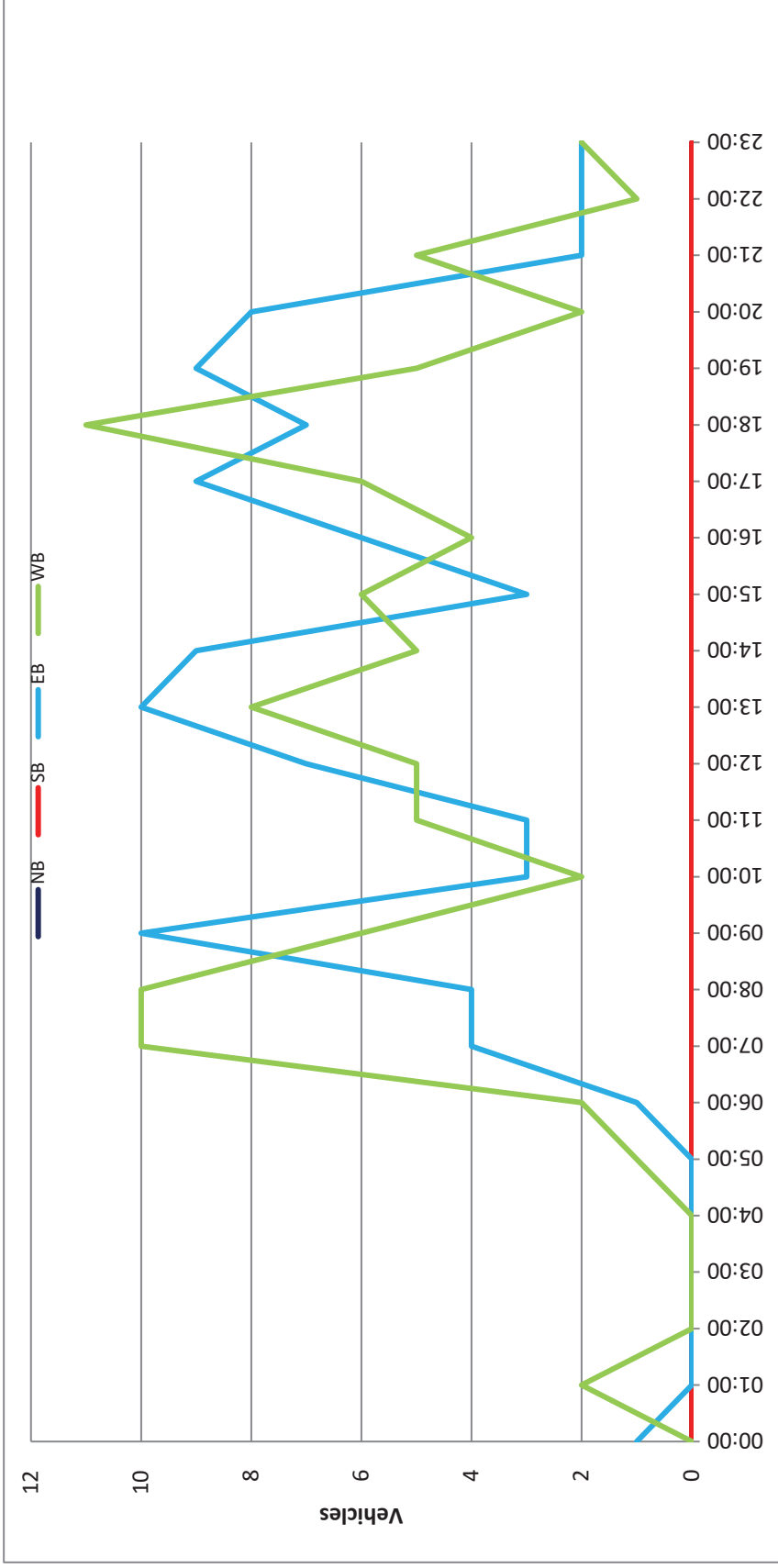
DAILY TOTALS				NB	SB	EBWB				Total									
				0	0					100	98	198							
AM Peak Hour		09:00		07:15		07:15		PM Peak Hour		18:30		17:45		18:30					
AM Pk Volume		10		15		19		PM Pk Volume		11		11		19					
Pk Hr Factor		0.625		0.625		0.679		PM Pk Factor		0.550		0.917		0.792					
7 - 9 Volume		00		8		20		28		4 - 6 Volume		00		15		10		25	
7 - 9 Peak Hour		07:00		07:15		07:15		4 - 6 Peak Hour		16:15		17:00		17:00					
7 - 9 Pk Volume		00		4		15		19		4 - 6 Pk Volume		00		9		6		15	
Pk Hr Factor		0.0000.0000		0.500		0.625		0.679		PM Hr Factor		0.0000.0000		0.563		0.500		0.750	

Project #: CA15_4080_029

City: Chula Vista

Location: Proctor Valley Road Bet. Northwoods Drive

Date: 3/12/2015



VOLUME

Proctor Valley Rd Bet. Melody Road & Maxfield Road

Day: Tuesday
Date: 3/10/2015City: Chula Vista
Project #: CA15_4080_011

DAILY TOTALS					NB	SB					EB	WB	Total
					859	865					0	0	1,724
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	1	1			2	12:00	16	13			29		
00:15	2	1			3	12:15	5	16			21		
00:30	1	0			1	12:30	10	14			24		
00:45	0	4	1	3	1	12:45	13	44	11	54	24	98	
01:00	0	1			1	13:00	11	17			28		
01:15	0	0			0	13:15	21	11			32		
01:30	0	0			0	13:30	11	10			21		
01:45	0	2	3		2	13:45	8	51	17	55	25	106	
02:00	0	1			1	14:00	11	21			32		
02:15	1	0			1	14:15	17	17			34		
02:30	1	0			1	14:30	14	13			27		
02:45	1	3	1	2	2	14:45	11	53	22	73	33	126	
03:00	0	1			1	15:00	9	22			31		
03:15	0	1			1	15:15	15	18			33		
03:30	1	1			2	15:30	11	31			42		
03:45	2	3	1	4	3	15:45	13	48	22	93	35	141	
04:00	0	0			0	16:00	9	22			31		
04:15	1	0			1	16:15	21	26			47		
04:30	4	0			4	16:30	11	23			34		
04:45	3	8	1	1	4	16:45	13	54	22	93	35	147	
05:00	5	0			5	17:00	9	26			35		
05:15	10	1			11	17:15	15	21			36		
05:30	14	2			16	17:30	14	16			30		
05:45	15	44	2	5	17	17:45	16	54	19	82	35	136	
06:00	15	1			16	18:00	13	21			34		
06:15	20	4			24	18:15	12	20			32		
06:30	22	4			26	18:30	7	17			24		
06:45	24	81	5	14	29	18:45	9	41	13	71	22	112	
07:00	20	2			22	19:00	8	11			19		
07:15	21	8			29	19:15	5	10			15		
07:30	29	4			33	19:30	6	7			13		
07:45	23	93	9	23	32	19:45	3	22	10	38	13	60	
08:00	12	12			24	20:00	7	14			21		
08:15	25	9			34	20:15	8	14			22		
08:30	16	4			20	20:30	7	19			26		
08:45	16	69	8	33	24	20:45	3	25	11	58	14	83	
09:00	13	6			19	21:00	1	9			10		
09:15	12	5			17	21:15	3	17			20		
09:30	20	8			28	21:30	0	6			6		
09:45	11	56	5	24	16	21:45	1	5	4	36	5	41	
10:00	10	8			18	22:00	0	4			4		
10:15	13	5			18	22:15	2	4			6		
10:30	12	11			23	22:30	2	7			9		
10:45	10	45	11	35	21	22:45	2	6	3	18	5	24	
11:00	16	5			21	23:00	0	4			4		
11:15	7	11			18	23:15	1	2			3		
11:30	13	7			20	23:30	1	2			3		
11:45	11	47	13	36	24	23:45	1	3	3	11	4	14	
TOTALS	453	183			636	TOTALS	406	682			1088		
SPLIT %	71.2%	28.8%			36.9%	SPLIT %	37.3%	62.7%			63.1%		

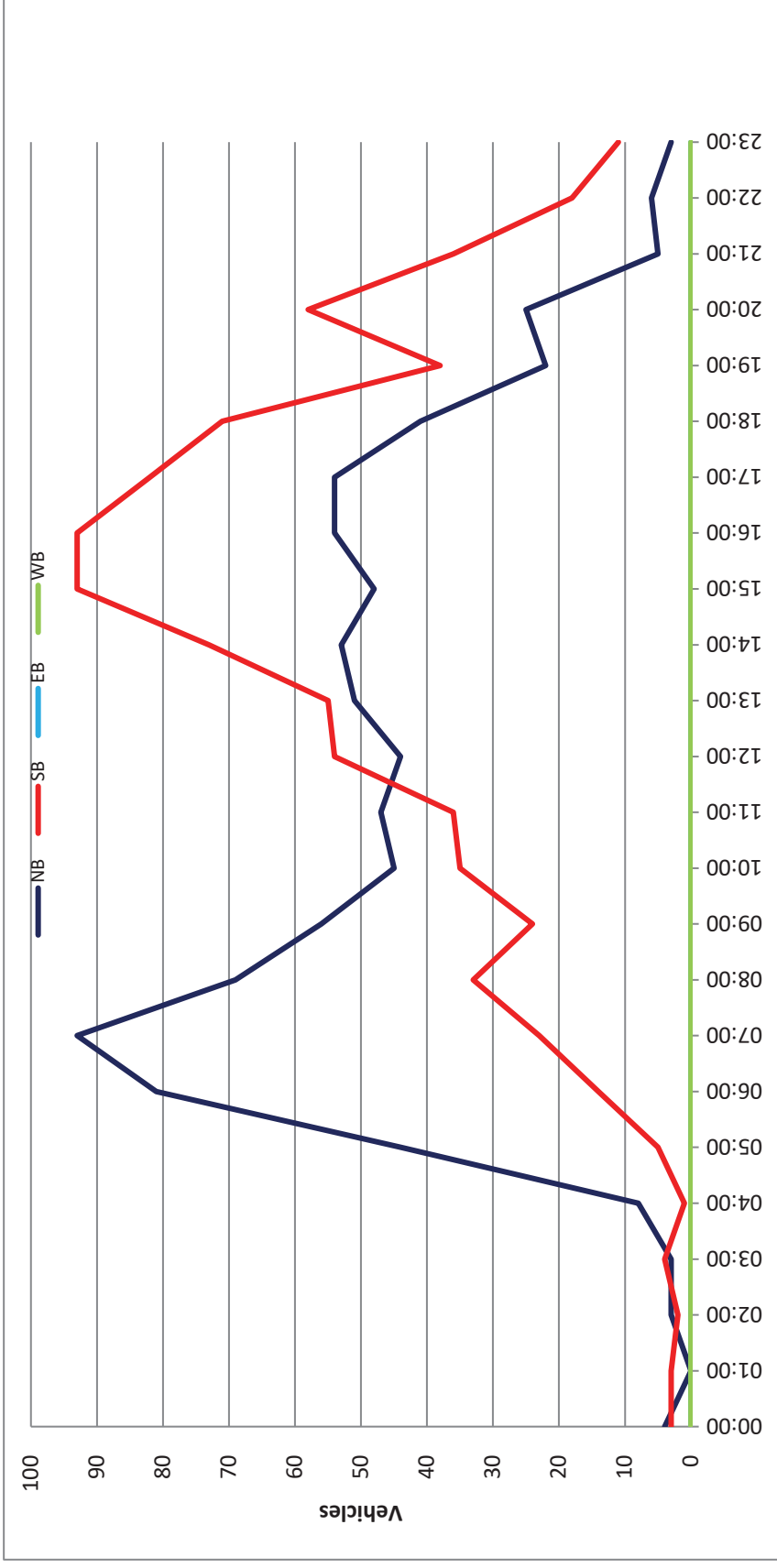
DAILY TOTALS					NB	SB					EB	WB	Total
					859	865					0	0	1,724
AM Peak Hour	06:45	11:45		07:30	PM Peak Hour	17:15	15:30						15:30
AM Pk Volume	94	56		123	PM Pk Volume	58	101						155
Pk Hr Factor	0.810	0.875		0.904	Pk Hr Factor	0.906	0.815						0.824
7 - 9 Volume	162	56	0	0	218	4 - 6 Volume	108	175	0	0			283
7 - 9 Peak Hour	07:00	07:30		07:30	4 - 6 Peak Hour	16:00	16:15						16:15
7 - 9 Pk Volume	93	34	0	0	123	4 - 6 Pk Volume	54	97	0	0			151
Pk Hr Factor	0.802	0.708	0.000	0.000	0.904	Pk Hr Factor	0.643	0.933	0.000	0.000			0.803

Project #: CA15_4080_011

City: Chula Vista

Location: Proctor Valley Rd Bet. Melody Road &

Date: 3/10/2015



VOLUME

Proctor Valley Rd Bet. Schlee Canyon Rd & Proctor Valley Rd

Day: Tuesday
Date: 3/10/2015City: Chula Vista
Project #: CA15_4080_010

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						1,058	1,035	2,093	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			1	1	2		12:00			20	15	35			
00:15			2	1	3		12:15			7	17	24			
00:30			1	0	1		12:30			11	17	28			
00:45			0	4	1	3	12:45			16	54	11	60	27	114
01:00			0	1	1		13:00			11	17	28			
01:15			0	0	0		13:15			18	15	33			
01:30			0	0	0		13:30			15	17	32			
01:45			0	2	2	3	13:45			11	55	16	65	27	120
02:00			0	2	2		14:00			15	24	39			
02:15			1	0	1		14:15			21	21	42			
02:30			2	0	2		14:30			21	14	35			
02:45			1	4	1	3	14:45			15	72	25	84	40	156
03:00			0	1	1		15:00			10	29	39			
03:15			0	2	2		15:15			17	20	37			
03:30			1	0	1		15:30			16	36	52			
03:45			5	6	0	3	15:45			17	60	27	112	44	172
04:00			0	0	0		16:00			13	22	35			
04:15			4	1	5		16:15			22	33	55			
04:30			5	0	5		16:30			15	18	33			
04:45			6	15	0	1	16:45			7	57	21	94	28	151
05:00			5	0	5		17:00			8	31	39			
05:15			13	0	13		17:15			18	27	45			
05:30			15	2	17		17:30			14	19	33			
05:45			16	49	2	4	17:45			19	59	24	101	43	160
06:00			19	1	20		18:00			18	27	45			
06:15			28	4	32		18:15			14	20	34			
06:30			26	6	32		18:30			9	24	33			
06:45			27	100	6	17	18:45			9	50	19	90	28	140
07:00			25	3	28		19:00			9	14	23			
07:15			25	8	33		19:15			7	13	20			
07:30			24	6	30		19:30			6	6	12			
07:45			34	108	12	29	19:45			3	25	13	46	16	71
08:00			21	17	38		20:00			8	16	24			
08:15			30	12	42		20:15			8	18	26			
08:30			21	10	31		20:30			8	18	26			
08:45			26	98	7	46	20:45			5	29	14	66	19	95
09:00			21	6	27		21:00			1	15	16			
09:15			13	6	19		21:15			6	17	23			
09:30			28	10	38		21:30			0	8	8			
09:45			19	81	7	29	21:45			4	11	6	46	10	57
10:00			11	12	23		22:00			0	8	8			
10:15			13	7	20		22:15			2	6	8			
10:30			14	14	28		22:30			3	9	12			
10:45			10	48	11	44	22:45			2	7	6	29	8	36
11:00			18	6	24		23:00			1	4	5			
11:15			14	16	30		23:15			1	2	3			
11:30			14	13	27		23:30			1	2	3			
11:45			15	61	14	49	23:45			2	5	3	11	5	16
TOTALS			574	231	805		TOTALS			484	804	1288			
SPLIT %			71.3%	28.7%	38.5%		SPLIT %			37.6%	62.4%	61.5%			

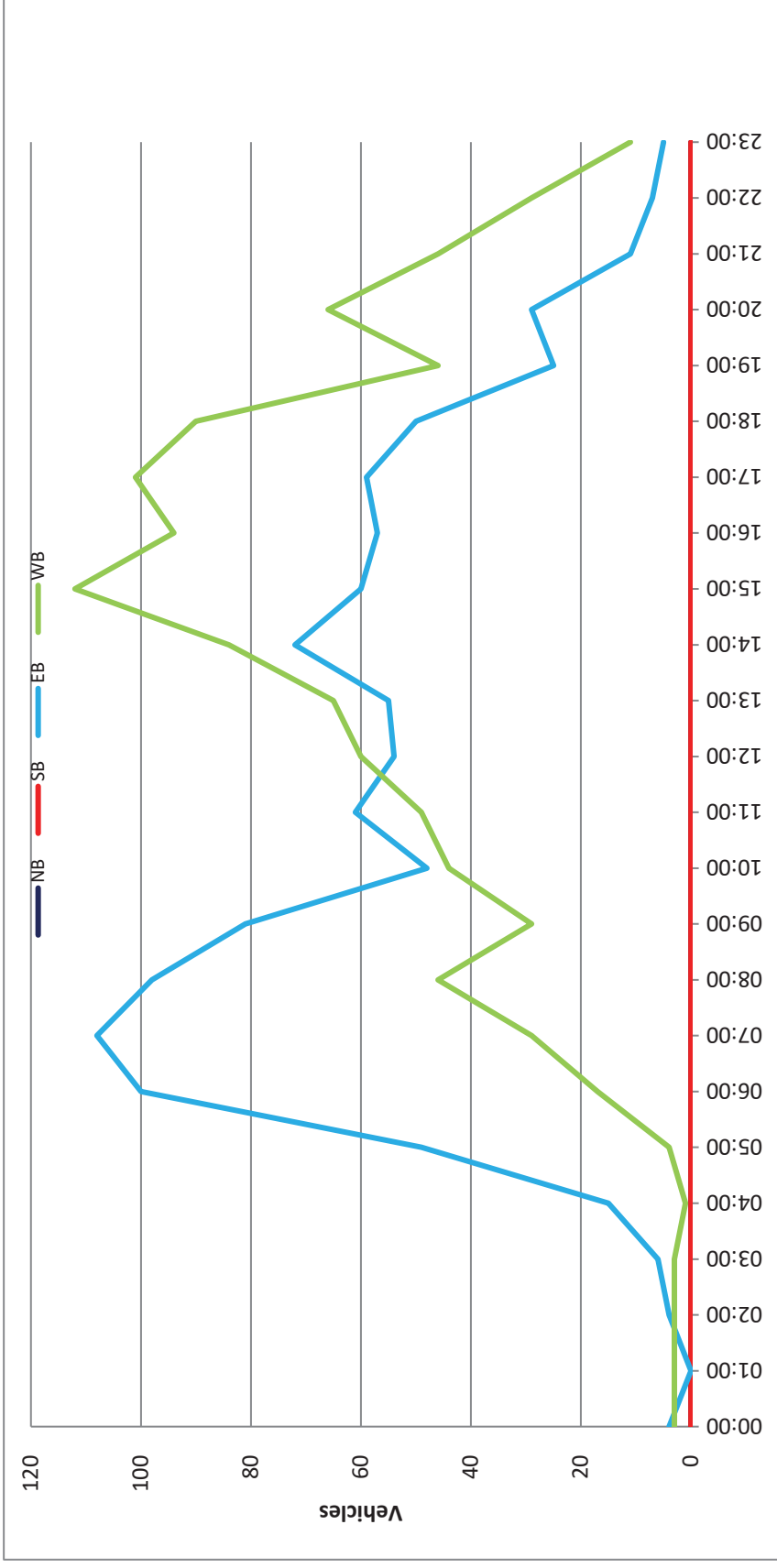
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						1,058	1,035	2,093	
AM Peak Hour			07:30	11:45	07:45		PM Peak Hour			14:00	15:30	15:30			
AM Pk Volume			109	63	157		PM Pk Volume			72	118	186			
Pk Hr Factor			0.801	0.926	0.853		Pk Hr Factor			0.857	0.819	0.845			
7 - 9 Volume	0	0	206	75	281		4 - 6 Volume	0	0	116	195	311			
7 - 9 Peak Hour			07:30	07:45	07:45		4 - 6 Peak Hour			17:00	16:15	17:00			
7 - 9 Pk Volume	0	0	109	51	157		4 - 6 Pk Volume	0	0	59	103	160			
Pk Hr Factor	0.000	0.000	0.801	0.750	0.853		Pk Hr Factor	0.000	0.000	0.776	0.780	0.889			

Project #: CA15_4080_010

City: Chula Vista

Location: Proctor Valley Rd Bet. Schlee Canyon Rd &

Date: 3/10/2015



VOLUME

Proctor Valley Road Bet. Maxfield Rd & SR-94

Day: Tuesday
Date: 3/10/2015City: Chula Vista
Project #: CA15_4080_008

DAILY TOTALS					NB	SB	EB					WB	Total
					1,248	1,242						0	0
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	1	1			2	12:00	20	16			36		
00:15	2	1			3	12:15	10	23			33		
00:30	1	0			1	12:30	13	14			27		
00:45	0	4	1	3	1	12:45	19	62	17	70	36		
01:00	0	1			1	13:00	19	20			39		
01:15	0	1			1	13:15	23	19			42		
01:30	0	0			0	13:30	17	26			43		
01:45	0	2	4		2	13:45	14	73	20	85	34		
02:00	0	2			2	14:00	17	24			41		
02:15	1	0			1	14:15	23	25			48		
02:30	2	0			2	14:30	28	16			44		
02:45	1	4	1	3	2	14:45	18	86	28	93	46		
03:00	0	1			1	15:00	13	33			46		
03:15	0	2			2	15:15	23	22			45		
03:30	1	0			1	15:30	17	50			67		
03:45	5	6	0	3	5	15:45	21	74	33	138	54		
04:00	0	0			0	16:00	15	29			44		
04:15	5	1			6	16:15	25	40			65		
04:30	5	0			5	16:30	22	26			48		
04:45	7	17	0	1	7	16:45	20	82	28	123	48		
05:00	8	0			8	17:00	13	32			45		
05:15	14	0			14	17:15	20	28			48		
05:30	19	2			21	17:30	15	25			40		
05:45	17	58	1	3	18	17:45	21	69	33	118	54		
06:00	19	1			20	18:00	23	33			56		
06:15	32	4			36	18:15	16	26			42		
06:30	27	7			34	18:30	13	34			47		
06:45	36	114	8	20	44	18:45	11	63	22	115	33		
07:00	27	7			34	19:00	11	17			28		
07:15	31	10			41	19:15	9	15			24		
07:30	35	7			42	19:30	7	12			19		
07:45	38	131	18	42	56	19:45	4	31	15	59	19		
08:00	26	18			44	20:00	9	18			27		
08:15	29	17			46	20:15	11	21			32		
08:30	25	10			35	20:30	9	20			29		
08:45	29	109	8	53	37	20:45	6	35	12	71	18		
09:00	23	10			33	21:00	2	17			19		
09:15	15	9			24	21:15	4	18			22		
09:30	26	10			36	21:30	0	11			11		
09:45	21	85	9	38	30	21:45	4	10	6	52	10		
10:00	16	16			32	22:00	0	10			10		
10:15	16	6			22	22:15	2	7			9		
10:30	17	17			34	22:30	3	10			13		
10:45	12	61	11	50	23	22:45	3	8	6	33	9		
11:00	20	5			25	23:00	0	4			4		
11:15	16	19			35	23:15	2	2			4		
11:30	12	12			24	23:30	2	2			4		
11:45	13	61	17	53	30	23:45	1	5	4	12	5		
TOTALS	650	273			923	TOTALS	598	969			1567		
SPLIT %	70.4%	29.6%			37.1%	SPLIT %	38.2%	61.8%			62.9%		

DAILY TOTALS					NB	SB	EB					WB	Total
					1,248	1,242						0	0

DAILY TOTALS					NB	SB	EB	WB	Total
					1,248	1,242	0	0	2,490
AM Peak Hour	07:00	11:45		07:30	PM Peak Hour	14:00	15:30		15:30
AM Pk Volume	131	70		188	PM Pk Volume	86	152		230
Pk Hr Factor	0.862	0.761		0.839	Pk Hr Factor	0.768	0.760		0.858
7 - 9 Volume	240	95	0	0	4 - 6 Volume	151	241	0	0
7 - 9 Peak Hour	07:00	07:45		07:30	4 - 6 Peak Hour	16:00	16:15		16:15
7 - 9 Pk Volume	131	63	0	0	4 - 6 Pk Volume	82	126	0	0
Pk Hr Factor	0.862	0.875	0.000	0.000	Pk Hr Factor	0.820	0.788	0.000	0.000

Project #: CA15_4080_008

City: Chula Vista

Location: Proctor Valley Road Bet. Maxfield Rd & SR-

Date: 3/10/2015



VOLUME

Fenton Street Bet. Eastlake Parkway & Lane Avenue

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_049

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						4,522	4,656	9,178	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			5	2	7		12:00			97	116	213			
00:15			4	0	4		12:15			89	85	174			
00:30			3	3	6		12:30			93	80	173			
00:45			1	13	4	9	12:45			98	377	93	374	191	751
01:00			4	4	8		13:00			99	84	183			
01:15			2	2	4		13:15			97	84	181			
01:30			3	2	5		13:30			113	77	190			
01:45			2	11	1	9	13:45			95	404	96	341	191	745
02:00			1	1	2		14:00			79	97	176			
02:15			1	0	1		14:15			82	95	177			
02:30			0	2	2		14:30			100	90	190			
02:45			1	3	1	4	14:45			97	358	82	364	179	722
03:00			3	2	5		15:00			88	78	166			
03:15			1	0	1		15:15			96	93	189			
03:30			1	2	3		15:30			81	67	148			
03:45			3	8	1	5	15:45			98	363	94	332	192	695
04:00			1	0	1		16:00			81	98	179			
04:15			1	0	1		16:15			74	87	161			
04:30			0	3	3		16:30			74	98	172			
04:45			1	3	3	6	16:45			97	326	98	381	195	707
05:00			5	4	9		17:00			82	122	204			
05:15			1	7	8		17:15			76	83	159			
05:30			8	7	15		17:30			79	91	170			
05:45			10	24	13	31	17:45			109	346	79	375	188	721
06:00			12	7	19		18:00			82	91	173			
06:15			14	18	32		18:15			78	67	145			
06:30			27	58	85		18:30			88	83	171			
06:45			36	89	115	198	18:45			100	348	95	336	195	684
07:00			36	35	71		19:00			85	91	176			
07:15			39	31	70		19:15			84	72	156			
07:30			44	30	74		19:30			82	70	152			
07:45			63	182	64	160	19:45			77	328	48	281	125	609
08:00			61	63	124		20:00			72	57	129			
08:15			74	61	135		20:15			57	52	109			
08:30			61	61	122		20:30			51	34	85			
08:45			61	257	88	273	20:45			41	221	28	171	69	392
09:00			63	62	125		21:00			51	36	87			
09:15			49	55	104		21:15			31	28	59			
09:30			47	50	97		21:30			22	25	47			
09:45			50	209	56	223	21:45			12	116	24	113	36	229
10:00			44	69	113		22:00			19	19	38			
10:15			51	42	93		22:15			13	8	21			
10:30			50	78	128		22:30			19	10	29			
10:45			44	189	56	245	22:45			13	64	16	53	29	117
11:00			45	70	115		23:00			8	4	12			
11:15			64	89	153		23:15			3	1	4			
11:30			75	85	160		23:30			5	6	11			
11:45			74	258	114	358	23:45			9	25	3	14	12	39
TOTALS				1246		1521	TOTALS				3276		3135		6411
SPLIT %				45.0%		55.0%	SPLIT %				51.1%		48.9%		69.9%

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						4,522	4,656	9,178	
AM Peak Hour			11:45	11:15	11:45		PM Peak Hour			12:45	16:15	12:00			
AM Pk Volume			353	404	748		PM Pk Volume			407	405	751			
Pk Hr Factor			0.910	0.871	0.878		Pk Hr Factor			0.900	0.830	0.881			
7 - 9 Volume	0	0	439	433	872		4 - 6 Volume	0	0	672	756	1428			
7 - 9 Peak Hour			07:45	08:00	08:00		4 - 6 Peak Hour			17:00	16:15	16:15			
7 - 9 Pk Volume	0	0	259	273	530		4 - 6 Pk Volume	0	0	346	405	732			
Pk Hr Factor	0.000	0.000	0.875	0.776	0.889		Pk Hr Factor	0.000	0.000	0.794	0.830	0.897			

Project #: CA15_4080_049

City: Chula Vista

Location: Fenton Street Bet. Eastlake Parkway & Lane

Date: 3/12/2015



VOLUME

Fenton Street Bet. Lane Avenue & Otay Lakes Road

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_050

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						3,436	3,513						6,949
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00			2	1	3		12:00			52	83	135							
00:15			0	0	0		12:15			61	63	124							
00:30			2	0	2		12:30			52	61	113							
00:45			1	5	1	6	12:45			78	243	147	519						
01:00			1	0	1		13:00			68	67	135							
01:15			1	0	1		13:15			70	60	130							
01:30			0	1	1		13:30			74	57	131							
01:45			0	2	0	3	13:45			68	280	122	518						
02:00			0	0	0		14:00			53	45	98							
02:15			0	0	0		14:15			54	44	98							
02:30			0	0	0		14:30			51	55	106							
02:45			1	1	0	1	14:45			60	218	116	418						
03:00			0	0	0		15:00			60	57	117							
03:15			0	0	0		15:15			64	45	109							
03:30			0	0	0		15:30			58	58	116							
03:45			2	2	0	2	15:45			61	243	140	482						
04:00			0	0	0		16:00			69	73	142							
04:15			0	1	1		16:15			60	87	147							
04:30			4	0	4		16:30			50	114	164							
04:45			5	9	0	1	16:45			102	281	225	678						
05:00			0	0	0		17:00			74	166	240							
05:15			4	0	4		17:15			64	99	163							
05:30			6	2	8		17:30			60	107	167							
05:45			21	31	1	3	17:45			101	299	193	763						
06:00			16	0	16		18:00			76	106	182							
06:15			10	5	15		18:15			63	91	154							
06:30			16	4	20		18:30			61	73	134							
06:45			32	74	9	18	18:45			67	267	139	609						
07:00			29	3	32		19:00			87	93	180							
07:15			38	12	50		19:15			47	51	98							
07:30			59	4	63		19:30			37	62	99							
07:45			89	215	15	34	19:45			34	205	79	456						
08:00			90	15	105		20:00			33	75	108							
08:15			88	12	100		20:15			26	47	73							
08:30			55	14	69		20:30			28	63	91							
08:45			80	313	23	64	20:45			19	106	62	334						
09:00			70	18	88		21:00			12	50	62							
09:15			59	45	104		21:15			11	33	44							
09:30			42	49	91		21:30			4	22	26							
09:45			55	226	37	149	21:45			7	34	25	157						
10:00			42	42	84		22:00			8	21	29							
10:15			43	55	98		22:15			1	9	10							
10:30			49	40	89		22:30			6	9	15							
10:45			43	177	52	189	22:45			2	17	8	62						
11:00			35	55	90		23:00			2	8	10							
11:15			48	47	95		23:15			0	7	7							
11:30			42	51	93		23:30			3	6	9							
11:45			57	182	70	223	23:45			1	6	7	33						
TOTALS				1237	683	1920	TOTALS				2199	2830	5029						
SPLIT %				64.4%	35.6%	27.6%	SPLIT %				43.7%	56.3%	72.4%						

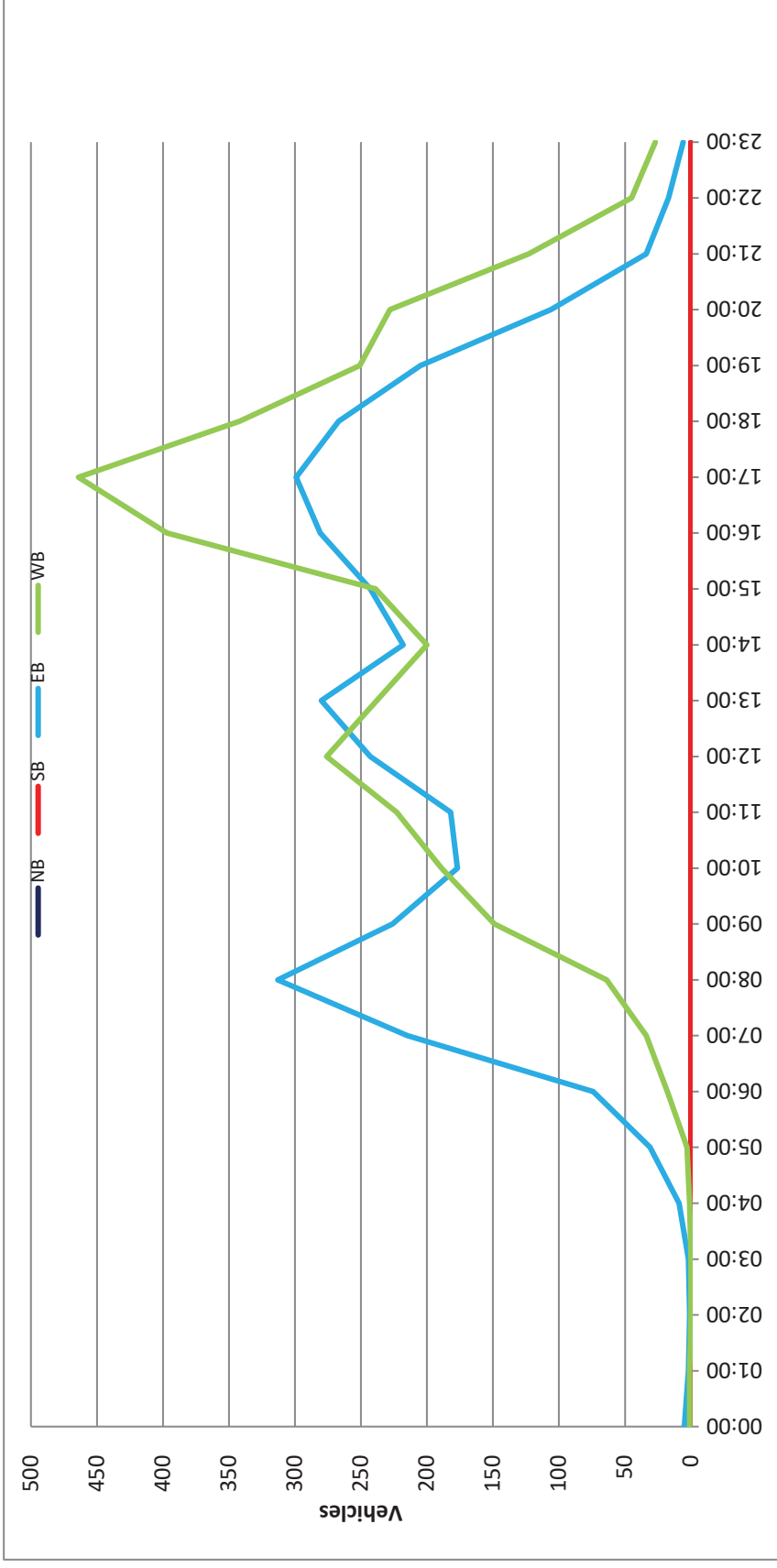
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						3,436	3,513						6,949
AM Peak Hour			07:30	11:45	11:45		PM Peak Hour			17:15	16:30	16:45							
AM Pk Volume			326	277	499		PM Pk Volume			301	502	795							
Pk Hr Factor			0.906	0.834	0.924		Pk Hr Factor			0.745	0.756	0.828							
7 - 9 Volume	0	0	528	98	626		4 - 6 Volume	0	0	580	861	1441							
7 - 9 Peak Hour			07:30	08:00	07:45		4 - 6 Peak Hour			16:45	16:30	16:45							
7 - 9 Pk Volume	0	0	326	64	378		4 - 6 Pk Volume	0	0	300	502	795							
Pk Hr Factor	0.000	0.000	0.906	0.696	0.900		Pk Hr Factor	0.000	0.000	0.735	0.756	0.828							

Project #: CA15_4080_050

City: Chula Vista

Location: Fenton Street Bet. Lane Avenue & Otay

Date: 3/12/2015



VOLUME

Telegraph Canyon Rd from Paseo Ladera to Paseo Ranchero/Heritage Rd

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

Project #: CA14_4115_006

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						22,387	22,017	44,404	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			63	31	94		12:00			266	293	559			
00:15			50	34	84		12:15			263	289	552			
00:30			41	25	66		12:30			253	268	521			
00:45			40	194	14	104	12:45			286	1068	272	1122	558	2190
01:00			29	18	47		13:00			293	284	577			
01:15			21	23	44		13:15			268	287	555			
01:30			23	17	40		13:30			308	292	600			
01:45			24	97	15	73	13:45			347	1216	276	1139	623	2355
02:00			12	12	24		14:00			330	302	632			
02:15			14	17	31		14:15			391	354	745			
02:30			21	9	30		14:30			427	359	786			
02:45			12	59	12	50	14:45			386	1534	418	1433	804	2967
03:00			8	26	34		15:00			412	369	781			
03:15			17	28	45		15:15			431	360	791			
03:30			21	29	50		15:30			457	393	850			
03:45			17	63	37	120	15:45			424	1724	335	1457	759	3181
04:00			17	43	60		16:00			457	329	786			
04:15			32	69	101		16:15			492	345	837			
04:30			23	84	107		16:30			491	331	822			
04:45			29	101	96	292	16:45			483	1923	401	1406	884	3329
05:00			29	156	185		17:00			515	397	912			
05:15			44	188	232		17:15			471	374	845			
05:30			56	243	299		17:30			488	360	848			
05:45			79	208	288	875	17:45			554	2028	314	1445	868	3473
06:00			75	263	338		18:00			373	312	685			
06:15			138	262	400		18:15			383	299	682			
06:30			293	300	593		18:30			411	283	694			
06:45			316	822	339	1164	18:45			385	1552	250	1144	635	2696
07:00			380	379	759		19:00			341	260	601			
07:15			398	451	849		19:15			308	258	566			
07:30			436	555	991		19:30			291	244	535			
07:45			463	1677	524	1909	19:45			282	1222	238	1000	520	2222
08:00			345	415	760		20:00			242	257	499			
08:15			365	429	794		20:15			246	210	456			
08:30			375	392	767		20:30			245	217	462			
08:45			372	1457	365	1601	20:45			183	916	235	919	418	1835
09:00			293	309	602		21:00			200	199	399			
09:15			251	361	612		21:15			207	171	378			
09:30			279	274	553		21:30			169	130	299			
09:45			222	1045	270	1214	21:45			147	723	132	632	279	1355
10:00			232	243	475		22:00			124	134	258			
10:15			215	290	505		22:15			123	97	220			
10:30			269	296	565		22:30			108	105	213			
10:45			225	941	336	1165	22:45			104	459	76	412	180	871
11:00			242	298	540		23:00			95	68	163			
11:15			230	265	495		23:15			84	45	129			
11:30			294	299	593		23:30			79	48	127			
11:45			263	1029	290	1152	23:45			71	329	28	189	99	518
TOTALS			7693	9719	17412		TOTALS			14694	12298	26992			
SPLIT %			44.2%	55.8%	39.2%		SPLIT %			54.4%	45.6%	60.8%			

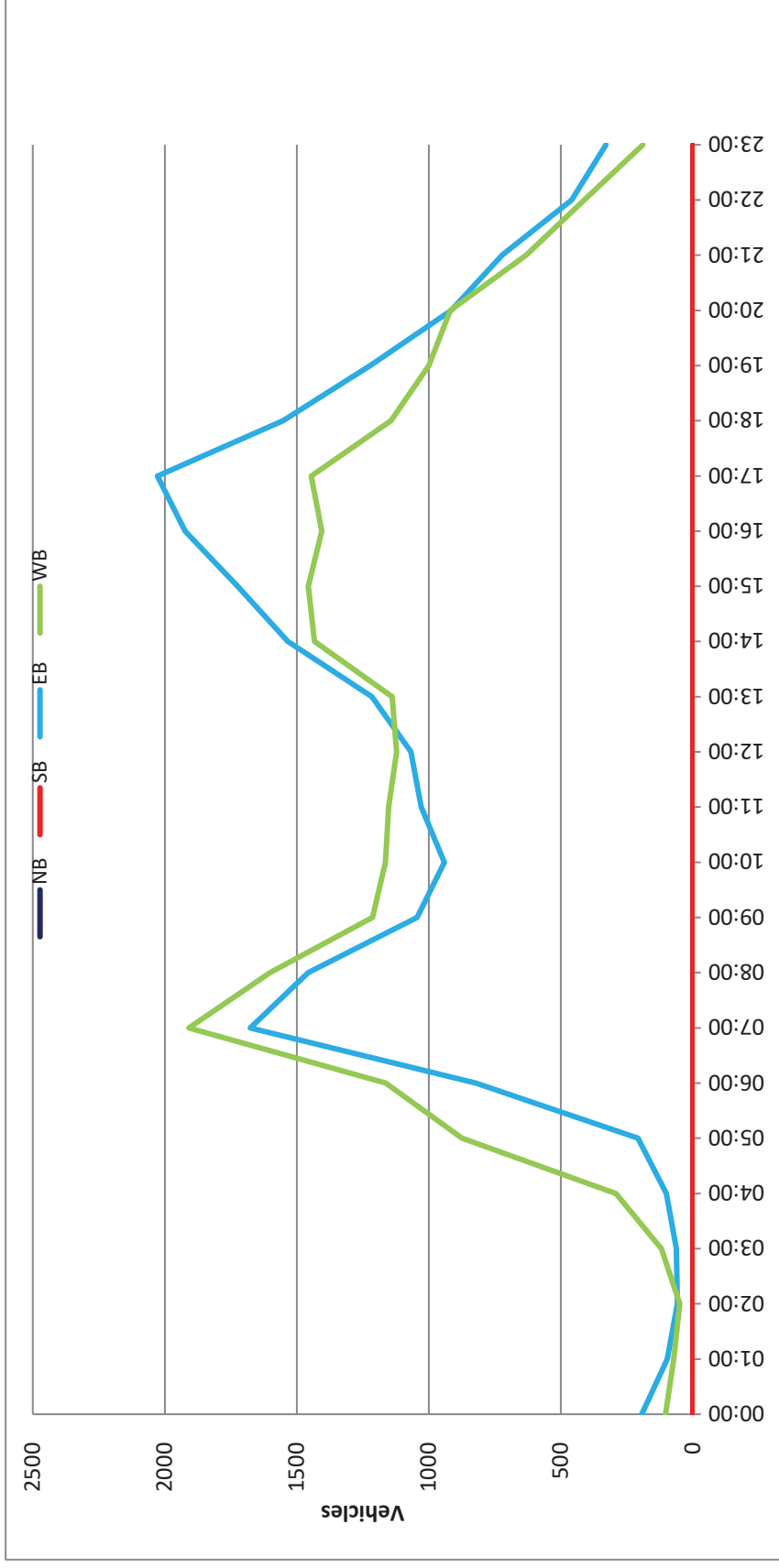
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						22,387	22,017	44,404	
AM Peak Hour			07:00	07:15	07:15		PM Peak Hour			17:00	14:45	16:45			
AM Pk Volume			1677	1945	3587		PM Pk Volume			2028	1540	3489			
Pk Hr Factor			0.906	0.876	0.905		Pk Hr Factor			0.915	0.921	0.956			
7 - 9 Volume	0	0	3134	3510	6644		4 - 6 Volume	0	0	3951	2851	6802			
7 - 9 Peak Hour			07:00	07:15	07:15		4 - 6 Peak Hour			17:00	16:45	16:45			
7 - 9 Pk Volume	0	0	1677	1945	3587		4 - 6 Pk Volume	0	0	2028	1532	3489			
Pk Hr Factor	0.000	0.000	0.906	0.876	0.905		Pk Hr Factor	0.000	0.000	0.915	0.955	0.956			

Project #: CA14_4115_006

City: Chula Vista

Location: Telegraph Canyon Rd from Paseo Ladera to

Date: 4/30/2014



VOLUME

Telegraph Canyon Rd from Paseo Ranchero/Heritage Rd to La Media Rd

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

Project #: CA14_4115_007

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						18,641	16,854
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			47	12	59		12:00			228	249	477	
00:15			41	9	50		12:15			214	251	465	
00:30			40	23	63		12:30			209	236	445	
00:45			28	156	8	52	12:45			270	921	229	965
01:00			21	15	36	208	13:00			224	261	485	1886
01:15			19	24	43		13:15			226	285	511	
01:30			18	13	31		13:30			256	278	534	
01:45			17	75	12	64	13:45			280	986	292	1116
02:00			14	8	22		14:00			276	274	550	
02:15			8	12	20		14:15			304	292	596	
02:30			17	9	26		14:30			346	355	701	
02:45			10	49	9	38	14:45			313	1239	355	1276
03:00			11	21	32		15:00			349	308	657	
03:15			13	20	33		15:15			371	295	666	
03:30			17	13	30		15:30			366	333	699	
03:45			21	62	16	70	15:45			322	1408	301	1237
04:00			19	27	46		16:00			376	312	688	
04:15			35	38	73		16:15			381	266	647	
04:30			27	52	79		16:30			401	336	737	
04:45			25	106	66	183	16:45			379	1537	323	1237
05:00			37	99	136		17:00			385	354	739	
05:15			46	118	164		17:15			373	356	729	
05:30			60	135	195		17:30			402	353	755	
05:45			70	213	149	501	17:45			403	1563	263	1326
06:00			75	167	242		18:00			328	245	573	
06:15			115	173	288		18:15			301	208	509	
06:30			248	197	445		18:30			323	201	524	
06:45			284	722	245	782	18:45			300	1252	165	819
07:00			313	350	663		19:00			278	188	466	
07:15			385	356	741		19:15			237	160	397	
07:30			407	421	828		19:30			249	142	391	
07:45			467	1572	326	1453	19:45			229	993	142	632
08:00			301	324	625		20:00			205	146	351	
08:15			309	297	606		20:15			178	102	280	
08:30			351	261	612		20:30			193	98	291	
08:45			306	1267	316	1198	20:45			153	729	119	465
09:00			260	269	529		21:00			156	99	255	
09:15			229	275	504		21:15			155	69	224	
09:30			240	198	438		21:30			123	62	185	
09:45			229	958	228	970	21:45			106	540	57	287
10:00			186	195	381		22:00			98	43	141	
10:15			199	243	442		22:15			96	30	126	
10:30			210	264	474		22:30			73	41	114	
10:45			237	832	311	1013	22:45			65	332	25	139
11:00			184	235	419		23:00			66	25	91	
11:15			220	225	445		23:15			57	12	69	
11:30			250	249	499		23:30			58	17	75	
11:45			247	901	257	966	23:45			47	228	11	65
TOTALS			6913	7290	14203		TOTALS			11728	9564	21292	
SPLIT %			48.7%	51.3%	40.0%		SPLIT %			55.1%	44.9%	60.0%	

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						18,641	16,854

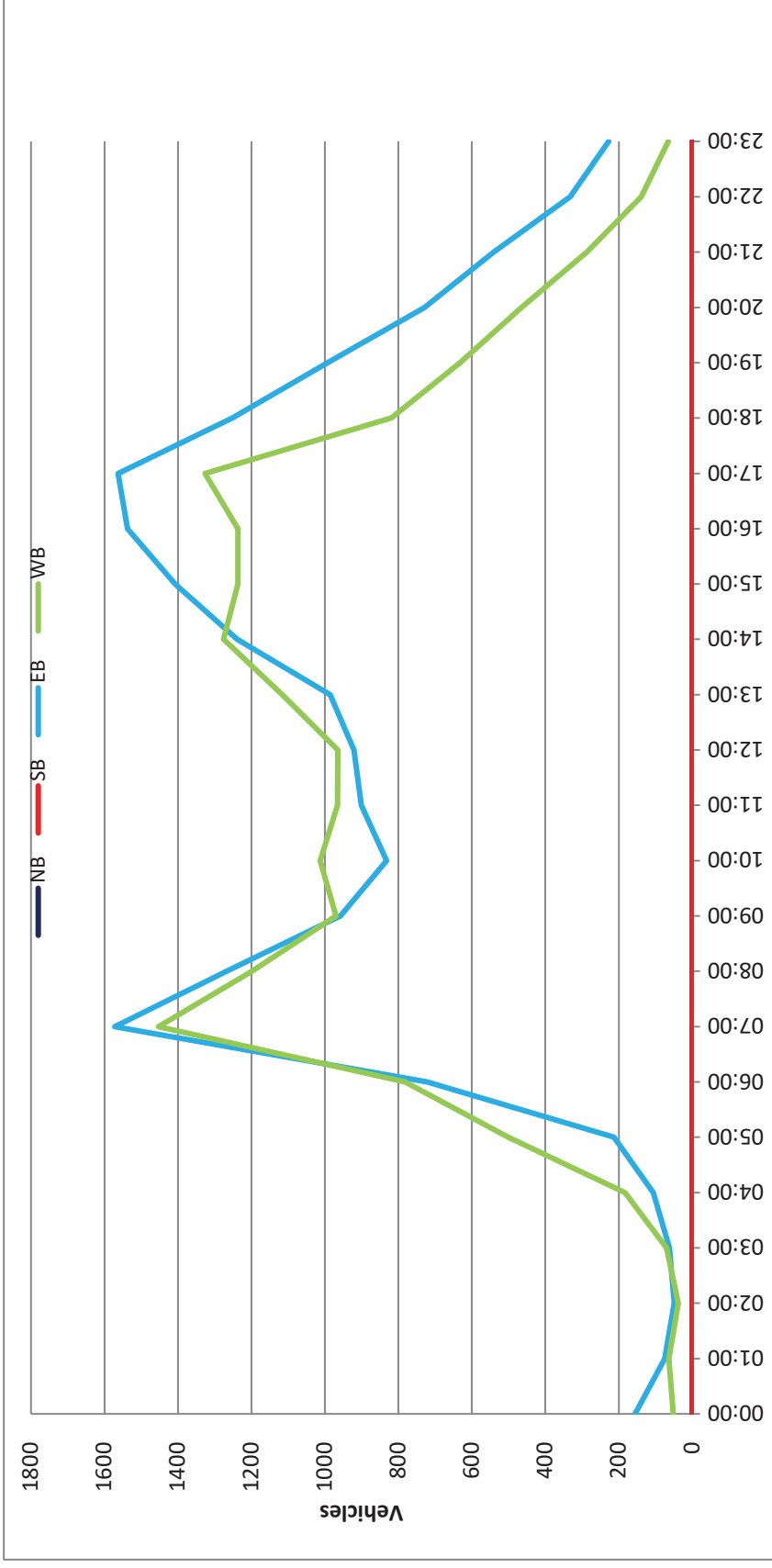
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						18,641	16,854						35,495
AM Peak Hour			07:00	07:00	07:00		PM Peak Hour			17:00	16:45	16:45							
AM Pk Volume			1572	1453	3025		PM Pk Volume			1563	1386	2925							
Pk Hr Factor			0.842	0.863	0.913		Pk Hr Factor			0.970	0.973	0.969							
7 - 9 Volume	0	0	2839	2651	5490		4 - 6 Volume	0	0	3100	2563	5663							
7 - 9 Peak Hour			07:00	07:00	07:00		4 - 6 Peak Hour			17:00	16:45	16:45							
7 - 9 Pk Volume	0	0	1572	1453	3025		4 - 6 Pk Volume	0	0	1563	1386	2925							
Pk Hr Factor	0.000	0.000	0.842	0.863	0.913		Pk Hr Factor	0.000	0.000	0.970	0.973	0.969							

Project #: CA14_4115_007

City: Chula Vista

Location: Telegraph Canyon Rd from Paseo

Date: 4/30/2014



VOLUME

Otay Lakes Road Bet. E. H Street & Ridgeback Road

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_037

DAILY TOTALS					NB	SB	EB					WB	Total
					12,317	13,924						0	0
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	14	28			42		12:00	172	224			396	
00:15	4	19			23		12:15	142	208			350	
00:30	12	19			31		12:30	185	207			392	
00:45	7	37	16	82	23	119	12:45	177	676	247	886	424	1562
01:00	6	11			17		13:00	182	314			496	
01:15	11	10			21		13:15	227	215			442	
01:30	8	12			20		13:30	221	232			453	
01:45	2	27	6	39	8	66	13:45	188	818	249	1010	437	1828
02:00	8	12			20		14:00	180	241			421	
02:15	7	7			14		14:15	273	224			497	
02:30	6	8			14		14:30	191	237			428	
02:45	4	25	4	31	8	56	14:45	221	865	241	943	462	1808
03:00	4	7			11		15:00	270	235			505	
03:15	3	4			7		15:15	226	341			567	
03:30	5	8			13		15:30	249	299			548	
03:45	6	18	7	26	13	44	15:45	200	945	222	1097	422	2042
04:00	9	8			17		16:00	186	283			469	
04:15	9	7			16		16:15	228	297			525	
04:30	12	14			26		16:30	223	291			514	
04:45	22	52	13	42	35	94	16:45	221	858	297	1168	518	2026
05:00	44	14			58		17:00	259	323			582	
05:15	62	14			76		17:15	263	271			534	
05:30	73	24			97		17:30	217	277			494	
05:45	68	247	33	85	101	332	17:45	183	922	296	1167	479	2089
06:00	99	37			136		18:00	173	274			447	
06:15	127	74			201		18:15	224	249			473	
06:30	184	126			310		18:30	228	255			483	
06:45	238	648	245	482	483	1130	18:45	213	838	238	1016	451	1854
07:00	264	240			504		19:00	184	222			406	
07:15	200	169			369		19:15	159	187			346	
07:30	280	236			516		19:30	156	187			343	
07:45	304	1048	303	948	607	1996	19:45	138	637	182	778	320	1415
08:00	249	223			472		20:00	122	134			256	
08:15	182	178			360		20:15	132	150			282	
08:30	168	184			352		20:30	145	127			272	
08:45	226	825	205	790	431	1615	20:45	129	528	129	540	258	1068
09:00	152	169			321		21:00	97	137			234	
09:15	179	132			311		21:15	90	118			208	
09:30	132	148			280		21:30	79	84			163	
09:45	129	592	187	636	316	1228	21:45	57	323	106	445	163	768
10:00	125	152			277		22:00	50	73			123	
10:15	106	146			252		22:15	51	71			122	
10:30	130	179			309		22:30	38	42			80	
10:45	181	542	165	642	346	1184	22:45	31	170	44	230	75	400
11:00	166	147			313		23:00	34	37			71	
11:15	125	162			287		23:15	19	32			51	
11:30	158	189			347		23:30	24	26			50	
11:45	133	582	208	706	341	1288	23:45	17	94	40	135	57	229
TOTALS	4643	4509			9152		TOTALS	7674	9415			17089	
SPLIT %	50.7%	49.3%			34.9%		SPLIT %	44.9%	55.1%			65.1%	

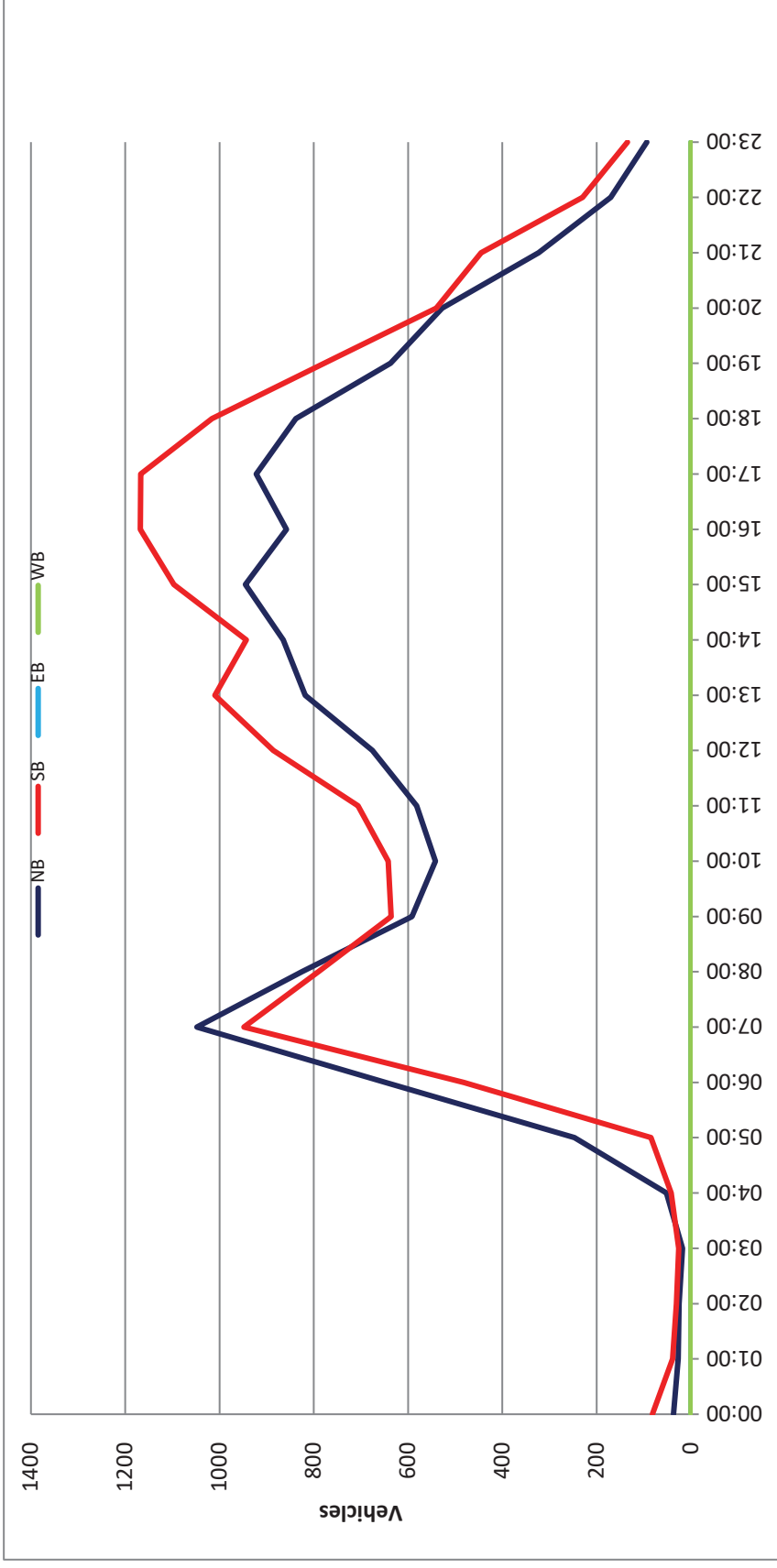
DAILY TOTALS					NB	SB						EB	WB	Total	
					12,317	13,924						0	0	26,241	
AM Peak Hour	07:00	07:00			07:00		PM Peak Hour	14:45	16:15			16:30			
AM Pk Volume	1048	948			1996		PM Pk Volume	966	1208			2148			
Pk Hr Factor	0.862	0.782			0.822		Pk Hr Factor	0.894	0.935			0.923			
7 - 9 Volume	1873	1738	0	0	3611		4 - 6 Volume	1780	2335	0	0	4115			
7 - 9 Peak Hour	07:00	07:00			07:00		4 - 6 Peak Hour	16:30	16:15			16:30			
7 - 9 Pk Volume	1048	948	0	0	1996		4 - 6 Pk Volume	966	1208	0	0	2148			
Pk Hr Factor	0.862	0.782	0.000	0.000	0.822		Pk Hr Factor	0.918	0.935	0.000	0.000	0.923			

Project #: CA15_4080_037

City: Chula Vista

Location: Otay Lakes Road Bet. E. H Street &

Date: 3/12/2015



VOLUME

Otay Lakes Rd from East H St to Telegraph Canyon Rd/Otay Lakes Rd

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

Project #: CA14_4115_008

DAILY TOTALS					NB	SB						EB	WB	Total	
					14,140	14,772						0	0	28,912	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00	23	33			56		12:00	171	229			400			
00:15	16	27			43		12:15	172	194			366			
00:30	16	18			34		12:30	167	217			384			
00:45	12	67	12	90	24	157	12:45	192	702	208	848	400	1550		
01:00	7	16			23		13:00	218	251			469			
01:15	10	8			18		13:15	198	345			543			
01:30	5	10			15		13:30	207	249			456			
01:45	3	25	10	44	13	69	13:45	207	830	263	1108	470	1938		
02:00	10	11			21		14:00	194	281			475			
02:15	3	13			16		14:15	177	294			471			
02:30	6	4			10		14:30	242	283			525			
02:45	2	21	0	28	2	49	14:45	263	876	331	1189	594	2065		
03:00	7	4			11		15:00	264	251			515			
03:15	6	2			8		15:15	238	321			559			
03:30	12	5			17		15:30	231	266			497			
03:45	7	32	5	16	12	48	15:45	261	994	307	1145	568	2139		
04:00	9	6			15		16:00	274	258			532			
04:15	17	5			22		16:15	287	275			562			
04:30	25	9			34		16:30	272	294			566			
04:45	18	69	20	40	38	109	16:45	268	1101	303	1130	571	2231		
05:00	41	11			52		17:00	240	316			556			
05:15	54	22			76		17:15	252	295			547			
05:30	49	27			76		17:30	242	268			510			
05:45	87	231	28	88	115	319	17:45	231	965	285	1164	516	2129		
06:00	121	46			167		18:00	208	316			524			
06:15	140	62			202		18:15	197	302			499			
06:30	202	93			295		18:30	218	240			458			
06:45	277	740	140	341	417	1081	18:45	216	839	238	1096	454	1935		
07:00	258	153			411		19:00	197	247			444			
07:15	311	151			462		19:15	158	261			419			
07:30	416	154			570		19:30	178	249			427			
07:45	323	1308	183	641	506	1949	19:45	165	698	227	984	392	1682		
08:00	245	149			394		20:00	148	275			423			
08:15	247	134			381		20:15	134	193			327			
08:30	276	149			425		20:30	129	202			331			
08:45	259	1027	180	612	439	1639	20:45	110	521	218	888	328	1409		
09:00	263	181			444		21:00	114	180			294			
09:15	257	200			457		21:15	85	140			225			
09:30	200	129			329		21:30	68	108			176			
09:45	219	939	195	705	414	1644	21:45	68	335	101	529	169	864		
10:00	141	134			275		22:00	52	91			143			
10:15	132	178			310		22:15	60	66			126			
10:30	181	242			423		22:30	43	56			99			
10:45	181	635	330	884	511	1519	22:45	40	195	50	263	90	458		
11:00	180	211			391		23:00	31	32			63			
11:15	175	184			359		23:15	31	41			72			
11:30	261	179			440		23:30	31	33			64			
11:45	261	877	239	813	500	1690	23:45	20	113	20	126	40	239		
TOTALS	5971	4302			10273		TOTALS	8169	10470			18639			
SPLIT %	58.1%	41.9%			35.5%		SPLIT %	43.8%	56.2%			64.5%			

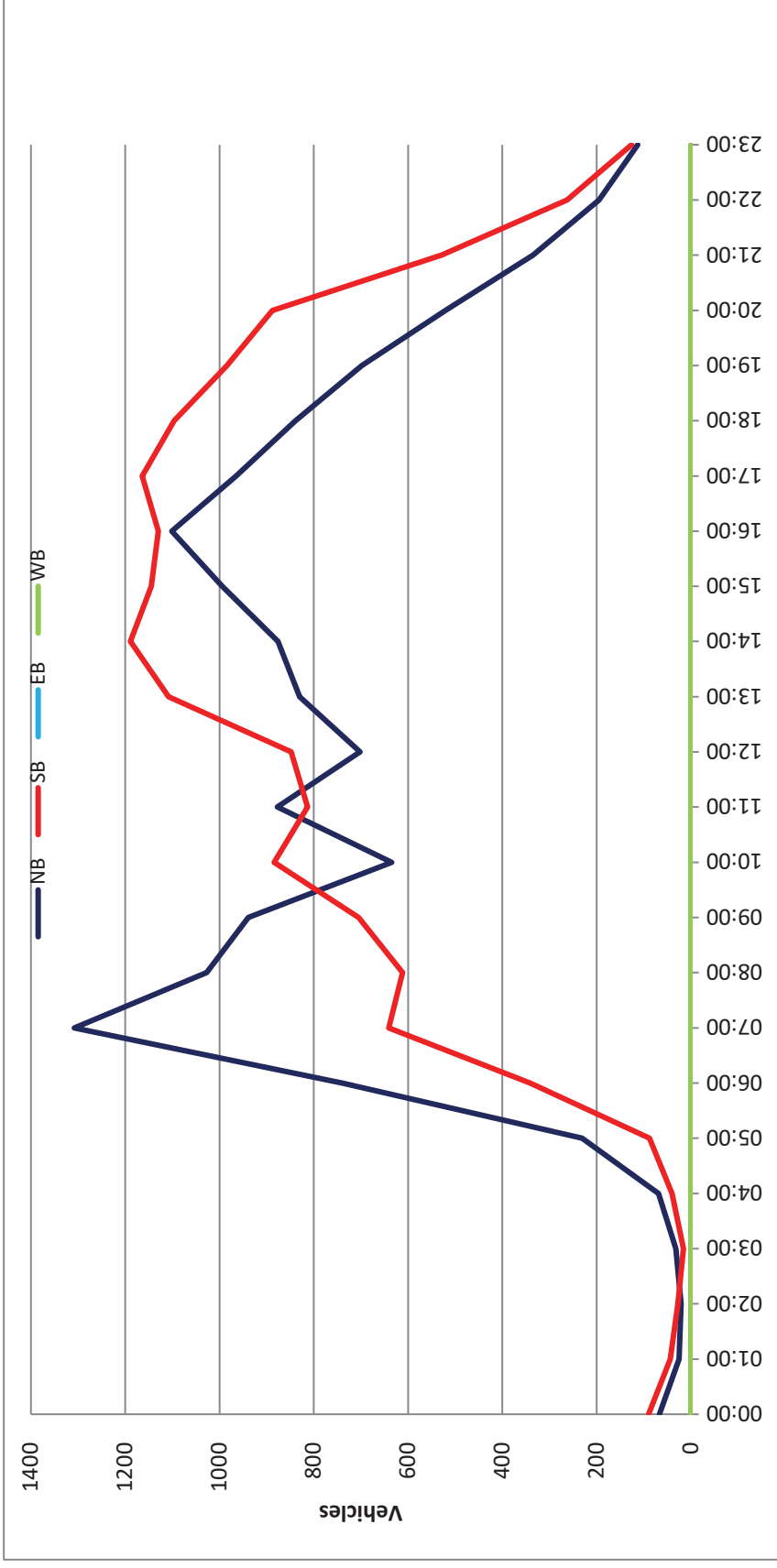
DAILY TOTALS					NB	SB						EB	WB	Total	
					14,140	14,772						0	0	28,912	
AM Peak Hour	07:00	10:30			07:00		PM Peak Hour	16:00	16:30			16:15			
AM Pk Volume	1308	967			1949		PM Pk Volume	1101	1208			2255			
Pk Hr Factor	0.786	0.733			0.855		Pk Hr Factor	0.959	0.956			0.987			
7 - 9 Volume	2335	1253	0	0	3588		4 - 6 Volume	2066	2294	0	0	4360			
7 - 9 Peak Hour	07:00	07:00			07:00		4 - 6 Peak Hour	16:00	16:30			16:15			
7 - 9 Pk Volume	1308	641	0	0	1949		4 - 6 Pk Volume	1101	1208	0	0	2255			
Pk Hr Factor	0.786	0.876	0.000	0.000	0.855		Pk Hr Factor	0.959	0.956	0.000	0.000	0.987			

Project #: CA14_4115_008

City: Chula Vista

Location: Otay Lakes Rd from EastHSt

Date: 4/30/2014



VOLUME

Otay Lakes Rd from Rutgers Ave to SR-125 SB Ramps

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_010

DAILY TOTALS					NB	SB	EBWB								Total
					0	0									41,931
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			41	47	88		12:00			274	298	572			
00:15			43	13	56		12:15			264	309	573			
00:30			36	25	61		12:30			281	275	556			
00:45			22	142	11	96	12:45			275	1094	290	1172		
01:00			17	20	37		13:00			294	337	631			
01:15			13	22	35		13:15			311	286	597			
01:30			9	9	18		13:30			281	336	617			
01:45			21	60	12	63	13:45			317	1203	328	1287		
02:00			13	5	18		14:00			299	322	621			
02:15			9	9	18		14:15			378	331	709			
02:30			15	14	29		14:30			368	402	770			
02:45			15	52	11	39	14:45			390	1435	385	1440		
03:00			12	17	29		15:00			370	349	719			
03:15			14	14	28		15:15			396	355	751			
03:30			24	16	40		15:30			400	398	798			
03:45			26	76	12	59	15:45			415	1581	373	1475		
04:00			25	22	47		16:00			394	386	780			
04:15			40	29	69		16:15			395	379	774			
04:30			44	51	95		16:30			405	387	792			
04:45			38	147	53	155	16:45			500	1694	382	1534		
05:00			44	79	123		17:00			428	436	864			
05:15			60	105	165		17:15			444	348	792			
05:30			81	110	191		17:30			416	402	818			
05:45			77	262	143	437	17:45			421	1709	388	1574		
06:00			88	159	247		18:00			395	361	756			
06:15			142	183	325		18:15			361	334	695			
06:30			251	208	459		18:30			367	360	727			
06:45			258	739	246	796	18:45			383	1506	310	1365		
07:00			223	341	564		19:00			325	323	648			
07:15			295	274	569		19:15			326	300	626			
07:30			328	314	642		19:30			303	297	600			
07:45			345	1191	319	1248	19:45			270	1224	345	1265		
08:00			298	310	608		20:00			290	301	591			
08:15			326	328	654		20:15			229	273	502			
08:30			318	293	611		20:30			212	264	476			
08:45			339	1281	314	1245	20:45			187	918	230	1068		
09:00			280	346	626		21:00			178	234	412			
09:15			255	293	548		21:15			197	172	369			
09:30			252	266	518		21:30			134	170	304			
09:45			246	1033	279	1184	21:45			111	620	139	715		
10:00			237	281	518		22:00			110	137	247			
10:15			244	262	506		22:15			99	118	217			
10:30			281	295	576		22:30			79	111	190			
10:45			306	1068	300	1138	22:45			69	357	87	453		
11:00			262	274	536		23:00			57	76	133			
11:15			262	281	543		23:15			58	50	108			
11:30			263	328	591		23:30			58	52	110			
11:45			312	1099	318	1201	23:45			43	216	37	215		
TOTALS			7150	7661	14811		TOTALS			13557	13563	27120			
SPLIT %			48.3%	51.7%	35.3%		SPLIT %			50.0%	50.0%	64.7%			

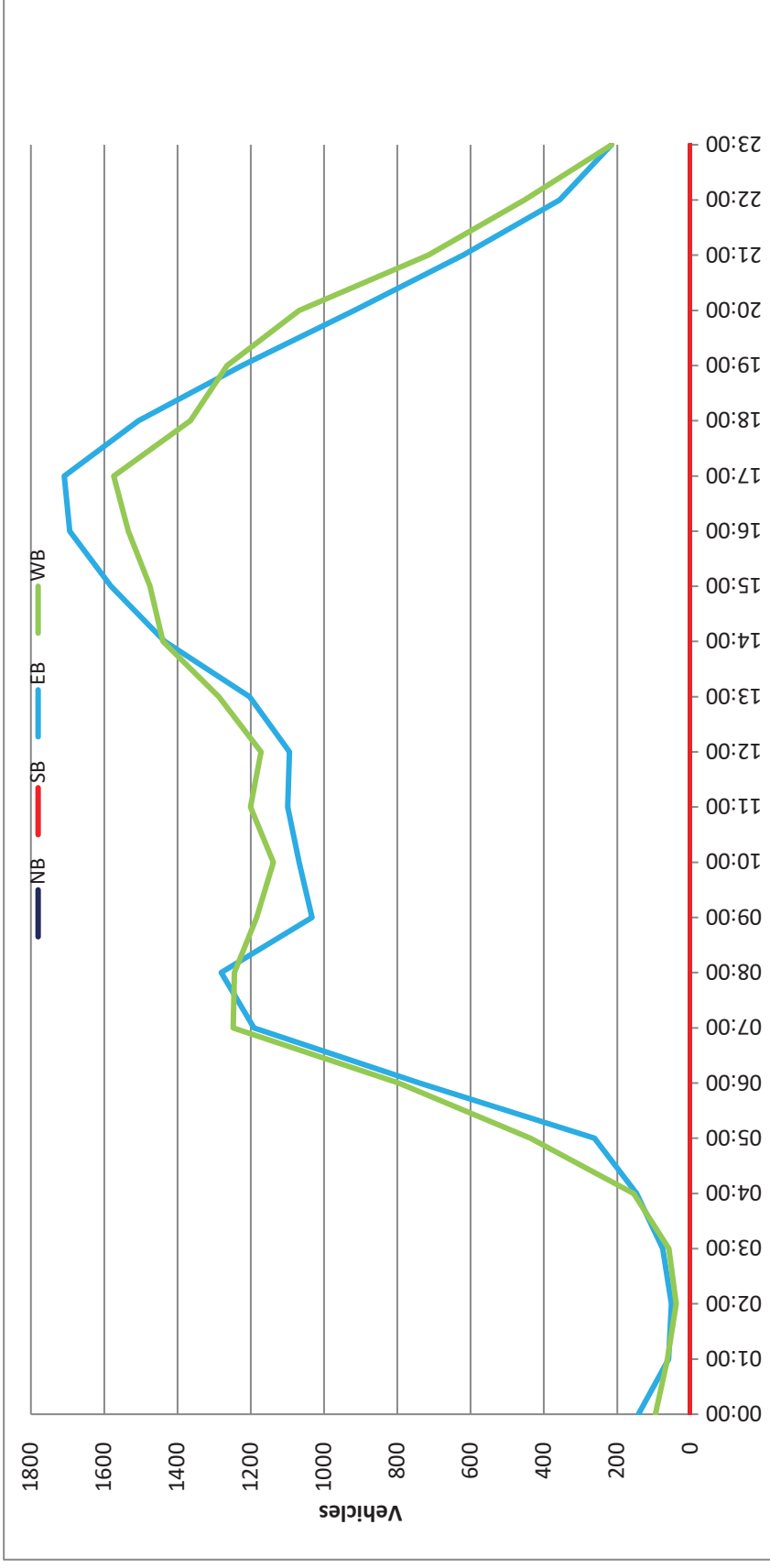
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						20,707	21,224						41,931
AM Peak Hour			07:30	08:15	07:30		PM Peak Hour			16:45	16:15	16:45							
AM Pk Volume			1297	1281	2568		PM Pk Volume			1788	1584	3356							
Pk Hr Factor			0.940	0.926	0.967		Pk Hr Factor			0.894	0.908	0.951							
7 - 9 Volume	0	0	2472	2493	4965		4 - 6 Volume	0	0	3403	3108	6511							
7 - 9 Peak Hour			07:30	07:30	07:30		4 - 6 Peak Hour			16:45	16:15	16:45							
7 - 9 Pk Volume	0	0	1297	1271	2568		4 - 6 Pk Volume	0	0	1788	1584	3356							
Pk Hr Factor	0.000	0.000	0.940	0.969	0.967		Pk Hr Factor	0.000	0.000	0.894	0.908	0.951							

Project #: CA14_4115_010

City: Chula Vista

Location: Otay Lakes Rd from Rutgers Ave to SR-125

Date: 4/30/2014



VOLUME

Otay Lakes Rd from SR-125 SB Ramps to SR-125 NB Ramps

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_011

DAILY TOTALS					NB	SB	EB					WB	Total		
					0	0						25,171	21,235	46,406	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			38	31	69		12:00			334	303	637			
00:15			67	39	106		12:15			330	300	630			
00:30			25	17	42		12:30			350	307	657			
00:45			33	163	21	108	12:45			298	1312	316	1226	614	2538
01:00			36	25	61		13:00			344	324	668			
01:15			24	14	38		13:15			342	315	657			
01:30			25	12	37		13:30			322	341	663			
01:45			21	106	11	62	13:45			418	1426	341	1321	759	2747
02:00			16	17	33		14:00			372	322	694			
02:15			10	13	23		14:15			423	325	748			
02:30			25	10	35		14:30			470	379	849			
02:45			18	69	10	50	14:45			431	1696	354	1380	785	3076
03:00			16	10	26		15:00			451	365	816			
03:15			17	11	28		15:15			479	371	850			
03:30			19	13	32		15:30			491	379	870			
03:45			30	82	17	51	15:45			478	1899	364	1479	842	3378
04:00			15	26	41		16:00			490	373	863			
04:15			19	24	43		16:15			540	368	908			
04:30			40	56	96		16:30			520	405	925			
04:45			42	116	60	166	16:45			562	2112	379	1525	941	3637
05:00			42	66	108		17:00			558	400	958			
05:15			72	99	171		17:15			523	427	950			
05:30			71	99	170		17:30			504	432	936			
05:45			116	301	119	383	17:45			552	2137	333	1592	885	3729
06:00			91	161	252		18:00			497	360	857			
06:15			154	145	299		18:15			433	349	782			
06:30			233	176	409		18:30			434	368	802			
06:45			307	785	222	704	18:45			476	1840	317	1394	793	3234
07:00			314	277	591		19:00			402	345	747			
07:15			305	279	584		19:15			394	311	705			
07:30			385	362	747		19:30			388	316	704			
07:45			475	1479	289	1207	19:45			326	1510	295	1267	621	2777
08:00			380	324	704		20:00			322	311	633			
08:15			432	310	742		20:15			316	300	616			
08:30			410	285	695		20:30			247	266	513			
08:45			427	1649	328	1247	20:45			227	1112	255	1132	482	2244
09:00			349	353	702		21:00			212	238	450			
09:15			328	314	642		21:15			214	183	397			
09:30			317	264	581		21:30			181	158	339			
09:45			344	1338	290	1221	21:45			155	762	156	735	311	1497
10:00			295	274	569		22:00			143	155	298			
10:15			295	255	550		22:15			119	100	219			
10:30			310	287	597		22:30			97	103	200			
10:45			375	1275	291	1107	22:45			93	452	68	426	161	878
11:00			306	284	590		23:00			87	71	158			
11:15			301	293	594		23:15			72	56	128			
11:30			355	328	683		23:30			71	48	119			
11:45			306	1268	339	1244	23:45			52	282	33	208	85	490
TOTALS			8631	7550	16181		TOTALS			16540	13685	30225			
SPLIT %			53.3%	46.7%	34.9%		SPLIT %			54.7%	45.3%	65.1%			

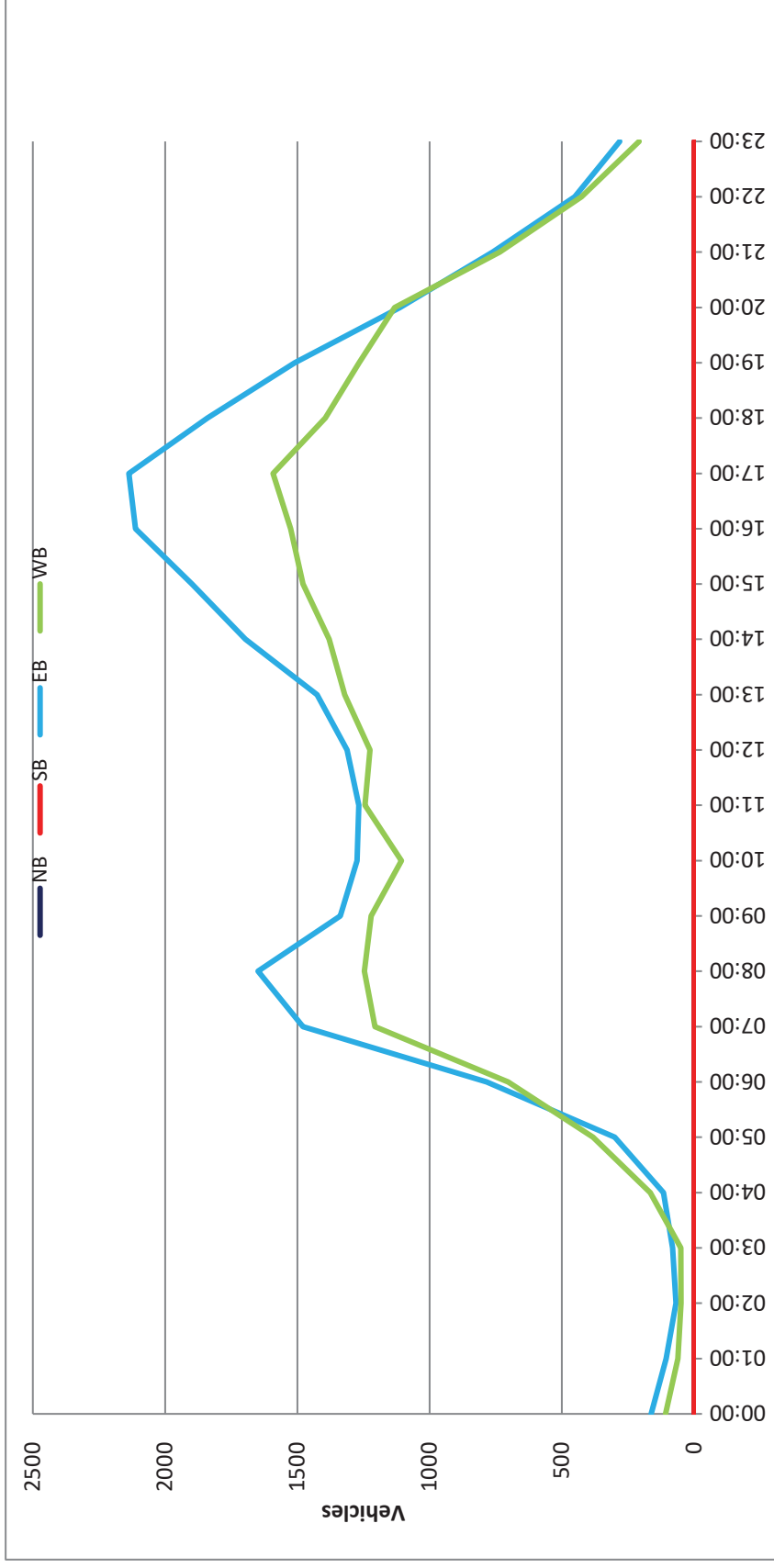
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						25,171	21,235						46,406
AM Peak Hour			07:45	07:30	07:30		PM Peak Hour			16:15	16:45	16:45							
AM Pk Volume			1697	1285	2957		PM Pk Volume			2180	1638	3785							
Pk Hr Factor			0.893	0.887	0.968		Pk Hr Factor			0.970	0.948	0.988							
7 - 9 Volume	0	0	3128	2454	5582		4 - 6 Volume	0	0	4249	3117	7366							
7 - 9 Peak Hour			07:45	07:30	07:30		4 - 6 Peak Hour			16:15	16:45	16:45							
7 - 9 Pk Volume	0	0	1697	1285	2957		4 - 6 Pk Volume	0	0	2180	1638	3785							
Pk Hr Factor	0.000	0.000	0.893	0.887	0.968		Pk Hr Factor	0.000	0.000	0.970	0.948	0.988							

Project #: CA14_4115_011

City: Chula Vista

Location: Otay Lakes Rd from SR-125 SB Ramps to SR-

Date: 4/30/2014



VOLUME

Otay Lakes Rd from SR-125 NB Ramps to Eastlake Pkwy

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_012

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						18,217	22,074
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			33	28	61		12:00			236	333	569	
00:15			43	34	77		12:15			221	274	495	
00:30			15	16	31		12:30			217	310	527	
00:45			23	114	19	97	12:45			203	877	321	1238
01:00			21	25	46		13:00			247	326	573	
01:15			19	15	34		13:15			204	311	515	
01:30			17	12	29		13:30			236	327	563	
01:45			13	70	15	67	13:45			239	926	326	1290
02:00			13	16	29		14:00			228	313	541	
02:15			7	12	19		14:15			250	323	573	
02:30			21	10	31		14:30			324	386	710	
02:45			13	54	11	49	14:45			322	1124	389	1411
03:00			13	7	20		15:00			294	377	671	
03:15			13	16	29		15:15			305	366	671	
03:30			18	23	41		15:30			292	427	719	
03:45			17	61	23	69	15:45			336	1227	370	1540
04:00			21	30	51		16:00			471	374	845	
04:15			20	28	48		16:15			451	294	745	
04:30			40	56	96		16:30			468	376	844	
04:45			32	113	72	186	16:45			449	1839	339	1383
05:00			32	85	117		17:00			500	373	873	
05:15			32	142	174		17:15			452	332	784	
05:30			55	146	201		17:30			481	389	870	
05:45			79	198	176	549	17:45			484	1917	320	1414
06:00			57	259	316		18:00			312	371	683	
06:15			71	245	316		18:15			301	350	651	
06:30			126	285	411		18:30			319	330	649	
06:45			210	464	309	1098	18:45			292	1224	305	1356
07:00			284	384	668		19:00			249	357	606	
07:15			219	409	628		19:15			251	292	543	
07:30			295	389	684		19:30			239	296	535	
07:45			359	1157	416	1598	19:45			241	980	291	1236
08:00			371	375	746		20:00			201	282	483	
08:15			355	386	741		20:15			200	242	442	
08:30			323	374	697		20:30			189	220	409	
08:45			355	1404	375	1510	20:45			168	758	225	969
09:00			221	392	613		21:00			142	224	366	
09:15			220	368	588		21:15			143	157	300	
09:30			195	316	511		21:30			115	158	273	
09:45			231	867	312	1388	21:45			117	517	241	1180
10:00			209	294	503		22:00			101	111	212	
10:15			217	274	491		22:15			82	87	169	
10:30			227	294	521		22:30			71	92	163	
10:45			258	911	316	1178	22:45			58	312	56	346
11:00			197	270	467		23:00			57	57	114	
11:15			237	294	531		23:15			57	56	113	
11:30			234	351	585		23:30			53	36	89	
11:45			228	896	348	1263	23:45			40	207	27	176
TOTALS			6309	9052	15361		TOTALS			11908	13022	24930	
SPLIT %			41.1%	58.9%	38.1%		SPLIT %			47.8%	52.2%	61.9%	

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						18,217	22,074						40,291
AM Peak Hour			07:45	07:00	07:45		PM Peak Hour			17:00	14:45	17:00							
AM Pk Volume			1408	1598	2959		PM Pk Volume			1917	1559	3331							
Pk Hr Factor			0.949	0.960	0.955		Pk Hr Factor			0.959	0.913	0.954							
7 - 9 Volume	0	0	2561	3108	5669		4 - 6 Volume	0	0	3756	2797	6553							
7 - 9 Peak Hour			07:45	07:00	07:45		4 - 6 Peak Hour			17:00	16:45	17:00							
7 - 9 Pk Volume	0	0	1408	1598	2959		4 - 6 Pk Volume	0	0	1917	1433	3331							
Pk Hr Factor	0.000	0.000	0.949	0.960	0.955		Pk Hr Factor	0.000	0.000	0.959	0.921	0.954							

Project #: CA14_4115_012

City: Chula Vista

Location: Otay Lakes Rd from SR-125 NB Ramps to

Date: 4/30/2014



VOLUME

Otay Lakes Rd from Eastlake Pkwy to Lane Ave

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_013

DAILY TOTALS					NB	SB						EB	WB	Total		
					0	0						13,657	12,397	26,054		
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL				
00:00			19	15	34		12:00			161	200	361				
00:15			22	11	33		12:15			173	165	338				
00:30			14	7	21		12:30			166	178	344				
00:45			19	74	5	38	12:45			171	671	187	730	358	1401	
01:00			18	14	32		13:00			192	189	381				
01:15			18	5	23		13:15			155	169	324				
01:30			16	4	20		13:30			170	177	347				
01:45			11	63	4	27	13:45			203	720	177	712	380	1432	
02:00			13	8	21		14:00			173	152	325				
02:15			4	10	14		14:15			195	167	362				
02:30			9	7	16		14:30			315	169	484				
02:45			7	33	6	31	14:45			304	987	143	631	447	1618	
03:00			10	3	13		15:00			277	155	432				
03:15			8	7	15		15:15			262	187	449				
03:30			7	10	17		15:30			247	225	472				
03:45			7	32	5	25	15:45			254	1040	164	731	418	1771	
04:00			13	6	19		16:00			261	250	511				
04:15			9	15	24		16:15			238	243	481				
04:30			7	22	29		16:30			274	277	551				
04:45			7	36	28	71	16:45			294	1067	263	1033	557	2100	
05:00			13	31	44		17:00			294	297	591				
05:15			19	53	72		17:15			274	269	543				
05:30			35	77	112		17:30			282	300	582				
05:45			46	113	82	243	17:45			300	1150	269	1135	569	2285	
06:00			42	116	158		18:00			281	193	474				
06:15			51	137	188		18:15			297	178	475				
06:30			91	214	305		18:30			253	151	404				
06:45			175	359	250	717	18:45			252	1083	144	666	396	1749	
07:00			250	226	476		19:00			235	172	407				
07:15			202	201	403		19:15			228	127	355				
07:30			190	285	475		19:30			206	149	355				
07:45			322	964	248	960	19:45			201	870	104	552	305	1422	
08:00			237	298	535		20:00			189	108	297				
08:15			235	240	475		20:15			174	103	277				
08:30			233	242	475		20:30			173	82	255				
08:45			235	940	261	1041	20:45			144	680	92	385	236	1065	
09:00			159	196	355		21:00			142	87	229				
09:15			182	187	369		21:15			111	63	174				
09:30			140	194	334		21:30			102	69	171				
09:45			157	638	198	775	21:45			91	446	49	268	140	714	
10:00			142	181	323		22:00			79	37	116				
10:15			146	166	312		22:15			67	22	89				
10:30			153	169	322		22:30			65	31	96				
10:45			183	624	167	683	22:45			44	255	18	108	62	363	
11:00			131	181	312		23:00			51	18	69				
11:15			162	166	328		23:15			47	22	69				
11:30			177	199	376		23:30			45	12	57				
11:45			174	644	223	769	23:45			25	168	14	66	39	234	
TOTALS			4520	5380	9900		TOTALS			9137	7017	16154				
SPLIT %			45.7%	54.3%	38.0%		SPLIT %			56.6%	43.4%	62.0%				

DAILY TOTALS					NB	SB						EB	WB	Total		
					0	0						13,657	12,397	26,054		
AM Peak Hour			07:45	07:30	07:30		PM Peak Hour			17:30	17:00	17:00				
AM Pk Volume			1027	1071	2055		PM Pk Volume			1160	1135	2285				
Pk Hr Factor			0.797	0.898	0.901		Pk Hr Factor			0.967	0.946	0.967				
7 - 9 Volume	0	0	1904	2001	3905		4 - 6 Volume	0	0	2217	2168	4385				
7 - 9 Peak Hour			07:45	07:30	07:30		4 - 6 Peak Hour			17:00	17:00	17:00				
7 - 9 Pk Volume	0	0	1027	1071	2055		4 - 6 Pk Volume	0	0	1150	1135	2285				
Pk Hr Factor	0.000	0.000	0.797	0.898	0.901		Pk Hr Factor	0.000	0.000	0.958	0.946	0.967				

Project #: CA14_4115_013

City: Chula Vista

Location: Otay Lakes Rd from Eastlake Pkwy to Lane

Date: 4/30/2014



VOLUME

Otay Lakes Rd from Lane Ave to Fenton St

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_014

DAILY TOTALS					NB	SB	EB					WB	Total				
					0	0						9,356					
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL					
00:00			15	10	25		12:00			109	109	218					
00:15			14	14	28		12:15			122	119	241					
00:30			12	5	17		12:30			85	103	188					
00:45			11	52	6	35	12:45			107	423	133	464				
					17	87						240	887				
01:00			10	9	19		13:00			119	119	238					
01:15			13	5	18		13:15			108	113	221					
01:30			10	5	15		13:30			124	105	229					
01:45			4	37	3	22	13:45			122	473	125	462				
					7	59						247	935				
02:00			12	8	20		14:00			129	124	253					
02:15			4	7	11		14:15			124	119	243					
02:30			6	6	12		14:30			180	140	320					
02:45			4	26	4	25	14:45			210	643	144	527				
					8	51						354	1170				
03:00			8	3	11		15:00			206	134	340					
03:15			4	3	7		15:15			206	179	385					
03:30			3	10	13		15:30			192	223	415					
03:45			1	16	4	20	15:45			166	770	177	713				
					5	36						343	1483				
04:00			9	9	18		16:00			184	161	345					
04:15			5	13	18		16:15			213	182	395					
04:30			4	17	21		16:30			191	161	352					
04:45			9	27	20	59	16:45			230	818	170	674				
					29	86						400	1492				
05:00			6	34	40		17:00			238	178	416					
05:15			10	51	61		17:15			215	155	370					
05:30			23	67	90		17:30			208	142	350					
05:45			29	68	72	224	17:45			223	884	164	639				
					101	292						387	1523				
06:00			26	96	122		18:00			227	137	364					
06:15			21	123	144		18:15			227	158	385					
06:30			45	146	191		18:30			201	136	337					
06:45			80	172	153	518	18:45			177	832	113	544				
					233	690						290	1376				
07:00			119	178	297		19:00			172	158	330					
07:15			88	165	253		19:15			178	117	295					
07:30			126	226	352		19:30			156	125	281					
07:45			169	502	253	822	19:45			146	652	119	519				
					422	1324						265	1171				
08:00			135	250	385		20:00			151	107	258					
08:15			145	214	359		20:15			130	80	210					
08:30			134	214	348		20:30			130	88	218					
08:45			148	562	212	890	20:45			106	517	77	352				
					360	1452						183	869				
09:00			88	150	238		21:00			116	74	190					
09:15			108	142	250		21:15			90	61	151					
09:30			92	158	250		21:30			84	57	141					
09:45			92	380	137	587	21:45			59	349	41	233				
					229	967						100	582				
10:00			93	136	229		22:00			65	39	104					
10:15			95	121	216		22:15			49	23	72					
10:30			113	116	229		22:30			51	29	80					
10:45			128	429	117	490	22:45			34	199	18	109				
					245	919						52	308				
11:00			91	115	206		23:00			34	15	49					
11:15			106	110	216		23:15			36	26	62					
11:30			105	115	220		23:30			35	11	46					
11:45			97	399	143	483	23:45			21	126	13	65				
					240	882						34	191				
TOTALS			2670	4175	6845		TOTALS			6686	5301	11987					
SPLIT %			39.0%	61.0%	36.3%		SPLIT %			55.8%	44.2%	63.7%					

DAILY TOTALS					NB	SB	EB					WB	Total				
					0	0						9,356					

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						9,356	9,476						18,832
AM Peak Hour			07:45	07:30	07:30		PM Peak Hour			16:45	15:30	16:15							
AM Pk Volume			583	943	1518		PM Pk Volume			891	743	1563							
Pk Hr Factor			0.862	0.932	0.899		Pk Hr Factor			0.936	0.833	0.939							
7 - 9 Volume	0	0	1064	1712	2776		4 - 6 Volume	0	0	1702	1313	3015							
7 - 9 Peak Hour			07:45	07:30	07:30		4 - 6 Peak Hour			16:45	16:15	16:15							
7 - 9 Pk Volume	0	0	583	943	1518		4 - 6 Pk Volume	0	0	891	691	1563							
Pk Hr Factor	0.000	0.000	0.862	0.932	0.899		Pk Hr Factor	0.000	0.000	0.936	0.949	0.939							

Project #: CA14_4115_014

City: Chula Vista

Location: Otay Lakes Rd from Lane Ave to Fenton St

Date: 4/30/2014



VOLUME

Otay Lakes Rd from Hunte Pkwy to Woods Dr

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_016

DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						4,586	5,086						9,672
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							TOTAL
00:00			11	6	17		12:00			64	65	129							
00:15			5	6	11		12:15			67	65	132							
00:30			5	2	7		12:30			59	64	123							
00:45			3	24	3	17	12:45			52	242	76	270	128	512				
01:00			8	3	11		13:00			62	62	124							
01:15			5	3	8		13:15			59	64	123							
01:30			5	4	9		13:30			50	60	110							
01:45			4	22	1	11	13:45			57	228	77	263	134	491				
02:00			7	5	12		14:00			54	84	138							
02:15			1	5	6		14:15			52	86	138							
02:30			1	2	3		14:30			101	89	190							
02:45			1	10	2	14	14:45			82	289	120	379	202	668				
03:00			2	2	4		15:00			86	95	181							
03:15			6	3	9		15:15			100	143	243							
03:30			3	3	6		15:30			111	156	267							
03:45			0	11	4	12	15:45			73	370	96	490	169	860				
04:00			3	3	6		16:00			103	83	186							
04:15			5	6	11		16:15			90	75	165							
04:30			0	8	8		16:30			85	80	165							
04:45			1	9	9	26	16:45			102	380	82	320	184	700				
05:00			7	13	20		17:00			117	82	199							
05:15			7	12	19		17:15			110	73	183							
05:30			9	20	29		17:30			113	71	184							
05:45			17	40	22	67	17:45			107	447	92	318	199	765				
06:00			12	48	60		18:00			91	47	138							
06:15			12	53	65		18:15			92	69	161							
06:30			30	72	102		18:30			115	72	187							
06:45			55	109	112	285	18:45			118	416	60	248	178	664				
07:00			61	81	142		19:00			86	73	159							
07:15			31	69	100		19:15			92	68	160							
07:30			48	106	154		19:30			81	49	130							
07:45			79	219	191	447	19:45			82	341	49	239	131	580				
08:00			58	220	278		20:00			74	57	131							
08:15			60	142	202		20:15			61	34	95							
08:30			56	104	160		20:30			57	30	87							
08:45			74	248	107	573	20:45			55	247	35	156	90	403				
09:00			47	92	139		21:00			52	25	77							
09:15			48	72	120		21:15			41	21	62							
09:30			41	69	110		21:30			38	15	53							
09:45			47	183	61	294	21:45			31	162	11	72	42	234				
10:00			40	57	97		22:00			25	22	47							
10:15			39	62	101		22:15			27	11	38							
10:30			62	50	112		22:30			20	16	36							
10:45			62	203	66	235	22:45			12	84	6	55	18	139				
11:00			49	54	103		23:00			16	8	24							
11:15			60	74	134		23:15			17	9	26							
11:30			70	56	126		23:30			13	10	23							
11:45			63	242	78	262	23:45			14	60	6	33	20	93				
TOTALS				1320		2243	TOTALS				3266		2843		6109				
SPLIT %				37.0%		63.0%	SPLIT %				53.5%		46.5%		63.2%				

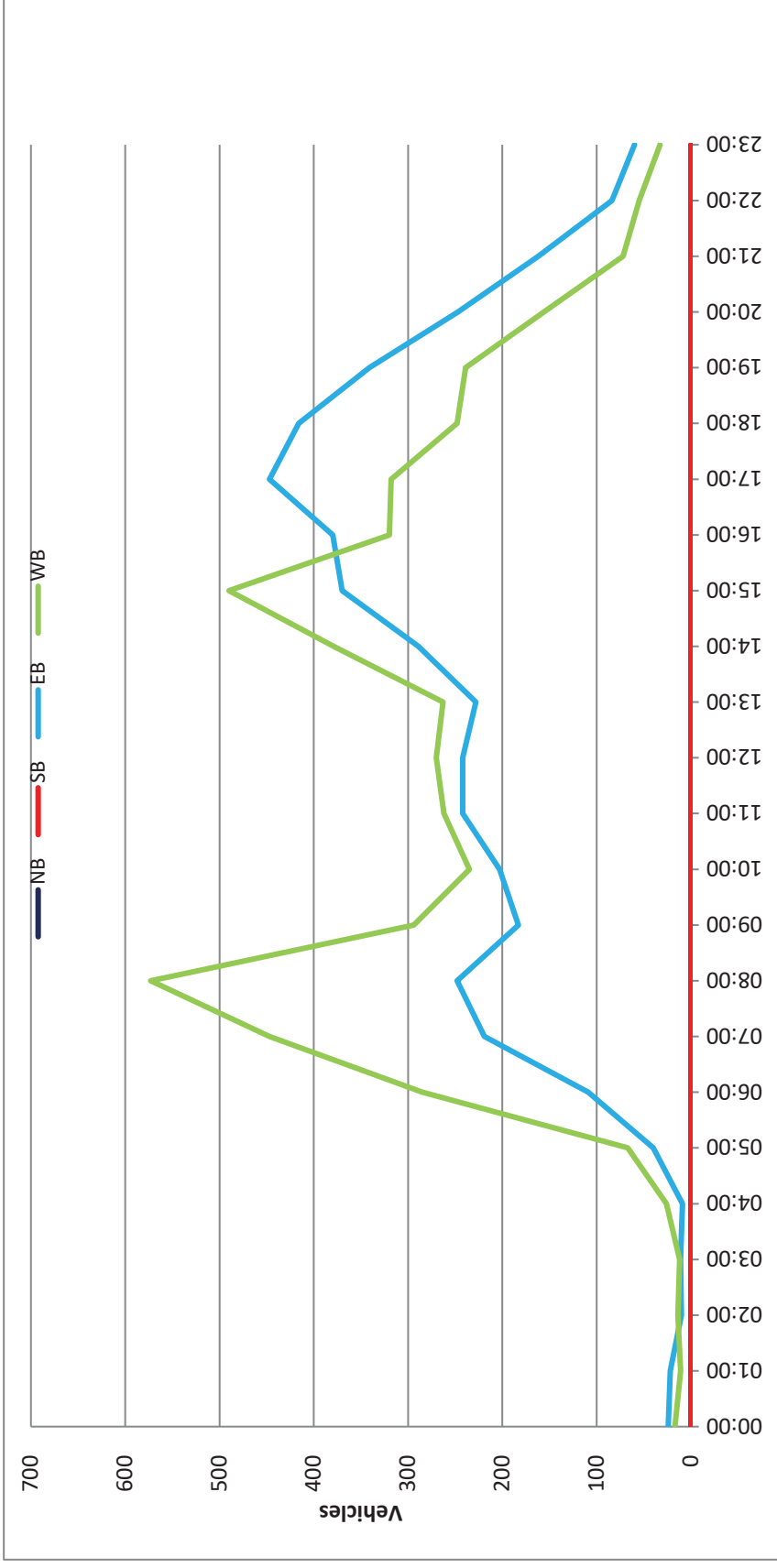
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						4,586	5,086						9,672
AM Peak Hour			11:30	07:30	07:45		PM Peak Hour			17:00	14:45	14:45							
AM Pk Volume			264	659	910		PM Pk Volume			447	514	893							
Pk Hr Factor			0.943	0.749	0.818		Pk Hr Factor			0.955	0.824	0.836							
7 - 9 Volume	0	0	467	1020	1487		4 - 6 Volume	0	0	827	638	1465							
7 - 9 Peak Hour			07:45	07:30	07:45		4 - 6 Peak Hour			17:00	16:00	17:00							
7 - 9 Pk Volume	0	0	253	659	910		4 - 6 Pk Volume	0	0	447	320	765							
Pk Hr Factor	0.000	0.000	0.801	0.749	0.818		Pk Hr Factor	0.000	0.000	0.955	0.964	0.961							

Project #: CA14_4115_016

City: Chula Vista

Location: Otay Lakes Rd from Hunte Pkwy to Woods

Date: 4/30/2014



VOLUME

Olympic Pkwy from SR-125 NB Ramps to Eastlake Pkwy

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_023

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						21,365	22,141	43,506	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			62	52	114		12:00			295	255	550			
00:15			53	48	101		12:15			256	265	521			
00:30			46	44	90		12:30			273	235	508			
00:45			37	198	57	201	12:45			290	1114	269	1024	559	2138
01:00			32	42	74		13:00			244	285	529			
01:15			21	46	67		13:15			274	260	534			
01:30			21	20	41		13:30			281	322	603			
01:45			26	100	30	138	13:45			273	1072	284	1151	557	2223
02:00			31	30	61		14:00			324	319	643			
02:15			29	19	48		14:15			378	314	692			
02:30			15	13	28		14:30			360	386	746			
02:45			15	90	13	75	14:45			354	1416	365	1384	719	2800
03:00			22	18	40		15:00			498	354	852			
03:15			18	21	39		15:15			434	326	760			
03:30			28	28	56		15:30			436	398	834			
03:45			24	92	17	84	15:45			405	1773	375	1453	780	3226
04:00			11	23	34		16:00			450	366	816			
04:15			27	41	68		16:15			459	358	817			
04:30			23	53	76		16:30			460	345	805			
04:45			29	90	80	197	16:45			490	1859	340	1409	830	3268
05:00			36	104	140		17:00			504	360	864			
05:15			35	171	206		17:15			495	388	883			
05:30			51	182	233		17:30			452	394	846			
05:45			87	209	200	657	17:45			495	1946	348	1490	843	3436
06:00			92	274	366		18:00			444	357	801			
06:15			138	288	426		18:15			417	327	744			
06:30			158	330	488		18:30			445	342	787			
06:45			223	611	406	1298	18:45			390	1696	312	1338	702	3034
07:00			170	509	679		19:00			353	327	680			
07:15			229	420	649		19:15			394	300	694			
07:30			254	441	695		19:30			325	306	631			
07:45			351	1004	335	1705	19:45			307	1379	277	1210	584	2589
08:00			265	361	626		20:00			346	296	642			
08:15			239	378	617		20:15			283	297	580			
08:30			230	353	583		20:30			281	251	532			
08:45			251	985	272	1364	20:45			270	1180	259	1103	529	2283
09:00			211	277	488		21:00			191	242	433			
09:15			219	245	464		21:15			240	255	495			
09:30			226	259	485		21:30			173	203	376			
09:45			203	859	233	1014	21:45			186	790	217	917	403	1707
10:00			231	221	452		22:00			170	165	335			
10:15			256	236	492		22:15			138	168	306			
10:30			224	258	482		22:30			139	132	271			
10:45			237	948	222	937	22:45			97	544	122	587	219	1131
11:00			266	236	502		23:00			91	118	209			
11:15			247	257	504		23:15			71	79	150			
11:30			289	276	565		23:30			101	78	179			
11:45			266	1068	295	1064	23:45			79	342	66	341	145	683
TOTALS			6254	8734	14988		TOTALS			15111	13407	28518			
SPLIT %			41.7%	58.3%	34.5%		SPLIT %			53.0%	47.0%	65.5%			

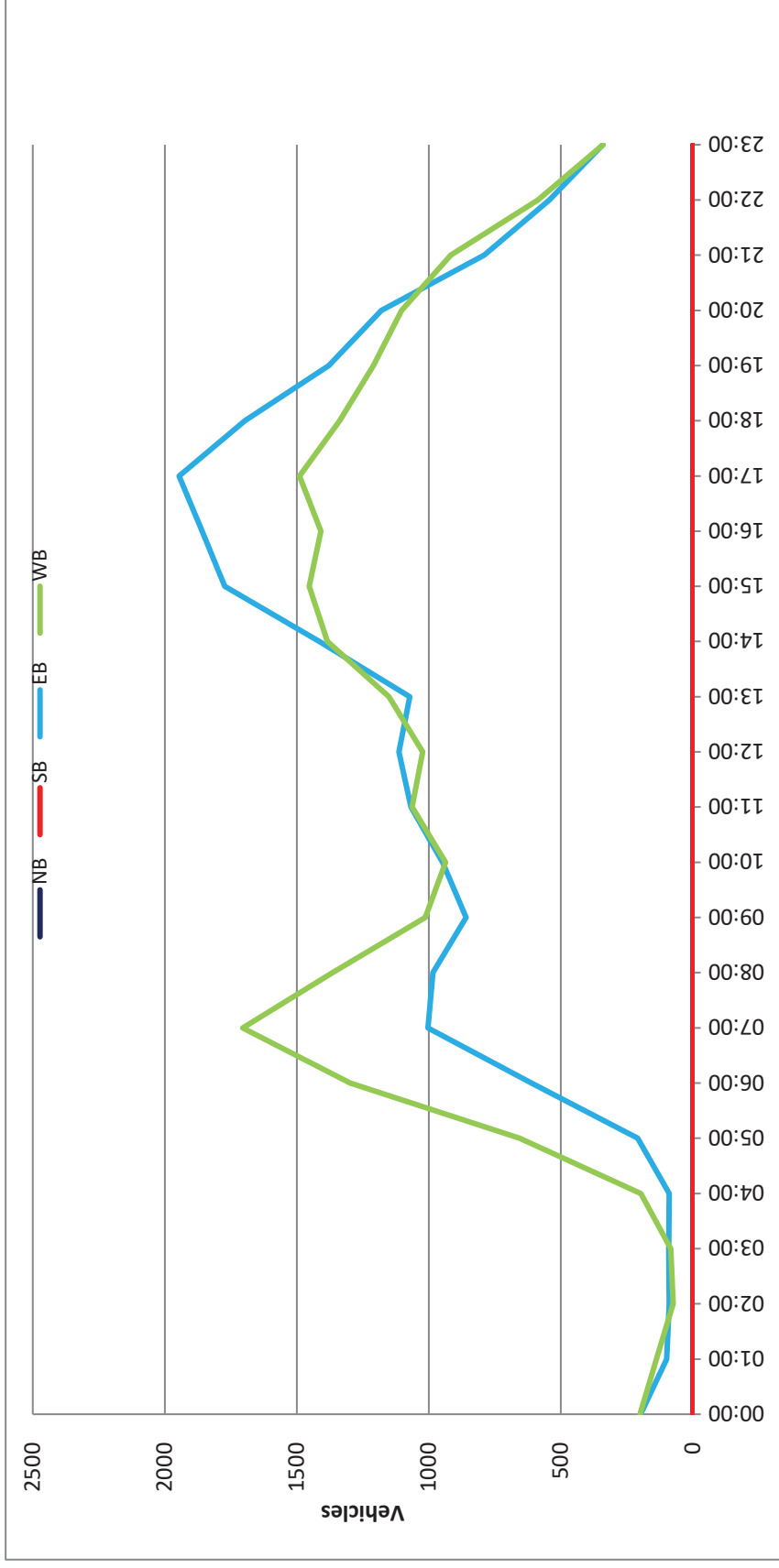
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						21,365	22,141	43,506	
AM Peak Hour			07:30	06:45	07:00		PM Peak Hour			16:30	15:30	17:00			
AM Pk Volume			1109	1776	2709		PM Pk Volume			1949	1497	3436			
Pk Hr Factor			0.790	0.872	0.974		Pk Hr Factor			0.967	0.940	0.973			
7 - 9 Volume	0	0	1989	3069	5058		4 - 6 Volume	0	0	3805	2899	6704			
7 - 9 Peak Hour			07:30	07:00	07:00		4 - 6 Peak Hour			16:30	17:00	17:00			
7 - 9 Pk Volume	0	0	1109	1705	2709		4 - 6 Pk Volume	0	0	1949	1490	3436			
Pk Hr Factor	0.000	0.000	0.790	0.837	0.974		Pk Hr Factor	0.000	0.000	0.967	0.945	0.973			

Project #: CA14_4115_023

City: Chula Vista

Location: Olympic Pkwy from SR-125 NB Ramps to

Date: 4/30/2014



VOLUME

Olympic Pkwy from Eastlake Pkwy to Hunte Pkwy

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_024

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0						7,963	8,326
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00			31	9	40		12:00			93	90	183	
00:15			24	11	35		12:15			58	85	143	
00:30			22	7	29		12:30			77	94	171	
00:45			20	97	10	37	12:45			88	316	100	369
					30	134						188	685
01:00			17	7	24		13:00			88	94	182	
01:15			10	3	13		13:15			80	83	163	
01:30			11	4	15		13:30			74	109	183	
01:45			6	44	5	19	13:45			98	340	110	396
					11	63						208	736
02:00			13	3	16		14:00			99	97	196	
02:15			6	6	12		14:15			130	118	248	
02:30			5	6	11		14:30			133	127	260	
02:45			4	28	6	21	14:45			152	514	138	480
					10	49						290	994
03:00			8	6	14		15:00			205	141	346	
03:15			4	2	6		15:15			178	133	311	
03:30			5	13	18		15:30			180	175	355	
03:45			5	22	9	30	15:45			179	742	142	591
					14	52						321	1333
04:00			3	9	12		16:00			175	126	301	
04:15			4	18	22		16:15			192	140	332	
04:30			6	30	36		16:30			164	133	297	
04:45			4	17	31	88	16:45			192	723	126	525
					35	105						318	1248
05:00			2	53	55		17:00			189	137	326	
05:15			6	73	79		17:15			188	153	341	
05:30			12	88	100		17:30			182	158	340	
05:45			21	41	95	309	17:45			201	760	128	576
					116	350						329	1336
06:00			32	126	158		18:00			177	111	288	
06:15			58	124	182		18:15			174	137	311	
06:30			70	175	245		18:30			167	134	301	
06:45			54	214	213	638	18:45			133	651	114	496
					267	852						247	1147
07:00			81	212	293		19:00			174	102	276	
07:15			84	188	272		19:15			147	101	248	
07:30			110	220	330		19:30			146	95	241	
07:45			143	418	166	786	19:45			141	608	83	381
					309	1204						224	989
08:00			90	180	270		20:00			128	105	233	
08:15			96	160	256		20:15			132	83	215	
08:30			107	148	255		20:30			115	70	185	
08:45			100	393	147	635	20:45			107	482	78	336
					247	1028						185	818
09:00			71	110	181		21:00			104	49	153	
09:15			75	107	182		21:15			96	49	145	
09:30			63	109	172		21:30			78	56	134	
09:45			53	262	90	416	21:45			70	348	52	206
					143	678						122	554
10:00			53	84	137		22:00			70	36	106	
10:15			69	103	172		22:15			71	31	102	
10:30			58	85	143		22:30			56	39	95	
10:45			74	254	106	378	22:45			43	240	34	140
					180	632						77	380
11:00			56	95	151		23:00			51	28	79	
11:15			85	112	197		23:15			38	14	52	
11:30			58	109	167		23:30			37	13	50	
11:45			80	279	89	405	23:45			44	170	13	68
					169	684						57	238
TOTALS			2069	3762	5831		TOTALS			5894	4564	10458	
SPLIT %			35.5%	64.5%	35.8%		SPLIT %			56.4%	43.6%	64.2%	

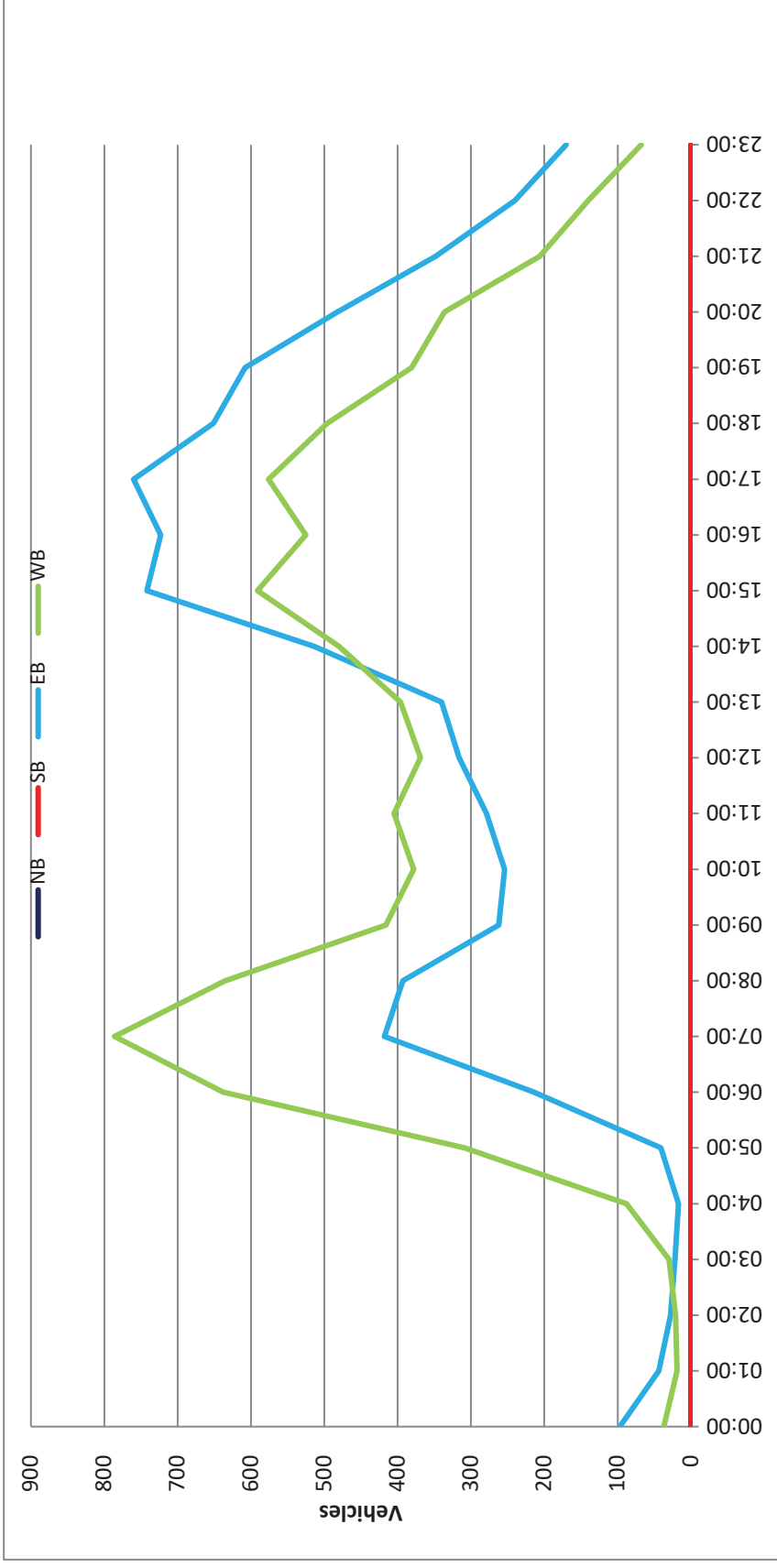
DAILY TOTALS					NB	SB						EB	WB						Total
					0	0						7,963	8,326						16,289
AM Peak Hour			07:30	06:45	07:00		PM Peak Hour			17:00	15:00	17:00							
AM Pk Volume			439	833	1204		PM Pk Volume			760	591	1336							
Pk Hr Factor			0.767	0.947	0.912		Pk Hr Factor			0.945	0.844	0.979							
7 - 9 Volume	0	0	811	1421	2232		4 - 6 Volume	0	0	1483	1101	2584							
7 - 9 Peak Hour			07:30	07:00	07:00		4 - 6 Peak Hour			17:00	17:00	17:00							
7 - 9 Pk Volume	0	0	439	786	1204		4 - 6 Pk Volume	0	0	760	576	1336							
Pk Hr Factor	0.000	0.000	0.767	0.893	0.912		Pk Hr Factor	0.000	0.000	0.945	0.911	0.979							

Project #: CA14_4115_024

City: Chula Vista

Location: Olympic Pkwy from Eastlake Pkwy to Hunte

Date: 4/30/2014



VOLUME

Olympic Pkwy from Hunte Pkwy to Olympic Vista Rd

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_025

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						4,878	5,058	9,936	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			7	2	9		12:00			57	57	114			
00:15			11	3	14		12:15			59	66	125			
00:30			14	5	19		12:30			57	49	106			
00:45			9	4	13	55	12:45			71	244	45	217	116	461
01:00			9	3	12		13:00			57	70	127			
01:15			5	2	7		13:15			60	74	134			
01:30			3	2	5		13:30			66	65	131			
01:45			5	22	3	10	13:45			62	245	41	250	103	495
02:00			2	3	5		14:00			54	60	114			
02:15			4	3	7		14:15			70	65	135			
02:30			6	0	6		14:30			61	84	145			
02:45			4	16	4	10	14:45			84	269	78	287	162	556
03:00			2	6	8		15:00			77	91	168			
03:15			1	5	6		15:15			85	73	158			
03:30			0	6	6		15:30			108	88	196			
03:45			5	8	5	22	15:45			103	373	76	328	179	701
04:00			0	4	4		16:00			99	89	188			
04:15			0	16	16		16:15			112	68	180			
04:30			3	20	23		16:30			114	98	212			
04:45			1	4	26	66	16:45			93	418	79	334	172	752
05:00			3	29	32		17:00			140	89	229			
05:15			7	57	64		17:15			142	75	217			
05:30			9	57	66		17:30			116	75	191			
05:45			17	36	54	197	17:45			100	498	78	317	178	815
06:00			22	62	84		18:00			123	92	215			
06:15			39	111	150		18:15			106	81	187			
06:30			57	121	178		18:30			124	77	201			
06:45			50	168	155	449	18:45			121	474	104	354	225	828
07:00			63	90	153		19:00			118	88	206			
07:15			35	113	148		19:15			93	93	186			
07:30			48	110	158		19:30			90	39	129			
07:45			58	204	127	440	19:45			91	392	52	272	143	664
08:00			53	94	147		20:00			78	81	159			
08:15			50	93	143		20:15			80	48	128			
08:30			66	82	148		20:30			74	41	115			
08:45			69	238	79	348	20:45			76	308	52	222	128	530
09:00			55	96	151		21:00			56	25	81			
09:15			44	71	115		21:15			62	29	91			
09:30			39	70	109		21:30			52	22	74			
09:45			36	174	56	293	21:45			38	208	16	92	54	300
10:00			34	63	97		22:00			35	13	48			
10:15			39	61	100		22:15			39	16	55			
10:30			29	59	88		22:30			30	18	48			
10:45			32	134	53	236	22:45			35	139	13	60	48	199
11:00			33	46	79		23:00			18	6	24			
11:15			54	43	97		23:15			25	9	34			
11:30			44	71	115		23:30			12	10	22			
11:45			66	197	52	212	23:45			13	68	3	28	16	96
TOTALS				1242	2297	3539	TOTALS				3636	2761	6397		
SPLIT %				35.1%	64.9%	35.6%	SPLIT %				56.8%	43.2%	64.4%		

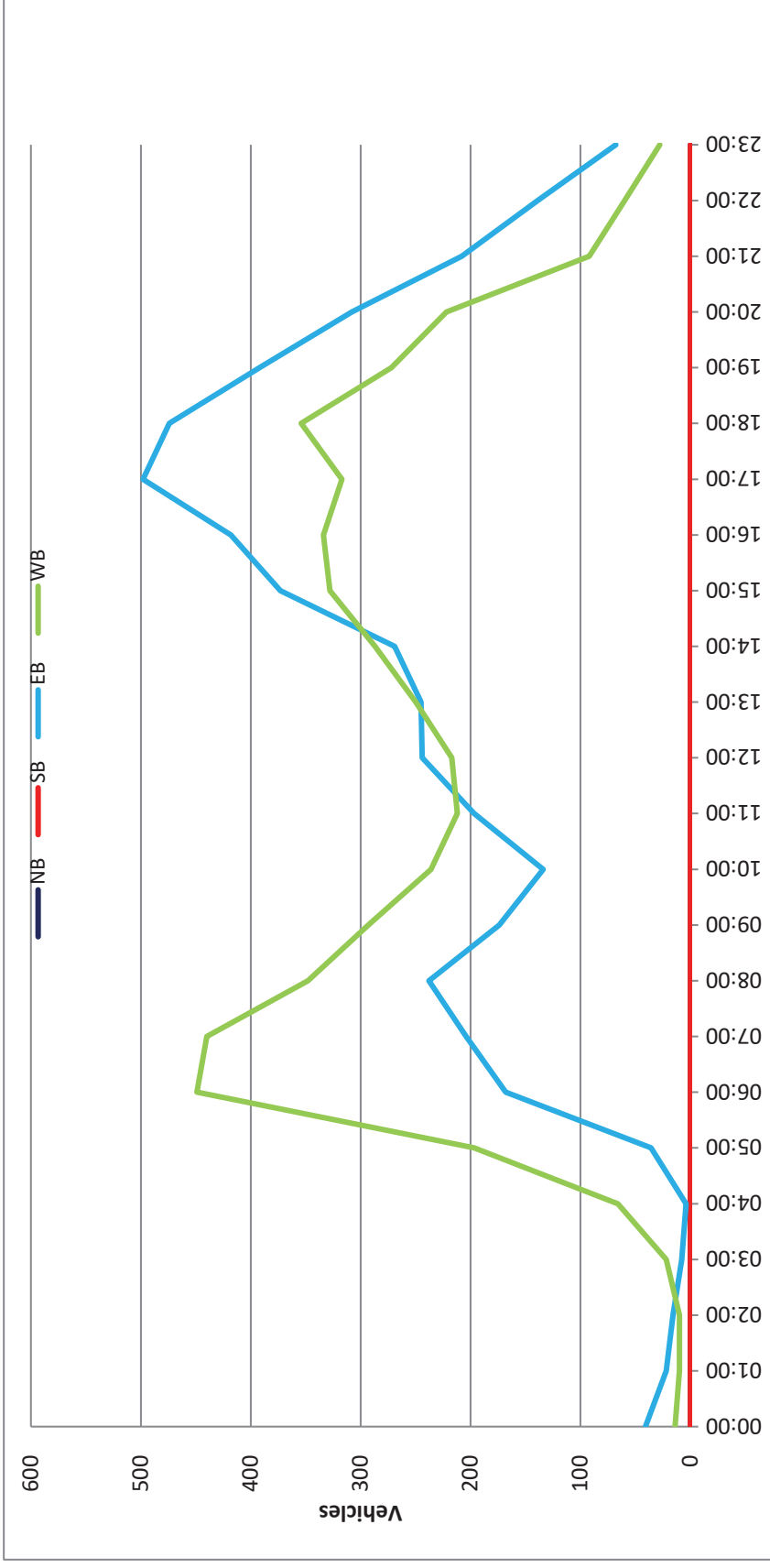
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						4,878	5,058	9,936	
AM Peak Hour			08:15	06:30	06:15		PM Peak Hour			17:00	18:30	16:30			
AM Pk Volume			240	479	686		PM Pk Volume			498	362	830			
Pk Hr Factor			0.870	0.773	0.837		Pk Hr Factor			0.877	0.870	0.906			
7 - 9 Volume	0	0	442	788	1230		4 - 6 Volume	0	0	916	651	1567			
7 - 9 Peak Hour			08:00	07:15	07:00		4 - 6 Peak Hour			17:00	16:30	16:30			
7 - 9 Pk Volume	0	0	238	444	644		4 - 6 Pk Volume	0	0	498	341	830			
Pk Hr Factor	0.000	0.000	0.862	0.874	0.870		Pk Hr Factor	0.000	0.000	0.877	0.870	0.906			

Project #: CA14_4115_025

City: Chula Vista

Location: Olympic Pkwy from Hunte Pkwy to Olympic

Date: 4/30/2014



VOLUME

Paseo Del Rey Bet. E. H Street & E. J Street

Day: Thursday
Date: 3/12/2015City: Chula Vista
Project #: CA15_4080_033

DAILY TOTALS					NB	SB						EB	WB	Total	
					5,909	5,447						0	0	11,356	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00	0	11			11		12:00	73	71			144			
00:15	5	11			16		12:15	78	61			139			
00:30	1	7			8		12:30	85	103			188			
00:45	1	7	0	29	1	36	12:45	89	325	111	346	200	671		
01:00	0	2			2		13:00	103	115			218			
01:15	2	2			4		13:15	83	109			192			
01:30	0	0			0		13:30	82	105			187			
01:45	1	3	3	7	4	10	13:45	103	371	104	433	207	804		
02:00	1	0			1		14:00	90	114			204			
02:15	4	0			4		14:15	97	113			210			
02:30	3	0			3		14:30	78	106			184			
02:45	0	8	2	2	2	10	14:45	90	355	117	450	207	805		
03:00	2	0			2		15:00	81	118			199			
03:15	5	3			8		15:15	101	118			219			
03:30	6	0			6		15:30	100	131			231			
03:45	7	20	0	3	7	23	15:45	99	381	129	496	228	877		
04:00	4	0			4		16:00	97	113			210			
04:15	10	0			10		16:15	87	130			217			
04:30	13	2			15		16:30	105	163			268			
04:45	21	48	1	3	22	51	16:45	98	387	140	546	238	933		
05:00	25	2			27		17:00	114	172			286			
05:15	28	2			30		17:15	108	115			223			
05:30	33	5			38		17:30	116	131			247			
05:45	58	144	4	13	62	157	17:45	115	453	135	553	250	1006		
06:00	83	10			93		18:00	102	131			233			
06:15	78	15			93		18:15	112	134			246			
06:30	80	16			96		18:30	109	95			204			
06:45	114	355	25	66	139	421	18:45	84	407	95	455	179	862		
07:00	113	38			151		19:00	83	96			179			
07:15	134	38			172		19:15	63	85			148			
07:30	143	45			188		19:30	64	82			146			
07:45	152	542	67	188	219	730	19:45	55	265	89	352	144	617		
08:00	103	63			166		20:00	44	63			107			
08:15	102	65			167		20:15	49	69			118			
08:30	92	55			147		20:30	80	40			120			
08:45	122	419	51	234	173	653	20:45	29	202	59	231	88	433		
09:00	112	46			158		21:00	46	45			91			
09:15	86	43			129		21:15	43	47			90			
09:30	82	40			122		21:30	18	34			52			
09:45	96	376	69	198	165	574	21:45	17	124	11	137	28	261		
10:00	83	67			150		22:00	21	35			56			
10:15	76	63			139		22:15	13	17			30			
10:30	59	83			142		22:30	7	9			16			
10:45	70	288	80	293	150	581	22:45	13	54	6	67	19	121		
11:00	95	65			160		23:00	5	9			14			
11:15	76	82			158		23:15	8	11			19			
11:30	90	72			162		23:30	10	6			16			
11:45	87	348	89	308	176	656	23:45	4	27	11	37	15	64		
TOTALS	2558	1344			3902		TOTALS	3351	4103			7454			
SPLIT %	65.6%	34.4%			34.4%		SPLIT %	45.0%	55.0%			65.6%			

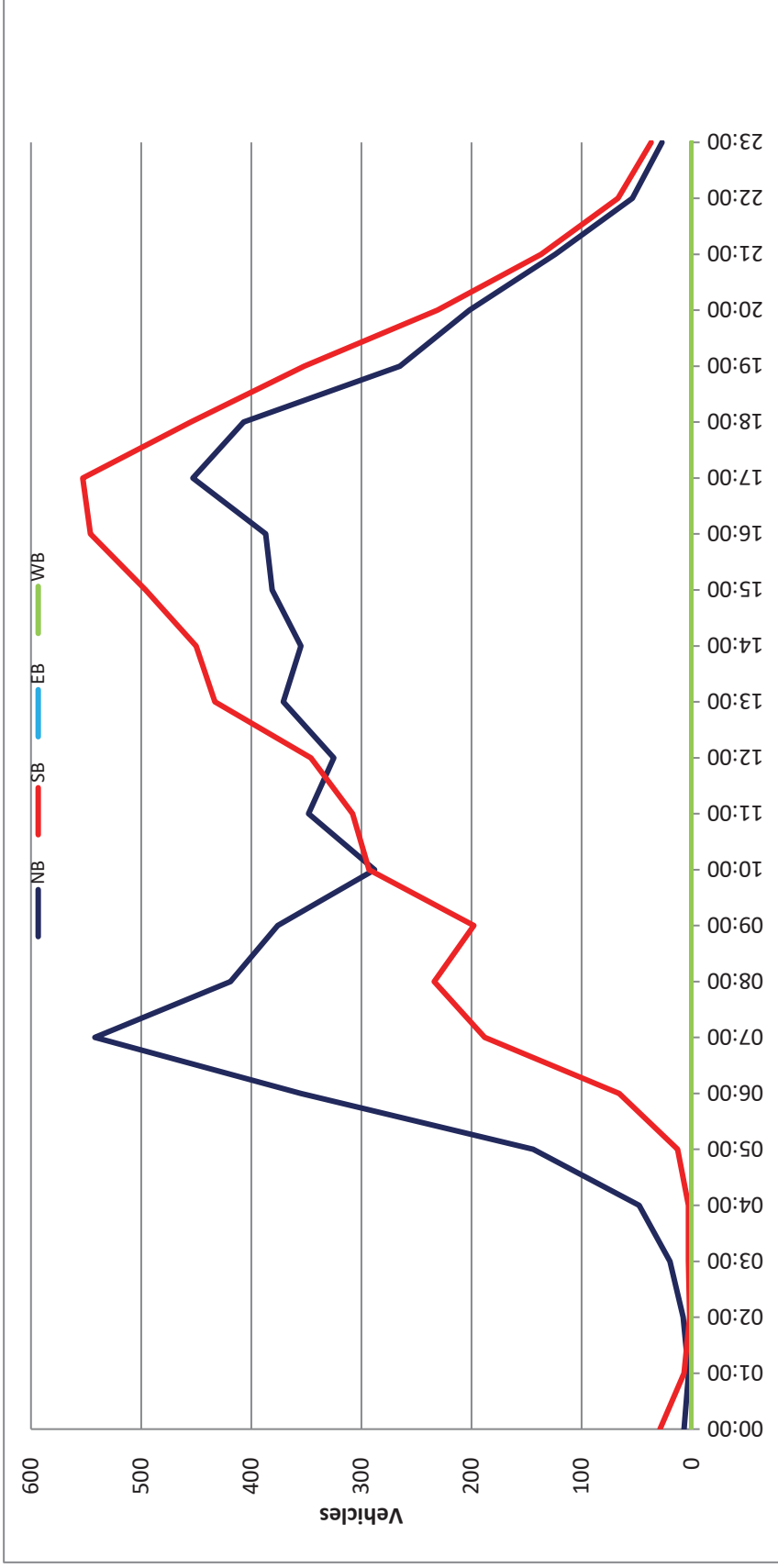
DAILY TOTALS					NB	SB						EB	WB	Total	
					5,909	5,447						0	0	11,356	
AM Peak Hour	07:00	11:45			07:15		PM Peak Hour	17:00	16:15					16:30	
AM Pk Volume	542	324			745		PM Pk Volume	453	605					1015	
Pk Hr Factor	0.891	0.786			0.850		Pk Hr Factor	0.976	0.879					0.887	
7 - 9 Volume	961	422	0	0	1383		4 - 6 Volume	840	1099	0	0			1939	
7 - 9 Peak Hour	07:00	07:45			07:15		4 - 6 Peak Hour	17:00	16:15					16:30	
7 - 9 Pk Volume	542	250	0	0	745		4 - 6 Pk Volume	453	605	0	0			1015	
Pk Hr Factor	0.891	0.933	0.000	0.000	0.850		Pk Hr Factor	0.976	0.879	0.000	0.000			0.887	

Project #: CA15_4080_033

City: Chula Vista

Location: Paseo Del Rey Bet. E. H Street & E. J Street

Date: 3/12/2015



VOLUME

Paseo Ranchero Bet. E. H Street & Rancho Del Rey Parkway

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_034

DAILY TOTALS					NB	SB	EB					WB	Total
					5,192	4,846						0	0
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	4	1			5		12:00	112	55			167	
00:15	5	2			7		12:15	110	159			269	
00:30	9	2			11		12:30	91	118			209	
00:45	4	22	0	5	4	27	12:45	98	411	79	411	177	822
01:00	6	2			8		13:00	85	61			146	
01:15	2	0			2		13:15	62	64			126	
01:30	2	0			2		13:30	71	65			136	
01:45	4	14	2	4	6	18	13:45	83	301	70	260	153	561
02:00	0	1			1		14:00	73	65			138	
02:15	1	1			2		14:15	66	67			133	
02:30	1	0			1		14:30	67	59			126	
02:45	1	3	0	2	1	5	14:45	62	268	57	248	119	516
03:00	2	0			2		15:00	86	62			148	
03:15	3	0			3		15:15	94	95			189	
03:30	2	0			2		15:30	78	78			156	
03:45	1	8	0		1	8	15:45	87	345	99	334	186	679
04:00	4	0			4		16:00	105	122			227	
04:15	7	0			7		16:15	129	108			237	
04:30	6	2			8		16:30	105	111			216	
04:45	7	24	1	3	8	27	16:45	119	458	127	468	246	926
05:00	5	2			7		17:00	130	135			265	
05:15	4	5			9		17:15	132	122			254	
05:30	14	10			24		17:30	116	114			230	
05:45	20	43	22	39	42	82	17:45	142	520	149	520	291	1040
06:00	30	25			55		18:00	104	122			226	
06:15	30	33			63		18:15	90	101			191	
06:30	36	31			67		18:30	88	91			179	
06:45	67	163	55	144	122	307	18:45	102	384	94	408	196	792
07:00	69	77			146		19:00	66	68			134	
07:15	97	106			203		19:15	58	54			112	
07:30	154	126			280		19:30	59	43			102	
07:45	195	515	185	494	380	1009	19:45	65	248	40	205	105	453
08:00	130	140			270		20:00	56	39			95	
08:15	64	96			160		20:15	57	41			98	
08:30	78	62			140		20:30	41	39			80	
08:45	64	336	73	371	137	707	20:45	51	205	30	149	81	354
09:00	42	60			102		21:00	32	42			74	
09:15	44	51			95		21:15	37	34			71	
09:30	47	40			87		21:30	29	15			44	
09:45	67	200	37	188	104	388	21:45	25	123	18	109	43	232
10:00	50	43			93		22:00	11	15			26	
10:15	56	39			95		22:15	16	13			29	
10:30	54	45			99		22:30	11	11			22	
10:45	59	219	42	169	101	388	22:45	9	47	7	46	16	93
11:00	65	54			119		23:00	12	11			23	
11:15	57	60			117		23:15	7	10			17	
11:30	79	59			138		23:30	9	7			16	
11:45	103	304	63	236	166	540	23:45	3	31	5	33	8	64
TOTALS	1851	1655			3506		TOTALS	3341	3191			6532	
SPLIT %	52.8%	47.2%			34.9%		SPLIT %	51.1%	48.9%			65.1%	

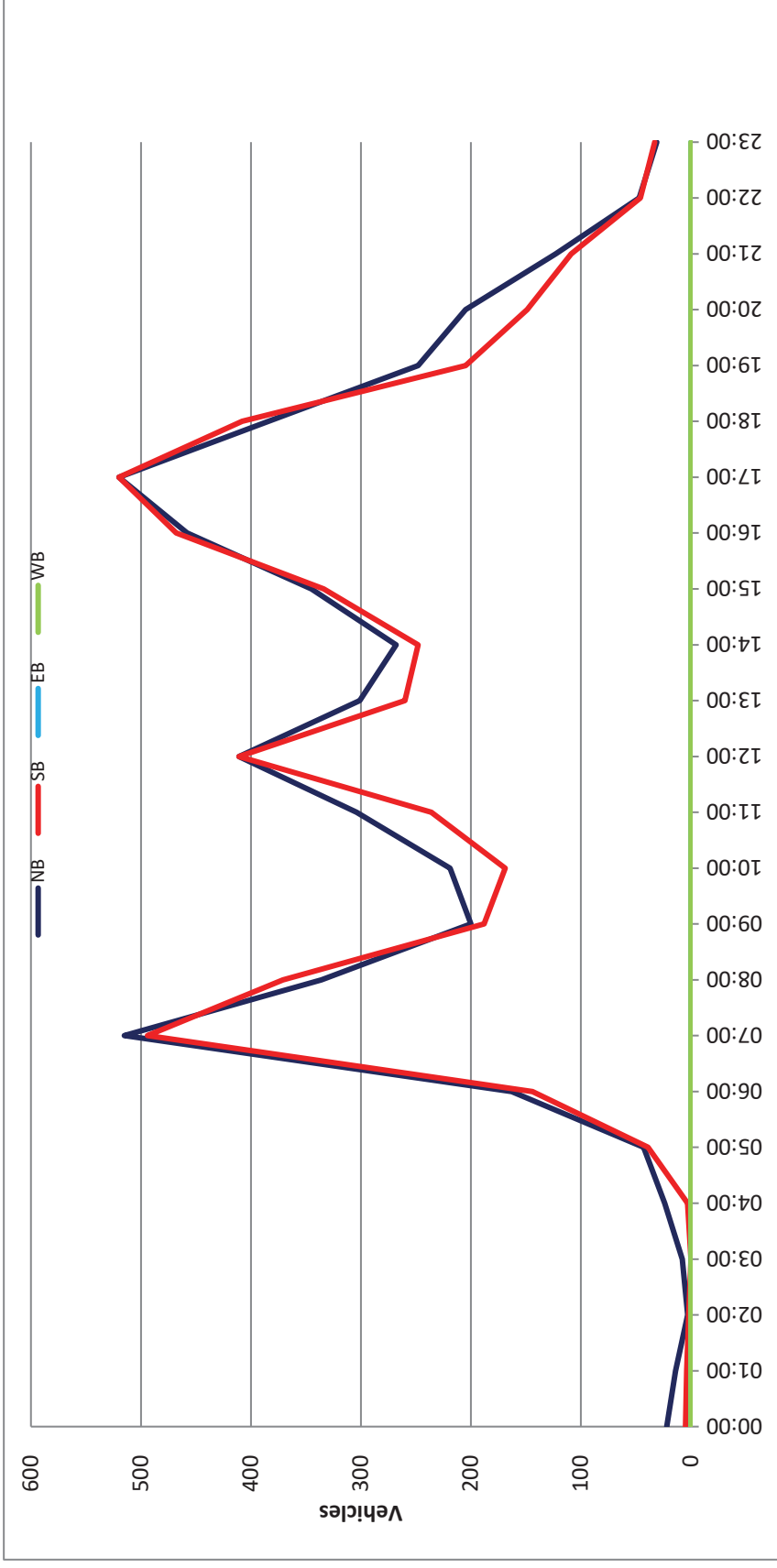
DAILY TOTALS					NB	SB					EB	WB	Total	
					5,192	4,846					0	0	10,038	
AM Peak Hour	07:15	07:15			07:15		PM Peak Hour	17:00	17:00			17:00		
AM Pk Volume	576	557			1133		PM Pk Volume	520	520			1040		
Pk Hr Factor	0.738	0.753			0.745		Pk Hr Factor	0.915	0.872			0.893		
7 - 9 Volume	851	865	0	0	1716		4 - 6 Volume	978	988	0	0	1966		
7 - 9 Peak Hour	07:15	07:15			07:15		4 - 6 Peak Hour	17:00	17:00			17:00		
7 - 9 Pk Volume	576	557	0	0	1133		4 - 6 Pk Volume	520	520	0	0	1040		
Pk Hr Factor	0.738	0.753	0.000	0.000	0.745		Pk Hr Factor	0.915	0.872	0.000	0.000	0.893		

Project #: CA15_4080_034

City: Chula Vista

Location: Paseo Ranchero Bet. E. H Street & Rancho

Date: 3/12/2015



VOLUME

Paseo Ranchero Bet. E. H Street & Telegraph Canyon Rd

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_035

DAILY TOTALS					NB	SB						EB	WB	Total	
					7,477	7,722						0	0	15,199	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00	5	18			23		12:00	94	103			197			
00:15	15	12			27		12:15	92	116			208			
00:30	6	6			12		12:30	81	118			199			
00:45	9	35	4	40	13	75	12:45	117	384	94	431	211	815		
01:00	4	7			11		13:00	101	125			226			
01:15	3	7			10		13:15	80	103			183			
01:30	7	7			14		13:30	82	90			172			
01:45	4	18	2	23	6	41	13:45	74	337	103	421	177	758		
02:00	7	7			14		14:00	110	99			209			
02:15	4	3			7		14:15	130	102			232			
02:30	2	2			4		14:30	136	193			329			
02:45	0	13	2	14	2	27	14:45	185	561	285	679	470	1240		
03:00	5	5			10		15:00	178	171			349			
03:15	2	0			2		15:15	121	163			284			
03:30	6	2			8		15:30	131	161			292			
03:45	2	15	2	9	4	24	15:45	140	570	108	603	248	1173		
04:00	4	2			6		16:00	142	179			321			
04:15	8	2			10		16:15	114	215			329			
04:30	10	8			18		16:30	134	180			314			
04:45	10	32	9	21	19	53	16:45	150	540	164	738	314	1278		
05:00	6	17			23		17:00	151	252			403			
05:15	20	9			29		17:15	180	190			370			
05:30	25	22			47		17:30	144	166			310			
05:45	36	87	21	69	57	156	17:45	134	609	176	784	310	1393		
06:00	65	25			90		18:00	135	144			279			
06:15	85	49			134		18:15	132	128			260			
06:30	75	84			159		18:30	125	133			258			
06:45	143	368	178	336	321	704	18:45	131	523	131	536	262	1059		
07:00	205	188			393		19:00	104	123			227			
07:15	194	154			348		19:15	78	107			185			
07:30	278	139			417		19:30	92	118			210			
07:45	308	985	132	613	440	1598	19:45	101	375	81	429	182	804		
08:00	112	107			219		20:00	88	114			202			
08:15	100	112			212		20:15	73	108			181			
08:30	117	72			189		20:30	65	103			168			
08:45	115	444	83	374	198	818	20:45	62	288	59	384	121	672		
09:00	74	80			154		21:00	54	59			113			
09:15	63	65			128		21:15	68	51			119			
09:30	83	66			149		21:30	42	44			86			
09:45	78	298	60	271	138	569	21:45	43	207	44	198	87	405		
10:00	70	79			149		22:00	35	30			65			
10:15	64	72			136		22:15	28	24			52			
10:30	77	68			145		22:30	25	22			47			
10:45	69	280	67	286	136	566	22:45	18	106	21	97	39	203		
11:00	80	78			158		23:00	15	15			30			
11:15	76	67			143		23:15	15	17			32			
11:30	84	91			175		23:30	16	8			24			
11:45	113	353	76	312	189	665	23:45	3	49	14	54	17	103		
TOTALS	2928	2368			5296		TOTALS	4549	5354			9903			
SPLIT %	55.3%	44.7%			34.8%		SPLIT %	45.9%	54.1%			65.2%			

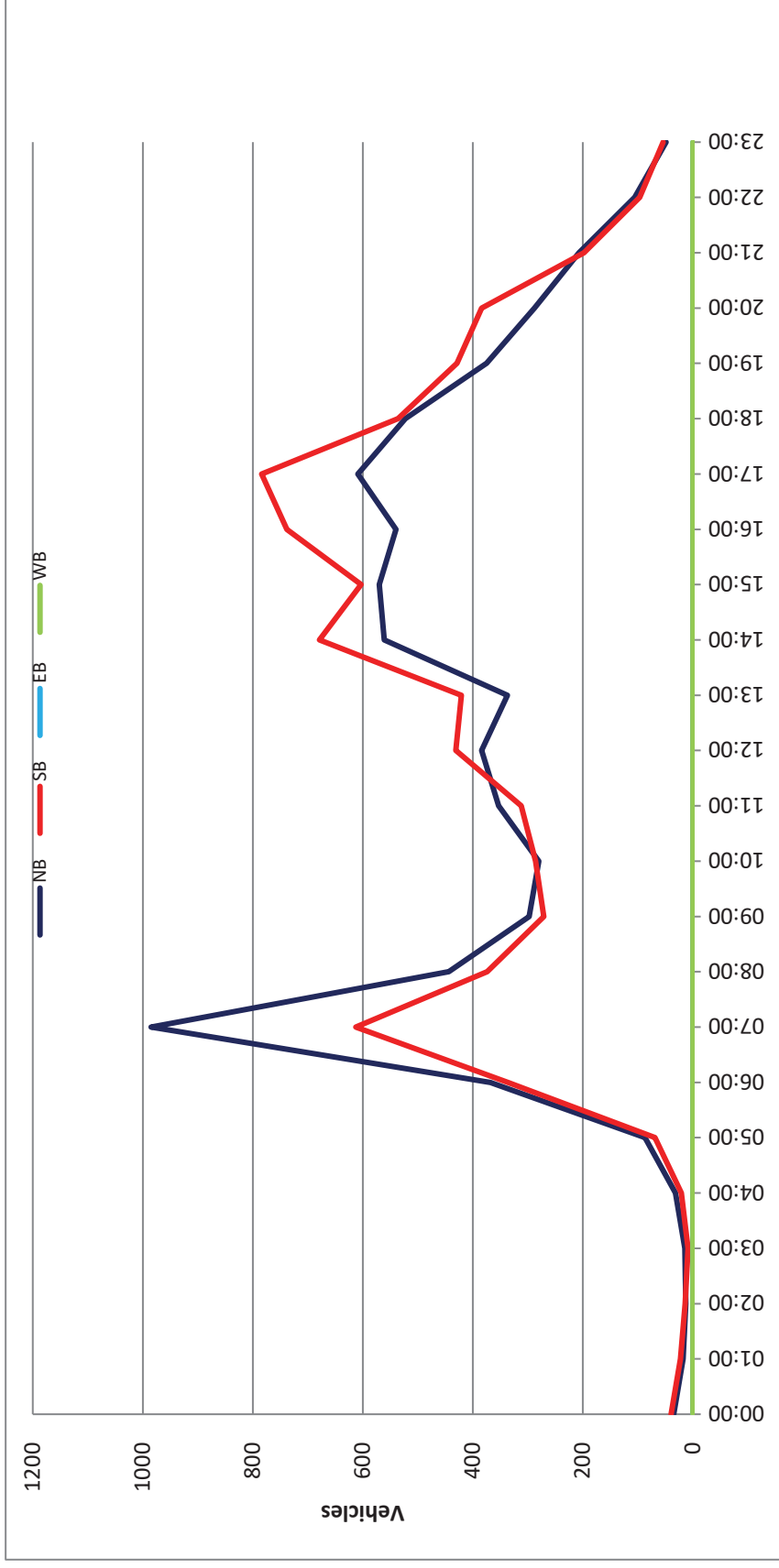
DAILY TOTALS					NB	SB						EB	WB	Total	
					7,477	7,722						0	0	15,199	
AM Peak Hour	07:00	06:45			07:00		PM Peak Hour	14:15	14:30			14:30			
AM Pk Volume	985	659			1598		PM Pk Volume	629	812			1432			
Pk Hr Factor	0.800	0.876			0.908		Pk Hr Factor	0.850	0.712			0.762			
7 - 9 Volume	1429	987	0	0	2416		4 - 6 Volume	1149	1522	0	0	2671			
7 - 9 Peak Hour	07:00	07:00			07:00		4 - 6 Peak Hour	16:45	16:15			16:30			
7 - 9 Pk Volume	985	613	0	0	1598		4 - 6 Pk Volume	625	811	0	0	1401			
Pk Hr Factor	0.800	0.815	0.000	0.000	0.908		Pk Hr Factor	0.868	0.805	0.000	0.000	0.869			

Project #: CA15_4080_035

City: Chula Vista

Location: Paseo Ranchero Bet. E. H Street & Telegraph

Date: 3/12/2015



VOLUME

Heritage Rd Bet. Telegraph Canyon Road & East Palomar Street

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_036

DAILY TOTALS					NB	SB						EB	WB	Total	
					10,449	10,638						0	0	21,087	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00	7	36			43		12:00	113	118			231			
00:15	16	38			54		12:15	110	168			278			
00:30	5	14			19		12:30	120	137			257			
00:45	12	40	18	106	30	146	12:45	154	497	145	568	299	1065		
01:00	6	26			32		13:00	135	126			261			
01:15	9	13			22		13:15	126	139			265			
01:30	8	11			19		13:30	110	118			228			
01:45	7	30	13	63	20	93	13:45	98	469	135	518	233	987		
02:00	9	12			21		14:00	153	136			289			
02:15	12	5			17		14:15	159	171			330			
02:30	6	5			11		14:30	210	203			413			
02:45	4	31	3	25	7	56	14:45	270	792	307	817	577	1609		
03:00	8	9			17		15:00	229	232			461			
03:15	8	5			13		15:15	161	239			400			
03:30	19	4			23		15:30	199	229			428			
03:45	15	50	9	27	24	77	15:45	161	750	188	888	349	1638		
04:00	18	4			22		16:00	164	240			404			
04:15	30	7			37		16:15	164	228			392			
04:30	30	7			37		16:30	173	207			380			
04:45	50	128	14	32	64	160	16:45	188	689	265	940	453	1629		
05:00	63	10			73		17:00	197	238			435			
05:15	81	11			92		17:15	228	229			457			
05:30	102	18			120		17:30	164	222			386			
05:45	130	376	30	69	160	445	17:45	165	754	218	907	383	1661		
06:00	135	22			157		18:00	157	204			361			
06:15	135	53			188		18:15	154	194			348			
06:30	177	92			269		18:30	154	194			348			
06:45	249	696	181	348	430	1044	18:45	148	613	179	771	327	1384		
07:00	354	271			625		19:00	100	184			284			
07:15	386	303			689		19:15	104	186			290			
07:30	310	156			466		19:30	103	168			271			
07:45	244	1294	141	871	385	2165	19:45	109	416	144	682	253	1098		
08:00	183	122			305		20:00	100	146			246			
08:15	161	135			296		20:15	82	154			236			
08:30	188	103			291		20:30	68	161			229			
08:45	174	706	112	472	286	1178	20:45	61	311	115	576	176	887		
09:00	132	94			226		21:00	52	129			181			
09:15	131	81			212		21:15	59	95			154			
09:30	142	93			235		21:30	50	93			143			
09:45	98	503	94	362	192	865	21:45	45	206	68	385	113	591		
10:00	104	82			186		22:00	55	77			132			
10:15	110	106			216		22:15	34	54			88			
10:30	108	88			196		22:30	37	57			94			
10:45	98	420	108	384	206	804	22:45	28	154	42	230	70	384		
11:00	104	109			213		23:00	20	54			74			
11:15	105	97			202		23:15	17	36			53			
11:30	128	115			243		23:30	15	30			45			
11:45	129	466	120	441	249	907	23:45	6	58	36	156	42	214		
TOTALS	4740	3200			7940		TOTALS	5709	7438			13147			
SPLIT %	59.7%	40.3%			37.7%		SPLIT %	43.4%	56.6%			62.3%			

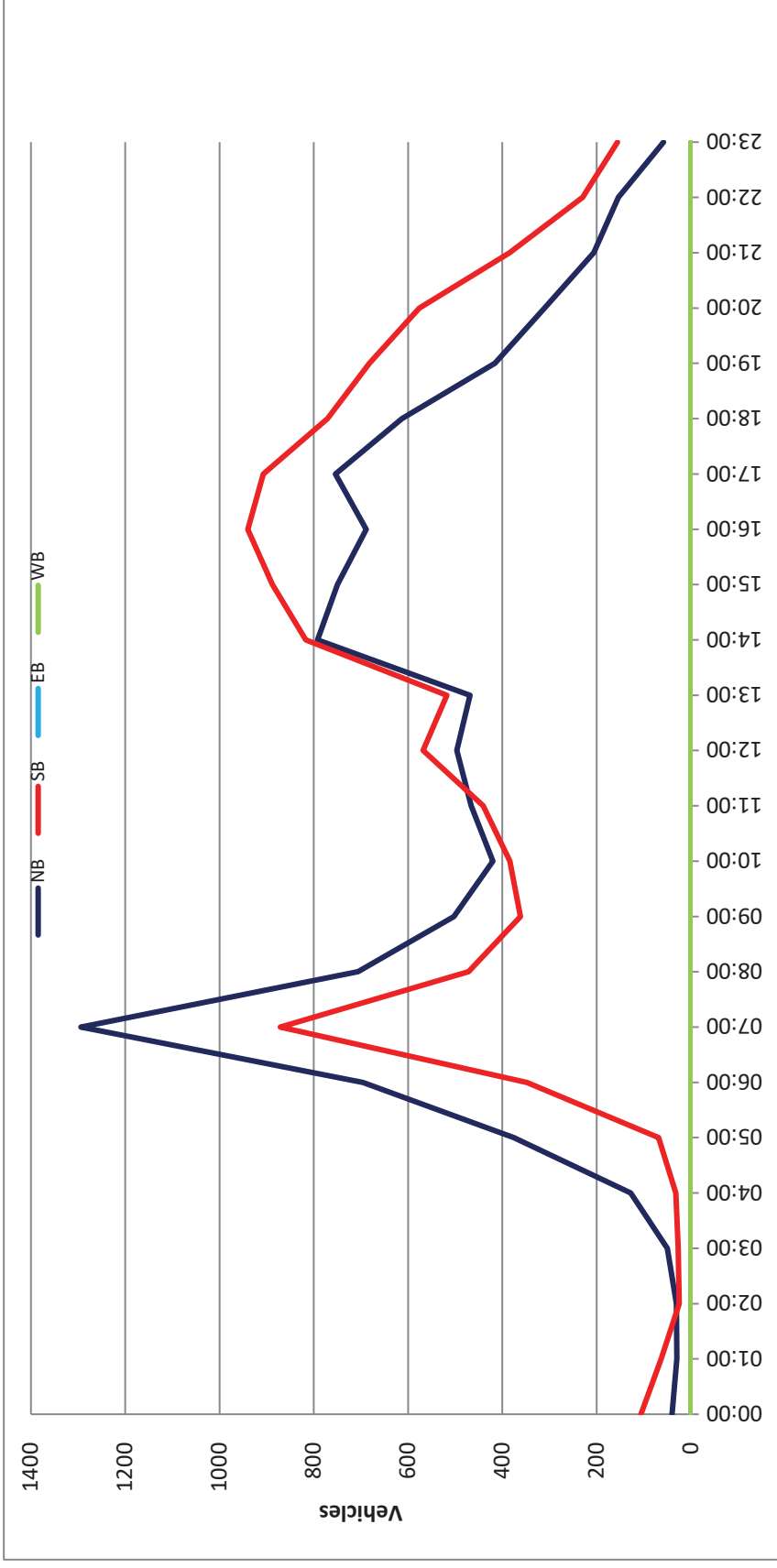
DAILY TOTALS					NB	SB						EB	WB	Total	
					10,449	10,638						0	0	21,087	
AM Peak Hour	06:45	06:45			06:45		PM Peak Hour	14:30	14:45			14:45			
AM Pk Volume	1299	911			2210		PM Pk Volume	870	1007			1866			
Pk Hr Factor	0.841	0.752			0.802		Pk Hr Factor	0.806	0.820			0.808			
7 - 9 Volume	2000	1343	0	0	3343		4 - 6 Volume	1443	1847	0	0	3290			
7 - 9 Peak Hour	07:00	07:00			07:00		4 - 6 Peak Hour	16:30	16:45			16:45			
7 - 9 Pk Volume	1294	871	0	0	2165		4 - 6 Pk Volume	786	954	0	0	1731			
Pk Hr Factor	0.838	0.719	0.000	0.000	0.786		Pk Hr Factor	0.862	0.900	0.000	0.000	0.947			

Project #: CA15_4080_036

City: Chula Vista

Location: Heritage Rd Bet. Telegraph Canyon Road &

Date: 3/12/2015



VOLUME

La Media Road Bet. Telegraph Canyon Road & East Palomar Street

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_039

DAILY TOTALS					NB	SB	EB					WB	Total
					13,284	13,136						0	0
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	26	37			63		12:00	146	180			326	
00:15	15	27			42		12:15	158	173			331	
00:30	9	20			29		12:30	185	171			356	
00:45	8	58	13	97	21	155	12:45	186	675	189	713	375	1388
01:00	11	17			28		13:00	175	211			386	
01:15	9	14			23		13:15	204	222			426	
01:30	7	12			19		13:30	162	184			346	
01:45	8	35	10	53	18	88	13:45	194	735	186	803	380	1538
02:00	11	10			21		14:00	171	195			366	
02:15	9	12			21		14:15	162	223			385	
02:30	10	16			26		14:30	182	255			437	
02:45	8	38	6	44	14	82	14:45	263	778	311	984	574	1762
03:00	9	4			13		15:00	257	250			507	
03:15	4	3			7		15:15	225	269			494	
03:30	16	0			16		15:30	229	237			466	
03:45	16	45	5	12	21	57	15:45	228	939	248	1004	476	1943
04:00	11	9			20		16:00	230	237			467	
04:15	28	8			36		16:15	220	271			491	
04:30	36	3			39		16:30	221	254			475	
04:45	43	118	9	29	52	147	16:45	241	912	234	996	475	1908
05:00	47	10			57		17:00	253	307			560	
05:15	80	12			92		17:15	211	299			510	
05:30	84	18			102		17:30	244	268			512	
05:45	107	318	31	71	138	389	17:45	232	940	260	1134	492	2074
06:00	128	30			158		18:00	185	291			476	
06:15	136	53			189		18:15	215	249			464	
06:30	185	93			278		18:30	221	252			473	
06:45	271	720	149	325	420	1045	18:45	203	824	239	1031	442	1855
07:00	294	258			552		19:00	190	255			445	
07:15	367	244			611		19:15	157	225			382	
07:30	374	200			574		19:30	170	225			395	
07:45	332	1367	157	859	489	2226	19:45	154	671	187	892	341	1563
08:00	237	145			382		20:00	132	210			342	
08:15	231	138			369		20:15	127	187			314	
08:30	263	133			396		20:30	112	171			283	
08:45	242	973	150	566	392	1539	20:45	96	467	189	757	285	1224
09:00	183	129			312		21:00	89	151			240	
09:15	151	108			259		21:15	70	167			237	
09:30	213	138			351		21:30	71	129			200	
09:45	202	749	163	538	365	1287	21:45	66	296	110	557	176	853
10:00	167	138			305		22:00	64	102			166	
10:15	148	103			251		22:15	41	84			125	
10:30	166	129			295		22:30	48	71			119	
10:45	141	622	196	566	337	1188	22:45	39	192	68	325	107	517
11:00	133	158			291		23:00	28	40			68	
11:15	164	131			295		23:15	20	52			72	
11:30	214	140			354		23:30	20	33			53	
11:45	209	720	187	616	396	1336	23:45	24	92	39	164	63	256
TOTALS	5763	3776			9539		TOTALS	7521	9360			16881	
SPLIT %	60.4%	39.6%			36.1%		SPLIT %	44.6%	55.4%			63.9%	

DAILY TOTALS					NB	SB	EB					WB	Total
					13,284	13,136						0	0

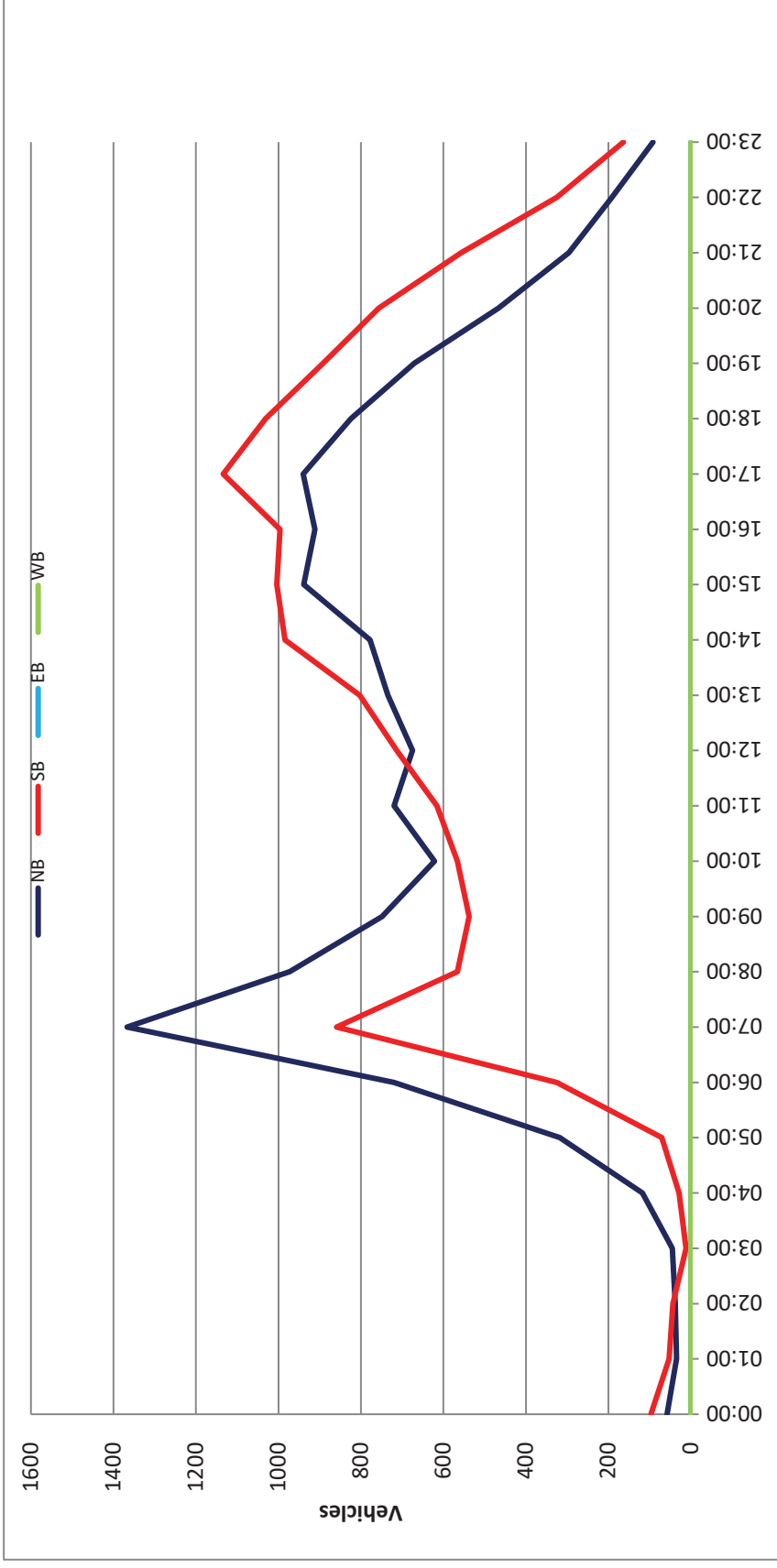
AM Peak Hour	07:00	07:00			07:00	PM Peak Hour	14:45	17:00			17:00
AM Pk Volume	1367	859			2226	PM Pk Volume	974	1134			2074
Pk Hr Factor	0.914	0.832			0.911	Pk Hr Factor	0.926	0.923			0.926
7 - 9 Volume	2340	1425	0	0	3765	4 - 6 Volume	1852	2130	0	0	3982
7 - 9 Peak Hour	07:00	07:00			07:00	4 - 6 Peak Hour	16:45	17:00			17:00
7 - 9 Pk Volume	1367	859	0	0	2226	4 - 6 Pk Volume	949	1134	0	0	2074
Pk Hr Factor	0.914	0.832	0.000	0.000	0.911	Pk Hr Factor	0.938	0.923	0.000	0.000	0.926

Project #: CA15_4080_039

City: Chula Vista

Location: La Media Road Bet. Telegraph Canyon Road

Date: 3/12/2015



VOLUME

Eastlake Parkway Bet. Fenton Street & Telegraph Canyon Road

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_046

DAILY TOTALS					NB	SB					EB	WB	Total
					11,649	12,475					0	0	24,124
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	15	10			25	12:00	228	232			460		
00:15	11	13			24	12:15	184	205			389		
00:30	13	6			19	12:30	174	215			389		
00:45	8	47	13	42	21	12:45	175	761	211	863	386	1624	
01:00	8	12			20	13:00	170	187			357		
01:15	7	7			14	13:15	220	208			428		
01:30	12	5			17	13:30	193	212			405		
01:45	8	35	1	25	9	13:45	188	771	237	844	425	1615	
02:00	9	9			18	14:00	175	234			409		
02:15	5	6			11	14:15	229	236			465		
02:30	3	6			9	14:30	252	269			521		
02:45	13	30	3	24	16	14:45	210	866	224	963	434	1829	
03:00	14	4			18	15:00	205	222			427		
03:15	11	5			16	15:15	197	214			411		
03:30	10	3			13	15:30	220	222			442		
03:45	24	59	6	18	30	15:45	232	854	245	903	477	1757	
04:00	31	5			36	16:00	188	259			447		
04:15	25	13			38	16:15	206	222			428		
04:30	28	5			33	16:30	210	231			441		
04:45	30	114	14	37	44	16:45	228	832	241	953	469	1785	
05:00	18	19			37	17:00	233	287			520		
05:15	26	15			41	17:15	200	265			465		
05:30	40	21			61	17:30	204	246			450		
05:45	56	140	22	77	78	17:45	250	887	227	1025	477	1912	
06:00	40	33			73	18:00	205	245			450		
06:15	53	52			105	18:15	230	233			463		
06:30	84	124			208	18:30	208	236			444		
06:45	131	308	228	437	359	18:45	229	872	253	967	482	1839	
07:00	131	108			239	19:00	188	258			446		
07:15	138	74			212	19:15	181	219			400		
07:30	106	81			187	19:30	169	200			369		
07:45	201	576	92	355	293	19:45	174	712	184	861	358	1573	
08:00	169	122			291	20:00	142	226			368		
08:15	199	146			345	20:15	130	164			294		
08:30	183	128			311	20:30	112	148			260		
08:45	185	736	149	545	334	20:45	69	453	162	700	231	1153	
09:00	185	197			382	21:00	76	136			212		
09:15	155	172			327	21:15	61	95			156		
09:30	165	166			331	21:30	58	89			147		
09:45	169	674	172	707	341	21:45	41	236	76	396	117	632	
10:00	163	170			333	22:00	46	62			108		
10:15	176	172			348	22:15	35	53			88		
10:30	177	147			324	22:30	26	34			60		
10:45	177	693	171	660	348	22:45	19	126	31	180	50	306	
11:00	201	193			394	23:00	19	25			44		
11:15	198	214			412	23:15	19	22			41		
11:30	191	200			391	23:30	19	22			41		
11:45	204	794	204	811	408	23:45	16	73	13	82	29	155	
TOTALS	4206	3738			7944	TOTALS	7443	8737			16180		
SPLIT %	52.9%	47.1%			32.9%	SPLIT %	46.0%	54.0%			67.1%		

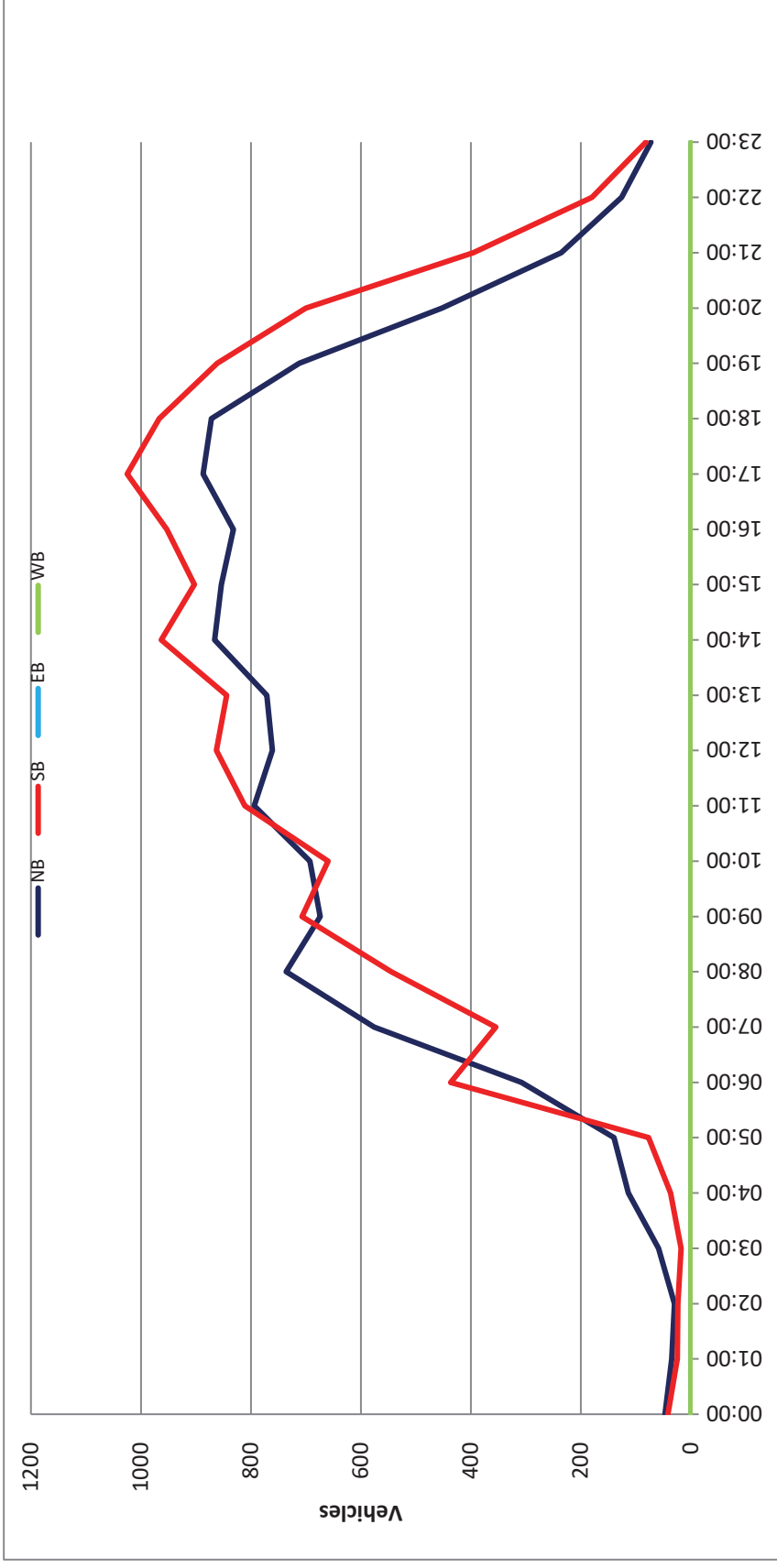
DAILY TOTALS					NB	SB					EB	WB	Total
					11,649	12,475					0	0	24,124
AM Peak Hour	11:15	11:45			11:15	PM Peak Hour	14:15	16:45			17:00		
AM Pk Volume	821	856			1671	PM Pk Volume	896	1039			1912		
Pk Hr Factor	0.900	0.922			0.908	Pk Hr Factor	0.889	0.905			0.919		
7 - 9 Volume	1312	900	0	0	2212	4 - 6 Volume	1719	1978	0	0	3697		
7 - 9 Peak Hour	07:45	08:00			08:00	4 - 6 Peak Hour	17:00	16:45			17:00		
7 - 9 Pk Volume	752	545	0	0	1281	4 - 6 Pk Volume	887	1039	0	0	1912		
Pk Hr Factor	0.935	0.914	0.000	0.000	0.928	Pk Hr Factor	0.887	0.905	0.000	0.000	0.919		

Project #: CA15_4080_046

City: Chula Vista

Location: Eastlake Parkway Bet. Fenton Street &

Date: 3/12/2015



VOLUME

Eastlake Parkway Bet. Telegraph Canyon Road & Olympic Parkway

Day: Thursday
Date: 3/12/2015

City: Chula Vista
Project #: CA15_4080_047

DAILY TOTALS					NB	SB						EB	WB	Total
					14,110	15,726						0	0	29,836
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL		
00:00	40	18			58		12:00	221	258			479		
00:15	17	24			41		12:15	205	240			445		
00:30	18	27			45		12:30	189	221			410		
00:45	12	87	23	92	35	179	12:45	169	784	253	972	422	1756	
01:00	18	17			35		13:00	224	213			437		
01:15	13	12			25		13:15	224	242			466		
01:30	13	10			23		13:30	216	256			472		
01:45	8	52	12	51	20	103	13:45	226	890	255	966	481	1856	
02:00	15	6			21		14:00	192	290			482		
02:15	4	11			15		14:15	291	277			568		
02:30	8	9			17		14:30	326	277			603		
02:45	6	33	5	31	11	64	14:45	231	1040	278	1122	509	2162	
03:00	10	4			14		15:00	251	283			534		
03:15	7	6			13		15:15	233	289			522		
03:30	10	6			16		15:30	283	308			591		
03:45	17	44	8	24	25	68	15:45	240	1007	276	1156	516	2163	
04:00	20	7			27		16:00	223	307			530		
04:15	12	5			17		16:15	257	299			556		
04:30	29	8			37		16:30	250	313			563		
04:45	29	90	17	37	46	127	16:45	282	1012	326	1245	608	2257	
05:00	32	25			57		17:00	258	344			602		
05:15	62	10			72		17:15	256	346			602		
05:30	61	15			76		17:30	227	315			542		
05:45	89	244	31	81	120	325	17:45	255	996	336	1341	591	2337	
06:00	62	39			101		18:00	264	305			569		
06:15	99	76			175		18:15	227	314			541		
06:30	146	232			378		18:30	268	267			535		
06:45	240	547	478	825	718	1372	18:45	249	1008	268	1154	517	2162	
07:00	293	280			573		19:00	249	335			584		
07:15	182	130			312		19:15	224	276			500		
07:30	152	115			267		19:30	197	262			459		
07:45	176	803	159	684	335	1487	19:45	222	892	244	1117	466	2009	
08:00	182	147			329		20:00	191	253			444		
08:15	230	156			386		20:15	155	220			375		
08:30	183	152			335		20:30	158	190			348		
08:45	192	787	167	622	359	1409	20:45	131	635	173	836	304	1471	
09:00	190	164			354		21:00	157	192			349		
09:15	173	153			326		21:15	120	141			261		
09:30	189	158			347		21:30	96	129			225		
09:45	198	750	190	665	388	1415	21:45	84	457	103	565	187	1022	
10:00	167	181			348		22:00	86	95			181		
10:15	187	172			359		22:15	70	83			153		
10:30	184	190			374		22:30	54	74			128		
10:45	201	739	201	744	402	1483	22:45	41	251	59	311	100	562	
11:00	201	245			446		23:00	27	55			82		
11:15	201	226			427		23:15	35	46			81		
11:30	210	211			421		23:30	29	41			70		
11:45	238	850	229	911	467	1761	23:45	21	112	32	174	53	286	
TOTALS	5026	4767			9793		TOTALS	9084	10959			20043		
SPLIT %	51.3%	48.7%			32.8%		SPLIT %	45.3%	54.7%			67.2%		

DAILY TOTALS					NB	SB						EB	WB	Total
					14,110	15,726						0	0	29,836

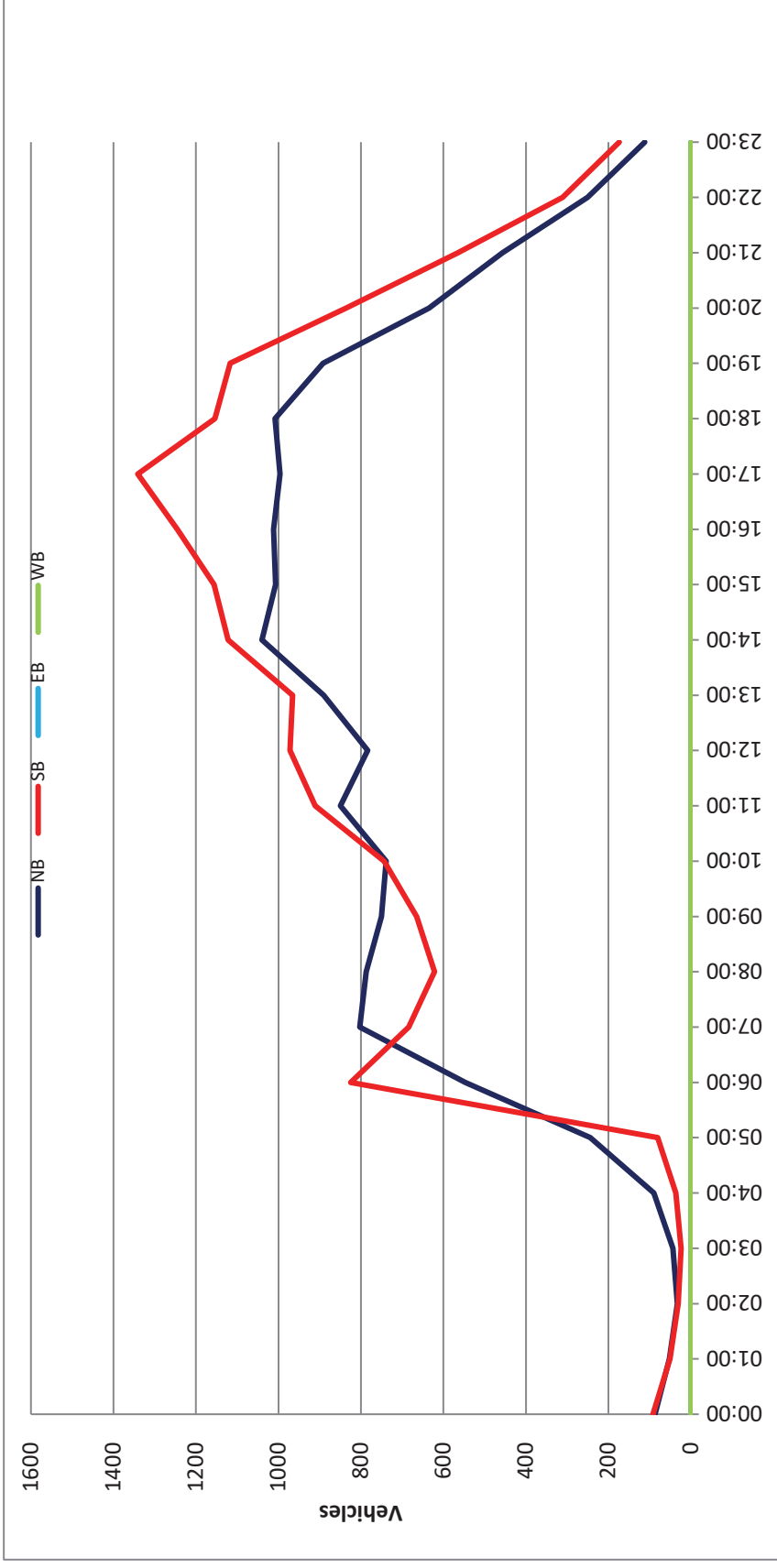
AM Peak Hour	11:30	06:30			06:30	PM Peak Hour	14:15	17:00			16:30
AM Pk Volume	874	1120			1981	PM Pk Volume	1099	1341			2375
Pk Hr Factor	0.918	0.586			0.690	Pk Hr Factor	0.843	0.969			0.977
7 - 9 Volume	1590	1306	0	0	2896	4 - 6 Volume	2008	2586	0	0	4594
7 - 9 Peak Hour	07:00	07:00			07:00	4 - 6 Peak Hour	16:15	17:00			16:30
7 - 9 Pk Volume	803	684	0	0	1487	4 - 6 Pk Volume	1047	1341	0	0	2375
Pk Hr Factor	0.685	0.611	0.000	0.000	0.649	Pk Hr Factor	0.928	0.969	0.000	0.000	0.977

Project #: CA15_4080_047

City: Chula Vista

Location: Eastlake Parkway Bet. Telegraph Canyon

Date: 3/12/2015



VOLUME

Eastlake Parkway Bet. Olympic Parkway & Hunte Pkwy

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_048

DAILY TOTALS					NB	SB						EB	WB						Total
					8,642	9,109						0	0						17,751
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL							
00:00	22	25			47		12:00	123	131			254							
00:15	14	21			35		12:15	109	151			260							
00:30	14	12			26		12:30	114	127			241							
00:45	8	58	9	67	17	125	12:45	120	466	125	534	245	1000						
01:00	14	14			28		13:00	121	150			271							
01:15	12	6			18		13:15	153	157			310							
01:30	11	6			17		13:30	149	137			286							
01:45	10	47	6	32	16	79	13:45	139	562	162	606	301	1168						
02:00	6	8			14		14:00	149	152			301							
02:15	9	5			14		14:15	143	147			290							
02:30	2	3			5		14:30	128	175			303							
02:45	5	22	0	16	5	38	14:45	161	581	159	633	320	1214						
03:00	4	3			7		15:00	183	153			336							
03:15	5	5			10		15:15	150	180			330							
03:30	8	3			11		15:30	215	158			373							
03:45	6	23	2	13	8	36	15:45	160	708	166	657	326	1365						
04:00	10	4			14		16:00	139	155			294							
04:15	3	5			8		16:15	146	179			325							
04:30	10	1			11		16:30	162	155			317							
04:45	17	40	6	16	23	56	16:45	164	611	179	668	343	1279						
05:00	13	4			17		17:00	146	183			329							
05:15	26	9			35		17:15	133	204			337							
05:30	31	6			37		17:30	156	198			354							
05:45	44	114	13	32	57	146	17:45	155	590	204	789	359	1379						
06:00	34	30			64		18:00	173	217			390							
06:15	45	28			73		18:15	164	206			370							
06:30	65	49			114		18:30	171	171			342							
06:45	83	227	72	179	155	406	18:45	146	654	199	793	345	1447						
07:00	83	103			186		19:00	142	194			336							
07:15	101	73			174		19:15	150	191			341							
07:30	113	113			226		19:30	170	168			338							
07:45	153	450	122	411	275	861	19:45	152	614	150	703	302	1317						
08:00	137	102			239		20:00	158	147			305							
08:15	145	126			271		20:15	131	147			278							
08:30	131	77			208		20:30	141	120			261							
08:45	103	516	102	407	205	923	20:45	110	540	113	527	223	1067						
09:00	92	82			174		21:00	126	125			251							
09:15	72	106			178		21:15	86	93			179							
09:30	94	99			193		21:30	101	92			193							
09:45	81	339	82	369	163	708	21:45	71	384	74	384	145	768						
10:00	81	121			202		22:00	77	59			136							
10:15	99	100			199		22:15	43	47			90							
10:30	85	121			206		22:30	40	47			87							
10:45	119	384	114	456	233	840	22:45	42	202	33	186	75	388						
11:00	108	132			240		23:00	31	32			63							
11:15	94	121			215		23:15	38	32			70							
11:30	100	124			224		23:30	15	22			37							
11:45	100	402	142	519	242	921	23:45	24	108	26	112	50	220						
TOTALS	2622	2517			5139		TOTALS	6020	6592			12612							
SPLIT %	51.0%	49.0%			29.0%		SPLIT %	47.7%	52.3%			71.0%							

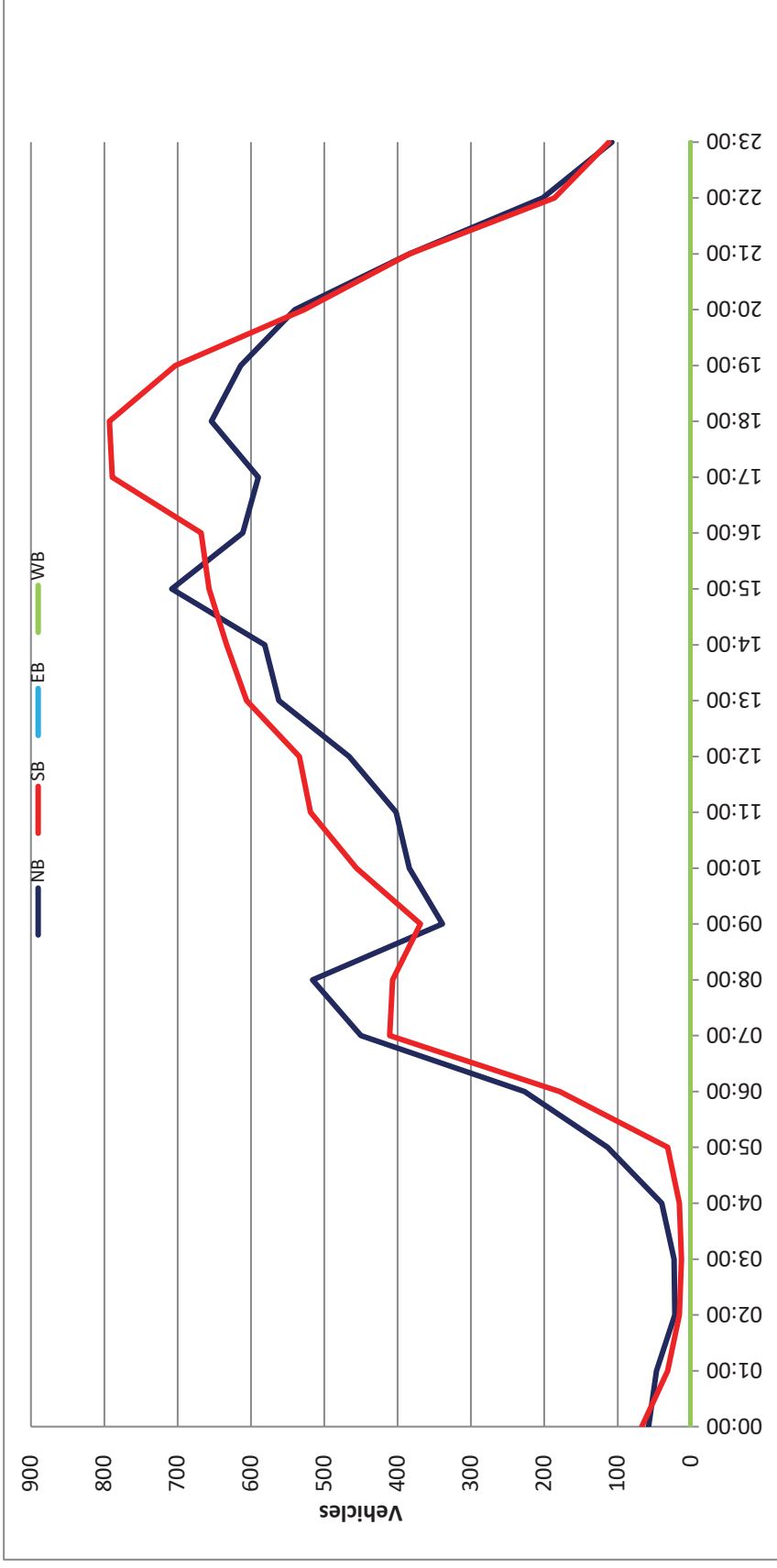
DAILY TOTALS					NB	SB						EB	WB						Total
					8,642	9,109						0	0						17,751
AM Peak Hour	07:45	11:45			07:30		PM Peak Hour	14:45	17:30			17:30							
AM Pk Volume	566	551			1011		PM Pk Volume	709	825			1473							
Pk Hr Factor	0.925	0.912			0.919		Pk Hr Factor	0.824	0.950			0.944							
7 - 9 Volume	966	818	0	0	1784		4 - 6 Volume	1201	1457	0	0	2658							
7 - 9 Peak Hour	07:45	07:30			07:30		4 - 6 Peak Hour	16:15	17:00			17:00							
7 - 9 Pk Volume	566	463	0	0	1011		4 - 6 Pk Volume	618	789	0	0	1379							
Pk Hr Factor	0.925	0.919	0.000	0.000	0.919		Pk Hr Factor	0.942	0.967	0.000	0.000	0.960							

Project #: CA15_4080_048

City: Chula Vista

Location: Eastlake Parkway Bet. Olympic Parkway &

Date: 3/12/2015



VOLUME

Old Trail Drive Bet. Proctor Valley Road & N. Trail Ct

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_051

DAILY TOTALS					NB	SB					EB	WB	Total
					1,448	1,342					0	0	2,790
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	4	2			6	12:00	15	17			32		
00:15	2	1			3	12:15	8	14			22		
00:30	4	3			7	12:30	21	19			40		
00:45	5	15	0	6	5	12:45	21	65	11	61	32	126	
01:00	4	2			6	13:00	15	18			33		
01:15	2	6			8	13:15	20	16			36		
01:30	4	4			8	13:30	19	15			34		
01:45	1	11	1	13	2	13:45	22	76	12	61	34	137	
02:00	2	1			3	14:00	19	23			42		
02:15	1	0			1	14:15	17	11			28		
02:30	0	1			1	14:30	41	21			62		
02:45	1	4	0	2	1	14:45	18	95	21	76	39	171	
03:00	0	0			0	15:00	35	24			59		
03:15	0	0			0	15:15	32	24			56		
03:30	2	2			4	15:30	45	16			61		
03:45	0	2	0	2	0	15:45	35	147	17	81	52	228	
04:00	0	1			1	16:00	28	18			46		
04:15	0	3			3	16:15	32	22			54		
04:30	0	3			3	16:30	25	34			59		
04:45	2	2	6	13	8	16:45	28	113	28	102	56	215	
05:00	0	2			2	17:00	35	24			59		
05:15	2	10			12	17:15	31	16			47		
05:30	0	14			14	17:30	23	18			41		
05:45	2	4	14	40	16	17:45	27	116	14	72	41	188	
06:00	2	10			12	18:00	44	24			68		
06:15	4	16			20	18:15	29	25			54		
06:30	8	45			53	18:30	34	25			59		
06:45	9	23	45	116	54	18:45	26	133	21	95	47	228	
07:00	19	27			46	19:00	25	14			39		
07:15	13	32			45	19:15	34	17			51		
07:30	11	38			49	19:30	32	11			43		
07:45	18	61	31	128	49	19:45	25	116	14	56	39	172	
08:00	17	28			45	20:00	17	13			30		
08:15	11	25			36	20:15	21	7			28		
08:30	22	29			51	20:30	32	13			45		
08:45	19	69	21	103	40	20:45	26	96	7	40	33	136	
09:00	13	19			32	21:00	27	7			34		
09:15	13	21			34	21:15	25	9			34		
09:30	8	29			37	21:30	13	8			21		
09:45	14	48	16	85	30	21:45	16	81	8	32	24	113	
10:00	15	9			24	22:00	14	4			18		
10:15	11	16			27	22:15	8	2			10		
10:30	12	20			32	22:30	7	4			11		
10:45	8	46	21	66	29	22:45	7	36	12	22	19	58	
11:00	17	13			30	23:00	5	2			7		
11:15	17	13			30	23:15	1	4			5		
11:30	20	17			37	23:30	6	2			8		
11:45	20	74	16	59	36	23:45	3	15	3	11	6	26	
TOTALS	359	633			992	TOTALS	1089	709			1798		
SPLIT %	36.2%	63.8%			35.6%	SPLIT %	60.6%	39.4%			64.4%		

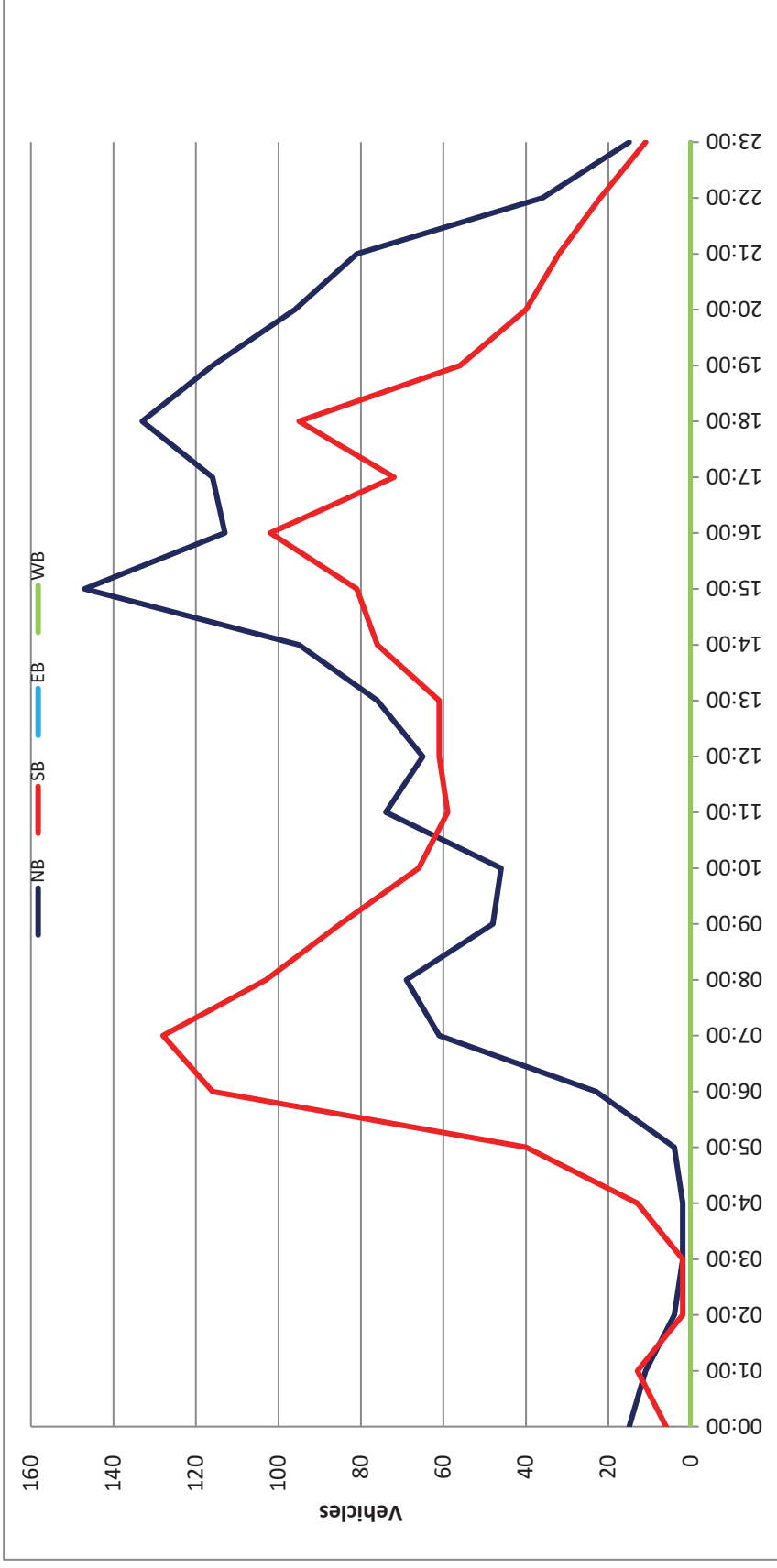
DAILY TOTALS					NB	SB					EB	WB	Total
					1,448	1,342					0	0	2,790
AM Peak Hour	11:00	06:30			06:30	PM Peak Hour	15:00	16:15			15:00		
AM Pk Volume	74	149			198	PM Pk Volume	147	108			228		
Pk Hr Factor	0.925	0.828			0.917	Pk Hr Factor	0.817	0.794			0.934		
7 - 9 Volume	130	231	0	0	361	4 - 6 Volume	229	174	0	0	403		
7 - 9 Peak Hour	08:00	07:15			07:00	4 - 6 Peak Hour	16:15	16:15			16:15		
7 - 9 Pk Volume	69	129	0	0	189	4 - 6 Pk Volume	120	108	0	0	228		
Pk Hr Factor	0.784	0.849	0.000	0.000	0.964	Pk Hr Factor	0.857	0.794	0.000	0.000	0.966		

Project #: CA15_4080_051

City: Chula Vista

Location: Old Trail Drive Bet. Proctor Valley Road & N.

Date: 3/12/2015



VOLUME

Lane Ave from Proctor Valley Rd to Otay Lakes Rd

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_027

DAILY TOTALS					NB	SB						EB	WB	Total	
					5,440	5,364						0	0	10,804	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00	6	8			14		12:00	109	89			198			
00:15	7	5			12		12:15	62	64			126			
00:30	5	8			13		12:30	77	82			159			
00:45	1	19	3	24	4	43	12:45	82	330	62	297	144	627		
01:00	1	6			7		13:00	72	60			132			
01:15	3	2			5		13:15	74	40			114			
01:30	2	1			3		13:30	93	76			169			
01:45	1	7	3	12	4	19	13:45	71	310	78	254	149	564		
02:00	6	4			10		14:00	75	82			157			
02:15	1	0			1		14:15	68	82			150			
02:30	3	1			4		14:30	61	97			158			
02:45	3	13	1	6	4	19	14:45	78	282	83	344	161	626		
03:00	1	0			1		15:00	100	79			179			
03:15	0	5			5		15:15	86	106			192			
03:30	4	0			4		15:30	115	128			243			
03:45	4	9	3	8	7	17	15:45	138	439	98	411	236	850		
04:00	4	3			7		16:00	92	116			208			
04:15	5	1			6		16:15	94	100			194			
04:30	6	6			12		16:30	115	122			237			
04:45	9	24	11	21	20	45	16:45	113	414	131	469	244	883		
05:00	10	2			12		17:00	116	172			288			
05:15	14	3			17		17:15	119	112			231			
05:30	12	13			25		17:30	93	144			237			
05:45	29	65	15	33	44	98	17:45	102	430	113	541	215	971		
06:00	23	22			45		18:00	87	117			204			
06:15	28	29			57		18:15	101	115			216			
06:30	54	75			129		18:30	83	122			205			
06:45	113	218	122	248	235	466	18:45	94	365	99	453	193	818		
07:00	132	62			194		19:00	75	94			169			
07:15	72	64			136		19:15	74	75			149			
07:30	84	66			150		19:30	78	76			154			
07:45	135	423	70	262	205	685	19:45	60	287	53	298	113	585		
08:00	104	82			186		20:00	62	84			146			
08:15	107	62			169		20:15	67	64			131			
08:30	102	97			199		20:30	71	53			124			
08:45	110	423	98	339	208	762	20:45	47	247	42	243	89	490		
09:00	86	66			152		21:00	42	48			90			
09:15	56	72			128		21:15	38	27			65			
09:30	69	71			140		21:30	32	39			71			
09:45	83	294	63	272	146	566	21:45	25	137	26	140	51	277		
10:00	63	52			115		22:00	28	21			49			
10:15	61	66			127		22:15	18	16			34			
10:30	65	79			144		22:30	18	28			46			
10:45	61	250	61	258	122	508	22:45	10	74	5	70	15	144		
11:00	77	77			154		23:00	7	6			13			
11:15	65	73			138		23:15	12	6			18			
11:30	85	100			185		23:30	8	7			15			
11:45	121	348	85	335	206	683	23:45	5	32	7	26	12	58		
TOTALS	2093	1818			3911		TOTALS	3347	3546			6893			
SPLIT %	53.5%	46.5%			36.2%		SPLIT %	48.6%	51.4%			63.8%			

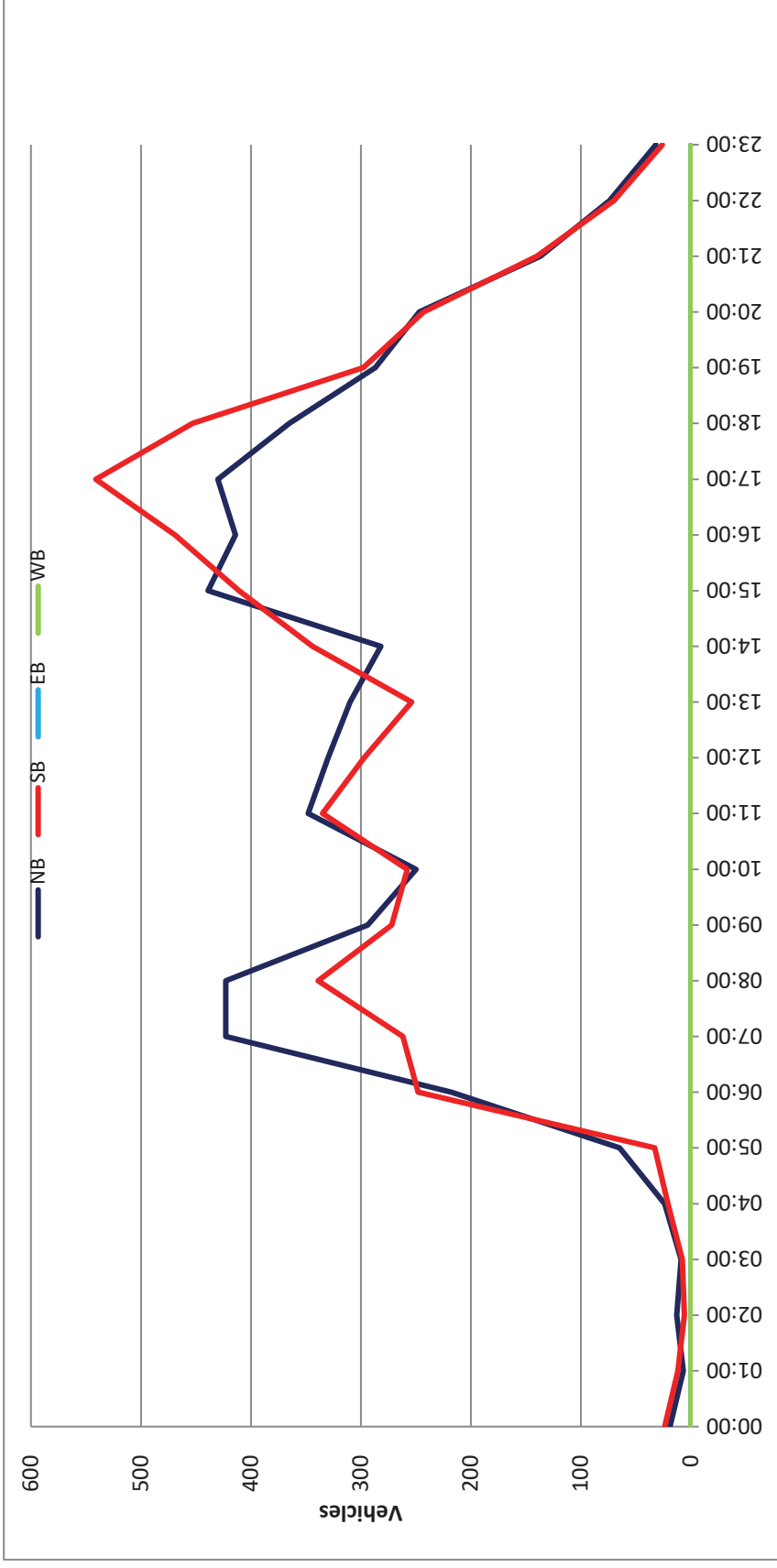
DAILY TOTALS					NB	SB						EB	WB	Total	
					5,440	5,364						0	0	10,804	
AM Peak Hour	07:45	11:15			08:00		PM Peak Hour	16:30	16:45			16:30			
AM Pk Volume	448	347			762		PM Pk Volume	463	559			1000			
Pk Hr Factor	0.830	0.868			0.916		Pk Hr Factor	0.973	0.813			0.868			
7 - 9 Volume	846	601	0	0	1447		4 - 6 Volume	844	1010	0	0	1854			
7 - 9 Peak Hour	07:45	08:00			08:00		4 - 6 Peak Hour	16:30	16:45			16:30			
7 - 9 Pk Volume	448	339	0	0	762		4 - 6 Pk Volume	463	559	0	0	1000			
Pk Hr Factor	0.830	0.865	0.000	0.000	0.916		Pk Hr Factor	0.973	0.813	0.000	0.000	0.868			

Project #: CA14_4115_027

City: Chula Vista

Location: Lane Ave from Proctor Valley Rd to Otay

Date: 4/30/2014



VOLUME

Hunte Pkwy from Proctor Valley Rd to Otay Lakes Rd

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_028

DAILY TOTALS					NB	SB	EB					WB	Total
					3,225	3,044						0	0
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	7	5			12	12:00	27	21			48		
00:15	7	3			10	12:15	25	28			53		
00:30	3	4			7	12:30	27	33			60		
00:45	1	18	0	12	1	12:45	30	109	25	107	55		
01:00	1	2			3	13:00	33	29			62		
01:15	2	2			4	13:15	34	26			60		
01:30	1	2			3	13:30	45	28			73		
01:45	0	4	1	7	1	13:45	33	145	44	127	77		
02:00	2	0			2	14:00	40	39			79		
02:15	0	0			0	14:15	37	59			96		
02:30	1	0			1	14:30	50	58			108		
02:45	4	7	2	2	6	14:45	85	212	78	234	163		
03:00	4	0			4	15:00	83	67			150		
03:15	2	1			3	15:15	98	95			193		
03:30	1	1			2	15:30	102	97			199		
03:45	3	10	1	3	4	15:45	62	345	62	321	124		
04:00	2	3			5	16:00	67	67			134		
04:15	4	2			6	16:15	55	65			120		
04:30	4	1			5	16:30	63	67			130		
04:45	5	15	3	9	8	16:45	46	231	77	276	123		
05:00	11	1			12	17:00	60	80			140		
05:15	13	4			17	17:15	56	73			129		
05:30	12	5			17	17:30	39	71			110		
05:45	26	62	5	15	31	17:45	56	211	64	288	120		
06:00	28	2			30	18:00	65	72			137		
06:15	30	10			40	18:15	39	66			105		
06:30	59	37			96	18:30	48	43			91		
06:45	68	185	68	117	136	18:45	44	196	63	244	107		
07:00	86	28			114	19:00	37	42			79		
07:15	51	34			85	19:15	46	60			106		
07:30	81	56			137	19:30	31	37			68		
07:45	115	333	110	228	225	19:45	23	137	35	174	58		
08:00	151	110			261	20:00	41	34			75		
08:15	99	56			155	20:15	42	30			72		
08:30	52	40			92	20:30	23	30			53		
08:45	57	359	42	248	99	20:45	20	126	32	126	52		
09:00	45	25			70	21:00	23	24			47		
09:15	19	19			38	21:15	15	24			39		
09:30	43	17			60	21:30	15	21			36		
09:45	28	135	24	85	52	21:45	17	70	24	93	41		
10:00	31	27			58	22:00	14	24			38		
10:15	28	26			54	22:15	11	13			24		
10:30	23	35			58	22:30	14	12			26		
10:45	22	104	21	109	43	22:45	8	47	7	56	15		
11:00	24	27			51	23:00	9	10			19		
11:15	36	28			64	23:15	6	8			14		
11:30	35	35			70	23:30	6	8			14		
11:45	44	139	37	127	81	23:45	4	25	10	36	14		
TOTALS	1371	962			2333	TOTALS	1854	2082			3936		
SPLIT %	58.8%	41.2%			37.2%	SPLIT %	47.1%	52.9%			62.8%		

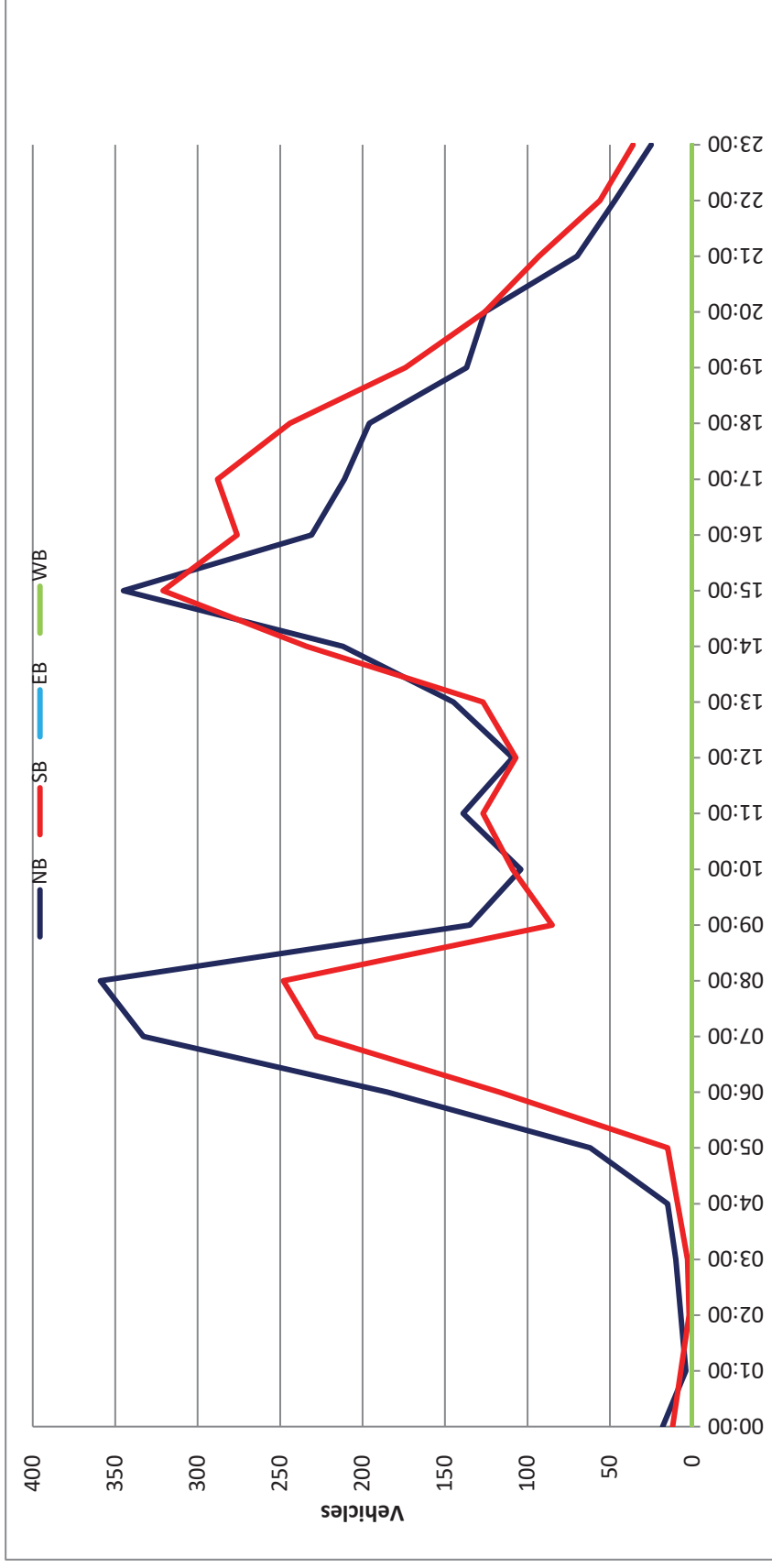
DAILY TOTALS					NB	SB	EB	WB	Total
					3,225	3,044	0	0	6,269
AM Peak Hour	07:30	07:30		07:30	PM Peak Hour	14:45	14:45		14:45
AM Pk Volume	446	332		778	PM Pk Volume	368	337		705
Pk Hr Factor	0.738	0.755		0.745	Pk Hr Factor	0.902	0.869		0.886
7 - 9 Volume	692	476	0	0	4 - 6 Volume	442	564	0	0
7 - 9 Peak Hour	07:30	07:30		07:30	4 - 6 Peak Hour	16:00	16:45		16:30
7 - 9 Pk Volume	446	332	0	0	4 - 6 Pk Volume	231	301	0	0
Pk Hr Factor	0.738	0.755	0.000	0.000	Pk Hr Factor	0.862	0.941	0.000	0.000

Project #: CA14_4115_028

City: Chula Vista

Location: Hunte Pkwy from Proctor Valley Rd to Otay

Date: 4/30/2014



VOLUME

Hunte Pkwy from Otay Lakes Rd to Clubhouse Dr

Day: Wednesday
Date: 4/30/2014City: Chula Vista
Project #: CA14_4115_029

DAILY TOTALS					NB	SB						EB	WB	Total	
					5,794	5,103						0	0	10,897	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00	5	4			9		12:00	55	53			108			
00:15	5	1			6		12:15	38	49			87			
00:30	2	6			8		12:30	50	47			97			
00:45	2	14	1	12	3	26	12:45	49	192	56	205	105	397		
01:00	2	6			8		13:00	50	44			94			
01:15	1	2			3		13:15	58	44			102			
01:30	1	3			4		13:30	73	41			114			
01:45	0	4	3	14	3	18	13:45	57	238	53	182	110	420		
02:00	5	1			6		14:00	81	64			145			
02:15	2	0			2		14:15	79	66			145			
02:30	2	1			3		14:30	78	84			162			
02:45	2	11	0	2	2	13	14:45	108	346	111	325	219	671		
03:00	3	1			4		15:00	153	109			262			
03:15	3	1			4		15:15	188	161			349			
03:30	3	1			4		15:30	170	216			386			
03:45	5	14	2	5	7	19	15:45	143	654	107	593	250	1247		
04:00	4	3			7		16:00	106	102			208			
04:15	2	2			4		16:15	122	93			215			
04:30	7	1			8		16:30	115	105			220			
04:45	10	23	4	10	14	33	16:45	107	450	101	401	208	851		
05:00	7	2			9		17:00	90	114			204			
05:15	22	3			25		17:15	101	118			219			
05:30	20	12			32		17:30	91	117			208			
05:45	25	74	12	29	37	103	17:45	111	393	91	440	202	833		
06:00	28	17			45		18:00	69	114			183			
06:15	35	15			50		18:15	97	92			189			
06:30	46	38			84		18:30	77	93			170			
06:45	83	192	119	189	202	381	18:45	94	337	92	391	186	728		
07:00	174	70			244		19:00	84	96			180			
07:15	173	62			235		19:15	81	91			172			
07:30	216	82			298		19:30	73	73			146			
07:45	267	830	134	348	401	1178	19:45	68	306	77	337	145	643		
08:00	217	169			386		20:00	67	85			152			
08:15	138	137			275		20:15	54	59			113			
08:30	173	128			301		20:30	37	52			89			
08:45	131	659	69	503	200	1162	20:45	35	193	40	236	75	429		
09:00	73	45			118		21:00	35	55			90			
09:15	58	49			107		21:15	28	46			74			
09:30	63	56			119		21:30	20	26			46			
09:45	56	250	40	190	96	440	21:45	29	112	24	151	53	263		
10:00	45	48			93		22:00	17	23			40			
10:15	32	45			77		22:15	16	18			34			
10:30	37	53			90		22:30	25	18			43			
10:45	45	159	51	197	96	356	22:45	12	70	17	76	29	146		
11:00	57	48			105		23:00	10	11			21			
11:15	56	58			114		23:15	10	12			22			
11:30	52	60			112		23:30	7	9			16			
11:45	77	242	60	226	137	468	23:45	4	31	9	41	13	72		
TOTALS	2472	1725			4197		TOTALS	3322	3378			6700			
SPLIT %	58.9%	41.1%			38.5%		SPLIT %	49.6%	50.4%			61.5%			

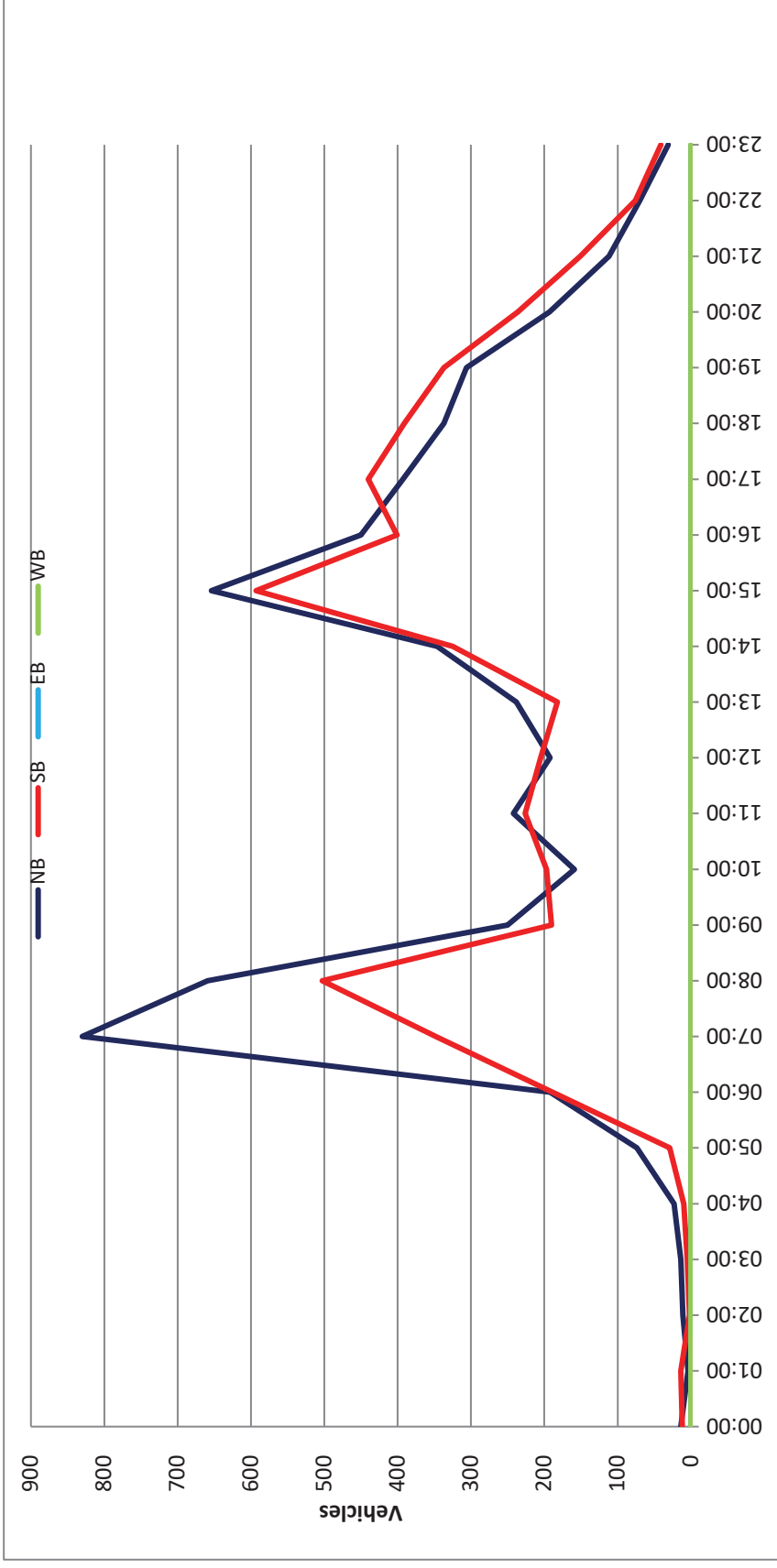
DAILY TOTALS					NB	SB						EB	WB	Total	
					5,794	5,103						0	0	10,897	
AM Peak Hour	07:15	07:45			07:45		PM Peak Hour	15:00	14:45			15:00			
AM Pk Volume	873	568			1363		PM Pk Volume	654	597			1247			
Pk Hr Factor	0.817	0.840			0.850		Pk Hr Factor	0.870	0.691			0.808			
7 - 9 Volume	1489	851	0	0	2340		4 - 6 Volume	843	841	0	0	1684			
7 - 9 Peak Hour	07:15	07:45			07:45		4 - 6 Peak Hour	16:00	16:45			16:00			
7 - 9 Pk Volume	873	568	0	0	1363		4 - 6 Pk Volume	450	450	0	0	851			
Pk Hr Factor	0.817	0.840	0.000	0.000	0.850		Pk Hr Factor	0.922	0.953	0.000	0.000	0.967			

Project #: CA14_4115_029

City: Chula Vista

Location: Hunte Pkwy from Otay Lakes Rd to

Date: 4/30/2014



VOLUME

Hunte Pkwy from Olympic Pkwy to Eastlake Pkwy

Day: Wednesday

Date: 4/30/2014

City: Chula Vista

Project #: CA14_4115_031

DAILY TOTALS					NB	SB					EB	WB	Total
					1,070	945					0	0	2,015
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	1	3			4	12:00	5	7			12		
00:15	1	0			1	12:15	7	16			23		
00:30	2	0			2	12:30	22	10			32		
00:45	1	5	0	3	1	12:45	30	64	14	47	44	111	
01:00	0	0			0	13:00	15	10			25		
01:15	0	0			0	13:15	10	11			21		
01:30	0	0			0	13:30	6	9			15		
01:45	0	0			0	13:45	8	39	7	37	15	76	
02:00	0	1			1	14:00	8	7			15		
02:15	0	0			0	14:15	11	13			24		
02:30	0	0			0	14:30	11	5			16		
02:45	0	0	1		0	14:45	20	50	17	42	37	92	
03:00	1	0			1	15:00	36	12			48		
03:15	0	0			0	15:15	27	35			62		
03:30	0	0			0	15:30	53	45			98		
03:45	1	2	0		1	15:45	32	148	23	115	55	263	
04:00	0	0			0	16:00	17	14			31		
04:15	0	0			0	16:15	17	14			31		
04:30	0	1			1	16:30	22	12			34		
04:45	0	0	1		0	16:45	26	82	22	62	48	144	
05:00	3	3			6	17:00	27	19			46		
05:15	1	0			1	17:15	19	23			42		
05:30	1	1			2	17:30	15	13			28		
05:45	0	5	1	5	1	17:45	15	76	22	77	37	153	
06:00	2	2			4	18:00	23	19			42		
06:15	2	3			5	18:15	28	12			40		
06:30	4	8			12	18:30	22	13			35		
06:45	14	22	12	25	26	18:45	12	85	14	58	26	143	
07:00	9	18			27	19:00	22	14			36		
07:15	16	10			26	19:15	16	15			31		
07:30	30	19			49	19:30	16	12			28		
07:45	52	107	59	106	111	19:45	13	67	18	59	31	126	
08:00	55	45			100	20:00	8	14			22		
08:15	37	49			86	20:15	14	8			22		
08:30	35	26			61	20:30	11	10			21		
08:45	19	146	4	124	23	20:45	6	39	5	37	11	76	
09:00	9	8			17	21:00	10	9			19		
09:15	2	7			9	21:15	4	8			12		
09:30	10	7			17	21:30	6	7			13		
09:45	5	26	6	28	11	21:45	6	26	6	30	12	56	
10:00	5	4			9	22:00	5	2			7		
10:15	7	7			14	22:15	1	1			2		
10:30	9	4			13	22:30	3	4			7		
10:45	5	26	4	19	9	22:45	1	10	1	8	2	18	
11:00	6	9			15	23:00	3	4			7		
11:15	12	14			26	23:15	2	1			3		
11:30	8	12			20	23:30	1	3			4		
11:45	10	36	17	52	27	23:45	3	9	1	9	4	18	
TOTALS	375	364			739	TOTALS	695	581			1276		
SPLIT %	50.7%	49.3%			36.7%	SPLIT %	54.5%	45.5%			63.3%		

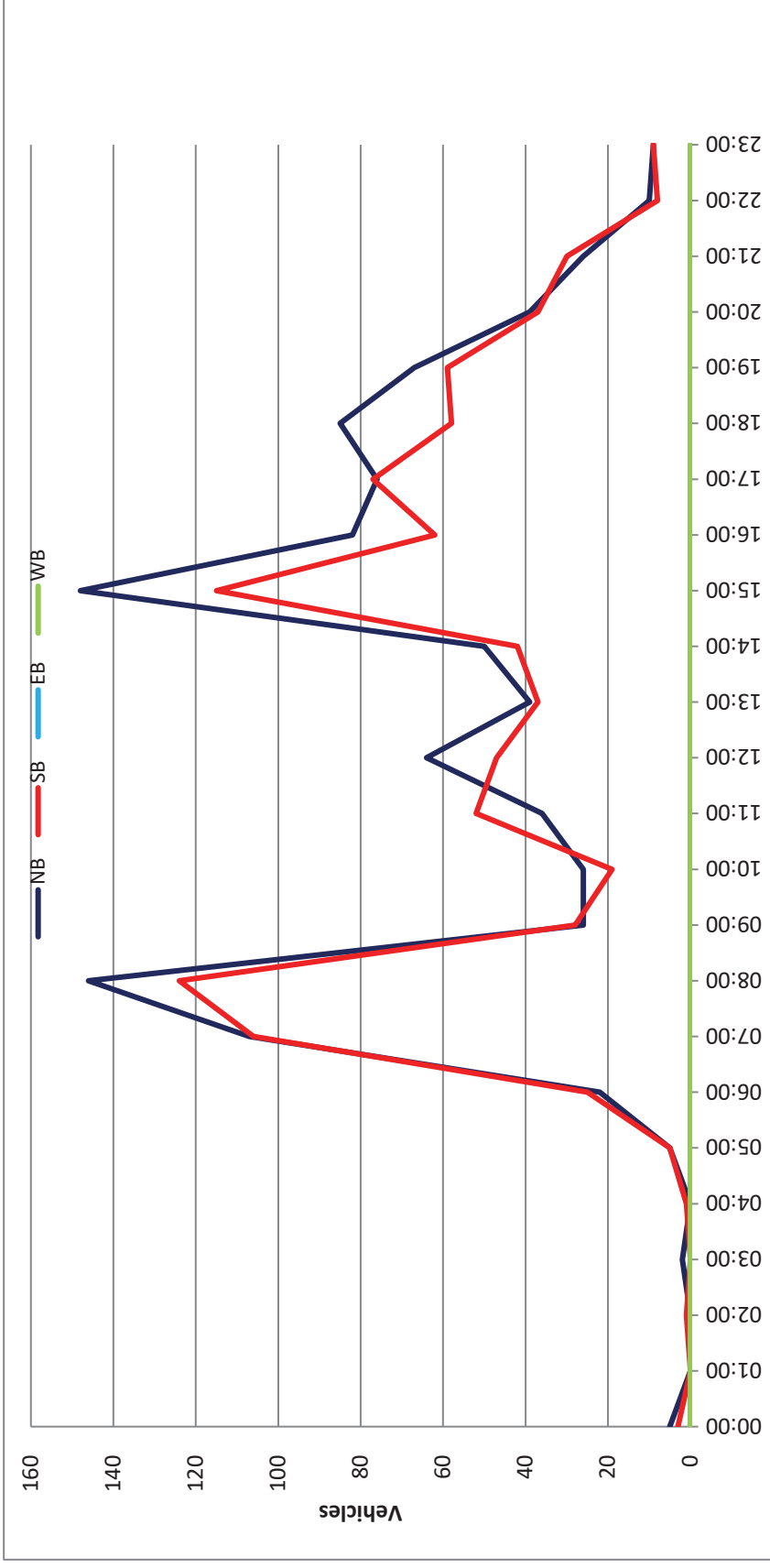
DAILY TOTALS					NB	SB					EB	WB	Total
					1,070	945					0	0	2,015
AM Peak Hour	07:45	07:45			07:45	PM Peak Hour	15:00	15:15			15:00		
AM Pk Volume	179	179			358	PM Pk Volume	148	117			263		
Pk Hr Factor	0.814	0.758			0.806	Pk Hr Factor	0.698	0.650			0.671		
7 - 9 Volume	253	230	0	0	483	4 - 6 Volume	158	139	0	0	297		
7 - 9 Peak Hour	07:45	07:45			07:45	4 - 6 Peak Hour	16:30	16:45			16:30		
7 - 9 Pk Volume	179	179	0	0	358	4 - 6 Pk Volume	94	77	0	0	170		
Pk Hr Factor	0.814	0.758	0.000	0.000	0.806	Pk Hr Factor	0.870	0.837	0.000	0.000	0.885		

Project #: CA14_4115_031

City: Chula Vista

Location: Hunte Pkwy from Olympic Pkwy to Eastlake

Date: 4/30/2014



VOLUME

Northwoods Drive Bet. Proctor Valley Road & Blue Ridge Drive

Day: Thursday

Date: 3/12/2015

City: Chula Vista

Project #: CA15_4080_030

DAILY TOTALS					NB	SB					EB	WB	Total
					718	715					0	0	1,433
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	1	0			1	12:00	8	14			22		
00:15	0	1			1	12:15	4	8			12		
00:30	0	0			0	12:30	14	5			19		
00:45	1	2	0	1	1	12:45	5	31	13	40	18	71	
01:00	0	2			2	13:00	5	14			19		
01:15	0	0			0	13:15	14	6			20		
01:30	0	0			0	13:30	5	6			11		
01:45	0	1	3		1	13:45	12	36	10	36	22	72	
02:00	1	1			2	14:00	8	12			20		
02:15	0	0			0	14:15	14	16			30		
02:30	0	0			0	14:30	21	10			31		
02:45	0	1	1	2	1	14:45	17	60	13	51	30	111	
03:00	0	0			0	15:00	8	17			25		
03:15	0	0			0	15:15	39	23			62		
03:30	0	1			1	15:30	21	26			47		
03:45	0	1	2		1	15:45	19	87	11	77	30	164	
04:00	0	0			0	16:00	13	11			24		
04:15	0	0			0	16:15	8	18			26		
04:30	1	0			1	16:30	12	10			22		
04:45	1	2	0		1	16:45	10	43	12	51	22	94	
05:00	2	1			3	17:00	20	16			36		
05:15	4	1			5	17:15	9	12			21		
05:30	1	0			1	17:30	13	12			25		
05:45	4	11	5	7	9	17:45	8	50	15	55	23	105	
06:00	2	3			5	18:00	15	5			20		
06:15	6	9			15	18:15	11	7			18		
06:30	8	12			20	18:30	17	20			37		
06:45	14	30	8	32	22	18:45	12	55	15	47	27	102	
07:00	16	6			22	19:00	11	9			20		
07:15	14	5			19	19:15	7	11			18		
07:30	17	15			32	19:30	4	4			8		
07:45	27	74	39	65	66	19:45	6	28	10	34	16	62	
08:00	33	28			61	20:00	6	5			11		
08:15	15	5			20	20:15	4	2			6		
08:30	17	12			29	20:30	10	5			15		
08:45	8	73	12	57	20	20:45	1	21	3	15	4	36	
09:00	7	7			14	21:00	2	5			7		
09:15	7	6			13	21:15	4	6			10		
09:30	5	5			10	21:30	5	4			9		
09:45	10	29	5	23	15	21:45	2	13	5	20	7	33	
10:00	8	6			14	22:00	3	5			8		
10:15	8	16			24	22:15	5	4			9		
10:30	6	9			15	22:30	4	6			10		
10:45	9	31	5	36	14	22:45	0	12	2	17	2	29	
11:00	3	8			11	23:00	3	0			3		
11:15	10	6			16	23:15	2	4			6		
11:30	6	10			16	23:30	0	4			4		
11:45	5	24	11	35	16	23:45	0	5	1	9	1	14	
TOTALS	277	263			540	TOTALS	441	452			893		
SPLIT %	51.3%	48.7%			37.7%	SPLIT %	49.4%	50.6%			62.3%		

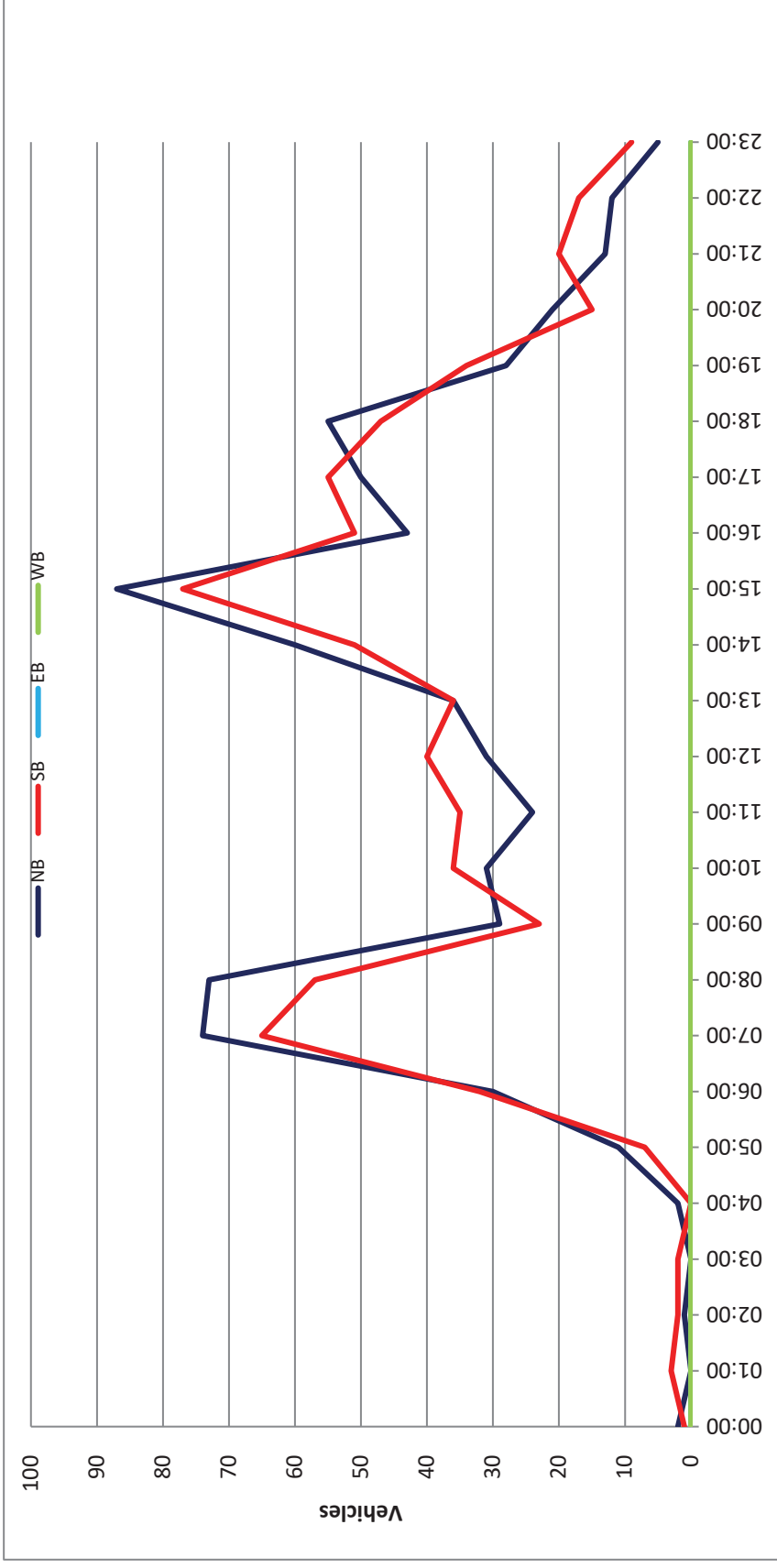
DAILY TOTALS					NB	SB					EB	WB	Total
					718	715					0	0	1,433
AM Peak Hour	07:30	07:15			07:30	PM Peak Hour	15:15	14:45			14:45		
AM Pk Volume	92	87			179	PM Pk Volume	92	79			164		
Pk Hr Factor	0.697	0.558			0.678	Pk Hr Factor	0.590	0.760			0.661		
7 - 9 Volume	147	122	0	0	269	4 - 6 Volume	93	106	0	0	199		
7 - 9 Peak Hour	07:30	07:15			07:30	4 - 6 Peak Hour	16:45	16:15			16:15		
7 - 9 Pk Volume	92	87	0	0	179	4 - 6 Pk Volume	52	56	0	0	106		
Pk Hr Factor	0.697	0.558	0.000	0.000	0.678	Pk Hr Factor	0.650	0.778	0.000	0.000	0.736		

Project #: CA15_4080_030

City: Chula Vista

Location: Northwoods Drive Bet. Proctor Valley Road

Date: 3/12/2015



VOLUME

SR-94 Bet. Vista Sage Ln & Lyons Valley Rd

Day: Tuesday
Date: 3/10/2015City: Chula Vista
Project #: CA15_4080_001

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						8,251	8,874	17,125	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			11	9	20		12:00			86	111	197			
00:15			14	9	23		12:15			112	137	249			
00:30			9	8	17		12:30			119	130	249			
00:45			10	44	4	30	12:45			140	457	81	459	221	916
01:00			5	5	10		13:00			132	134	266			
01:15			4	2	6		13:15			101	143	244			
01:30			2	2	4		13:30			128	141	269			
01:45			10	21	5	14	13:45			100	461	113	531	213	992
02:00			6	5	11		14:00			124	115	239			
02:15			2	6	8		14:15			110	132	242			
02:30			3	3	6		14:30			147	132	279			
02:45			5	16	6	20	14:45			163	544	120	499	283	1043
03:00			6	8	14		15:00			196	128	324			
03:15			5	6	11		15:15			179	124	303			
03:30			2	13	15		15:30			221	169	390			
03:45			5	18	5	32	15:45			208	804	128	549	336	1353
04:00			5	15	20		16:00			216	111	327			
04:15			4	27	31		16:15			235	121	356			
04:30			3	30	33		16:30			235	88	323			
04:45			8	20	39	111	16:45			197	883	120	440	317	1323
05:00			19	65	84		17:00			226	105	331			
05:15			12	123	135		17:15			213	95	308			
05:30			22	163	185		17:30			228	94	322			
05:45			36	89	197	548	17:45			224	891	89	383	313	1274
06:00			37	204	241		18:00			205	100	305			
06:15			44	211	255		18:15			184	82	266			
06:30			66	247	313		18:30			169	87	256			
06:45			53	200	279	941	18:45			156	714	66	335	222	1049
07:00			52	304	356		19:00			152	84	236			
07:15			91	229	320		19:15			125	66	191			
07:30			75	225	300		19:30			123	66	189			
07:45			86	304	219	977	19:45			108	508	38	254	146	762
08:00			62	196	258		20:00			109	52	161			
08:15			82	188	270		20:15			112	38	150			
08:30			91	206	297		20:30			115	37	152			
08:45			71	306	175	765	20:45			89	425	36	163	125	588
09:00			82	187	269		21:00			106	34	140			
09:15			72	152	224		21:15			76	29	105			
09:30			89	150	239		21:30			85	19	104			
09:45			68	311	139	628	21:45			58	325	23	105	81	430
10:00			70	125	195		22:00			60	22	82			
10:15			67	139	206		22:15			43	19	62			
10:30			67	126	193		22:30			43	17	60			
10:45			79	283	143	533	22:45			27	173	14	72	41	245
11:00			81	122	203		23:00			19	18	37			
11:15			99	123	222		23:15			24	11	35			
11:30			90	92	182		23:30			23	7	30			
11:45			98	368	109	446	23:45			20	86	3	39	23	125
TOTALS			1980	5045	7025		TOTALS			6271	3829	10100			
SPLIT %			28.2%	71.8%	41.0%		SPLIT %			62.1%	37.9%	59.0%			

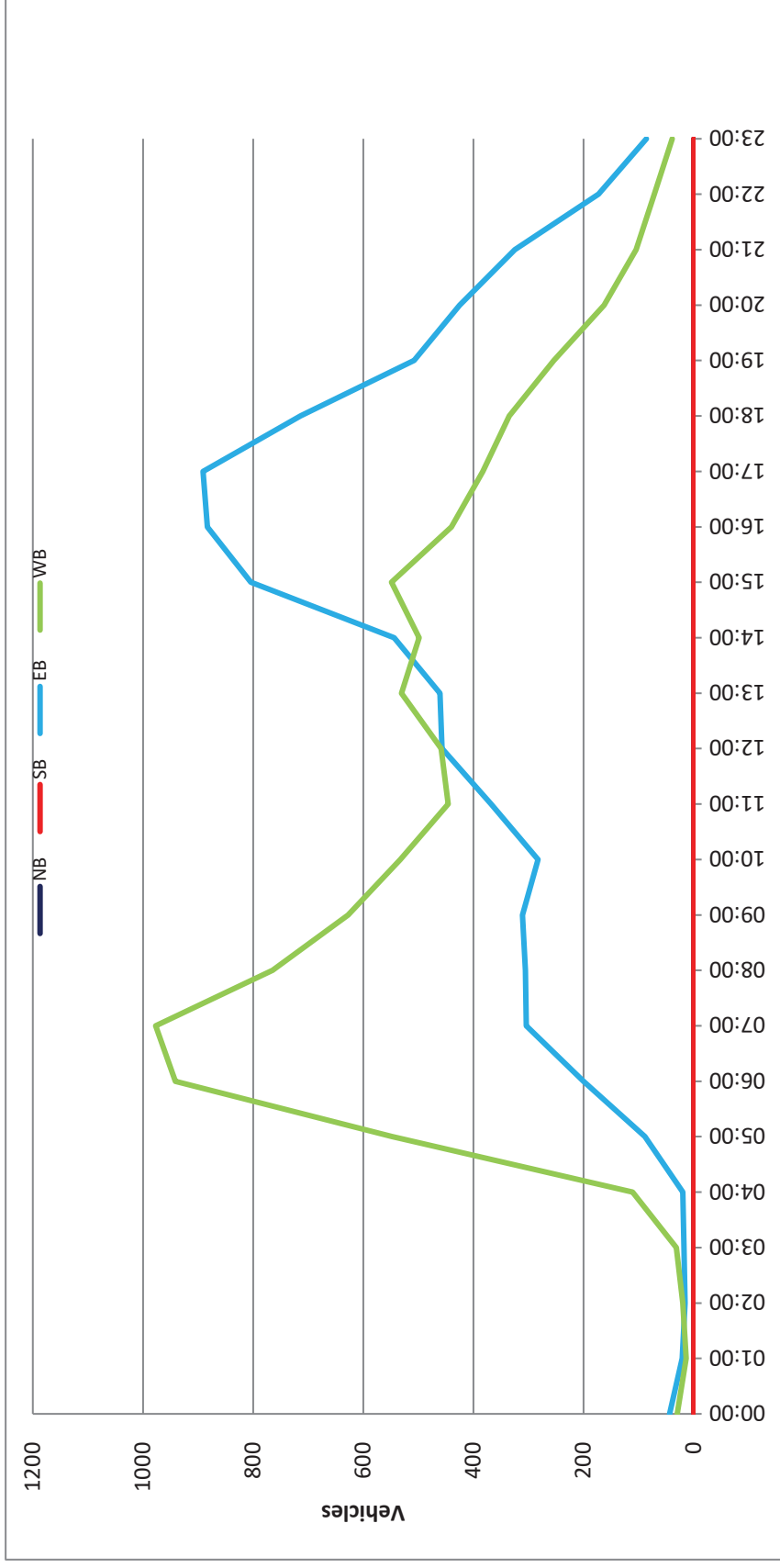
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						8,251	8,874	17,125	
AM Peak Hour			11:45	06:30	06:30		PM Peak Hour			15:45	15:00	15:30			
AM Pk Volume			415	1059	1321		PM Pk Volume			894	549	1409			
Pk Hr Factor			0.872	0.871	0.928		Pk Hr Factor			0.951	0.812	0.903			
7 - 9 Volume	0	0	610	1742	2352		4 - 6 Volume	0	0	1774	823	2597			
7 - 9 Peak Hour			07:45	07:00	07:00		4 - 6 Peak Hour			16:15	16:00	16:15			
7 - 9 Pk Volume	0	0	321	977	1281		4 - 6 Pk Volume	0	0	893	440	1327			
Pk Hr Factor	0.000	0.000	0.882	0.803	0.900		Pk Hr Factor	0.000	0.000	0.950	0.909	0.932			

Project #: CA15_4080_001

City: Chula Vista

Location: SR-94 Bet. Vista Sage Ln & Lyons Valley Rd

Date: 3/10/2015



VOLUME

SR-94 from Lyons Valley Rd to Jefferson Rd

Day: Wednesday

Date: 4/30/2014

City: Jamul

Project #: CA14_4115_033

DAILY TOTALS					NB	SB	EB					WB	Total
					5,488	5,288						0	0
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	5	8			13	12:00	73	49			122		
00:15	5	13			18	12:15	73	70			143		
00:30	3	7			10	12:30	95	77			172		
00:45	5	18	5	33	10	12:45	66	307	70	266	136	573	
01:00	3	5			8	13:00	67	63			130		
01:15	6	5			11	13:15	63	79			142		
01:30	2	7			9	13:30	87	72			159		
01:45	0	11	5	22	5	13:45	76	293	71	285	147	578	
02:00	1	2			3	14:00	68	67			135		
02:15	1	3			4	14:15	96	60			156		
02:30	3	1			4	14:30	74	69			143		
02:45	2	7	4	10	6	14:45	89	327	114	310	203	637	
03:00	7	3			10	15:00	69	102			171		
03:15	3	4			7	15:15	65	97			162		
03:30	8	5			13	15:30	72	135			207		
03:45	9	27	0	12	9	15:45	81	287	149	483	230	770	
04:00	9	4			13	16:00	64	139			203		
04:15	14	5			19	16:15	65	140			205		
04:30	15	7			22	16:30	60	163			223		
04:45	29	67	4	20	33	16:45	66	255	140	582	206	837	
05:00	44	22			66	17:00	57	153			210		
05:15	51	13			64	17:15	63	119			182		
05:30	89	22			111	17:30	62	150			212		
05:45	145	329	19	76	164	17:45	67	249	131	553	198	802	
06:00	152	29			181	18:00	49	144			193		
06:15	150	27			177	18:15	51	138			189		
06:30	162	19			181	18:30	38	128			166		
06:45	209	673	38	113	247	18:45	52	190	111	521	163	711	
07:00	157	34			191	19:00	33	89			122		
07:15	143	47			190	19:15	28	95			123		
07:30	146	55			201	19:30	29	65			94		
07:45	124	570	44	180	168	19:45	35	125	81	330	116	455	
08:00	121	52			173	20:00	30	67			97		
08:15	117	49			166	20:15	25	73			98		
08:30	107	51			158	20:30	30	74			104		
08:45	122	467	51	203	173	20:45	30	115	62	276	92	391	
09:00	96	49			145	21:00	28	61			89		
09:15	84	39			123	21:15	27	49			76		
09:30	99	56			155	21:30	28	48			76		
09:45	104	383	41	185	145	21:45	29	112	29	187	58	299	
10:00	70	55			125	22:00	12	34			46		
10:15	79	65			144	22:15	14	27			41		
10:30	95	53			148	22:30	13	27			40		
10:45	80	324	52	225	132	22:45	15	54	25	113	40	167	
11:00	82	64			146	23:00	11	18			29		
11:15	73	60			133	23:15	7	21			28		
11:30	64	60			124	23:30	2	12			14		
11:45	59	278	57	241	116	23:45	0	20	11	62	11	82	
TOTALS	3154	1320			4474	TOTALS	2334	3968			6302		
SPLIT %	70.5%	29.5%			41.5%	SPLIT %	37.0%	63.0%			58.5%		

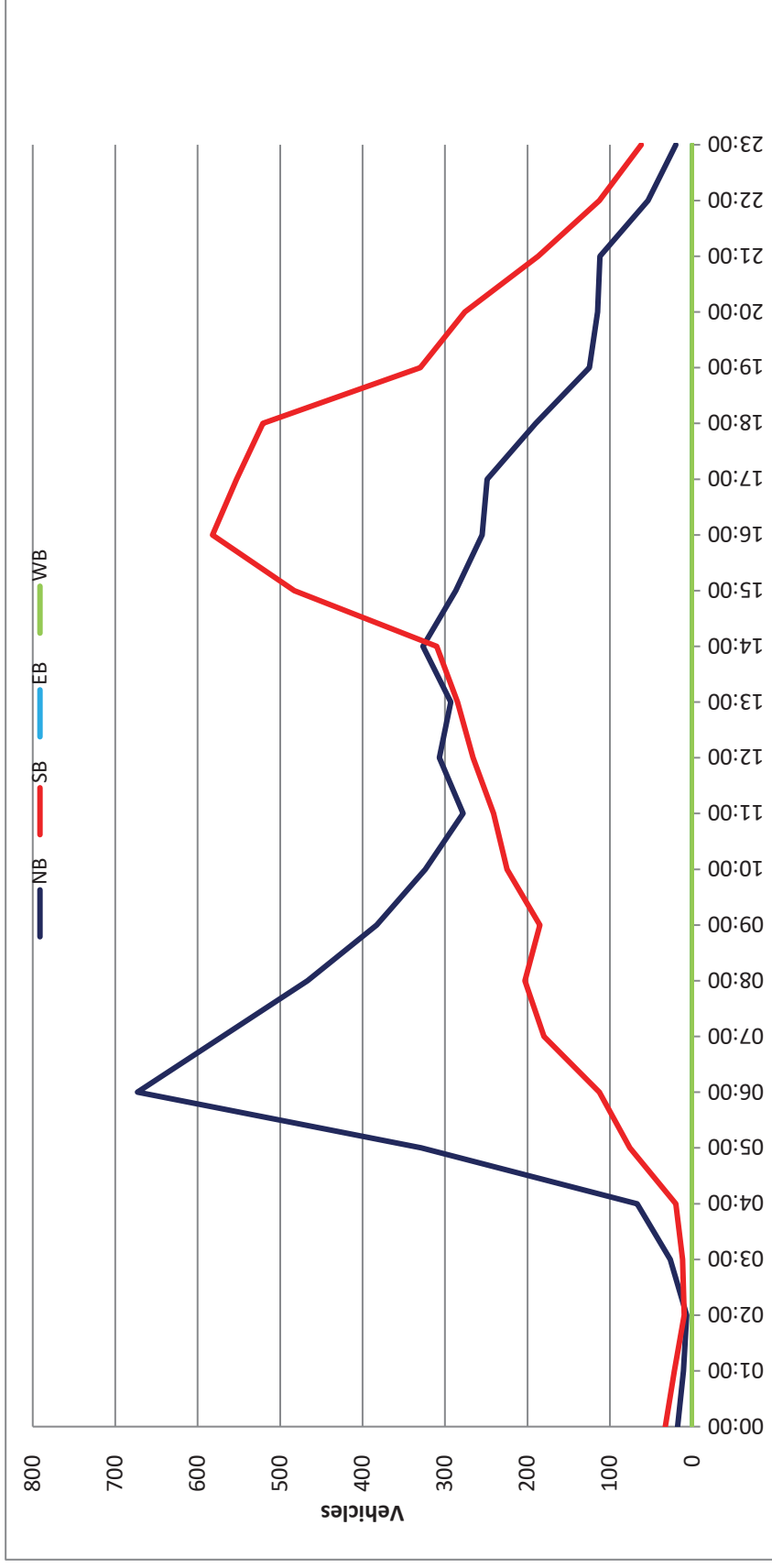
DAILY TOTALS					NB	SB	EB					WB	Total				
					5,488	5,288						0					
AM Peak Hour	06:15	11:45				06:45	PM Peak Hour	14:15	16:15						15:45		
AM Pk Volume	678	253				829	PM Pk Volume	328	596						861		
Pk Hr Factor	0.811	0.821				0.839	Pk Hr Factor	0.854	0.914						0.936		
7 - 9 Volume	1037	383	0	0	1420	4 - 6 Volume	504	1135	0	0				1639			
7 - 9 Peak Hour	07:00	08:00				07:00	4 - 6 Peak Hour	16:00	16:15						16:15		
7 - 9 Pk Volume	570	203	0	0	750	4 - 6 Pk Volume	255	596	0	0				844			
Pk Hr Factor	0.908	0.976	0.000	0.000	0.933	Pk Hr Factor	0.966	0.914	0.000	0.000				0.946			

Project #: CA14_4115_033

City: Jamul

Location: SR-94 from Lyons Valley Rd to Jefferson Rd

Date: 4/30/2014



VOLUME

SR-94 from Jefferson Rd to Maxfield Rd

Day: Wednesday
Date: 4/30/2014City: Jamul
Project #: CA14_4115_034

DAILY TOTALS					NB	SB					EB	WB	Total
					4,597	4,452					0	0	9,049
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	2	5			7	12:00	69	46			115		
00:15	5	6			11	12:15	72	57			129		
00:30	1	8			9	12:30	74	69			143		
00:45	4	12	2	21	6	12:45	64	279	52	224	116	503	
01:00	2	1			3	13:00	51	44			95		
01:15	6	6			12	13:15	61	64			125		
01:30	2	7			9	13:30	67	58			125		
01:45	0	10	4	18	4	13:45	66	245	55	221	121	466	
02:00	1	3			4	14:00	63	65			128		
02:15	0	2			2	14:15	75	61			136		
02:30	2	1			3	14:30	76	59			135		
02:45	3	6	4	10	7	14:45	78	292	103	288	181	580	
03:00	6	3			9	15:00	49	93			142		
03:15	3	4			7	15:15	57	72			129		
03:30	6	3			9	15:30	69	114			183		
03:45	6	21	0	10	6	15:45	72	247	131	410	203	657	
04:00	7	3			10	16:00	56	133			189		
04:15	10	4			14	16:15	48	131			179		
04:30	13	4			17	16:30	55	127			182		
04:45	23	53	6	17	29	16:45	53	212	118	509	171	721	
05:00	32	18			50	17:00	50	132			182		
05:15	40	13			53	17:15	50	107			157		
05:30	77	24			101	17:30	55	119			174		
05:45	126	275	17	72	143	17:45	56	211	108	466	164	677	
06:00	135	27			162	18:00	38	118			156		
06:15	125	24			149	18:15	43	110			153		
06:30	138	27			165	18:30	33	105			138		
06:45	166	564	41	119	207	18:45	34	148	95	428	129	576	
07:00	117	33			150	19:00	22	73			95		
07:15	115	27			142	19:15	28	69			97		
07:30	132	47			179	19:30	20	53			73		
07:45	106	470	28	135	134	19:45	29	99	55	250	84	349	
08:00	102	55			157	20:00	24	58			82		
08:15	110	34			144	20:15	19	53			72		
08:30	77	50			127	20:30	27	58			85		
08:45	96	385	48	187	144	20:45	27	97	57	226	84	323	
09:00	77	56			133	21:00	24	49			73		
09:15	70	35			105	21:15	23	42			65		
09:30	87	40			127	21:30	26	33			59		
09:45	76	310	40	171	116	21:45	21	94	23	147	44	241	
10:00	54	34			88	22:00	13	23			36		
10:15	73	61			134	22:15	11	19			30		
10:30	77	44			121	22:30	12	19			31		
10:45	70	274	48	187	118	22:45	14	50	20	81	34	131	
11:00	66	53			119	23:00	8	17			25		
11:15	57	41			98	23:15	5	22			27		
11:30	52	60			112	23:30	2	9			11		
11:45	53	228	46	200	99	23:45	0	15	7	55	7	70	
TOTALS	2608	1147			3755	TOTALS	1989	3305			5294		
SPLIT %	69.5%	30.5%			41.5%	SPLIT %	37.6%	62.4%			58.5%		

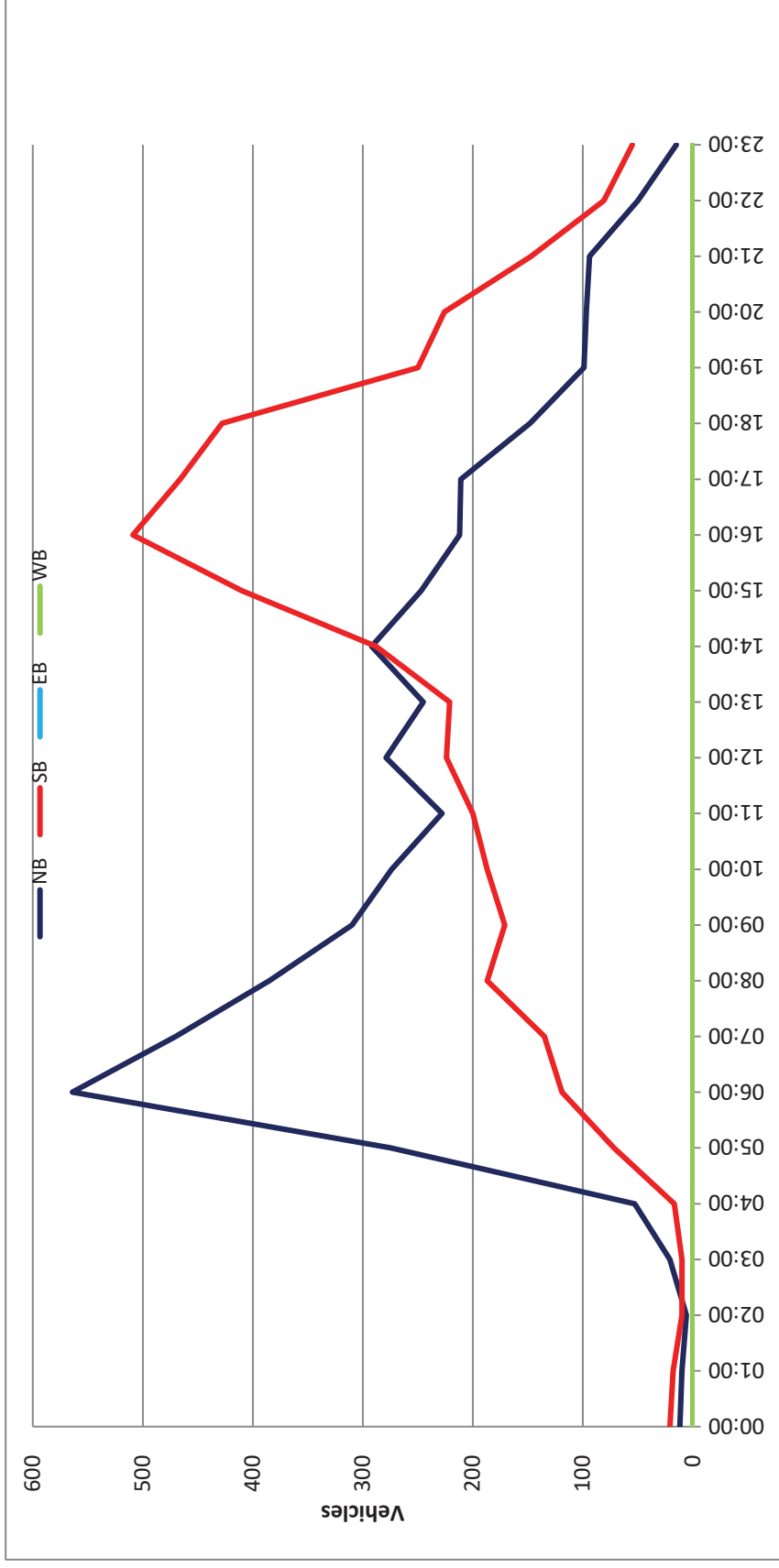
DAILY TOTALS					NB	SB					EB	WB	Total
					4,597	4,452					0	0	9,049
AM Peak Hour	06:00	11:45			06:00	PM Peak Hour	14:00	15:45			15:30		
AM Pk Volume	564	218			683	PM Pk Volume	292	522			754		
Pk Hr Factor	0.849	0.790			0.825	Pk Hr Factor	0.936	0.981			0.929		
7 - 9 Volume	855	322	0	0	1177	4 - 6 Volume	423	975	0	0	1398		
7 - 9 Peak Hour	07:00	08:00			07:30	4 - 6 Peak Hour	16:00	16:00			16:00		
7 - 9 Pk Volume	470	187	0	0	614	4 - 6 Pk Volume	212	509	0	0	721		
Pk Hr Factor	0.890	0.850	0.000	0.000	0.858	Pk Hr Factor	0.946	0.957	0.000	0.000	0.954		

Project #: CA14_4115_034

City: Jamul

Location: SR-94 from Jefferson Rd to Maxfield Rd

Date: 4/30/2014



VOLUME

SR-94 from Maxfield Rd to Melody Rd

Day: Wednesday

Date: 4/30/2014

City: Jamul

Project #: CA14_4115_035

DAILY TOTALS					NB	SB					EB	WB	Total
					4,072	3,952					0	0	8,024
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	3	6			9	12:00	50	35			85		
00:15	3	6			9	12:15	68	37			105		
00:30	1	5			6	12:30	59	48			107		
00:45	3	10	1	18	4	12:45	51	228	49	169	100	397	
01:00	2	1			3	13:00	46	42			88		
01:15	5	6			11	13:15	53	57			110		
01:30	2	4			6	13:30	51	52			103		
01:45	0	9	5	16	5	13:45	54	204	43	194	97	398	
02:00	1	3			4	14:00	53	59			112		
02:15	1	1			2	14:15	65	48			113		
02:30	2	1			3	14:30	68	53			121		
02:45	3	7	3	8	6	14:45	62	248	96	256	158	504	
03:00	6	2			8	15:00	41	81			122		
03:15	3	5			8	15:15	53	64			117		
03:30	6	4			10	15:30	68	93			161		
03:45	7	22	0	11	7	15:45	57	219	116	354	173	573	
04:00	7	4			11	16:00	47	119			166		
04:15	11	4			15	16:15	49	113			162		
04:30	13	3			16	16:30	46	113			159		
04:45	22	53	6	17	28	16:45	41	183	122	467	163	650	
05:00	30	17			47	17:00	43	116			159		
05:15	38	12			50	17:15	46	102			148		
05:30	75	24			99	17:30	46	105			151		
05:45	127	270	15	68	142	17:45	39	174	102	425	141	599	
06:00	121	27			148	18:00	30	109			139		
06:15	118	23			141	18:15	36	101			137		
06:30	135	24			159	18:30	25	98			123		
06:45	152	526	37	111	189	18:45	25	116	89	397	114	513	
07:00	111	33			144	19:00	21	67			88		
07:15	119	32			151	19:15	20	61			81		
07:30	111	45			156	19:30	18	47			65		
07:45	98	439	33	143	131	19:45	27	86	52	227	79	313	
08:00	89	43			132	20:00	24	52			76		
08:15	92	42			134	20:15	14	44			58		
08:30	80	37			117	20:30	23	55			78		
08:45	73	334	43	165	116	20:45	24	85	53	204	77	289	
09:00	81	45			126	21:00	21	46			67		
09:15	57	32			89	21:15	25	38			63		
09:30	75	31			106	21:30	25	29			54		
09:45	72	285	27	135	99	21:45	21	92	22	135	43	227	
10:00	46	28			74	22:00	14	21			35		
10:15	67	47			114	22:15	11	19			30		
10:30	54	32			86	22:30	12	22			34		
10:45	59	226	42	149	101	22:45	11	48	19	81	30	129	
11:00	56	44			100	23:00	8	15			23		
11:15	50	27			77	23:15	5	20			25		
11:30	42	48			90	23:30	1	9			10		
11:45	46	194	33	152	79	23:45	0	14	6	50	6	64	
TOTALS	2375	993			3368	TOTALS	1697	2959			4656		
SPLIT %	70.5%	29.5%			42.0%	SPLIT %	36.4%	63.6%			58.0%		

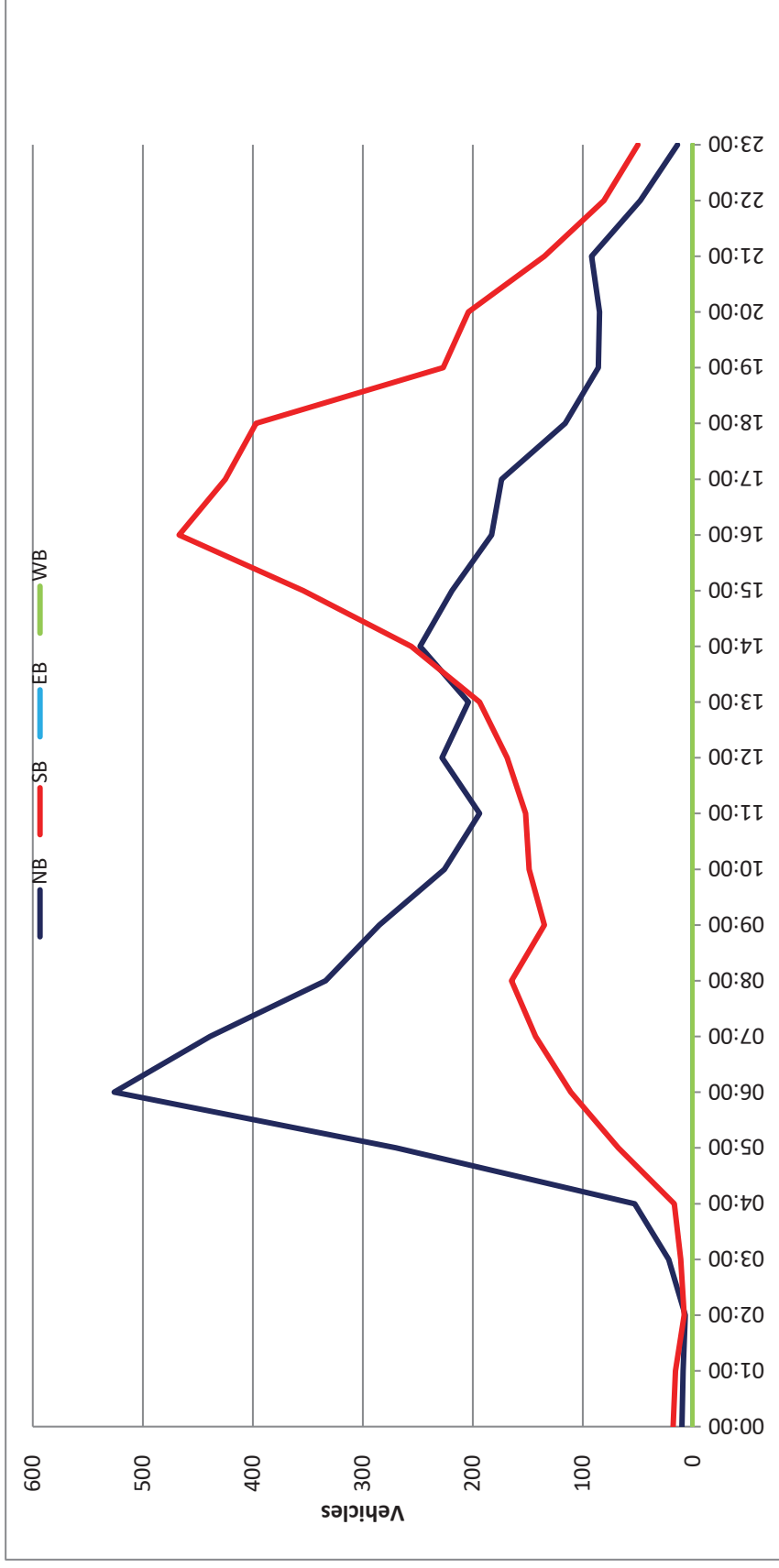
DAILY TOTALS					NB	SB						EB	WB	Total
					4,072	3,952						0	0	8,024
AM Peak Hour	06:00	08:15			06:30	PM Peak Hour	14:00	16:00					15:30	
AM Pk Volume	526	167			643	PM Pk Volume	248	467					662	
Pk Hr Factor	0.865	0.928			0.851	Pk Hr Factor	0.912	0.957					0.957	
7 - 9 Volume	773	308	0	0	1081	4 - 6 Volume	357	892	0	0			1249	
7 - 9 Peak Hour	07:00	08:00			07:00	4 - 6 Peak Hour	16:00	16:00					16:00	
7 - 9 Pk Volume	439	165	0	0	582	4 - 6 Pk Volume	183	467	0	0			650	
Pk Hr Factor	0.922	0.959	0.000	0.000	0.933	Pk Hr Factor	0.934	0.957	0.000	0.000			0.979	

Project #: CA14_4115_035

City: Jamul

Location: SR-94 from Maxfield Rd to Melody Rd

Date: 4/30/2014



VOLUME

SR-94 from Melody Rd to Otay Lakes Rd

Day: Wednesday

Date: 4/30/2014

City: Jamul

Project #: CA14_4115_036

DAILY TOTALS					NB	SB	EB					WB	Total
					3,562	3,383						0	0
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	3	8			11	12:00	48	34			82		
00:15	4	2			6	12:15	52	53			105		
00:30	1	4			5	12:30	52	32			84		
00:45	2	10	4	18	6	12:45	45	197	44	163	89	360	
01:00	4	3			7	13:00	42	46			88		
01:15	2	3			5	13:15	56	41			97		
01:30	2	1			3	13:30	43	49			92		
01:45	1	9	3	10	4	13:45	58	199	35	171	93	370	
02:00	2	1			3	14:00	39	35			74		
02:15	3	2			5	14:15	71	64			135		
02:30	1	4			5	14:30	72	48			120		
02:45	4	10	0	7	4	14:45	47	229	38	185	85	414	
03:00	2	5			7	15:00	45	62			107		
03:15	4	1			5	15:15	41	69			110		
03:30	3	5			8	15:30	42	105			147		
03:45	6	15	1	12	7	15:45	34	162	89	325	123	487	
04:00	10	2			12	16:00	30	114			144		
04:15	16	1			17	16:15	41	101			142		
04:30	19	3			22	16:30	35	100			135		
04:45	30	75	4	10	34	16:45	29	135	96	411	125	546	
05:00	24	9			33	17:00	30	99			129		
05:15	52	6			58	17:15	37	93			130		
05:30	97	9			106	17:30	43	90			133		
05:45	118	291	11	35	129	17:45	23	133	96	378	119	511	
06:00	107	22			129	18:00	44	93			137		
06:15	107	19			126	18:15	21	92			113		
06:30	113	26			139	18:30	22	76			98		
06:45	99	426	26	93	125	18:45	29	116	62	323	91	439	
07:00	99	35			134	19:00	29	56			85		
07:15	95	34			129	19:15	29	51			80		
07:30	75	33			108	19:30	19	39			58		
07:45	75	344	25	127	100	19:45	16	93	45	191	61	284	
08:00	67	35			102	20:00	15	52			67		
08:15	94	17			111	20:15	24	32			56		
08:30	71	46			117	20:30	12	43			55		
08:45	53	285	29	127	82	20:45	16	67	28	155	44	222	
09:00	56	33			89	21:00	17	27			44		
09:15	54	43			97	21:15	24	38			62		
09:30	64	24			88	21:30	18	29			47		
09:45	49	223	41	141	90	21:45	21	80	32	126	53	206	
10:00	57	27			84	22:00	13	24			37		
10:15	41	22			63	22:15	8	15			23		
10:30	50	36			86	22:30	13	4			17		
10:45	46	194	37	122	83	22:45	13	47	7	50	20	97	
11:00	41	32			73	23:00	12	8			20		
11:15	45	41			86	23:15	8	11			19		
11:30	43	44			87	23:30	5	10			15		
11:45	59	188	45	162	104	23:45	9	34	12	41	21	75	
TOTALS	2070	864			2934	TOTALS	1492	2519			4011		
SPLIT %	70.6%	29.4%			42.2%	SPLIT %	37.2%	62.8%			57.8%		

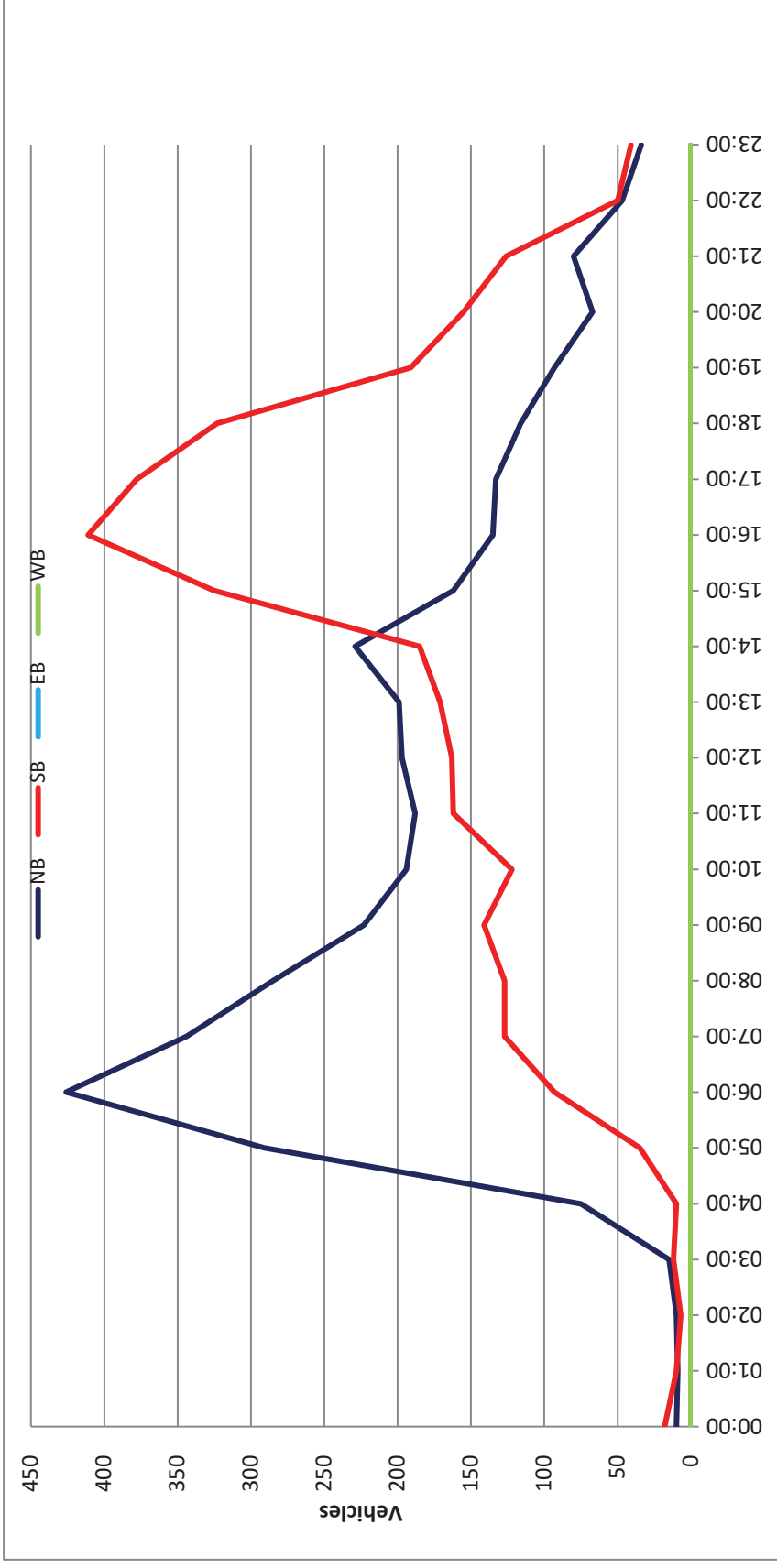
DAILY TOTALS					NB	SB	EB	WB	Total
					3,562	3,383	0	0	6,945
AM Peak Hour	05:45	11:30		06:30	PM Peak Hour	13:45	16:00		15:30
AM Pk Volume	445	176		527	PM Pk Volume	240	411		556
Pk Hr Factor	0.943	0.830		0.948	Pk Hr Factor	0.833	0.901		0.946
7 - 9 Volume	629	254	0	0	4 - 6 Volume	268	789	0	0
7 - 9 Peak Hour	07:00	07:00		07:00	4 - 6 Peak Hour	16:45	16:00		16:00
7 - 9 Pk Volume	344	127	0	0	4 - 6 Pk Volume	139	411	0	0
Pk Hr Factor	0.869	0.907	0.000	0.000	Pk Hr Factor	0.808	0.901	0.000	0.000

Project #: CA14_4115_036

City: Jamul

Location: SR-94 from Melody Rd to Otay Lakes Rd

Date: 4/30/2014



VOLUME

Melody Road Bet. Proctor Valley Road & SR-94

Day: Tuesday
Date: 3/10/2015City: Chula Vista
Project #: CA15_4080_009

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						128	131	259	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			0	0	0		12:00			3	3	6			
00:15			2	1	3		12:15			1	2	3			
00:30			0	1	1		12:30			2	4	6			
00:45			1	3	4		12:45			1	7	8			
01:00			0	0	0		13:00			3	1	4			
01:15			0	2	2		13:15			4	4	8			
01:30			1	0	1		13:30			2	1	3			
01:45			0	1	1		13:45			2	11	13			
02:00			1	0	1		14:00			2	2	4			
02:15			0	0	0		14:15			5	4	9			
02:30			0	0	0		14:30			4	4	8			
02:45			0	1	1		14:45			3	14	17			
03:00			0	0	0		15:00			2	7	9			
03:15			0	0	0		15:15			1	1	2			
03:30			0	2	2		15:30			2	2	4			
03:45			0	0	0		15:45			0	5	5			
04:00			1	0	1		16:00			3	2	5			
04:15			1	0	1		16:15			0	4	4			
04:30			0	0	0		16:30			1	1	2			
04:45			0	2	2		16:45			2	6	8			
05:00			1	0	1		17:00			2	6	8			
05:15			1	0	1		17:15			2	8	10			
05:30			1	0	1		17:30			5	1	6			
05:45			1	4	5		17:45			0	9	9			
06:00			3	0	3		18:00			1	1	2			
06:15			2	0	2		18:15			3	0	3			
06:30			3	3	6		18:30			1	1	2			
06:45			3	11	14		18:45			1	6	7			
07:00			2	1	3		19:00			0	0	0			
07:15			3	0	3		19:15			0	0	0			
07:30			3	1	4		19:30			0	0	0			
07:45			3	11	14		19:45			0	0	0			
08:00			4	3	7		20:00			0	0	0			
08:15			3	2	5		20:15			0	0	0			
08:30			4	1	5		20:30			2	0	2			
08:45			1	12	13		20:45			0	2	2			
09:00			4	2	6		21:00			0	0	0			
09:15			0	1	1		21:15			1	0	1			
09:30			1	4	5		21:30			1	0	1			
09:45			0	5	5		21:45			1	3	4			
10:00			1	1	2		22:00			0	1	1			
10:15			0	0	0		22:15			1	0	1			
10:30			2	2	4		22:30			0	0	0			
10:45			1	4	5		22:45			1	2	3			
11:00			2	1	3		23:00			0	0	0			
11:15			1	1	2		23:15			0	0	0			
11:30			1	4	5		23:30			0	0	0			
11:45			5	9	14		23:45			0	0	0			
TOTALS			63	54	117		TOTALS			65	77	142			
SPLIT %			53.8%	46.2%	45.2%		SPLIT %			45.8%	54.2%	54.8%			

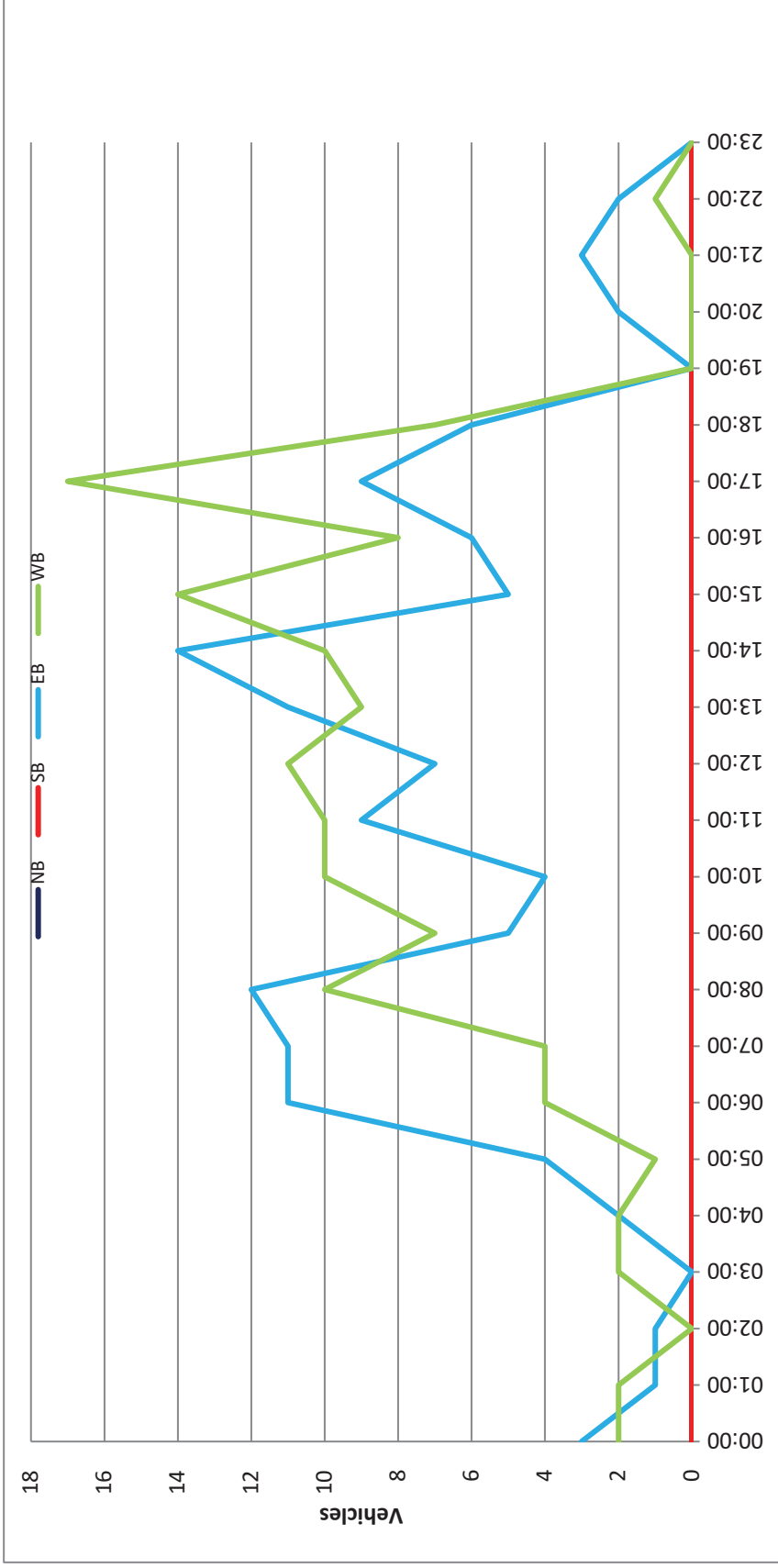
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						128	131	259	
AM Peak Hour			07:45	10:45	11:45		PM Peak Hour			14:00	17:00	14:15			
AM Pk Volume			14	13	24		PM Pk Volume			14	17	29			
Pk Hr Factor			0.875	0.464	0.667		Pk Hr Factor			0.700	0.531	0.806			
7 - 9 Volume	0	0	23	14	37		4 - 6 Volume	0	0	15	25	40			
7 - 9 Peak Hour			07:45	08:00	07:45		4 - 6 Peak Hour			16:45	17:00	16:45			
7 - 9 Pk Volume	0	0	14	10	22		4 - 6 Pk Volume	0	0	11	17	27			
Pk Hr Factor	0.000	0.000	0.875	0.625	0.786		Pk Hr Factor	0.000	0.000	0.550	0.531	0.675			

Project #: CA15_4080_009

City: Chula Vista

Location: Melody Road Bet. Proctor Valley Road & SR-

Date: 3/10/2015



VOLUME

Jefferson Road Bet. SR-94 & Olive Vista Drive

Day: Tuesday
Date: 3/10/2015City: Chula Vista
Project #: CA15_4080_007

DAILY TOTALS					NB	SB					EB	WB	Total
					1,072	1,138					0	0	2,210
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	0	0			0	12:00	15	20			35		
00:15	0	0			0	12:15	15	14			29		
00:30	0	0			0	12:30	24	15			39		
00:45	1	1	0		1	12:45	24	78	13	62	37	140	
01:00	0	1			1	13:00	45	37			82		
01:15	0	0			0	13:15	23	49			72		
01:30	0	0			0	13:30	14	29			43		
01:45	0	0	1		0	13:45	15	97	22	137	37	234	
02:00	0	1			1	14:00	27	28			55		
02:15	0	0			0	14:15	19	18			37		
02:30	0	0			0	14:30	22	20			42		
02:45	1	1	0	1	1	14:45	19	87	14	80	33	167	
03:00	1	0			1	15:00	17	39			56		
03:15	0	1			1	15:15	14	16			30		
03:30	0	0			0	15:30	23	36			59		
03:45	0	1	0	1	0	15:45	32	86	30	121	62	207	
04:00	0	0			0	16:00	27	19			46		
04:15	1	1			2	16:15	16	15			31		
04:30	0	1			1	16:30	27	15			42		
04:45	0	1	2	4	2	16:45	27	97	14	63	41	160	
05:00	0	1			1	17:00	24	19			43		
05:15	2	2			4	17:15	18	13			31		
05:30	3	7			10	17:30	25	13			38		
05:45	3	8	6	16	9	17:45	26	93	14	59	40	152	
06:00	2	11			13	18:00	22	16			38		
06:15	6	10			16	18:15	16	16			32		
06:30	6	14			20	18:30	12	20			32		
06:45	10	24	22	57	32	18:45	16	66	13	65	29	131	
07:00	12	26			38	19:00	11	16			27		
07:15	12	16			28	19:15	11	11			22		
07:30	41	22			63	19:30	5	5			10		
07:45	41	106	30	94	71	19:45	6	33	8	40	14	73	
08:00	31	30			61	20:00	3	8			11		
08:15	33	35			68	20:15	14	9			23		
08:30	10	20			30	20:30	10	8			18		
08:45	7	81	17	102	24	20:45	9	36	3	28	12	64	
09:00	12	14			26	21:00	6	4			10		
09:15	11	13			24	21:15	8	4			12		
09:30	11	14			25	21:30	2	3			5		
09:45	9	43	11	52	20	21:45	3	19	2	13	5	32	
10:00	0	18			18	22:00	0	1			1		
10:15	1	16			17	22:15	4	1			5		
10:30	14	12			26	22:30	3	1			4		
10:45	7	22	10	56	17	22:45	8	15	1	4	9	19	
11:00	14	16			30	23:00	1	1			2		
11:15	19	25			44	23:15	1	0			1		
11:30	17	18			35	23:30	3	2			5		
11:45	22	72	18	77	40	23:45	0	5	2	5	2	10	
TOTALS	360	461			821	TOTALS	712	677			1389		
SPLIT %	43.8%	56.2%			37.1%	SPLIT %	51.3%	48.7%			62.9%		

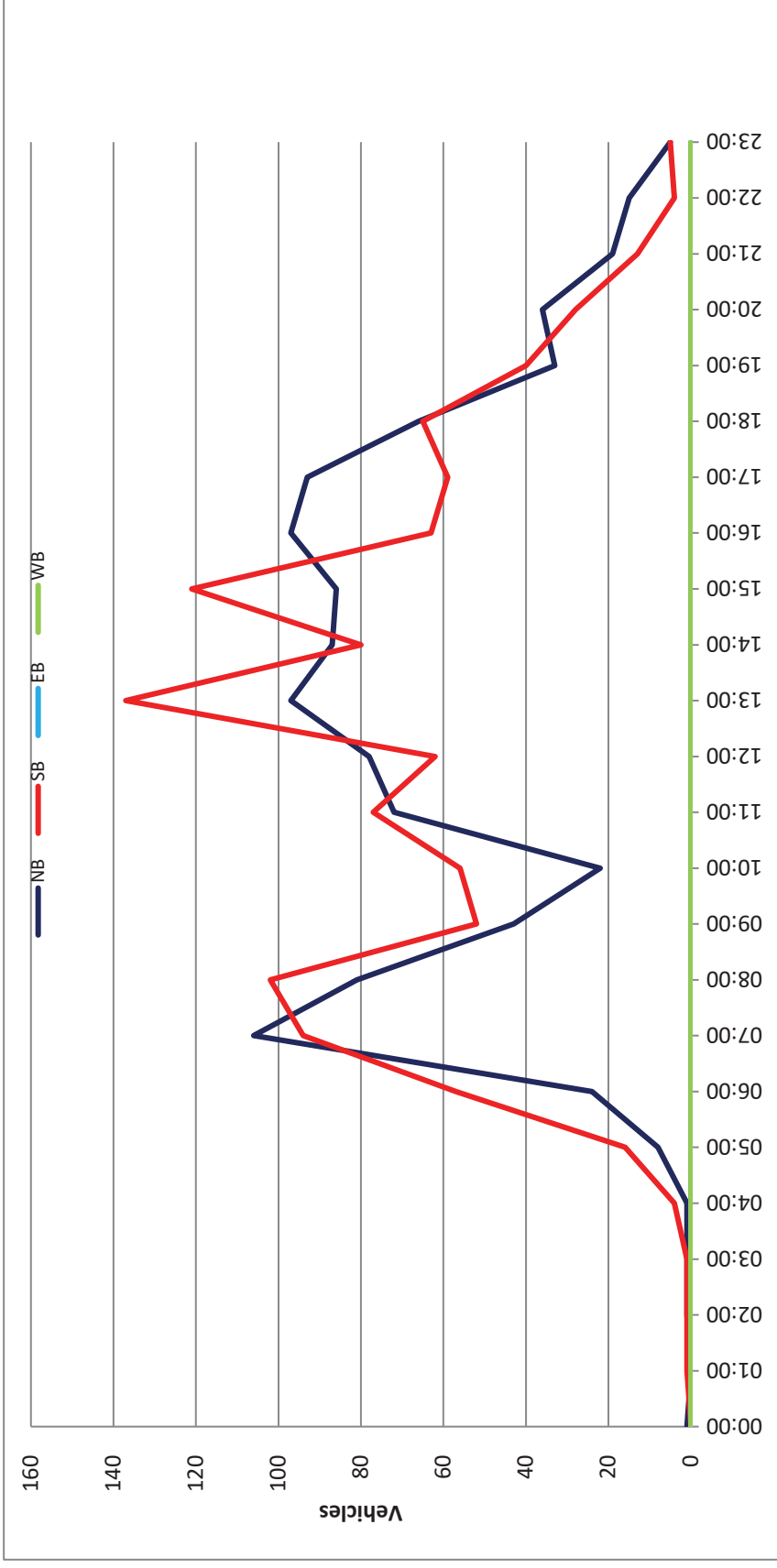
DAILY TOTALS					NB	SB					EB	WB	Total
					1,072	1,138					0	0	2,210
AM Peak Hour	07:30	07:30			07:30	PM Peak Hour	12:30	13:00			12:45		
AM Pk Volume	146	117			263	PM Pk Volume	116	137			234		
Pk Hr Factor	0.890	0.836			0.926	Pk Hr Factor	0.644	0.699			0.713		
7 - 9 Volume	187	196	0	0	383	4 - 6 Volume	190	122	0	0	312		
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	16:00	16:00			16:00		
7 - 9 Pk Volume	146	117	0	0	263	4 - 6 Pk Volume	97	63	0	0	160		
Pk Hr Factor	0.890	0.836	0.000	0.000	0.926	Pk Hr Factor	0.898	0.829	0.000	0.000	0.870		

Project #: CA15_4080_007

City: Chula Vista

Location: Jefferson Road Bet. SR-94 & Olive Vista

Date: 3/10/2015



VOLUME

Lyons Valley Rd Bet. SR-94 & Olive Vista Drive

Day: Tuesday
Date: 3/10/2015City: Chula Vista
Project #: CA15_4080_006

DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						3,392	2,799	6,191	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			10	0	10		12:00			33	32	65			
00:15			7	0	7		12:15			45	33	78			
00:30			5	1	6		12:30			49	36	85			
00:45			5	27	0	1	12:45			57	184	34	135	91	319
01:00			4	0	4		13:00			82	40	122			
01:15			0	1	1		13:15			59	61	120			
01:30			0	0	0		13:30			54	47	101			
01:45			5	9	0	1	13:45			33	228	39	187	72	415
02:00			5	0	5		14:00			44	40	84			
02:15			2	0	2		14:15			37	42	79			
02:30			2	0	2		14:30			56	47	103			
02:45			4	13	1	1	14:45			75	212	38	167	113	379
03:00			6	3	9		15:00			78	33	111			
03:15			8	1	9		15:15			66	46	112			
03:30			6	1	7		15:30			80	43	123			
03:45			3	23	0	5	15:45			67	291	37	159	104	450
04:00			4	5	9		16:00			67	35	102			
04:15			5	11	16		16:15			78	42	120			
04:30			10	6	16		16:30			84	31	115			
04:45			10	29	14	36	16:45			60	289	51	159	111	448
05:00			13	16	29		17:00			72	30	102			
05:15			21	33	54		17:15			65	41	106			
05:30			26	29	55		17:30			86	27	113			
05:45			33	93	39	117	17:45			68	291	35	133	103	424
06:00			30	43	73		18:00			77	30	107			
06:15			12	65	77		18:15			84	25	109			
06:30			19	81	100		18:30			54	47	101			
06:45			32	93	77	266	18:45			55	270	35	137	90	407
07:00			26	95	121		19:00			73	33	106			
07:15			36	63	99		19:15			47	31	78			
07:30			40	57	97		19:30			46	29	75			
07:45			40	142	90	305	19:45			46	212	15	108	61	320
08:00			28	65	93		20:00			43	19	62			
08:15			17	108	125		20:15			49	12	61			
08:30			39	77	116		20:30			45	16	61			
08:45			23	107	79	329	20:45			46	183	9	56	55	239
09:00			41	56	97		21:00			35	13	48			
09:15			30	59	89		21:15			40	10	50			
09:30			44	25	69		21:30			36	2	38			
09:45			44	159	27	167	21:45			29	140	9	34	38	174
10:00			29	35	64		22:00			22	7	29			
10:15			41	39	80		22:15			20	3	23			
10:30			33	29	62		22:30			21	4	25			
10:45			35	138	36	139	22:45			10	73	3	17	13	90
11:00			40	27	67		23:00			13	5	18			
11:15			41	33	74		23:15			12	3	15			
11:30			36	33	69		23:30			6	2	8			
11:45			27	144	36	129	23:45			11	42	1	11	12	53
TOTALS			977	1496	2473		TOTALS			2415	1303	3718			
SPLIT %			39.5%	60.5%	39.9%		SPLIT %			65.0%	35.0%	60.1%			

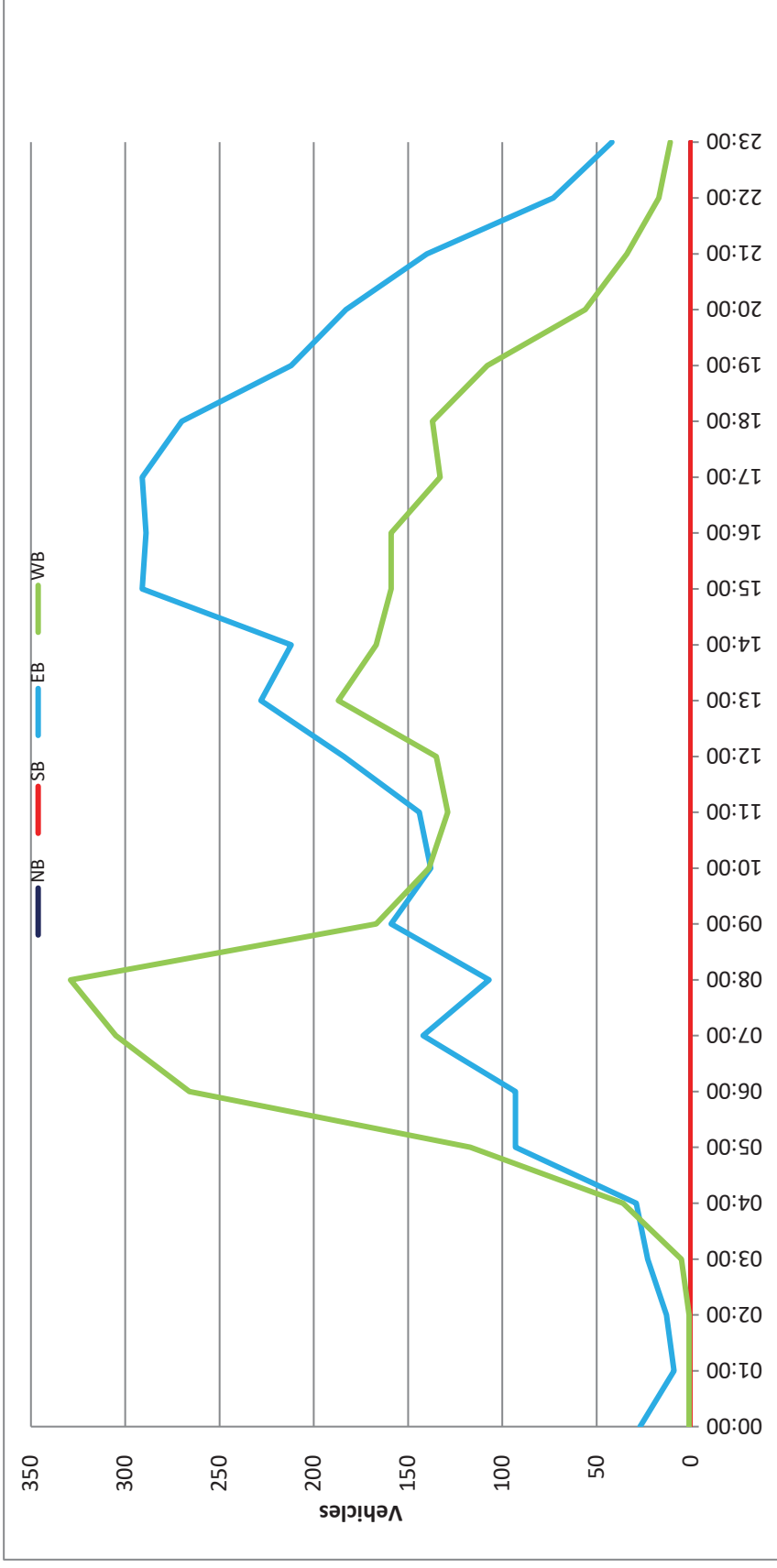
DAILY TOTALS					NB	SB						EB	WB	Total	
					0	0						3,392	2,799	6,191	
AM Peak Hour			09:00	07:45	07:45		PM Peak Hour			17:30	13:00	14:45			
AM Pk Volume			159	340	464		PM Pk Volume			315	187	459			
Pk Hr Factor			0.903	0.787	0.892		Pk Hr Factor			0.916	0.766	0.933			
7 - 9 Volume	0	0	249	634	883		4 - 6 Volume	0	0	580	292	872			
7 - 9 Peak Hour			07:15	07:45	07:45		4 - 6 Peak Hour			16:15	16:00	16:00			
7 - 9 Pk Volume	0	0	144	340	464		4 - 6 Pk Volume	0	0	294	159	448			
Pk Hr Factor	0.000	0.000	0.900	0.787	0.892		Pk Hr Factor	0.000	0.000	0.875	0.779	0.933			

Project #: CA15_4080_006

City: Chula Vista

Location: Lyons Valley Rd Bet. SR-94 & Olive Vista

Date: 3/10/2015



Prepared by:
National Data & Surveying Services

Date: 3/10/2015

CONTROL : 2-Way Stop (EB/WB)

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-001

Day: Tuesday

City: Jamul

Date: 3/10/2015

PM													
NS/EW Streets:	SR-94			SR-94			Lyons Valley Rd			Lyons Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
4:00 PM	1	75	1	69	155	2	1	1	0	0	0	40	345
4:15 PM	0	79	1	70	154	2	1	0	0	0	0	34	341
4:30 PM	1	56	5	87	141	4	2	1	0	2	2	33	334
4:45 PM	1	71	0	58	147	4	1	0	0	0	0	45	327
5:00 PM	0	64	3	68	159	5	4	1	3	0	1	39	347
5:15 PM	1	70	0	72	139	1	2	1	0	1	0	32	319
5:30 PM	1	60	0	77	156	4	2	1	0	0	0	31	332
5:45 PM	0	63	1	71	140	3	0	0	1	0	0	29	308
TOTAL VOLUMES :	NL 5	NT 538	NR 11	SL 572	ST 1191	SR 25	EL 13	ET 5	ER 4	WL 3	WT 3	WR 283	TOTAL 2653
APPROACH %'s :	0.90%	97.11%	1.99%	31.99%	66.61%	1.40%	59.09%	22.73%	18.18%	1.04%	1.04%	97.92%	
PEAK HR START TIME :	415 PM												TOTAL
PEAK HR VOL :	2	270	9	283	601	15	8	2	3	2	3	151	1349
PEAK HR FACTOR :	0.878			0.969			0.406			0.867			0.972

CONTROL : 2-Way Stop (EB/WB)

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-001

Day: Tuesday

City: Jamul

Date: 3/10/2015

NOON													
NS/EW Streets:	SR-94			SR-94			Lyons Valley Rd			Lyons Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	1	1	0	0	1	0	0	1	0	

TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : 2-Way Stop (EB/WB)

UTURNS			
NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

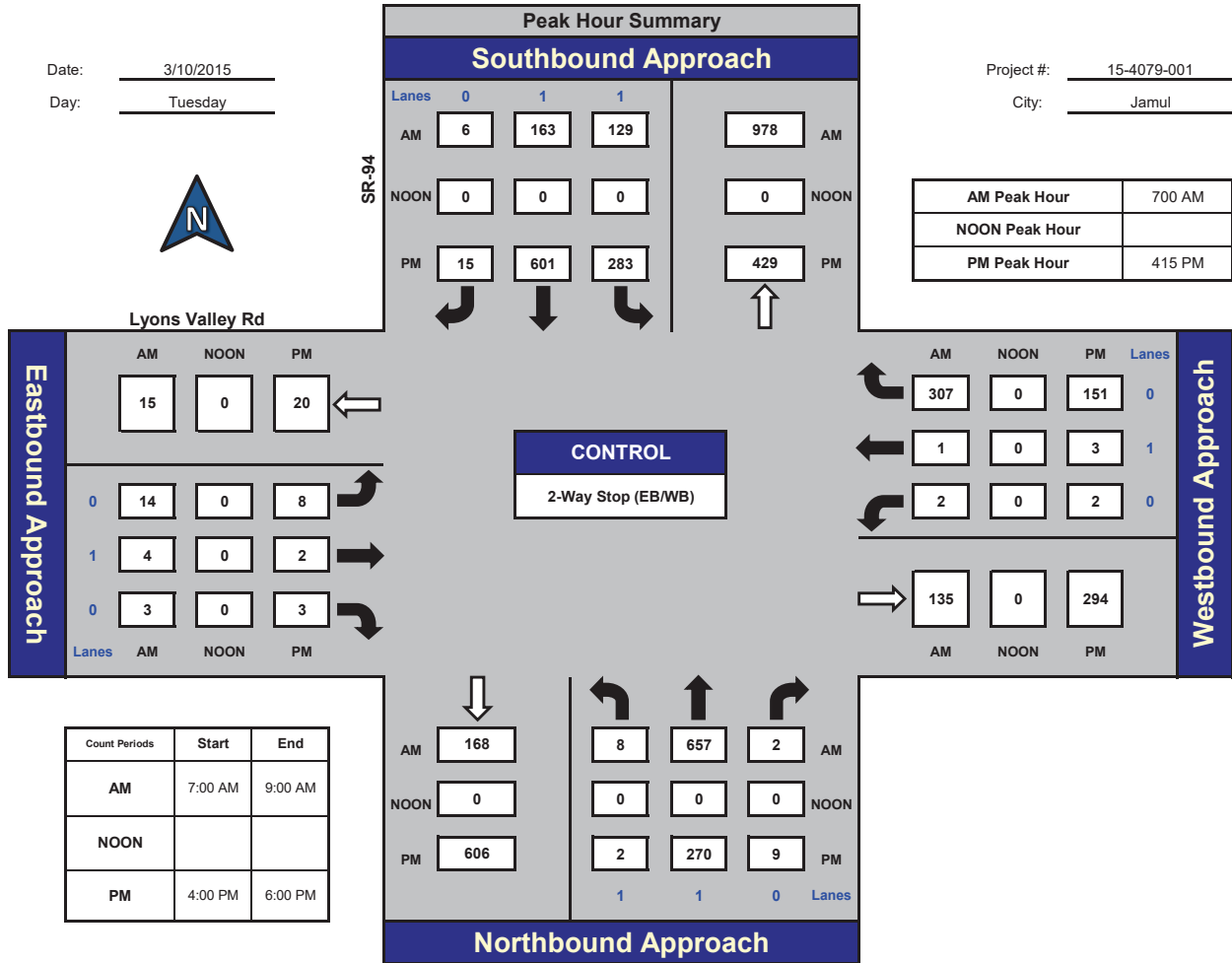
SR-94 and Lyons Valley Rd , Jamul

Date: 3/10/2015

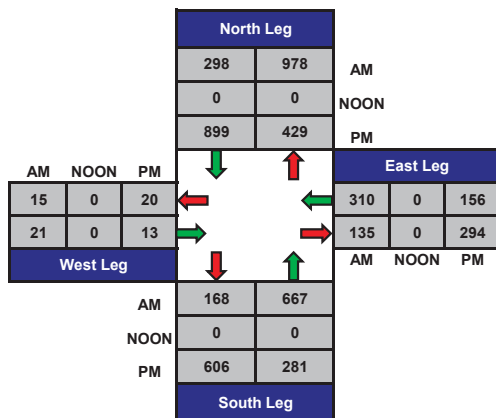
Day: Tuesday

Project #: 15-4079-001

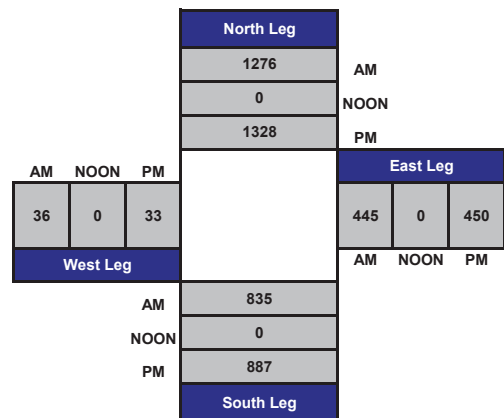
City: Jamul



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-037

Day: Wednesday

City: Jamul

Date: 4/30/2014

NS/EW Streets:	AM												
	Jefferson Rd			Jefferson Rd			SR-94			SR-94			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	
7:00 AM	33	6	0	3	5	10	0	24	7	0	125	7	
7:15 AM	26	6	1	8	6	15	3	27	11	3	116	6	228
7:30 AM	23	13	0	6	6	7	4	38	7	0	128	22	254
7:45 AM	16	13	1	9	11	7	6	24	4	1	92	24	208
8:00 AM	21	14	1	15	8	11	1	35	4	0	81	15	206
8:15 AM	25	14	1	10	10	10	2	30	6	1	77	12	198
8:30 AM	23	7	2	11	5	3	2	36	11	1	65	5	171
8:45 AM	18	3	1	14	4	5	2	33	5	0	77	4	166
TOTAL VOLUMES : APPROACH %'s :	NL 185 69.03%	NT 76 28.36%	NR 7 2.61%	SL 76 38.19%	ST 55 27.64%	SR 68 34.17%	EL 20 6.21%	ET 247 76.71%	ER 55 17.08%	WL 6 0.70%	WT 761 88.28%	WR 95 11.02%	1651
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	98	38	2	26	28	39	13	113	29	4	461	59	910
PEAK HR FACTOR :	0.885			0.802			0.791			0.873			0.896

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-037

Day: Wednesday

City: Jamul

Date: 4/30/2014

NS/EW Streets:	PM													
	Jefferson Rd			Jefferson Rd			SR-94			SR-94			TOTAL	
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0		
LANES:														
	4:00 PM	9	8	11	11	15	6	2	111	22	2	48	7	252
	4:15 PM	11	17	9	16	6	3	6	93	20	1	57	11	250
	4:30 PM	11	14	1	14	9	4	4	113	19	1	44	9	243
	4:45 PM	19	11	3	13	5	7	6	100	28	1	35	6	234
	5:00 PM	11	5	6	14	7	9	4	102	34	3	48	7	250
	5:15 PM	10	7	0	8	9	3	9	96	28	1	50	5	226
	5:30 PM	15	6	4	4	5	1	2	102	26	1	25	9	200
	5:45 PM	23	4	4	13	8	3	2	139	28	1	43	7	275
TOTAL VOLUMES : APPROACH %'s :	NL 109 49.77%	NT 72 32.88%	NR 38 17.35%	SL 93 48.19%	ST 64 33.16%	SR 36 18.65%	EL 35 3.19%	ET 856 78.10%	ER 205 18.70%	WL 11 2.61%	WT 350 82.94%	WR 61 14.45%	1930	
PEAK HR START TIME :	400 PM												TOTAL	
PEAK HR VOL :	50	50	24	54	35	20	18	417	89	5	184	33	979	
PEAK HR FACTOR :	0.838			0.852			0.963			0.804			0.971	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-037

Day: Wednesday

City: Jamul

Date: 4/30/2014

NS/EW Streets:	NOON												
	Jefferson Rd			Jefferson Rd			SR-94			SR-94			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

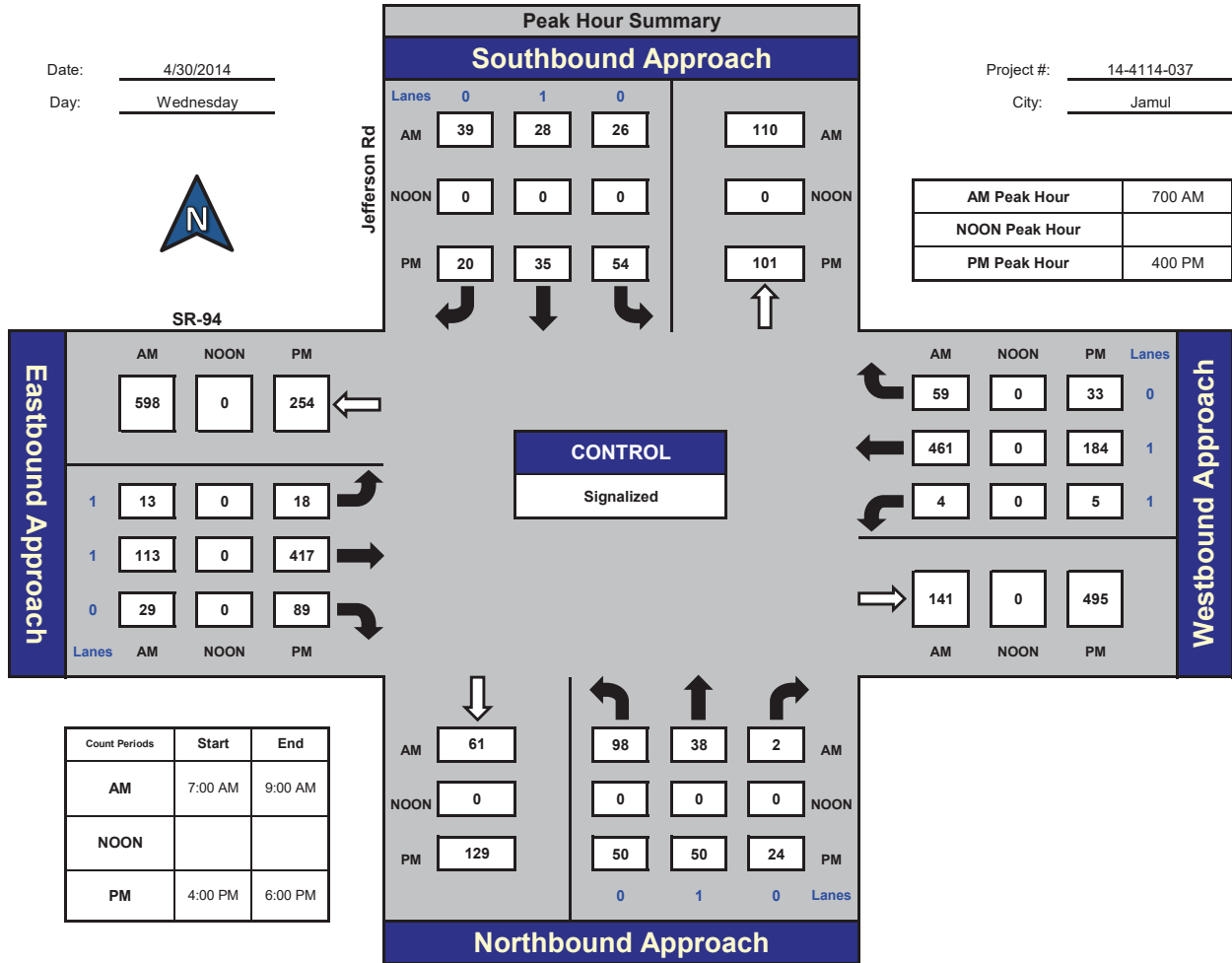
Jefferson Rd and SR-94, Jamul

Date: 4/30/2014

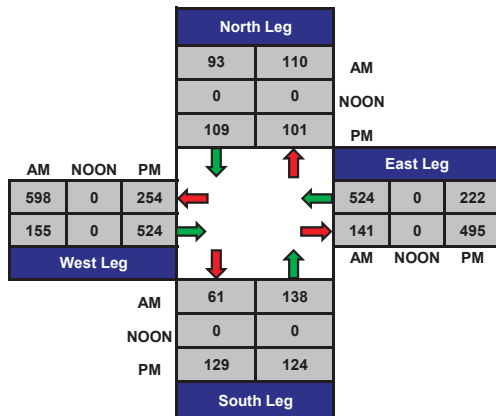
Day: Wednesday

Project #: 14-4114-037

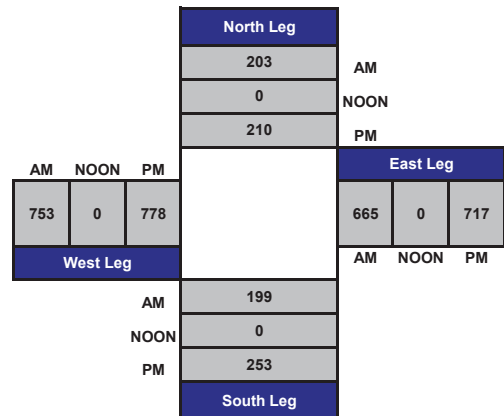
City: Jamul



Total Ins & Outs



Total Volume Per Leg



Prepared by:
National Data & Surveying Services

Date: 3/10/2015

NS/EW Streets:	Schlee Canyon Rd			Schlee Canyon Rd			Proctor Valley Rd			Proctor Valley Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 0	ER 0	WL 0	WT 1	WR 0	
7:00 AM	0	0	24	2	0	0	0	0	0	3	0	0	29
7:15 AM	0	0	23	2	0	0	0	0	0	8	0	0	33
7:30 AM	0	0	25	1	0	0	0	0	0	5	0	0	31
7:45 AM	0	0	29	3	0	0	0	0	0	8	0	2	42
8:00 AM	0	0	19	2	0	0	0	0	0	13	0	1	35
8:15 AM	0	0	25	2	0	0	0	0	0	11	0	0	38
8:30 AM	0	0	17	0	0	0	0	0	0	11	0	1	29
8:45 AM	0	0	24	3	0	0	0	0	0	7	0	1	35
TOTAL VOLUMES : APPROACH %'s :	NL 0.00	NT 0.00%	NR 186 100.00%	SL 15 100.00%	ST 0.00%	SR 0.00%	EL #DIV/0!	ET 0.00%	ER #DIV/0!	WL 66 92.96%	WT 0.00%	WR 5 7.04%	TOTAL 272
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	0	0	98	8	0	0	0	0	0	37	0	3	146
PEAK HR FACTOR :	0.845			0.667			0.000			0.714			0.869

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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CONTROL : 1-Way Stop (WB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-003

Day: Tuesday

City: Jamul

Date: 3/10/2015

PM													
NS/EW Streets:	Schlee Canyon Rd			Schlee Canyon Rd			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 0	ER 0	WL 0	WT 1	WR 0	TOTAL
4:00 PM	0	0	13	0	0	0	0	0	0	24	0	0	37
4:15 PM	0	0	20	1	0	0	0	0	0	30	0	0	51
4:30 PM	0	0	5	0	0	0	0	0	0	22	0	1	28
4:45 PM	0	0	15	2	0	0	0	0	0	12	0	3	32
5:00 PM	0	0	7	0	0	0	0	0	0	29	0	3	39
5:15 PM	0	0	19	1	0	0	0	0	0	24	0	3	47
5:30 PM	0	0	8	0	0	0	0	0	0	16	0	0	24
5:45 PM	0	0	18	0	0	0	0	0	0	20	0	2	40
TOTAL VOLUMES :	NL 0	NT 0	NR 105	SL 4	ST 0	SR 0	EL 0	ET 0	ER 0	WL 177	WT 0	WR 12	TOTAL 298
APPROACH %'s :	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	93.65%	0.00%	6.35%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	52	1	0	0	0	0	0	89	0	8	150
PEAK HR FACTOR :	0.684			0.250			0.000			0.758			0.798

CONTROL : 1-Way Stop (WB)

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-003

Day: Tuesday

City: Jamul

Date: 3/10/2015

NOON

NS/EW Streets:	Schlee Canyon Rd			Schlee Canyon Rd			Proctor Valley Rd			Proctor Valley Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 0	ER 0	WL 0	WT 1	WR 0	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : 1-Way Stop (WB)

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

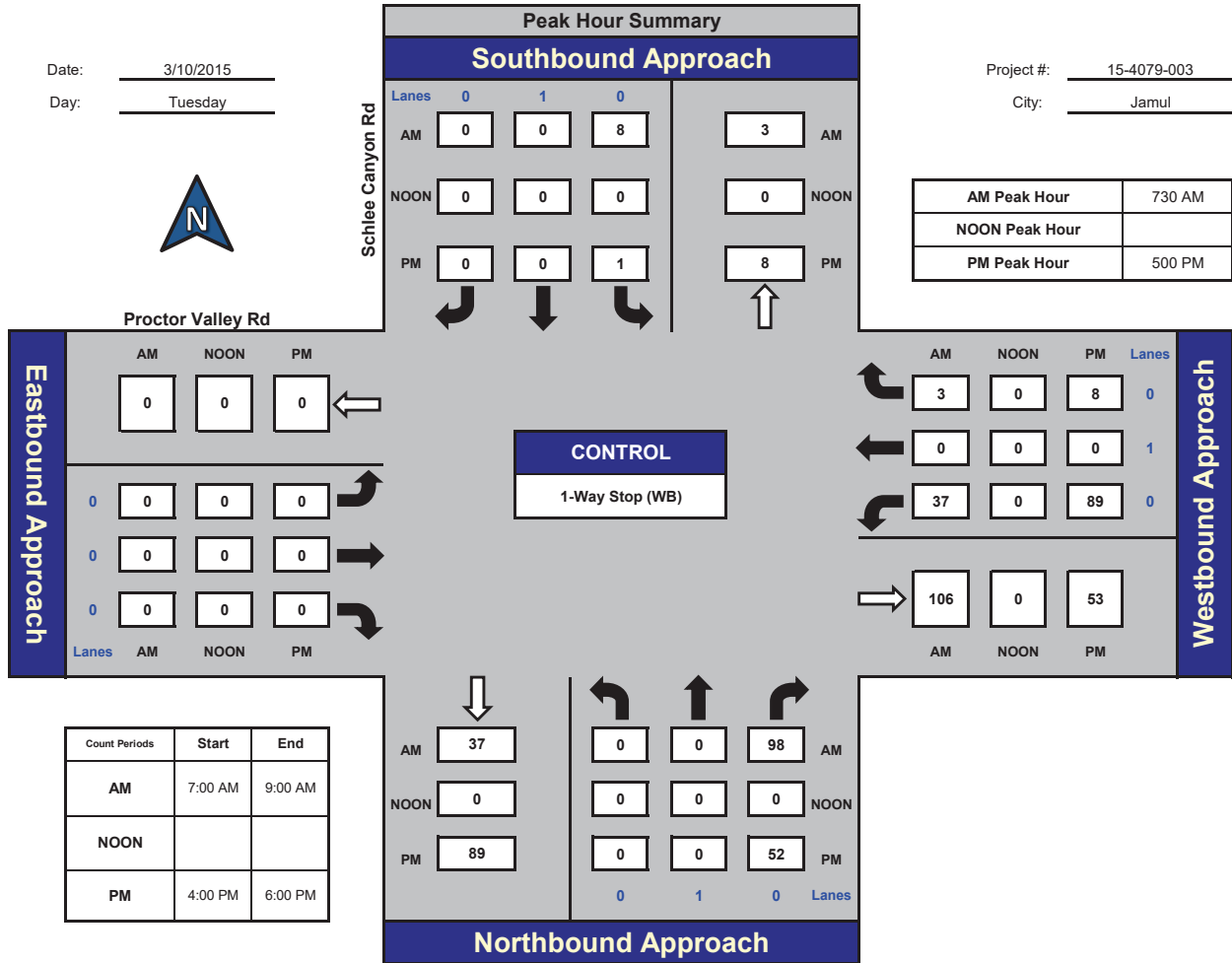
Schlee Canyon Rd and Proctor Valley Rd , Jamul

Date: 3/10/2015

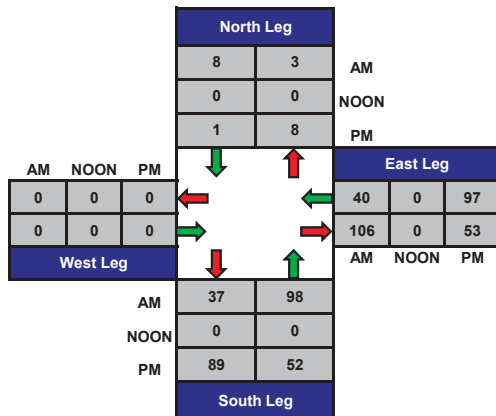
Day: Tuesday

Project #: 15-4079-003

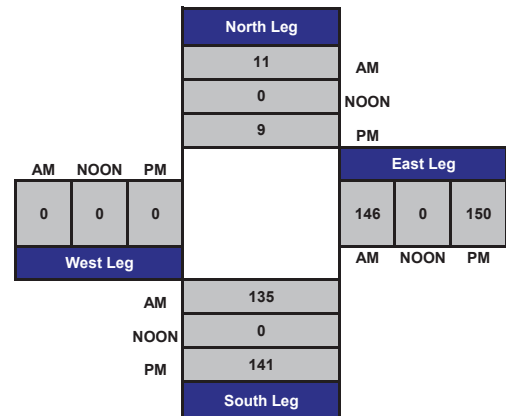
City: Jamul



Total Ins & Outs



Total Volume Per Leg



Prepared by:
National Data & Surveying Services

National Data & Surveying Services

Date: 4/30/2014

NS/EW Streets:

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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CONTROL : 1-Way Stop EB

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-036

Day: Wednesday

City: Jamul

Date: 4/30/2014

NS/EW Streets:		PM												
		SR-94			SR-94			Maxfield Rd			Maxfield Rd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 0	WR 0	TOTAL
4:00 PM	4	55			1	161		6		8	0			235
4:15 PM	2	44			0	116		5		7	0			174
4:30 PM	6	45			0	106		9		10	1			177
4:45 PM	2	43			0	122		7		3	0			177
5:00 PM	3	44			0	96		5		4	0			152
5:15 PM	2	40			0	108		4		4	1			159
5:30 PM	0	36			0	125		4		2	0			167
5:45 PM	2	42			0	111		0		4	1			160
TOTAL VOLUMES : APPROACH %'s :		NL 21 5.68%	NT 349 94.32%	NR 0 0.00%	SL 1 0.11%	ST 945 99.89%	SR 0 0.00%	EL 40 48.78%	ET 0 0.00%	ER 42 51.22%	WL 3 100.00%	WT 0 0.00%	WR 0 0.00%	TOTAL 1401
PEAK HR START TIME :		400 PM												TOTAL
PEAK HR VOL :		14	187	0	1	505	0	27	0	28	1	0	0	763
PEAK HR FACTOR :		0.852			0.781			0.724			0.250			0.812

CONTROL : 1-Way Stop EB

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-036

Day: Wednesday

City: Jamul

Date: 4/30/2014

NS/EW Streets:	NOON												
	SR-94			SR-94			Maxfield Rd			Maxfield Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 0	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : 1-Way Stop EB

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

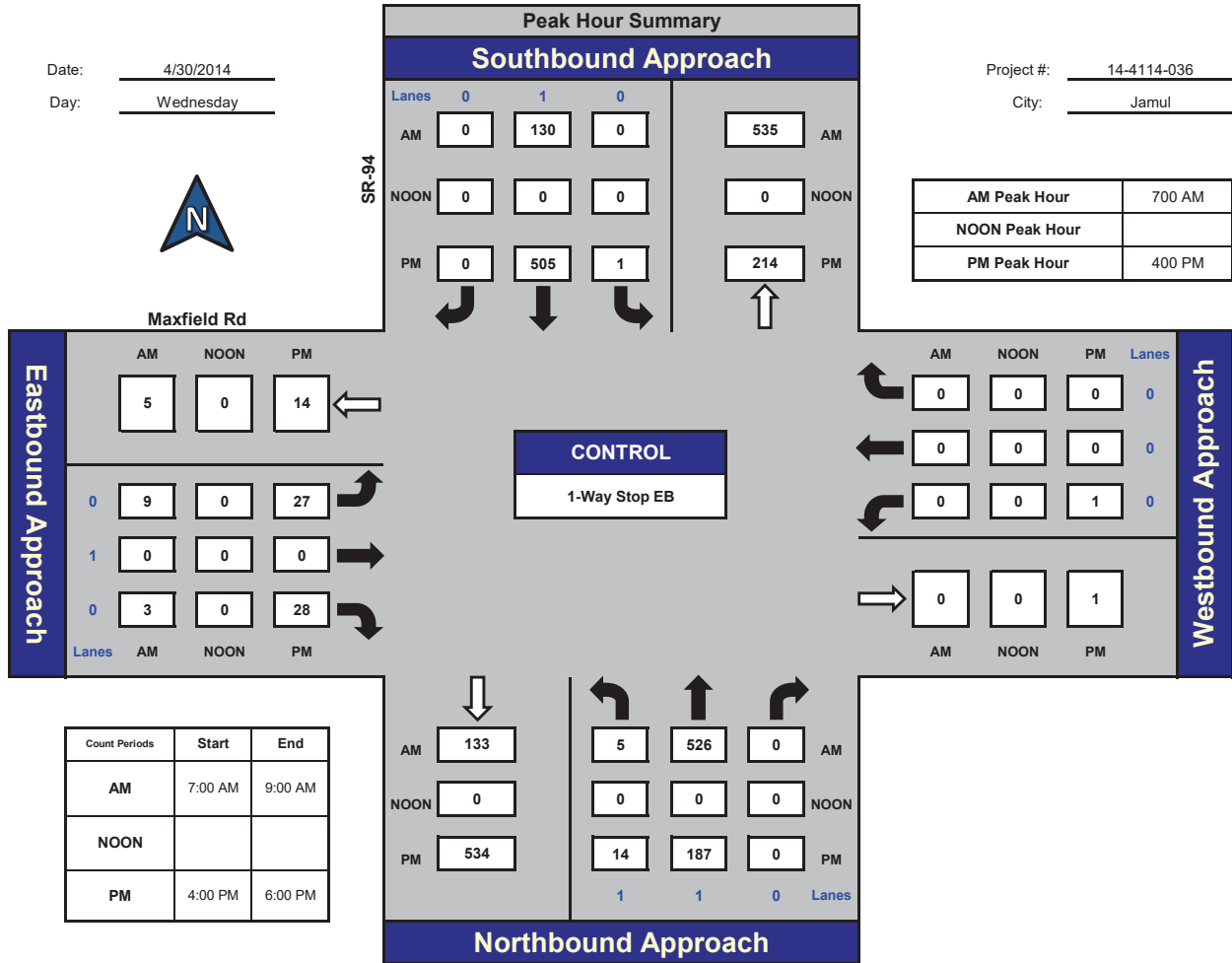
SR-94 and Maxfield Rd , Jamul

Date: 4/30/2014

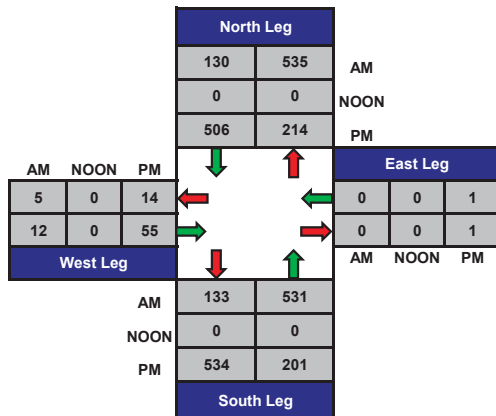
Day: Wednesday

Project #: 14-4114-036

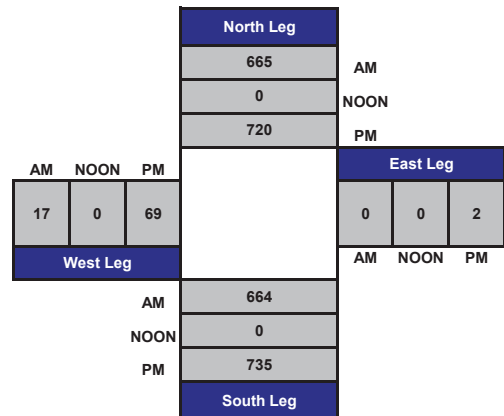
City: Jamul



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-005

Day: Tuesday

City: Jamul

Date: 3/10/2015

AM														
NS/EW Streets:		Proctor Valley Rd			Proctor Valley Rd			Melody Rd			Melody Rd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM		0	0	0	0	0	1	15	2	0	0	2	0	20
7:15 AM		0	0	0	0	0	5	15	3	0	0	0	0	23
7:30 AM		0	0	0	1	0	6	14	3	0	0	1	0	25
7:45 AM		0	0	0	0	0	7	20	2	0	0	1	2	32
8:00 AM		0	0	0	1	0	9	10	4	0	0	0	1	25
8:15 AM		0	0	0	0	0	9	13	2	0	0	1	4	29
8:30 AM		0	0	0	0	0	4	13	3	0	0	0	0	20
8:45 AM		0	0	0	1	0	4	16	1	0	0	2	2	26
TOTAL VOLUMES : APPROACH %'s :		NL 0 #DIV/0!	NT 0 #DIV/0!	NR 0 #DIV/0!	SL 3 6.25%	ST 0 0.00%	SR 45 93.75%	EL 116 85.29%	ET 20 14.71%	ER 0 0.00%	WL 0 0.00%	WT 7 43.75%	WR 9 56.25%	TOTAL 200
PEAK HR START TIME :		730 AM												TOTAL
PEAK HR VOL :		0	0	0	2	0	31	57	11	0	0	3	7	111
PEAK HR FACTOR :		0.000			0.825			0.773			0.500			0.867

CONTROL : 1-Way Stop (WB)

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-005

Day: Tuesday

City: Jamul

Date: 3/10/2015

PM														
NS/EW Streets:	Proctor Valley Rd			Proctor Valley Rd			Melody Rd			Melody Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	
4:00 PM	0	0	0	1	0	15	4	2	0	0	2	1	25	
4:15 PM	0	0	0	0	1	20	13	0	0	0	2	0	36	
4:30 PM	0	0	0	1	0	16	6	0	0	0	2	0	25	
4:45 PM	0	0	0	2	0	12	10	1	0	0	1	0	26	
5:00 PM	0	0	0	2	0	19	6	0	0	0	0	3	30	
5:15 PM	0	0	0	1	0	11	13	2	0	0	5	3	35	
5:30 PM	0	0	0	0	0	6	5	4	0	0	0	1	16	
5:45 PM	0	0	0	0	0	12	12	0	0	0	2	0	26	
TOTAL VOLUMES : APPROACH %'s :	NL 0 #DIV/0!	NT 0 #DIV/0!	NR 0 #DIV/0!	SL 7 5.88%	ST 1 0.84%	SR 111 93.28%	EL 69 88.46%	ET 9 11.54%	ER 0 0.00%	WL 0 0.00%	WT 14 63.64%	WR 8 36.36%	TOTAL 219	
PEAK HR START TIME :	415 PM													TOTAL
PEAK HR VOL :	0	0	0	5	1	67	35	1	0	0	5	3	117	
PEAK HR FACTOR :	0.000			0.869			0.692			0.667			0.813	

CONTROL : 1-Way Stop (WB)

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-005

Day: Tuesday

City: Jamul

Date: 3/10/2015

NS/EW Streets:	NOON												
	Proctor Valley Rd			Proctor Valley Rd			Melody Rd			Melody Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : 1-Way Stop (WB)

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

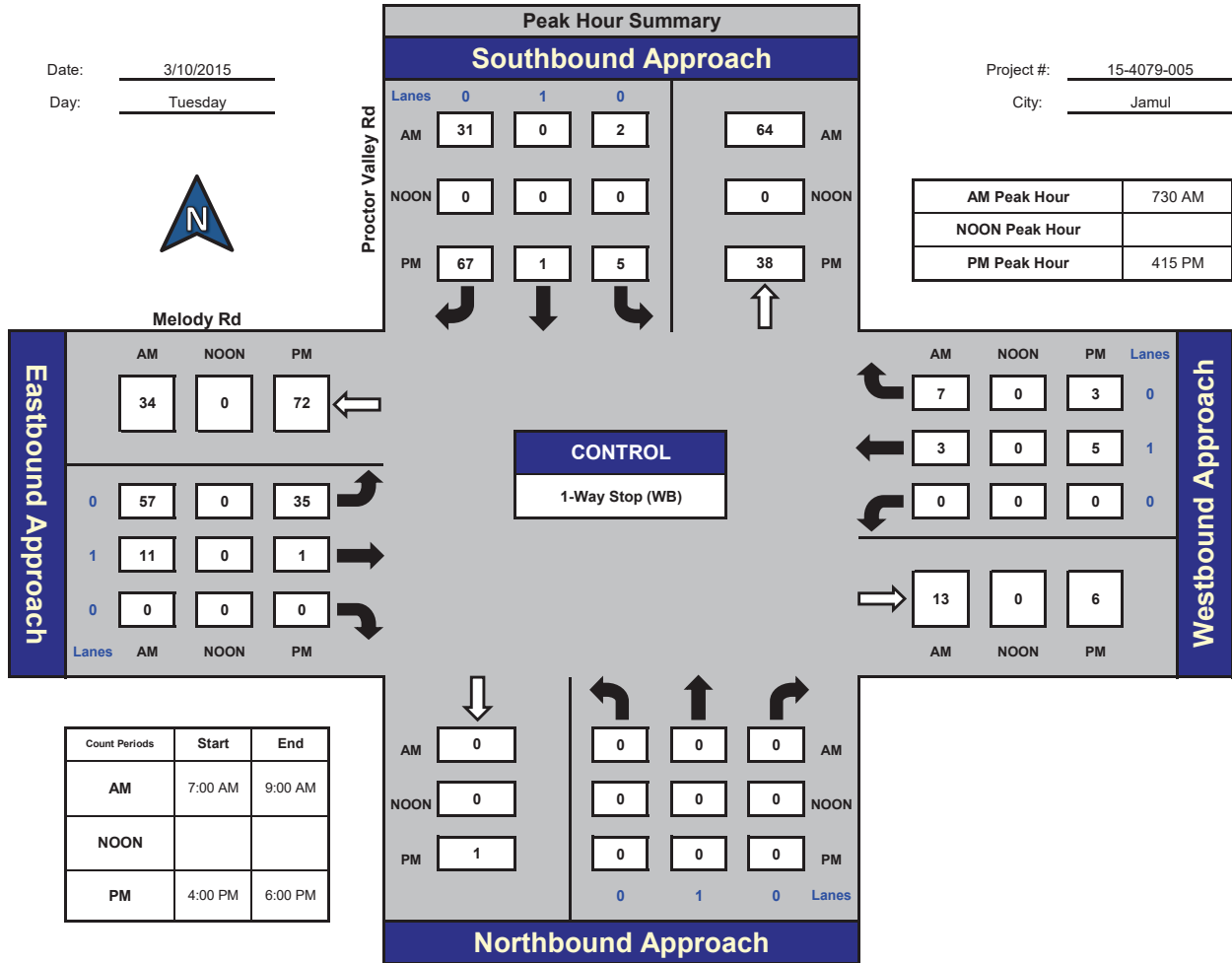
Proctor Valley Rd and Melody Rd, Jamul

Date: 3/10/2015

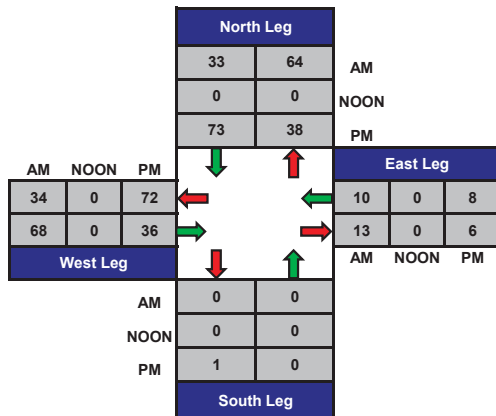
Day: Tuesday

Project #: 15-4079-005

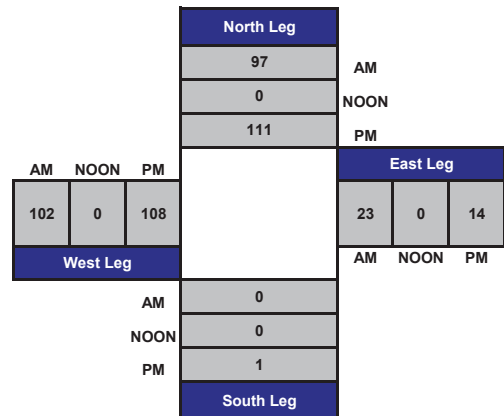
City: Jamul



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-035

Day: Wednesday

City: Jamul

Date: 4/30/2014

AM														
NS/EW Streets:		SR-94			SR-94			Melody Rd			Melody Rd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	120	0	2	27	1	4		0	1		2		157
7:15 AM	0	127	0	2	25	5	4		0	0		2		165
7:30 AM	1	125	0	2	31	1	2		5	0		1		168
7:45 AM	0	99	0	0	26	2	6		1	0		1		135
8:00 AM	1	71	0	2	42	3	4		3	0		1		127
8:15 AM	3	81	0	3	32	0	3		3	0		0		125
8:30 AM	0	61	1	1	41	1	2		1	0		0		108
8:45 AM	0	82	0	1	33	4	2		1	0		0		123
TOTAL VOLUMES :		NL 5	NT 766	NR 1	SL 13	ST 257	SR 17	EL 27	ET 0	ER 14	WL 1	WT 0	WR 7	TOTAL 1108
APPROACH %'s :		0.65%	99.22%	0.13%	4.53%	89.55%	5.92%	65.85%	0.00%	34.15%	12.50%	0.00%	87.50%	
PEAK HR START TIME :		700 AM												TOTAL
PEAK HR VOL :		1	471	0	6	109	9	16	0	6	1	0	6	625
PEAK HR FACTOR :		0.929			0.912			0.786			0.583			0.930

CONTROL : 1-Way Stop EB

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-035

Day: Wednesday

City: Jamul

Date: 4/30/2014

NS/EW Streets:		PM												
		SR-94			SR-94			Melody Rd			Melody Rd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
4:00 PM	0	47	0	0	152	7	4		1				0	211
4:15 PM	1	37	1	1	109	2	2		0				2	155
4:30 PM	1	41	0	0	109	2	2		0				2	157
4:45 PM	3	29	0	0	114	3	4		0				0	153
5:00 PM	2	34	0	1	90	7	5		2				0	141
5:15 PM	3	34	0	0	102	2	0		2				0	143
5:30 PM	1	31	0	1	111	5	0		1				1	151
5:45 PM	1	35	0	0	112	2	1		0				0	151
TOTAL VOLUMES : APPROACH %'s :		NL 12 3.99%	NT 288 95.68%	NR 1 0.33%	SL 3 0.32%	ST 899 96.46%	SR 30 3.22%	EL 18 75.00%	ET 0 0.00%	ER 6 25.00%	WL 0 0.00%	WT 0 0.00%	WR 5 100.00%	TOTAL 1262
PEAK HR START TIME :		400 PM												TOTAL
PEAK HR VOL :		5	154	1	1	484	14	12	0	1	0	0	4	676
PEAK HR FACTOR :		0.851			0.785			0.650			0.500			0.801

CONTROL : 1-Way Stop EB

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-035

Day: Wednesday

City: Jamul

Date: 4/30/2014

NS/EW Streets:	NOON												
	SR-94			SR-94			Melody Rd			Melody Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : 1-Way Stop EB

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

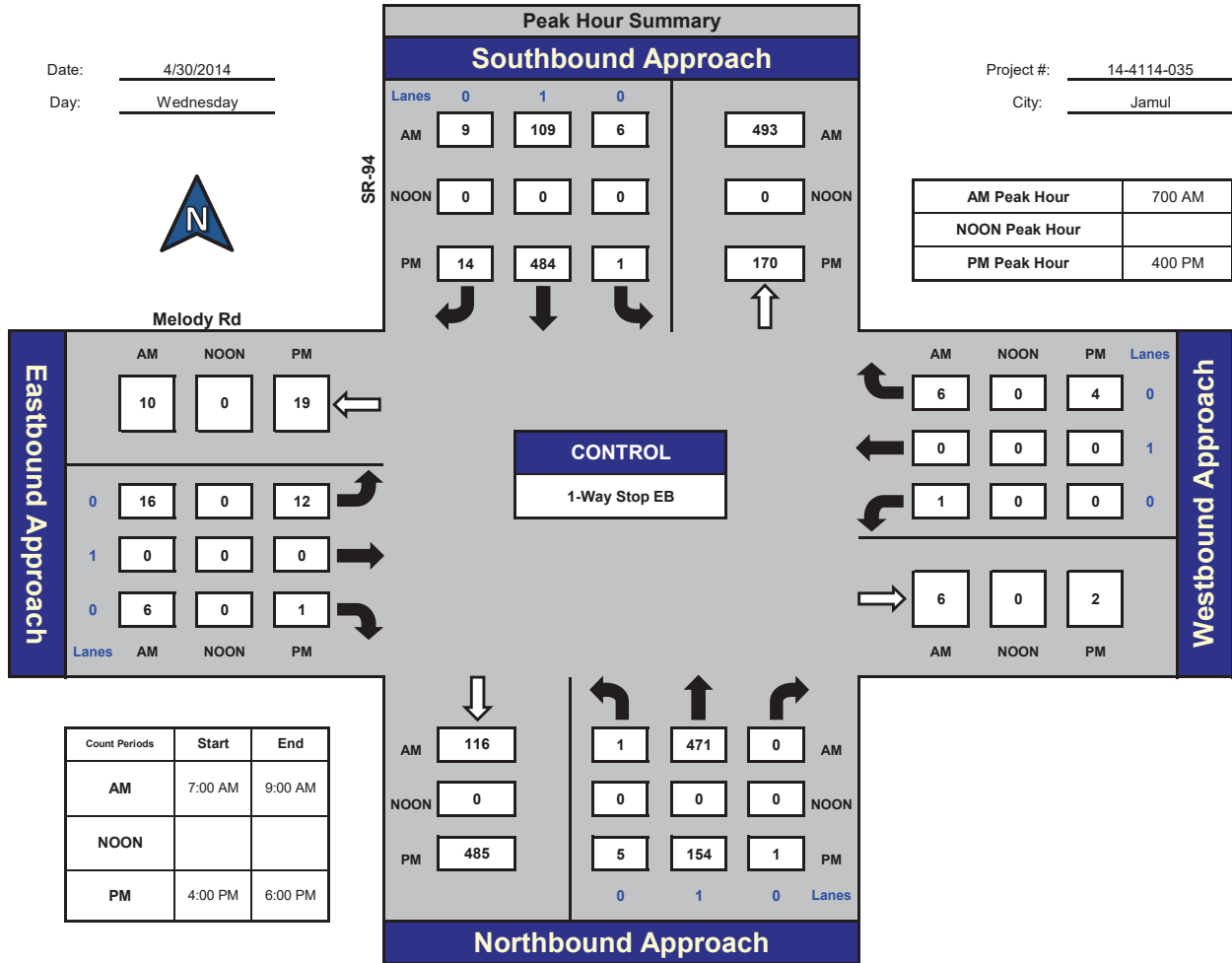
SR-94 and Melody Rd , Jamul

Date: 4/30/2014

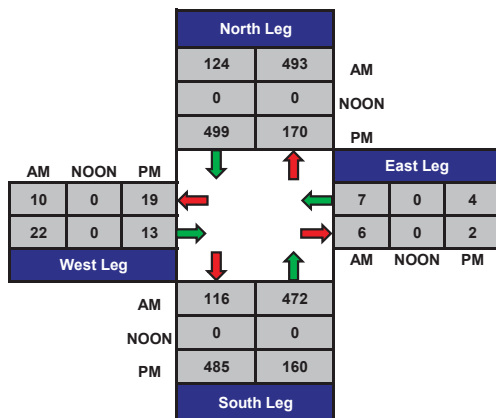
Day: Wednesday

Project #: 14-4114-035

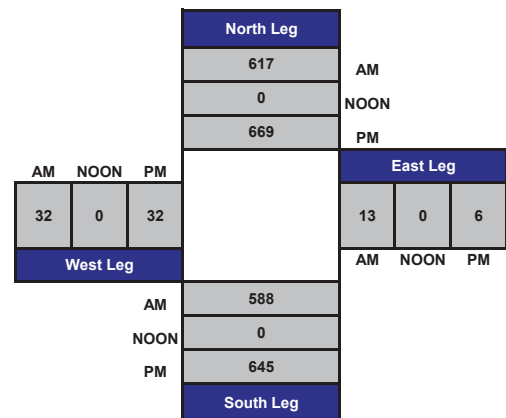
City: Jamul



Total Ins & Outs



Total Volume Per Leg



Prepared by:
National Data & Surveying Services

Date: 3/10/2015

CONTROL : Signalized

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-007

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	SR-125 SB Off-Ramp			SR-125 SB Off-Ramp			San Miguel Ranch Rd			San Miguel Ranch Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 0	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
4:00 PM	0	0	0	40	0	8	0	110	0	0	73	0	231
4:15 PM	0	0	0	38	0	6	0	114	0	0	62	0	220
4:30 PM	0	0	0	57	0	3	0	129	0	0	74	0	263
4:45 PM	0	0	0	35	0	7	0	108	0	0	70	0	220
5:00 PM	0	0	0	40	0	11	0	123	0	0	81	0	255
5:15 PM	0	0	0	42	0	7	0	125	0	0	60	0	234
5:30 PM	0	0	0	39	0	6	0	126	0	0	63	0	234
5:45 PM	0	0	0	35	0	11	0	103	0	0	54	0	203
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 326	ST 0	SR 59	EL 0	ET 938	ER 0	WL 0	WT 537	WR 0	TOTAL 1860
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	84.68%	0.00%	15.32%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	0	0	174	0	28	0	485	0	0	285	0	972
PEAK HR FACTOR :	0.000			0.842			0.940			0.880			0.924

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-007

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NOON

NS/EW Streets:	SR-125 SB Off-Ramp			SR-125 SB Off-Ramp			San Miguel Ranch Rd			San Miguel Ranch Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 0	ET 2	ER 0	WL 0	WT 2	WR 0	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

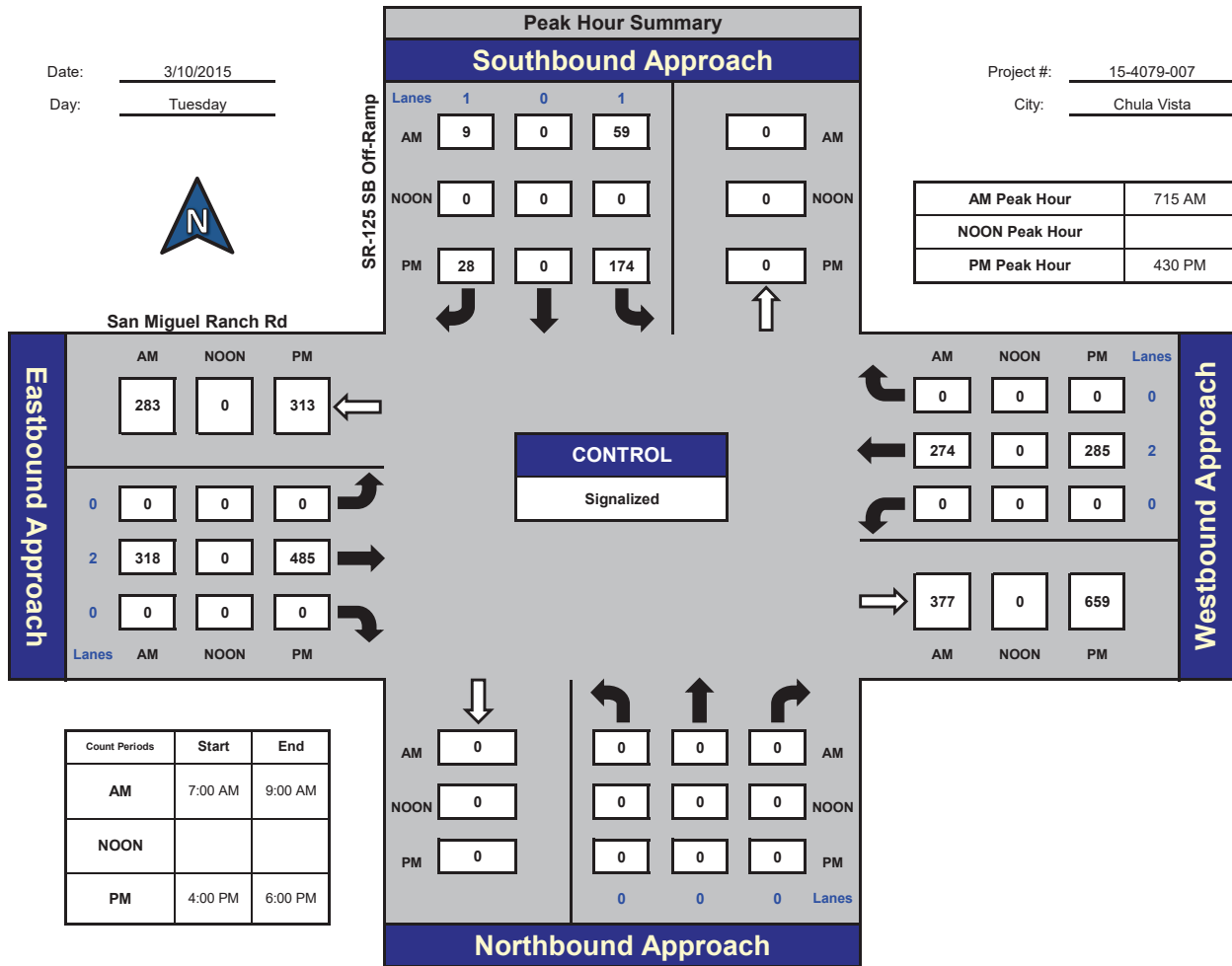
SR-125 SB Off-Ramp and San Miguel Ranch Rd , Chula Vista

Date: 3/10/2015

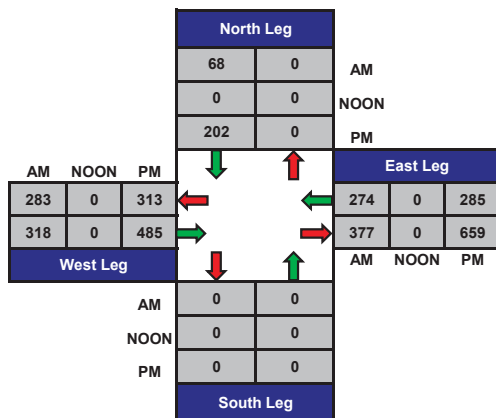
Day: Tuesday

Project #: 15-4079-007

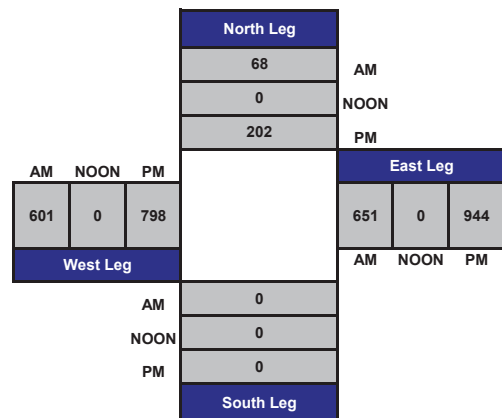
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-008

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	SR-125 NB On-Ramp			SR-125 NB On-Ramp			San Miguel Ranch Rd			San Miguel Ranch Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	12	44	0	0	75	67	198
7:15 AM	0	0	0	0	0	0	13	96	0	0	57	81	247
7:30 AM	0	0	0	0	0	0	11	89	0	0	71	73	244
7:45 AM	0	0	0	0	0	0	9	82	0	0	63	42	196
8:00 AM	0	0	0	0	0	0	6	71	0	0	87	48	212
8:15 AM	0	0	0	0	0	0	9	82	0	0	61	50	202
8:30 AM	0	0	0	0	0	0	6	63	0	0	71	56	196
8:45 AM	0	0	0	0	0	0	6	52	0	0	55	41	154
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 72	ET 579	ER 0	WL 0	WT 540	WR 458	TOTAL 1649
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	11.06%	88.94%	0.00%	0.00%	54.11%	45.89%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	39	338	0	0	278	244	899
PEAK HR FACTOR :	0.000			0.000			0.865			0.906			0.910

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-008

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	SR-125 NB On-Ramp			SR-125 NB On-Ramp			San Miguel Ranch Rd			San Miguel Ranch Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
4:00 PM	0	0	0	0	0	0	1	142	0	0	71	20	234
4:15 PM	0	0	0	0	0	0	3	153	0	0	66	13	235
4:30 PM	0	0	0	0	0	0	4	180	0	0	76	24	284
4:45 PM	0	0	0	0	0	0	4	144	0	0	66	15	229
5:00 PM	0	0	0	0	0	0	1	156	0	0	85	28	270
5:15 PM	0	0	0	0	0	0	5	154	0	0	54	18	231
5:30 PM	0	0	0	0	0	0	2	169	0	0	63	17	251
5:45 PM	0	0	0	0	0	0	0	142	0	0	62	19	223
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 20	ET 1240	ER 0	WL 0	WT 543	WR 154	TOTAL 1957
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.59%	98.41%	0.00%	0.00%	77.91%	22.09%	
PEAK HR START TIME :	415 PM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	12	633	0	0	293	80	1018
PEAK HR FACTOR :	0.000			0.000			0.876			0.825			0.896

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-008

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NOON

NS/EW Streets:	SR-125 NB On-Ramp			SR-125 NB On-Ramp			San Miguel Ranch Rd			San Miguel Ranch Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

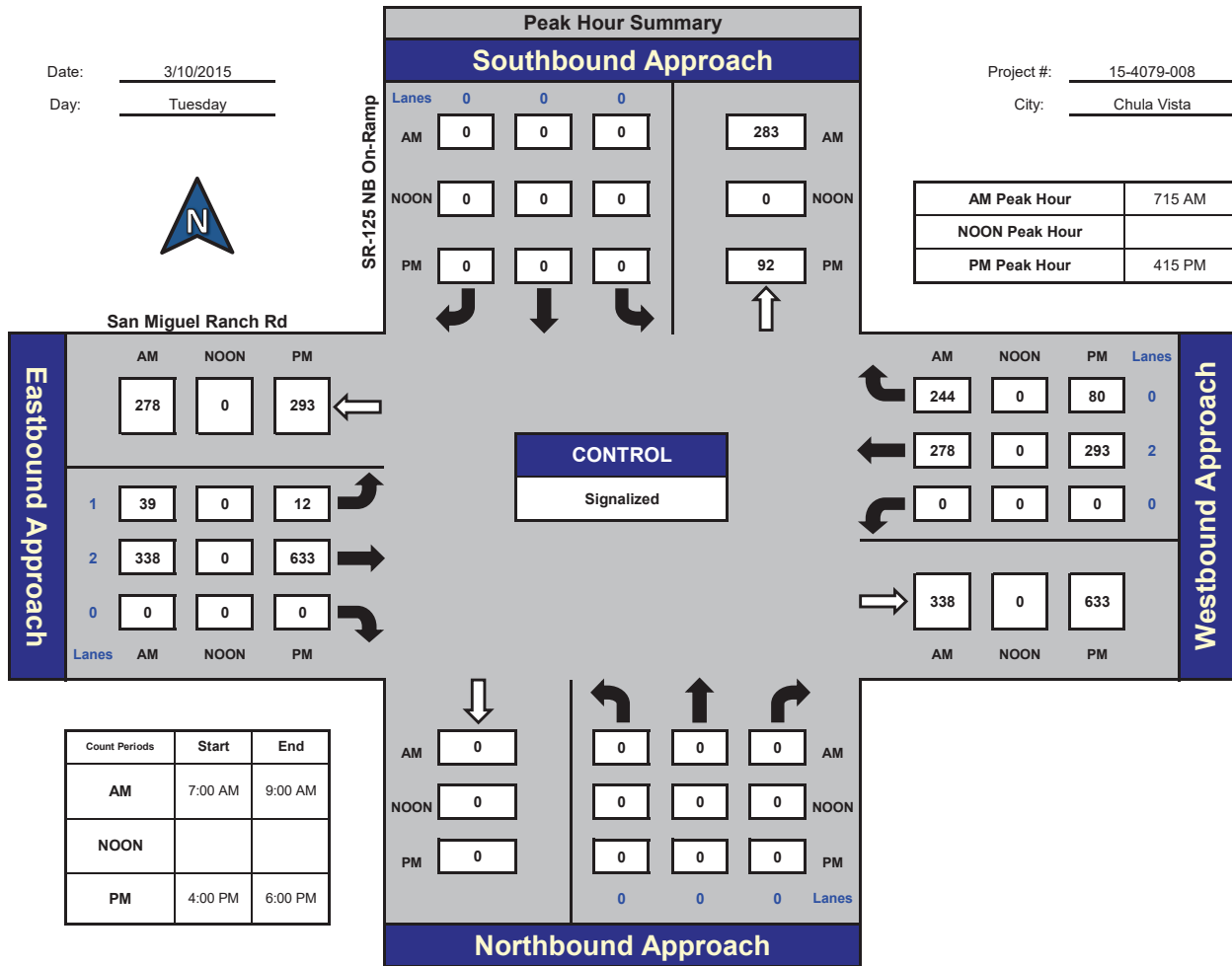
SR-125 NB On-Ramp and San Miguel Ranch Rd , Chula Vista

Date: 3/10/2015

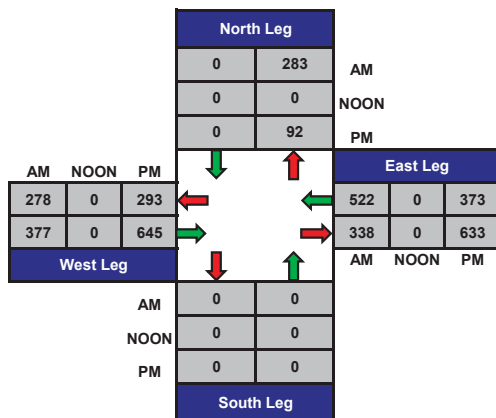
Day: Tuesday

Project #: 15-4079-008

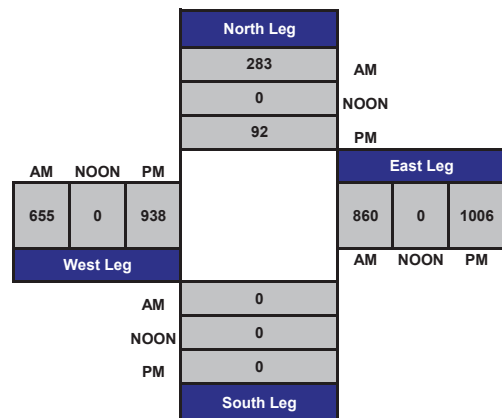
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-009

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:		AM												
		I-805 SB Off-Ramp			I-805 SB Off-Ramp			E H St			E H St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 0	NT 0	NR 2	SL 0	ST 0	SR 1	EL 0	ET 2.5	ER 0.5	WL 1	WT 2	WR 0	TOTAL
7:00 AM		0	0	157	0	0	180	0	187	64	81	201	0	870
7:15 AM		0	0	210	0	0	171	0	208	76	87	249	0	1001
7:30 AM		0	0	296	0	0	152	0	257	87	148	338	0	1278
7:45 AM		0	0	244	0	0	190	0	224	80	124	256	0	1118
8:00 AM		0	0	196	0	0	151	0	230	50	114	256	0	997
8:15 AM		0	0	188	0	0	116	0	213	48	102	204	0	871
8:30 AM		0	0	217	0	0	130	0	220	53	92	219	0	931
8:45 AM		0	0	222	0	0	151	0	193	47	94	202	0	909
TOTAL VOLUMES : APPROACH %'s :		NL 0 0.00%	NT 0 0.00%	NR 1730 100.00%	SL 0 0.00%	ST 0 0.00%	SR 1241 100.00%	EL 0 0.00%	ET 1732 77.43%	ER 505 22.57%	WL 842 30.43%	WT 1925 69.57%	WR 0 0.00%	TOTAL 7975
PEAK HR START TIME :		715 AM												TOTAL
PEAK HR VOL :		0	0	946	0	0	664	0	919	293	473	1099	0	4394
PEAK HR FACTOR :		0.799			0.874			0.881			0.809			0.860

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 15-4079-009

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	I-805 SB Off-Ramp			I-805 SB Off-Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 2	SL 0	ST 0	SR 1	EL 0	ET 2.5	ER 0.5	WL 1	WT 2	WR 0	TOTAL
4:00 PM	0	0	399	0	0	154	0	332	67	107	246	0	1305
4:15 PM	0	0	419	0	0	161	0	336	53	117	232	0	1318
4:30 PM	0	0	424	0	0	158	0	345	75	125	230	0	1357
4:45 PM	0	0	447	0	0	157	0	331	73	114	202	0	1324
5:00 PM	0	0	400	0	0	190	0	370	67	115	246	0	1388
5:15 PM	0	0	445	0	0	168	0	317	53	125	190	0	1298
5:30 PM	0	0	430	0	0	175	0	329	58	116	214	0	1322
5:45 PM	0	0	453	0	0	147	0	284	50	101	179	0	1214
TOTAL VOLUMES :	NL 0	NT 0	NR 3417	SL 0	ST 0	SR 1310	EL 0	ET 2644	ER 496	WL 920	WT 1739	WR 0	TOTAL 10526
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	84.20%	15.80%	34.60%	65.40%	0.00%	
PEAK HR START TIME :	415 PM												TOTAL
PEAK HR VOL :	0	0	1690	0	0	666	0	1382	268	471	910	0	5387
PEAK HR FACTOR :	0.945			0.876			0.944			0.956			0.970

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-009

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	I-805 SB Off-Ramp			I-805 SB Off-Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 2	SL 0	ST 0	SR 1	EL 0	ET 2.5	ER 0.5	WL 1	WT 2	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

I-805 SB Off-Ramp and E H St, Chula Vista

Date: 3/10/2015

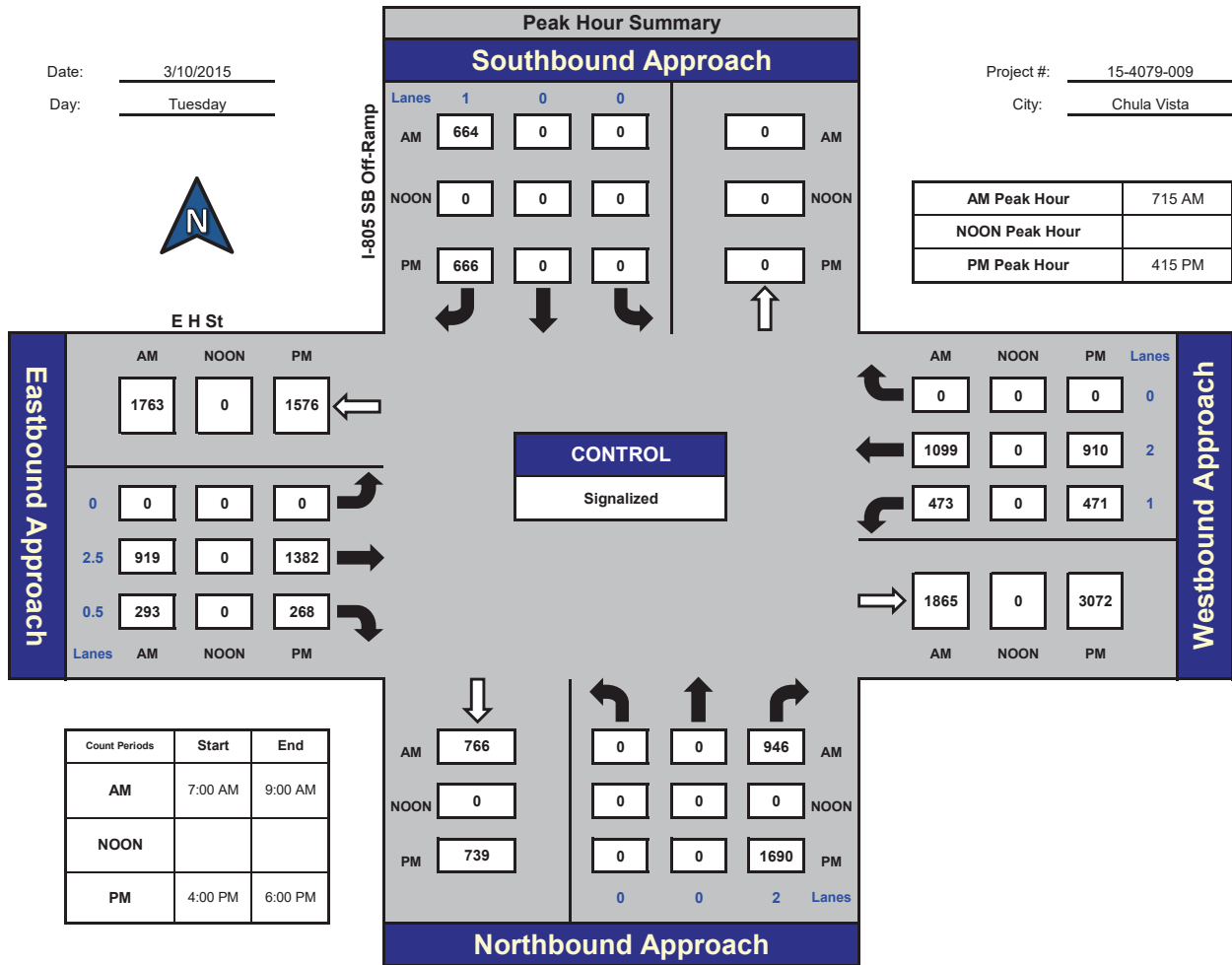
Day: Tuesday

Project #: 15-4079-009

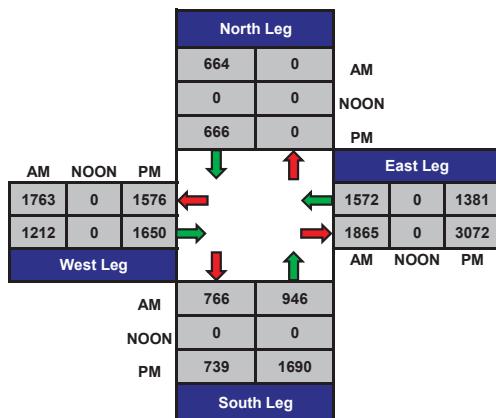
City: Chula Vista



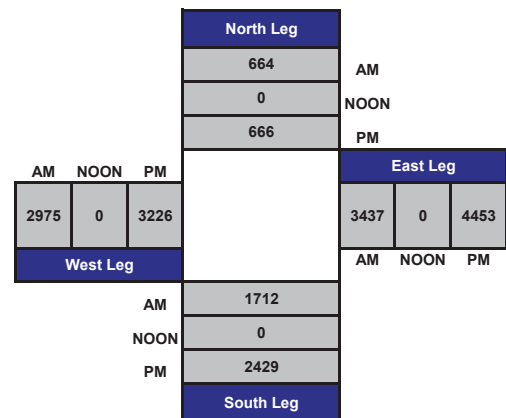
E H St



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-010

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	I-805 NB On-Ramp			I-805 NB On-Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 0	NR 1.5	SL 0	ST 0	SR 0	EL 0	ET 2.5	ER 0.5	WL 0	WT 2	WR 1	TOTAL
7:00 AM	78	0	53	0	0	0	0	224	109	0	214	366	1044
7:15 AM	96	0	102	0	0	0	0	321	109	0	258	327	1213
7:30 AM	121	0	123	0	0	0	0	454	88	0	353	304	1443
7:45 AM	82	0	119	0	0	0	0	382	92	0	284	341	1300
8:00 AM	67	0	92	0	0	0	0	297	123	0	310	357	1246
8:15 AM	57	0	76	0	0	0	0	315	94	0	240	333	1115
8:30 AM	62	0	95	0	0	0	0	336	95	0	254	341	1183
8:45 AM	73	0	98	0	0	0	0	315	97	0	233	351	1167
TOTAL VOLUMES :	NL 636	NT 0	NR 758	SL 0	ST 0	SR 0	EL 0	ET 2644	ER 807	WL 0	WT 2146	WR 2720	TOTAL 9711
APPROACH %'s :	45.62%	0.00%	54.38%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	76.62%	23.38%	0.00%	44.10%	55.90%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	366	0	436	0	0	0	0	1454	412	0	1205	1329	5202
PEAK HR FACTOR :	0.822			0.000			0.861			0.950			0.901

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-010

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	I-805 NB On-Ramp			I-805 NB On-Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 0	NR 1.5	SL 0	ST 0	SR 0	EL 0	ET 2.5	ER 0.5	WL 0	WT 2	WR 1	TOTAL
4:00 PM	92	0	149	0	0	0	0	604	141	0	267	288	1541
4:15 PM	70	0	117	0	0	0	0	609	140	0	281	278	1495
4:30 PM	70	0	133	0	0	0	0	620	128	0	279	272	1502
4:45 PM	78	0	115	0	0	0	0	690	115	0	243	292	1533
5:00 PM	92	0	120	0	0	0	0	606	132	0	262	311	1523
5:15 PM	86	0	145	0	0	0	0	660	132	0	241	323	1587
5:30 PM	75	0	122	0	0	0	0	639	108	0	248	245	1437
5:45 PM	68	0	131	0	0	0	0	641	106	0	215	250	1411
TOTAL VOLUMES :	NL 631	NT 0	NR 1032	SL 0	ST 0	SR 0	EL 0	ET 5069	ER 1002	WL 0	WT 2036	WR 2259	TOTAL 12029
APPROACH %'s :	37.94%	0.00%	62.06%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	83.50%	16.50%	0.00%	47.40%	52.60%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	326	0	513	0	0	0	0	2576	507	0	1025	1198	6145
PEAK HR FACTOR :	0.908			0.000			0.957			0.970			0.968

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-010

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	I-805 NB On-Ramp			I-805 NB On-Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 0	NR 1.5	SL 0	ST 0	SR 0	EL 0	ET 2.5	ER 0.5	WL 0	WT 2	WR 1	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

I-805 NB On-Ramp and E H St, Chula Vista

Date: 3/10/2015

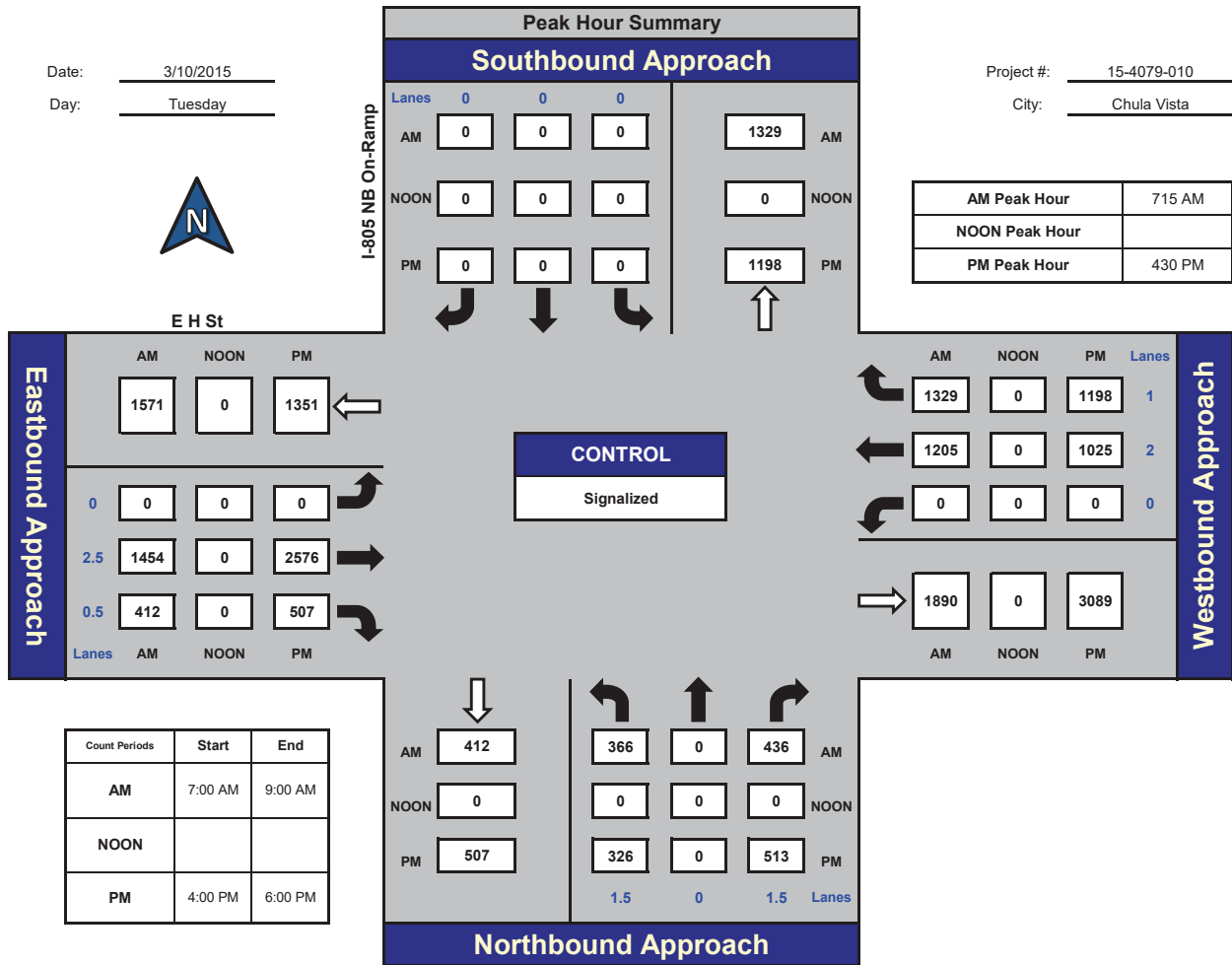
Day: Tuesday

Project #: 15-4079-010

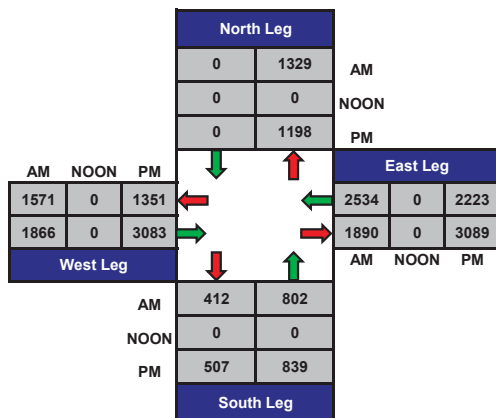
City: Chula Vista



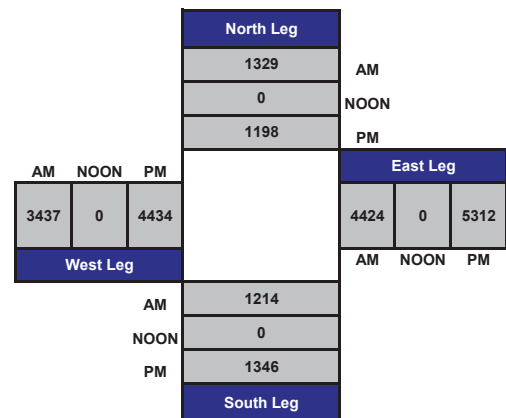
E H St



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-011

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:		AM												
		Terra Nova Dr			Terra Nova Dr			E H St			E H St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0.5	NR 0.5	SL 0.5	ST 0.5	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	
7:00 AM	16	1	8	7	1	26	12	206	1	3	454	3	738	
7:15 AM	10	1	2	10	0	38	12	365	1	0	482	8	929	
7:30 AM	10	1	9	15	1	53	18	530	1	0	511	2	1151	
7:45 AM	17	0	3	7	0	43	20	452	4	2	487	10	1045	
8:00 AM	18	1	3	8	0	40	24	316	3	4	535	15	967	
8:15 AM	17	4	2	10	1	34	20	281	3	3	452	31	858	
8:30 AM	10	8	3	22	4	35	20	306	3	0	426	27	864	
8:45 AM	6	1	2	3	0	39	30	304	3	3	448	7	846	
TOTAL VOLUMES : APPROACH %'s :	NL 104 67.97%	NT 17 11.11%	NR 32 20.92%	SL 82 20.65%	ST 7 1.76%	SR 308 77.58%	EL 156 5.32%	ET 2760 94.04%	ER 19 0.65%	WL 15 0.38%	WT 3795 96.98%	WR 103 2.63%	TOTAL 7398	
PEAK HR START TIME :	715 AM													TOTAL
PEAK HR VOL :	55	3	17	40	1	174	74	1663	9	6	2015	35	4092	
PEAK HR FACTOR :	0.852			0.779			0.795			0.928			0.889	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
		1	1
		0	0
		3	0
		0	0
		4	1
		1	1
		0	0
		3	0
NB 0	SB 0	EB 12	WB 3

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-011

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	Terra Nova Dr			Terra Nova Dr			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0.5	NR 0.5	SL 0.5	ST 0.5	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
4:00 PM	12	0	0	13	1	22	34	569	15	2	391	10	1069
4:15 PM	18	0	4	12	1	18	33	582	12	2	389	9	1080
4:30 PM	7	0	2	12	0	19	37	599	4	1	417	6	1104
4:45 PM	7	1	1	6	0	16	32	638	16	9	369	12	1107
5:00 PM	14	1	4	7	1	23	31	567	10	6	456	8	1128
5:15 PM	10	0	4	10	1	17	29	636	9	5	398	19	1138
5:30 PM	10	0	3	7	0	27	36	647	3	2	336	8	1079
5:45 PM	9	0	4	8	1	21	46	623	4	3	337	7	1063
TOTAL VOLUMES :	NL 87	NT 2	NR 22	SL 75	ST 5	SR 163	EL 278	ET 4861	ER 73	WL 30	WT 3093	WR 79	TOTAL 8768
APPROACH %'s :	78.38%	1.80%	19.82%	30.86%	2.06%	67.08%	5.33%	93.27%	1.40%	0.94%	96.60%	2.47%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	38	2	11	35	2	75	129	2440	39	21	1640	45	4477
PEAK HR FACTOR :	0.671			0.903			0.950			0.907			0.984

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
		5	0
		6	0
		5	0
		5	1
		2	0
		2	0
		4	0
		3	0
NB 0	SB 0	EB 32	WB 1

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-011

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NOON

NS/EW Streets:	Terra Nova Dr			Terra Nova Dr			E H St			E H St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0.5	NR 0.5	SL 0.5	ST 0.5	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

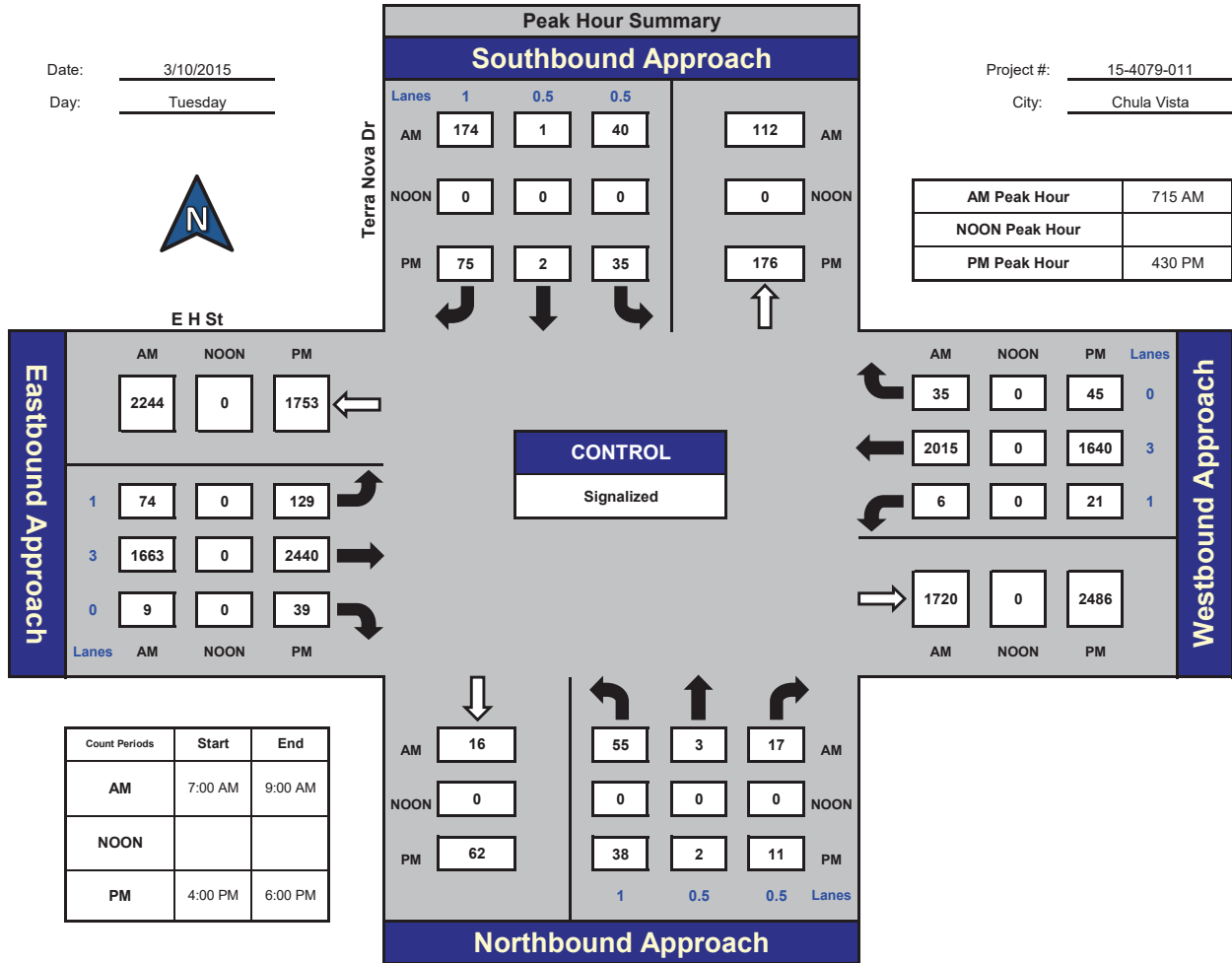
Terra Nova Dr and E H St, Chula Vista

Date: 3/10/2015

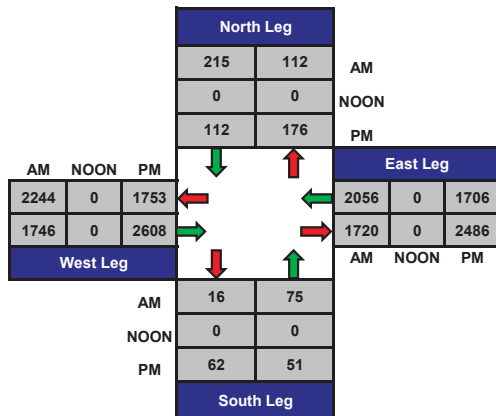
Day: Tuesday

Project #: 15-4079-011

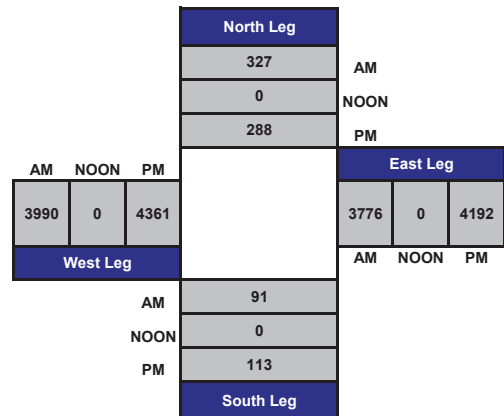
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-012

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	Del Rey Blvd			Del Rey Blvd			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 2	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL
7:00 AM	0	0	0	4	0	62	12	237	0	0	420	8	743
7:15 AM	0	0	0	7	0	62	24	339	0	0	419	9	860
7:30 AM	0	0	0	7	0	65	45	515	0	0	447	11	1090
7:45 AM	0	0	0	12	0	69	38	414	0	0	431	9	973
8:00 AM	0	0	0	4	0	73	35	265	0	0	492	15	884
8:15 AM	0	0	0	9	0	61	21	284	0	0	410	10	795
8:30 AM	0	0	0	13	0	41	16	298	0	0	379	11	758
8:45 AM	0	0	0	5	0	40	18	300	0	0	439	10	812
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 61	ST 0	SR 473	EL 209	ET 2652	ER 0	WL 0	WT 3437	WR 83	TOTAL 6915
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	11.42%	0.00%	88.58%	7.31%	92.69%	0.00%	0.00%	97.64%	2.36%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	0	0	30	0	269	142	1533	0	0	1789	44	3807
PEAK HR FACTOR :	0.000			0.923			0.748			0.904			0.873

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-012

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	Del Rey Blvd			Del Rey Blvd			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 2	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL
4:00 PM	0	0	0	10	0	31	56	544	0	0	344	27	1012
4:15 PM	0	0	0	13	0	44	43	512	0	0	358	19	989
4:30 PM	0	0	0	7	0	43	51	601	0	0	388	14	1104
4:45 PM	0	0	0	12	0	32	46	555	0	0	372	15	1032
5:00 PM	0	0	0	8	0	22	44	556	0	0	438	21	1089
5:15 PM	0	0	0	11	0	21	55	564	0	0	365	15	1031
5:30 PM	0	0	0	15	0	31	55	595	0	0	326	25	1047
5:45 PM	0	0	0	12	0	19	57	585	0	0	354	19	1046
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 88	ST 0	SR 243	EL 407	ET 4512	ER 0	WL 0	WT 2945	WR 155	TOTAL 8350
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	26.59%	0.00%	73.41%	8.27%	91.73%	0.00%	0.00%	95.00%	5.00%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	0	0	38	0	118	196	2276	0	0	1563	65	4256
PEAK HR FACTOR :	0.000			0.780			0.948			0.887			0.964

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-012

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	Del Rey Blvd			Del Rey Blvd			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 2	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

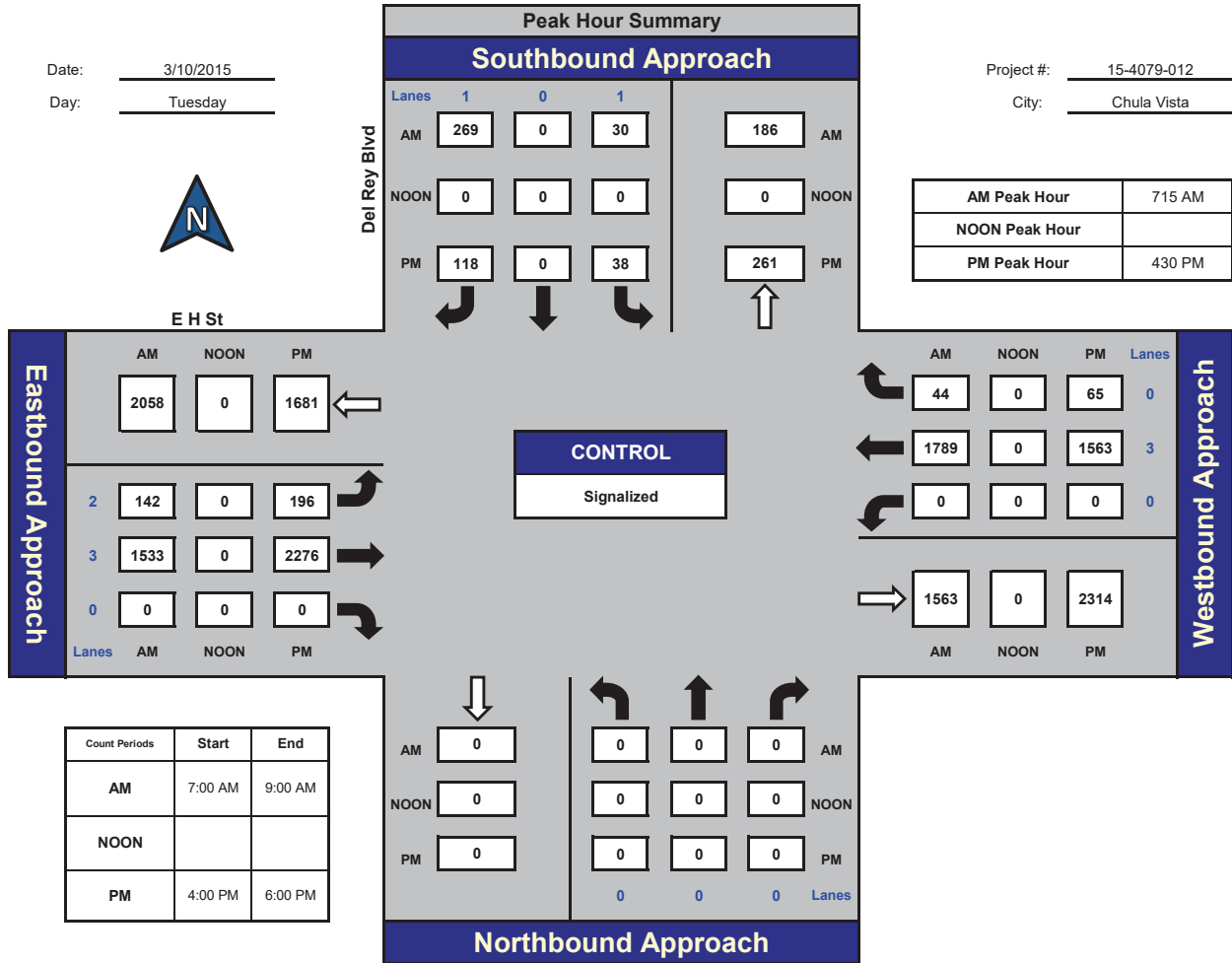
Del Rey Blvd and E H St, Chula Vista

Date: 3/10/2015

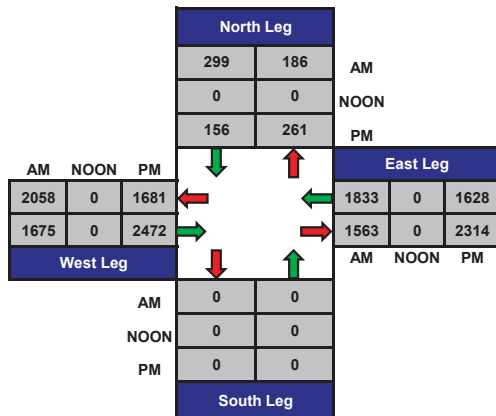
Day: Tuesday

Project #: 15-4079-012

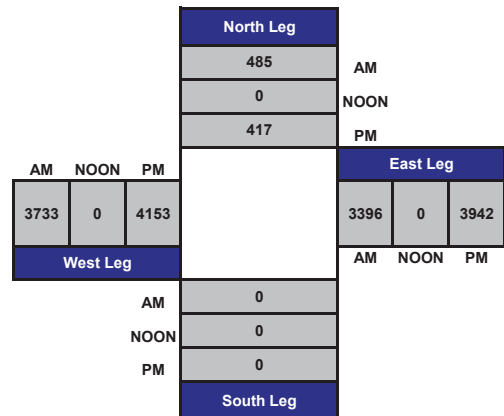
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-013

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:		AM												
		Paseo Del Rey			Paseo Del Rey			E H St			E H St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL	
7:00 AM	52	9	45	3	2	18	22	220	20	23	343	11	768	
7:15 AM	71	10	68	9	6	25	21	290	23	20	338	17	898	
7:30 AM	38	10	112	7	8	22	28	468	20	39	409	13	1174	
7:45 AM	50	25	75	7	5	26	35	382	22	47	357	15	1046	
8:00 AM	53	12	30	13	9	34	29	208	25	46	410	18	887	
8:15 AM	48	10	45	7	7	36	29	244	32	29	358	16	861	
8:30 AM	37	22	57	7	10	39	30	245	30	30	299	15	821	
8:45 AM	47	27	44	12	9	35	39	253	15	20	361	26	888	
TOTAL VOLUMES : APPROACH %'s :	NL 396 39.72%	NT 125 12.54%	NR 476 47.74%	SL 65 18.26%	ST 56 15.73%	SR 235 66.01%	EL 233 8.53%	ET 2310 84.62%	ER 187 6.85%	WL 254 7.79%	WT 2875 88.19%	WR 131 4.02%	TOTAL 7343	
PEAK HR START TIME :	715 AM													TOTAL
PEAK HR VOL :	212	57	285	36	28	107	113	1348	90	152	1514	63	4005	
PEAK HR FACTOR :	0.866			0.763			0.751			0.912			0.853	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
		0	0
		0	0
		0	0
		0	0
		0	0
		1	1
		0	0
NB 0	SB 0	EB 1	WB 1

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-013

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	PM													
	Paseo Del Rey			Paseo Del Rey			E H St			E H St				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL	
4:00 PM	33	26	44	33	22	33	51	425	62	48	318	26	1121	
4:15 PM	33	23	50	27	29	55	51	427	61	61	296	21	1134	
4:30 PM	23	28	39	28	31	42	52	473	76	51	317	18	1178	
4:45 PM	32	19	50	31	21	37	34	439	79	51	326	21	1140	
5:00 PM	37	25	47	20	25	40	52	465	71	80	398	28	1288	
5:15 PM	41	43	63	31	27	38	52	430	76	39	282	26	1148	
5:30 PM	27	31	70	30	23	58	56	506	63	50	294	33	1241	
5:45 PM	22	22	36	33	24	50	60	465	58	68	277	26	1141	
TOTAL VOLUMES : APPROACH %'s :	NL 248 28.70%	NT 217 25.12%	NR 399 46.18%	SL 233 29.57%	ST 202 25.63%	SR 353 44.80%	EL 408 8.90%	ET 3630 79.19%	ER 546 11.91%	WL 448 14.20%	WT 2508 79.49%	WR 199 6.31%	TOTAL 9391	
PEAK HR START TIME :	500 PM													TOTAL
PEAK HR VOL :	127	121	216	114	99	186	220	1866	268	237	1251	113	4818	
PEAK HR FACTOR :	0.789			0.899			0.942			0.791			0.935	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
	1	0	1
	0	0	1
	0	0	2
	0	0	1
	0	1	4
	0	0	0
	0	0	3
	0	0	4
NB 0	SB 1	EB 1	WB 16

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-013

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	Paseo Del Rey			Paseo Del Rey			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

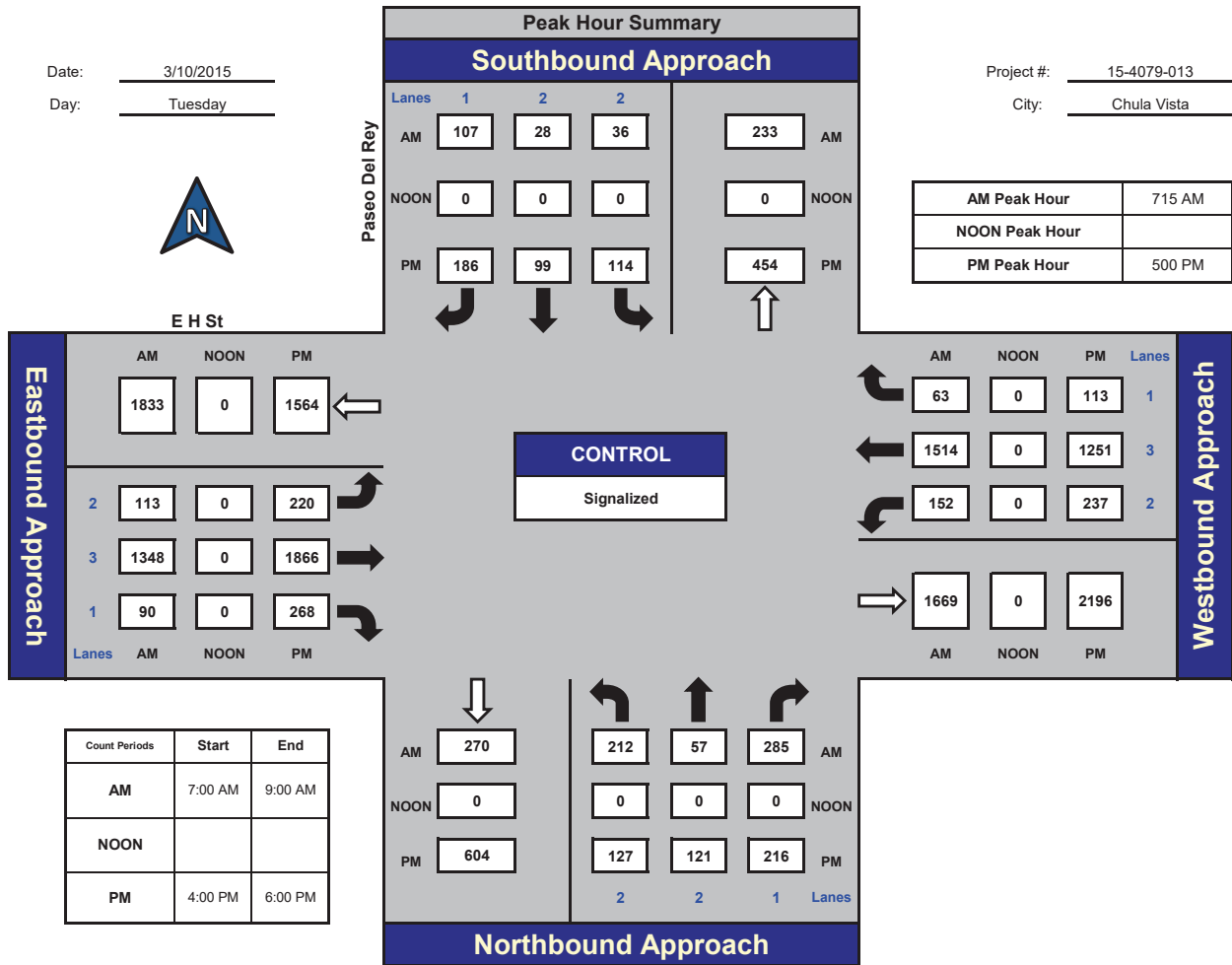
Paseo Del Rey and E H St, Chula Vista

Date: 3/10/2015

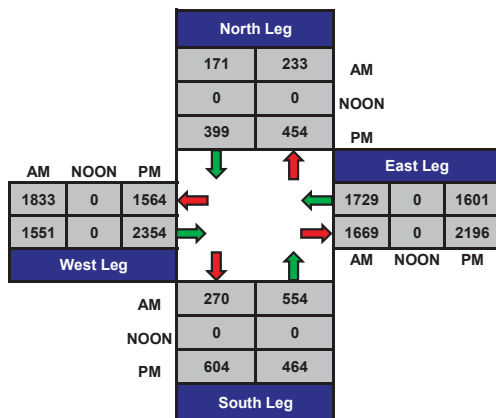
Day: Tuesday

Project #: 15-4079-013

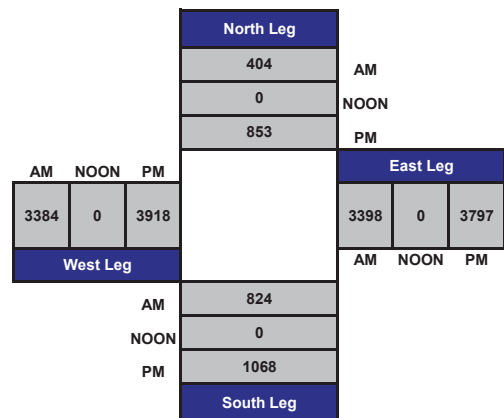
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 15-4079-014

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	Paseo Ranchero			Paseo Ranchero			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 1	NR 0	SL 1	ST 2	SR 0	EL 2	ET 3	ER 0	WL 2	WT 3	WR 0	TOTAL
7:00 AM	102	26	38	14	37	47	19	161	47	32	229	22	774
7:15 AM	105	56	69	27	45	48	45	233	32	36	231	14	941
7:30 AM	121	75	102	39	30	53	42	369	40	43	297	20	1231
7:45 AM	120	111	97	56	61	57	51	382	28	51	292	37	1343
8:00 AM	78	45	33	32	56	78	34	224	34	34	369	35	1052
8:15 AM	104	30	32	14	49	56	28	199	24	15	232	9	792
8:30 AM	86	30	44	23	20	44	22	195	31	29	244	17	785
8:45 AM	99	39	32	13	17	45	29	251	23	46	287	11	892
TOTAL VOLUMES :	NL 815	NT 412	NR 447	SL 218	ST 315	SR 428	EL 270	ET 2014	ER 259	WL 286	WT 2181	WR 165	TOTAL 7810
APPROACH %'s :	48.69%	24.61%	26.70%	22.68%	32.78%	44.54%	10.62%	79.20%	10.18%	10.87%	82.86%	6.27%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	424	287	301	154	192	236	172	1208	134	164	1189	106	4567
PEAK HR FACTOR :	0.771												0.850

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0		0	5
0		1	0
0		2	6
1		0	12
1		1	3
5		1	4
1		2	7
4		0	13
NB 12	SB 0	EB 7	WB 50

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-014

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	Paseo Ranchero			Paseo Ranchero			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 1	NR 0	SL 1	ST 2	SR 0	EL 2	ET 3	ER 0	WL 2	WT 3	WR 0	TOTAL
4:00 PM	82	46	39	11	44	35	71	299	95	45	231	14	1012
4:15 PM	77	46	33	37	58	45	61	291	103	43	247	12	1053
4:30 PM	54	37	36	19	34	42	60	348	114	41	306	24	1115
4:45 PM	71	59	56	24	38	58	53	324	131	35	235	25	1109
5:00 PM	52	41	39	19	52	57	83	365	126	49	259	19	1161
5:15 PM	83	45	50	24	57	45	68	372	102	50	269	19	1184
5:30 PM	59	40	35	19	48	53	70	404	111	44	237	16	1136
5:45 PM	66	48	38	33	47	54	82	335	104	46	244	33	1130
TOTAL VOLUMES :	NL 544	NT 362	NR 326	SL 186	ST 378	SR 389	EL 548	ET 2738	ER 886	WL 353	WT 2028	WR 162	TOTAL 8900
APPROACH %'s :	44.16%	29.38%	26.46%	19.52%	39.66%	40.82%	13.14%	65.63%	21.24%	13.88%	79.75%	6.37%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	260	174	162	95	204	209	303	1476	443	189	1009	87	4611
PEAK HR FACTOR :	0.837			0.948			0.950			0.950			0.974

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
1		0	5
4		0	3
1		2	3
2		1	0
0		0	3
2		2	3
0		2	2
0		1	2
NB 10	SB 0	EB 8	WB 21

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-014

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	Paseo Ranchero			Paseo Ranchero			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 1	NR 0	SL 1	ST 2	SR 0	EL 2	ET 3	ER 0	WL 2	WT 3	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

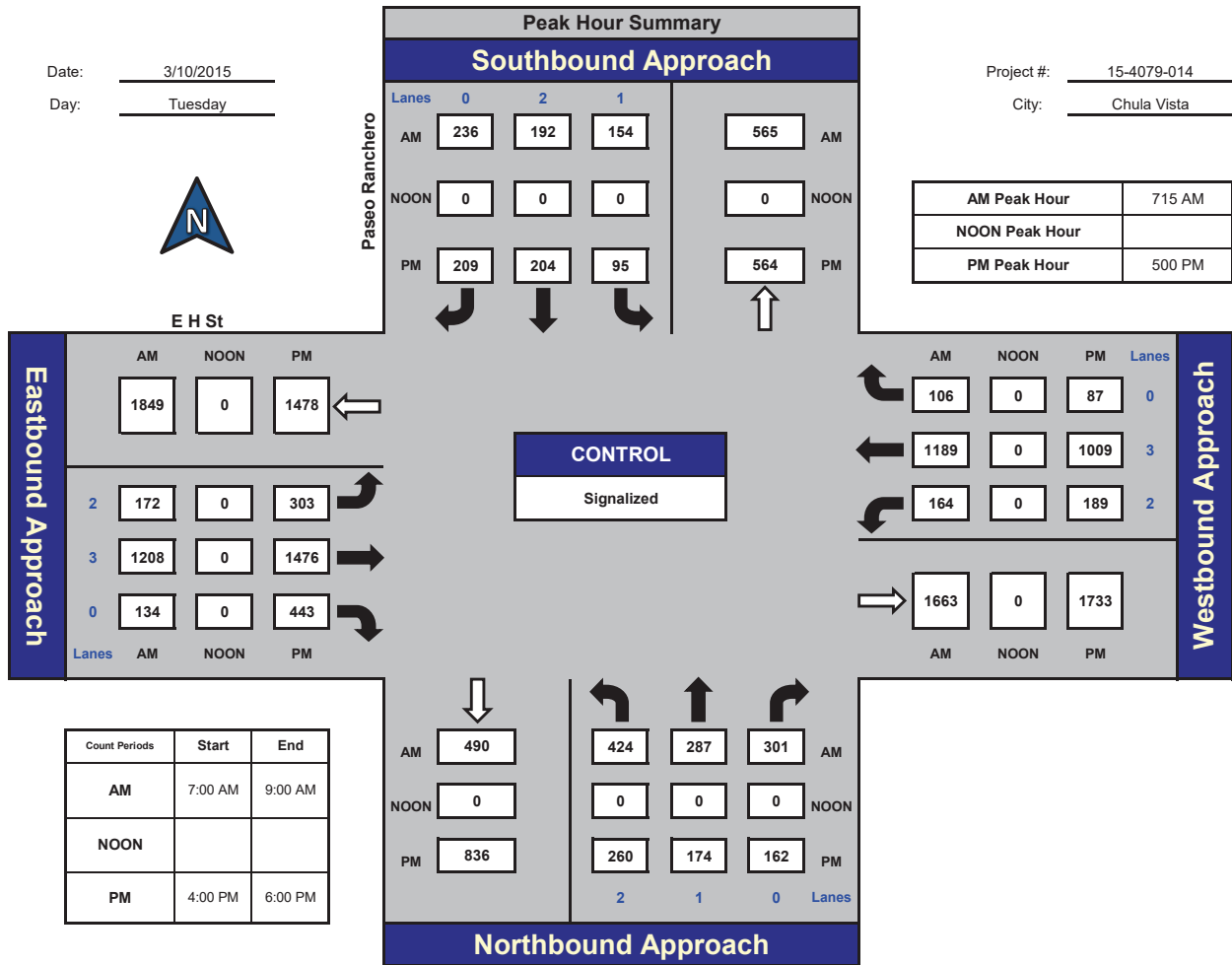
Paseo Ranchero and E H St , Chula Vista

Date: 3/10/2015

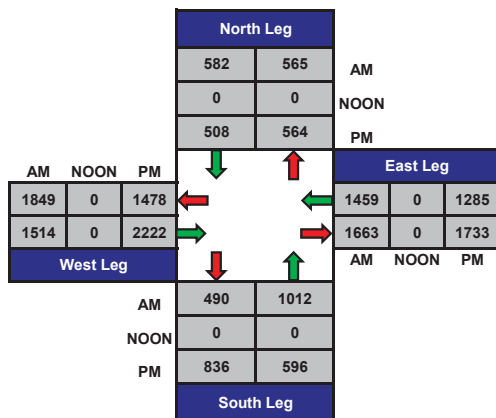
Day: Tuesday

Project #: 15-4079-014

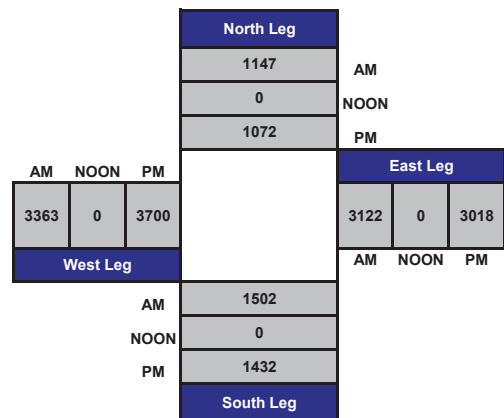
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-001

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NS/EW Streets:		AM												
		Otay Lakes Rd			Otay Lakes Rd			East H St			East H St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 2	ER 2	WL 1	WT 2	WR 1	TOTAL
7:00 AM		83	182	6	93	123	62	63	106	58	52	239	38	1105
7:15 AM		84	155	14	44	123	44	38	83	62	15	171	47	880
7:30 AM		81	147	11	50	163	46	72	129	89	27	188	60	1063
7:45 AM		65	173	12	88	178	86	80	149	133	34	207	70	1275
8:00 AM		90	130	10	80	130	51	41	144	71	25	206	49	1027
8:15 AM		60	98	9	68	106	24	21	104	77	11	207	55	840
8:30 AM		85	97	10	66	127	28	42	112	105	23	152	48	895
8:45 AM		88	114	18	59	156	34	14	82	96	42	181	59	943
TOTAL VOLUMES : APPROACH %'s :		NL 636 34.91%	NT 1096 60.15%	NR 90 4.94%	SL 548 27.01%	ST 1106 54.51%	SR 375 18.48%	EL 371 18.82%	ET 909 46.12%	ER 691 35.06%	WL 229 10.38%	WT 1551 70.31%	WR 426 19.31%	TOTAL 8028
PEAK HR START TIME :		700 AM												TOTAL
PEAK HR VOL :		313	657	43	275	587	238	253	467	342	128	805	215	4323
PEAK HR FACTOR :		0.935			0.781			0.733			0.872			0.848

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	62	2	6
0	10	0	1
2	8	1	0
0	24	1	4
2	27	0	1
2	14	1	0
0	5	0	2
4	9	1	2
NB 10	SB 159	EB 6	WB 16

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-001

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM														
NS/EW Streets:	Otay Lakes Rd			Otay Lakes Rd			East H St			East H St				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 2	ER 2	WL 1	WT 2	WR 1	TOTAL	
4:00 PM	99	121	22	100	186	37	33	219	109	14	131	46	1117	
4:15 PM	113	150	22	88	167	43	38	188	100	13	129	55	1106	
4:30 PM	96	126	14	102	171	43	40	175	98	19	137	57	1078	
4:45 PM	88	137	12	109	162	63	24	176	78	28	147	53	1077	
5:00 PM	94	160	16	123	202	46	48	160	94	12	127	45	1127	
5:15 PM	79	137	27	103	186	35	40	220	97	27	170	50	1171	
5:30 PM	104	104	15	124	185	44	33	201	107	19	146	45	1127	
5:45 PM	85	156	23	100	201	45	41	151	100	49	138	57	1146	
TOTAL VOLUMES : APPROACH %'s :	NL 758 37.90%	NT 1091 54.55%	NR 151 7.55%	SL 849 31.86%	ST 1460 54.78%	SR 356 13.36%	EL 297 11.56%	ET 1490 57.98%	ER 783 30.47%	WL 181 10.56%	WT 1125 65.64%	WR 408 23.80%	TOTAL 8949	
PEAK HR START TIME :	500 PM												TOTAL	
PEAK HR VOL :	362	557	81	450	774	170	162	732	398	107	581	197	4571	
PEAK HR FACTOR :	0.926			0.939			0.905			0.896			0.976	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
2	12	1	1
8	4	1	4
5	4	5	2
1	9	1	3
5	14	0	1
4	9	2	4
7	13	1	4
0	15	2	14
NB 32	SB 80	EB 13	WB 33

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-001

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NS/EW Streets:	NOON												
	Otay Lakes Rd			Otay Lakes Rd			East H St			East H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 2	ER 2	WL 1	WT 2	WR 1	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:

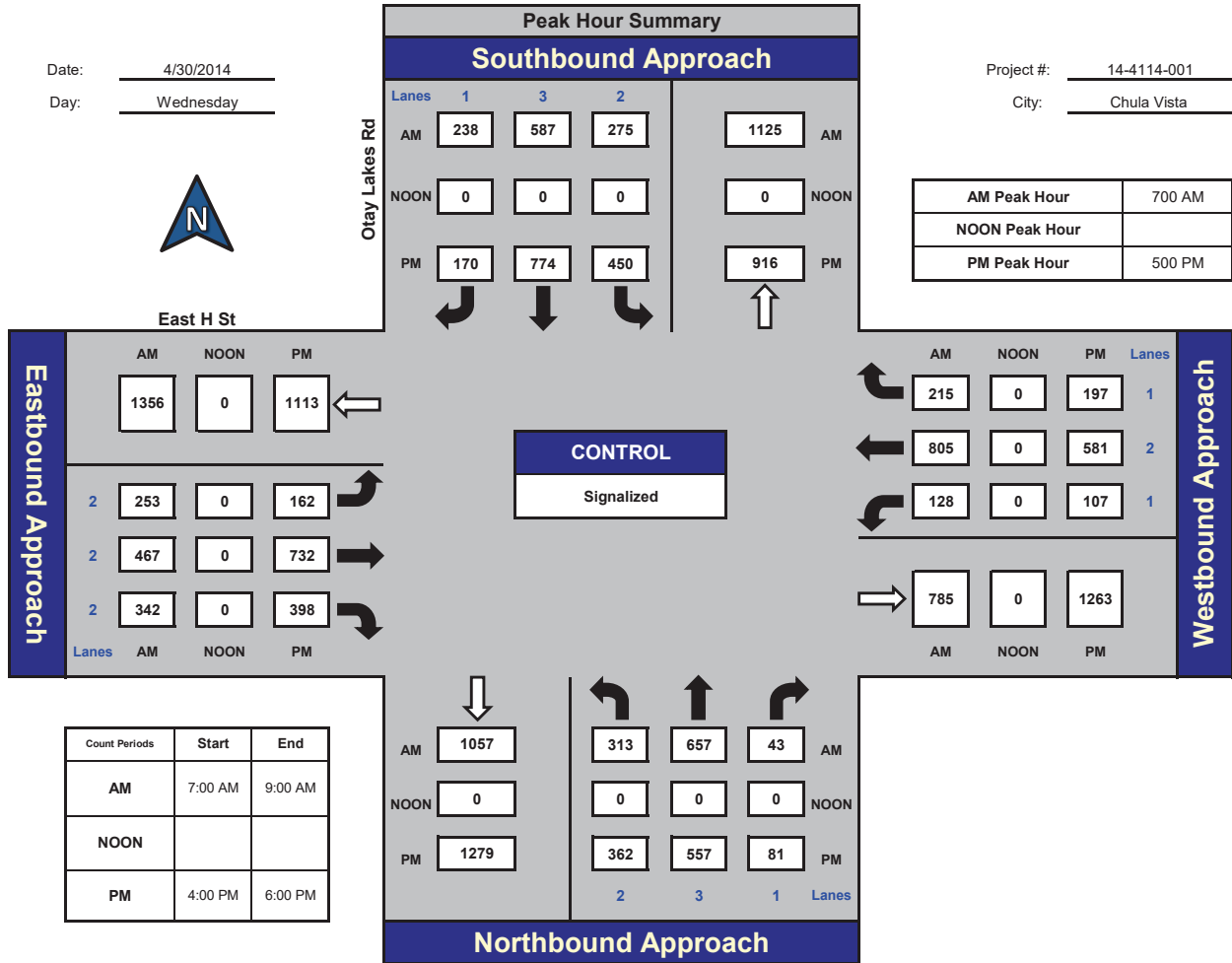


National Data & Surveying Services

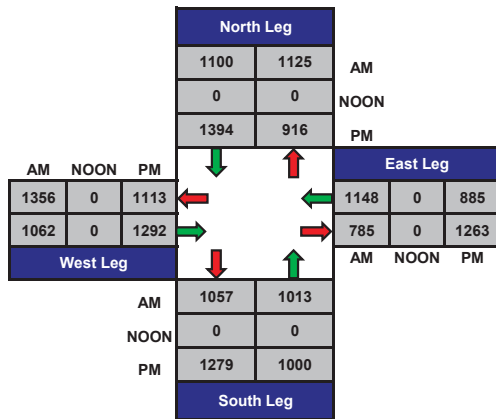
Otay Lakes Rd and East H St, Chula Vista

Date: 4/30/2014
Day: Wednesday

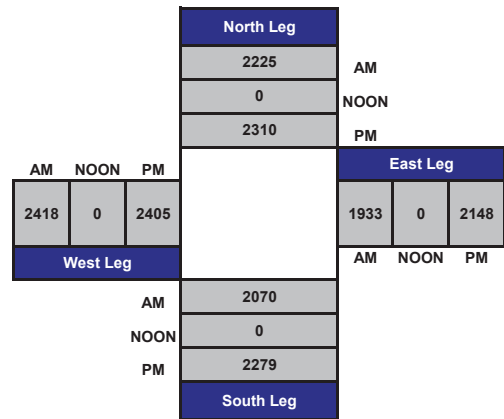
Project #: 14-4114-001
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-016

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	SR-125 SB On-Off Ramp			SR-125 SB On-Off Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 2	ST 0	SR 1	EL 0	ET 3	ER 1	WL 0	WT 2	WR 1	TOTAL
7:00 AM	0	0	0	21	0	22	0	125	10	0	124	30	332
7:15 AM	0	0	0	19	0	17	0	178	20	0	147	37	418
7:30 AM	0	0	0	48	0	19	0	156	26	0	204	52	505
7:45 AM	0	0	0	55	0	27	0	151	24	0	242	35	534
8:00 AM	0	0	0	29	0	22	0	171	26	0	177	26	451
8:15 AM	0	0	0	29	0	26	0	149	13	0	150	17	384
8:30 AM	0	0	0	29	0	16	0	131	8	0	146	21	351
8:45 AM	0	0	0	34	0	13	0	126	8	0	125	15	321
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 264	ST 0	SR 162	EL 0	ET 1187	ER 135	WL 0	WT 1315	WR 233	TOTAL 3296
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	61.97%	0.00%	38.03%	0.00%	89.79%	10.21%	0.00%	84.95%	15.05%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	0	0	151	0	85	0	656	96	0	770	150	1908
PEAK HR FACTOR :	0.000			0.720			0.949			0.830			0.893

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-016

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	SR-125 SB On-Off Ramp			SR-125 SB On-Off Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 2	ST 0	SR 1	EL 0	ET 3	ER 1	WL 0	WT 2	WR 1	TOTAL
4:00 PM	0	0	0	60	0	42	0	157	13	0	138	11	421
4:15 PM	0	0	0	66	0	42	0	191	15	0	168	10	492
4:30 PM	0	0	0	57	0	52	0	184	9	0	151	18	471
4:45 PM	0	0	0	75	0	55	0	182	8	0	173	11	504
5:00 PM	0	0	0	55	0	37	0	170	9	0	164	16	451
5:15 PM	0	0	0	66	0	57	0	217	10	0	156	19	525
5:30 PM	0	0	0	65	0	51	0	187	9	0	144	12	468
5:45 PM	0	0	0	75	0	46	0	212	5	0	150	14	502
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 519	ST 0	SR 382	EL 0	ET 1500	ER 78	WL 0	WT 1244	WR 111	TOTAL 3834
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	57.60%	0.00%	42.40%	0.00%	95.06%	4.94%	0.00%	91.81%	8.19%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	0	0	253	0	201	0	753	36	0	644	64	1951
PEAK HR FACTOR :	0.000			0.873			0.869			0.962			0.929

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-016

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NOON

NS/EW Streets:	SR-125 SB On-Off Ramp			SR-125 SB On-Off Ramp			E H St			E H St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 2	ST 0	SR 1	EL 0	ET 3	ER 1	WL 0	WT 2	WR 1	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

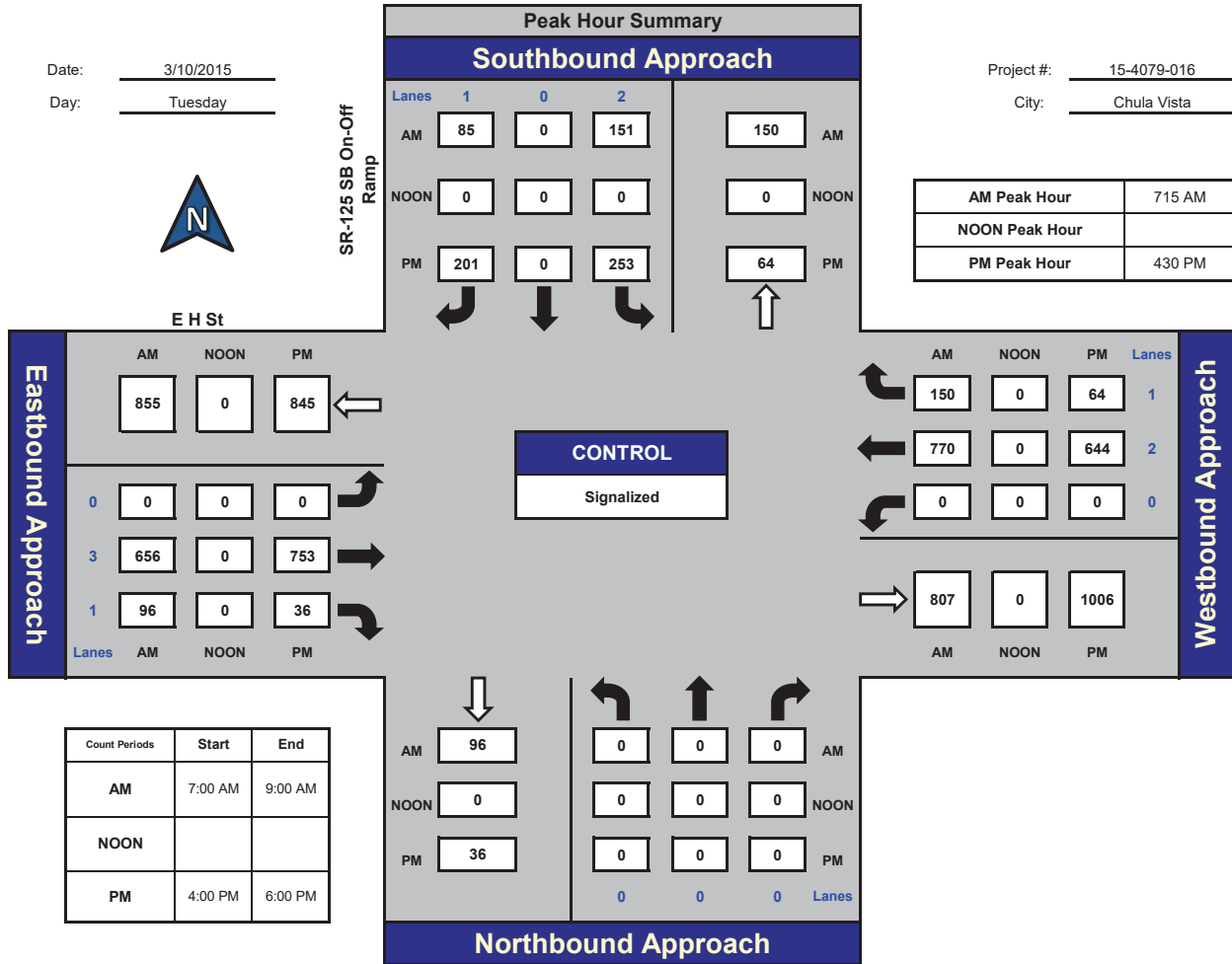
SR-125 SB On-Off Ramp and E H St, Chula Vista

Date: 3/10/2015

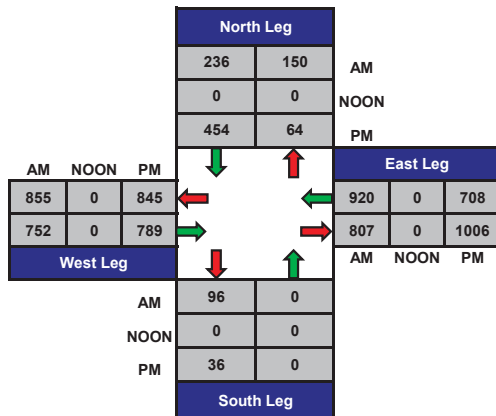
Day: Tuesday

Project #: 15-4079-016

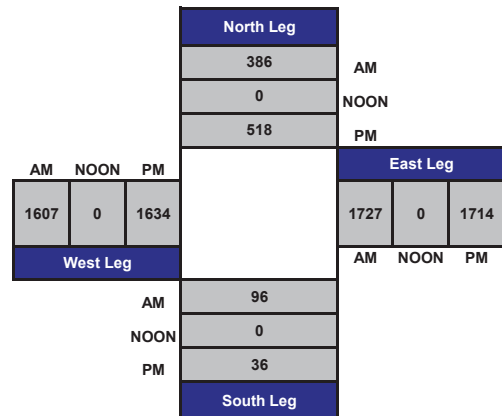
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-017

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	SR-125 NB On-Off Ramp			SR-125 NB On-Off Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 2	SL 0	ST 0	SR 0	EL 0	ET 3	ER 1	WL 0	WT 3	WR 1	TOTAL
7:00 AM	10	0	17	0	0	0	0	89	49	0	152	90	407
7:15 AM	9	0	10	0	0	0	0	144	60	0	169	115	507
7:30 AM	9	0	7	0	0	0	0	155	43	0	270	104	588
7:45 AM	8	0	10	0	0	0	0	173	40	0	244	96	571
8:00 AM	5	0	10	0	0	0	0	149	39	0	212	92	507
8:15 AM	1	0	5	0	0	0	0	136	37	0	153	68	400
8:30 AM	4	0	8	0	0	0	0	136	33	0	175	72	428
8:45 AM	4	0	6	0	0	0	0	116	42	0	130	57	355
TOTAL VOLUMES :	NL 50	NT 0	NR 73	SL 0	ST 0	SR 0	EL 0	ET 1098	ER 343	WL 0	WT 1505	WR 694	TOTAL 3763
APPROACH %'s :	40.65%	0.00%	59.35%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	76.20%	23.80%	0.00%	68.44%	31.56%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	31	0	37	0	0	0	0	621	182	0	895	407	2173
PEAK HR FACTOR :	0.895			0.000			0.942			0.870			0.924

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-017

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	SR-125 NB On-Off Ramp			SR-125 NB On-Off Ramp			E H St			E H St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 2	SL 0	ST 0	SR 0	EL 0	ET 3	ER 1	WL 0	WT 3	WR 1	TOTAL
4:00 PM	14	0	22	0	0	0	0	208	15	0	156	33	448
4:15 PM	13	0	13	0	0	0	0	225	17	0	148	37	453
4:30 PM	16	0	15	0	0	0	0	229	23	0	172	33	488
4:45 PM	15	0	29	0	0	0	0	218	21	0	146	30	459
5:00 PM	20	0	29	0	0	0	0	222	25	0	169	48	513
5:15 PM	20	0	28	0	0	0	0	252	19	0	149	26	494
5:30 PM	16	0	23	0	0	0	0	243	17	0	143	37	479
5:45 PM	15	0	14	0	0	0	0	251	21	0	154	26	481
TOTAL VOLUMES :	NL 129	NT 0	NR 173	SL 0	ST 0	SR 0	EL 0	ET 1848	ER 158	WL 0	WT 1237	WR 270	TOTAL 3815
APPROACH %'s :	42.72%	0.00%	57.28%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	92.12%	7.88%	0.00%	82.08%	17.92%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	71	0	94	0	0	0	0	968	82	0	615	137	1967
PEAK HR FACTOR :	0.842			0.000			0.965			0.866			0.959

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-017

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NOON

NS/EW Streets:	SR-125 NB On-Off Ramp			SR-125 NB On-Off Ramp			E H St			E H St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 2	SL 0	ST 0	SR 0	EL 0	ET 3	ER 1	WL 0	WT 3	WR 1	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

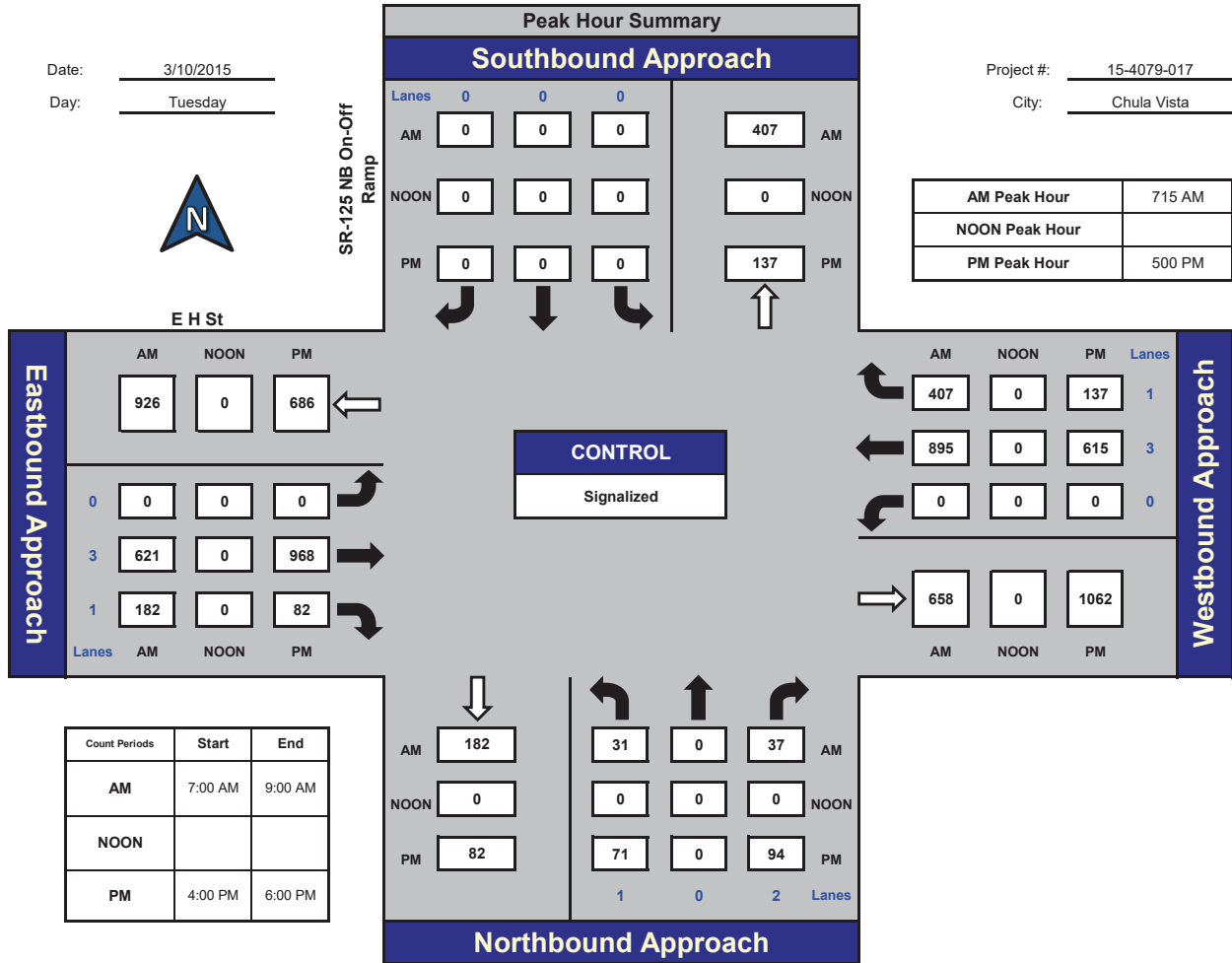
SR-125 NB On-Off Ramp and E H St , Chula Vista

Date: 3/10/2015

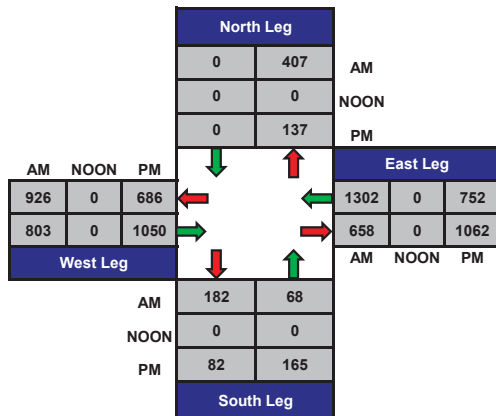
Day: Tuesday

Project #: 15-4079-017

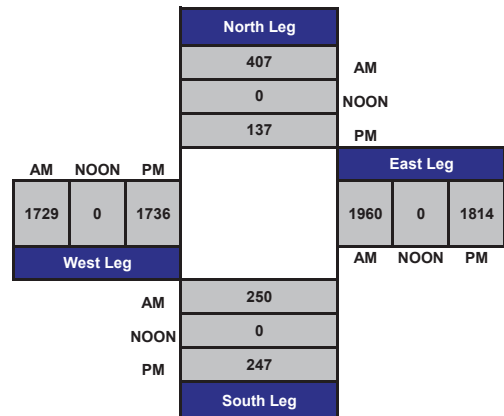
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-018

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	Mt Miguel Rd			Mt Miguel Rd			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 2	EL 2	ET 3	ER 0	WL 2	WT 3	WR 0	TOTAL
7:00 AM	43	22	1	22	17	50	28	51	17	0	140	86	477
7:15 AM	52	38	6	46	20	70	68	63	14	1	165	92	635
7:30 AM	65	29	14	77	34	114	56	100	19	4	205	67	784
7:45 AM	44	9	19	102	46	84	19	139	31	5	206	73	777
8:00 AM	38	29	7	58	29	59	22	99	31	7	200	75	654
8:15 AM	47	36	15	60	18	48	18	97	30	3	140	76	588
8:30 AM	75	34	19	52	20	42	22	85	20	0	123	60	552
8:45 AM	20	15	4	44	17	30	25	97	11	1	143	46	453
TOTAL VOLUMES : APPROACH %'s :	NL 384 56.39%	NT 212 31.13%	NR 85 12.48%	SL 461 39.78%	ST 201 17.34%	SR 497 42.88%	EL 258 22.20%	ET 731 62.91%	ER 173 14.89%	WL 21 1.09%	WT 1322 68.93%	WR 575 29.98%	TOTAL 4920
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	199	105	46	283	129	327	165	401	95	17	776	307	2850
PEAK HR FACTOR :	0.810			0.796			0.874			0.968			0.909

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
		1	0
		0	1
		0	0
		0	1
		0	2
		0	1
		0	0
		0	1

NB	SB	EB	WB
0	0	1	6

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-018

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	Mt Miguel Rd			Mt Miguel Rd			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 2	EL 2	ET 3	ER 0	WL 2	WT 3	WR 0	TOTAL
4:00 PM	18	12	1	74	22	38	50	133	35	1	127	61	572
4:15 PM	23	11	4	84	34	58	39	153	57	5	104	73	645
4:30 PM	38	19	2	99	36	49	45	147	40	4	121	73	673
4:45 PM	26	18	3	69	46	42	59	152	49	5	113	50	632
5:00 PM	34	23	1	90	31	35	53	140	51	5	140	81	684
5:15 PM	31	22	5	79	45	43	39	174	72	1	109	68	688
5:30 PM	34	21	1	82	54	48	58	143	43	5	90	60	639
5:45 PM	28	16	9	86	33	42	40	191	52	2	112	67	678
TOTAL VOLUMES :	NL 232	NT 142	NR 26	SL 663	ST 301	SR 355	EL 383	ET 1233	ER 399	WL 28	WT 916	WR 533	TOTAL 5211
APPROACH %'s :	58.00%	35.50%	6.50%	50.27%	22.82%	26.91%	19.01%	61.19%	19.80%	1.90%	62.02%	36.09%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	127	82	16	337	163	168	190	648	218	13	451	276	2689
PEAK HR FACTOR :	0.970			0.908			0.926			0.819			0.977

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
		0	0
		0	0
		1	2
		0	1
		0	0
		0	0
		0	0
		0	0

NB	SB	EB	WB
0	0	1	3

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-018

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NOON

NS/EW Streets:	Mt Miguel Rd			Mt Miguel Rd			Proctor Valley Rd			Proctor Valley Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 2	EL 2	ET 3	ER 0	WL 2	WT 3	WR 0	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

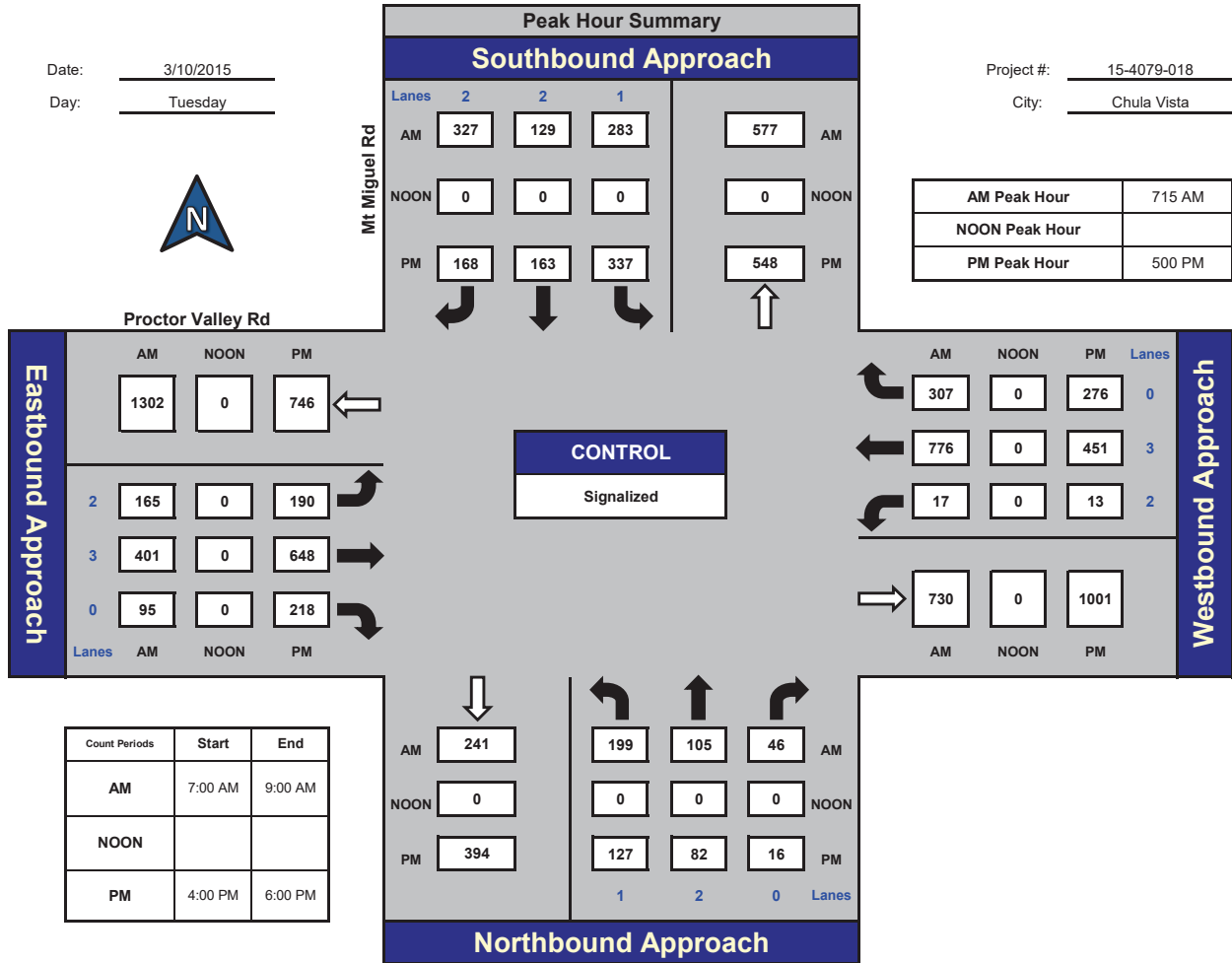
Mt Miguel Rd and Proctor Valley Rd , Chula Vista

Date: 3/10/2015

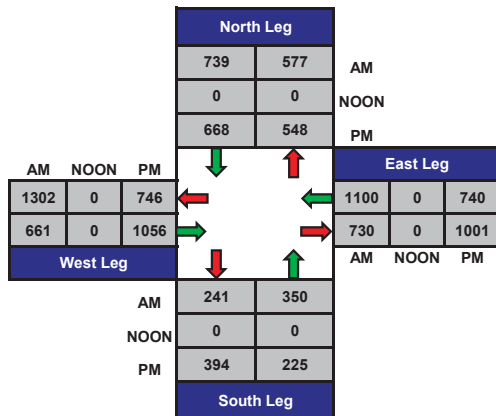
Day: Tuesday

Project #: 15-4079-018

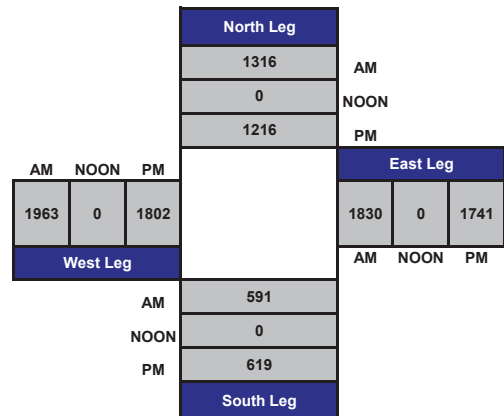
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-019

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:		Lane Ave			Lane Ave			Proctor Valley Rd			Proctor Valley Rd		
NORTHBOUND				SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	
7:00 AM	56	16	18	2	7	18	1	38	33	10	143	4	346
7:15 AM	39	6	8	4	8	27	5	70	35	9	183	0	394
7:30 AM	40	2	24	15	14	21	5	151	50	23	215	10	570
7:45 AM	36	3	25	13	10	15	5	170	65	22	215	11	590
8:00 AM	40	3	10	3	8	12	6	104	48	16	219	5	474
8:15 AM	40	3	19	3	6	27	4	87	58	20	144	3	414
8:30 AM	40	9	17	2	13	14	5	77	57	21	112	2	369
8:45 AM	37	6	15	2	6	16	6	78	54	23	102	0	345
TOTAL VOLUMES :	NL 328	NT 48	NR 136	SL 44	ST 72	SR 150	EL 37	ET 775	ER 400	WL 144	WT 1333	WR 35	TOTAL 3502
APPROACH %'s :	64.06%	9.38%	26.56%	16.54%	27.07%	56.39%	3.05%	63.94%	33.00%	9.52%	88.16%	2.31%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	156	11	78	34	38	75	20	512	221	81	793	29	2048
PEAK HR FACTOR :	0.928			0.735			0.784			0.910			0.868

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-019

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	Lane Ave			Lane Ave			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
4:00 PM	71	21	18	1	9	10	17	114	45	14	92	1	413
4:15 PM	83	17	23	0	13	7	13	121	65	21	85	1	449
4:30 PM	79	16	21	3	15	7	16	138	63	27	93	2	480
4:45 PM	74	17	23	3	15	11	13	125	67	27	98	1	474
5:00 PM	93	23	30	0	11	6	12	127	65	21	92	3	483
5:15 PM	73	19	24	3	12	6	17	176	81	13	83	6	513
5:30 PM	48	19	23	0	14	9	12	157	69	19	84	6	460
5:45 PM	74	23	32	2	18	5	20	147	72	10	72	3	478
TOTAL VOLUMES :	NL 595	NT 155	NR 194	SL 12	ST 107	SR 61	EL 120	ET 1105	ER 527	WL 152	WT 699	WR 23	TOTAL 3750
APPROACH %'s :	63.03%	16.42%	20.55%	6.67%	59.44%	33.89%	6.85%	63.07%	30.08%	17.39%	79.98%	2.63%	
PEAK HR START TIME :	430 PM												
PEAK HR VOL :	319	75	98	9	53	30	58	566	276	88	366	12	1950
PEAK HR FACTOR :	0.842			0.793			0.821			0.925			0.950

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-019

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	Lane Ave			Lane Ave			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

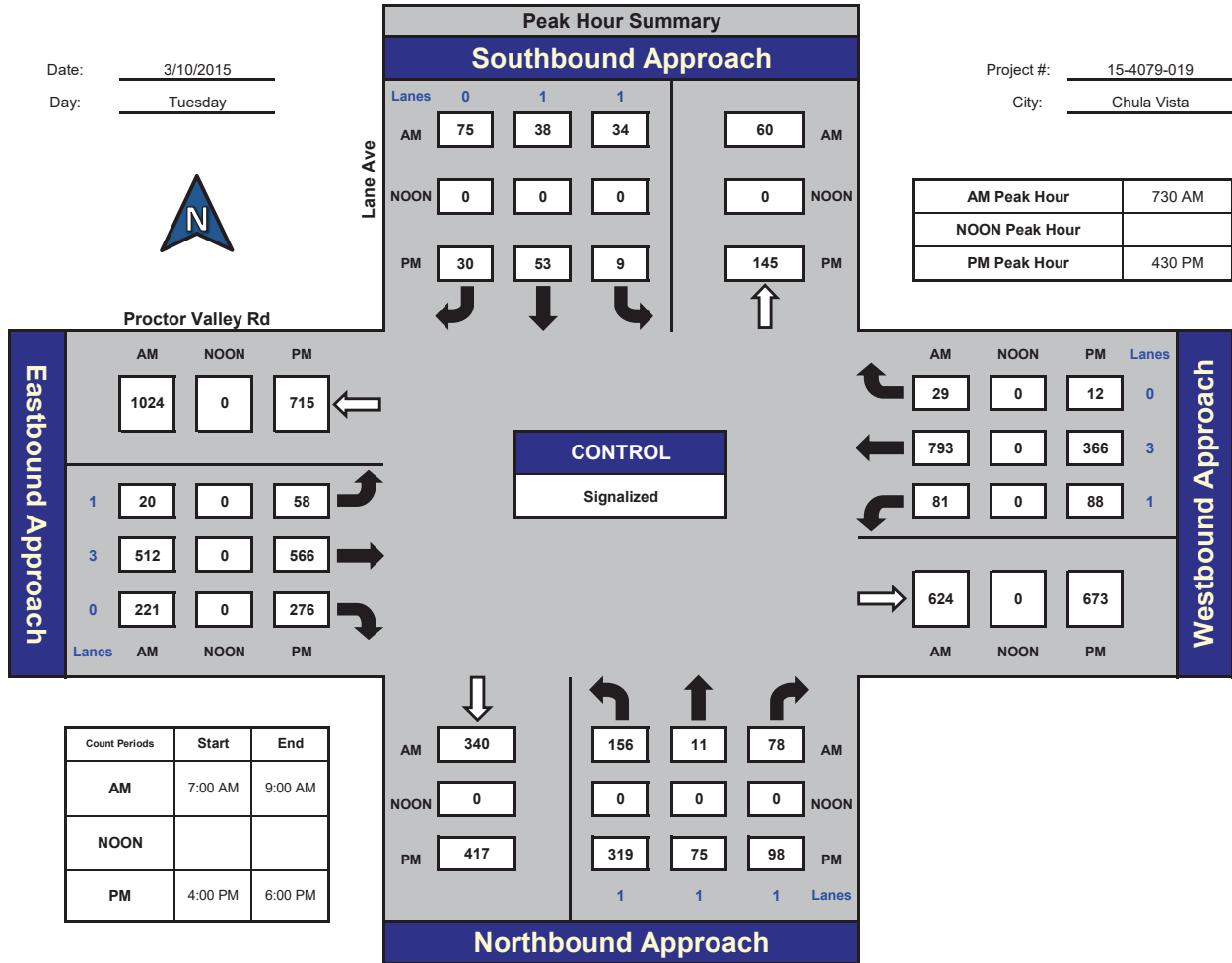
Lane Ave and Proctor Valley Rd , Chula Vista

Date: 3/10/2015

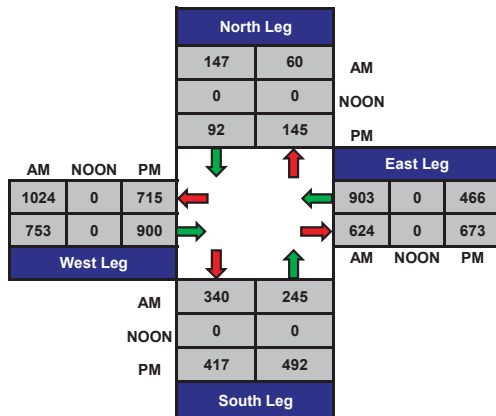
Day: Tuesday

Project #: 15-4079-019

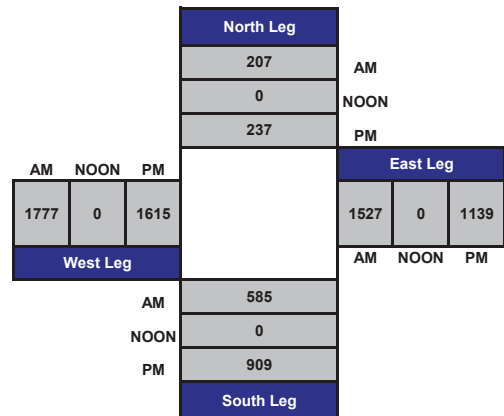
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-002

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM													
NS/EW Streets:	Huente Parkway			Huente Parkway			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
7:00 AM	44	9	9	0	9	21	9	33	27	7	88	1	257
7:15 AM	58	4	6	1	3	18	7	63	12	8	108	0	288
7:30 AM	67	1	15	2	1	15	5	109	23	25	132	1	396
7:45 AM	76	0	39	4	2	15	10	164	45	44	167	1	567
8:00 AM	112	6	26	0	5	12	12	137	120	61	179	1	671
8:15 AM	96	8	20	0	2	31	10	46	93	15	99	1	421
8:30 AM	47	9	16	0	1	22	12	31	98	10	81	0	327
8:45 AM	42	8	16	1	8	11	10	63	103	8	65	1	336
TOTAL VOLUMES :	NL 542	NT 45	NR 147	SL 8	ST 31	SR 145	EL 75	ET 646	ER 521	WL 178	WT 919	WR 6	TOTAL 3263
APPROACH %'s :	73.84%	6.13%	20.03%	4.35%	16.85%	78.80%	6.04%	52.01%	41.95%	16.14%	83.32%	0.54%	
PEAK HR START TIME :	730 AM												
PEAK HR VOL :	351	15	100	6	10	73	37	456	281	145	577	4	2055
PEAK HR FACTOR :	0.809			0.674			0.719			0.753			0.766

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
		1	
		0	
		0	
		0	
		1	
		0	
		0	
		0	
NB 0	SB 0	EB 2	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-002

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	Huente Parkway			Huente Parkway			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
4:00 PM	34	7	9	0	11	13	9	84	49	9	74	1	300
4:15 PM	29	5	15	0	9	8	16	94	45	8	55	0	284
4:30 PM	24	4	22	0	7	9	19	79	62	15	52	2	295
4:45 PM	33	9	15	2	15	14	16	85	56	13	52	0	310
5:00 PM	29	10	14	1	7	7	17	82	52	5	68	1	293
5:15 PM	22	6	8	1	6	10	20	92	50	8	61	0	284
5:30 PM	23	4	13	1	7	14	18	85	66	7	54	0	292
5:45 PM	33	4	10	0	3	12	15	89	49	20	65	0	300
TOTAL VOLUMES :	NL 227	NT 49	NR 106	SL 5	ST 65	SR 87	EL 130	ET 690	ER 429	WL 85	WT 481	WR 4	TOTAL 2358
APPROACH %'s :	59.42%	12.83%	27.75%	3.18%	41.40%	55.41%	10.41%	55.24%	34.35%	14.91%	84.39%	0.70%	
PEAK HR START TIME :	400 PM												TOTAL
PEAK HR VOL :	120	25	61	2	42	44	60	342	212	45	233	3	1189
PEAK HR FACTOR :	0.904			0.710			0.959			0.836			0.959

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
1	0	1	0
0	0	1	0
0	0	0	1
0	1	0	0
0	0	0	1
0	0	2	0
0	0	1	0
NB 1	SB 1	EB 5	WB 2

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-002

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	Huente Parkway			Huente Parkway			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:

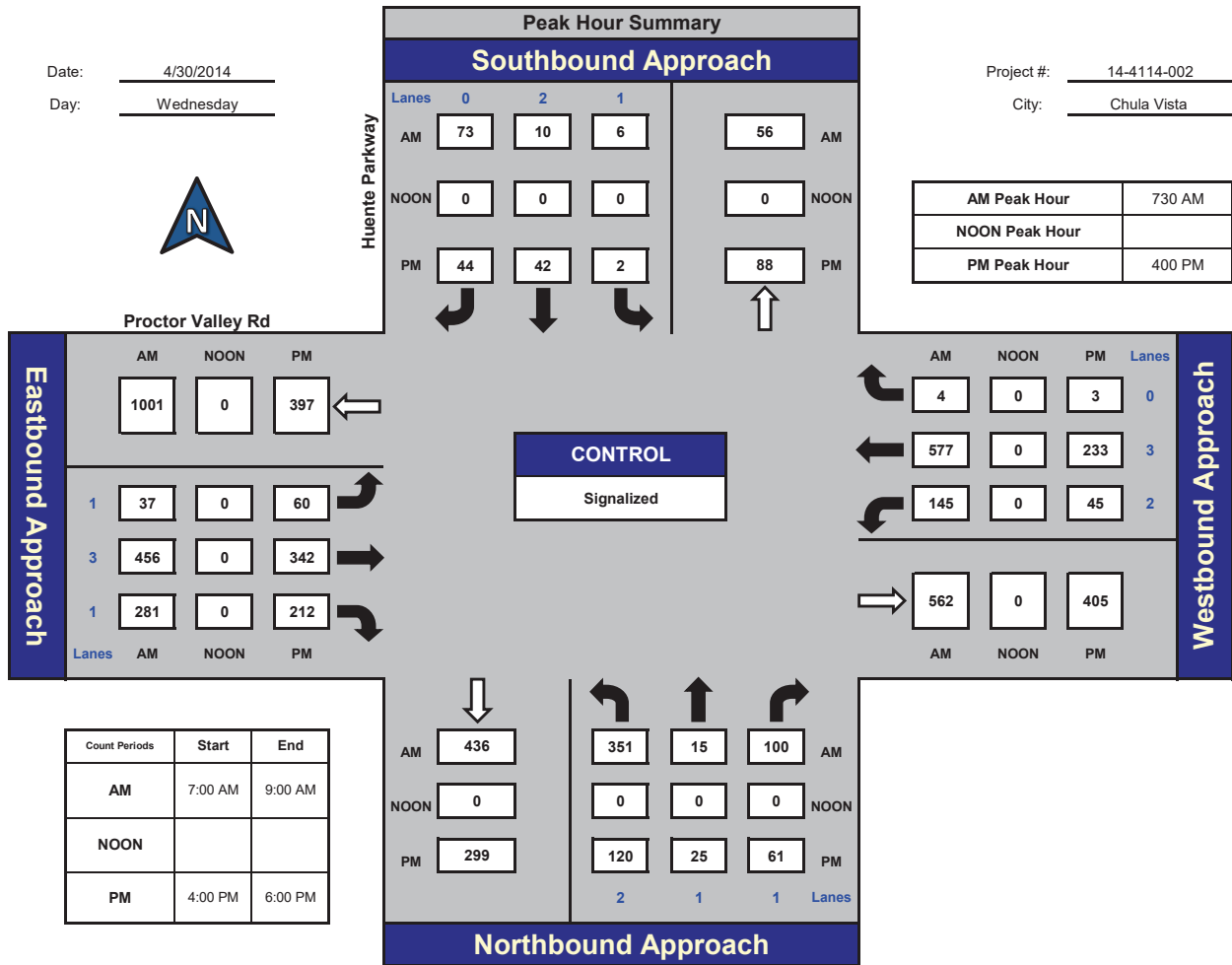


National Data & Surveying Services

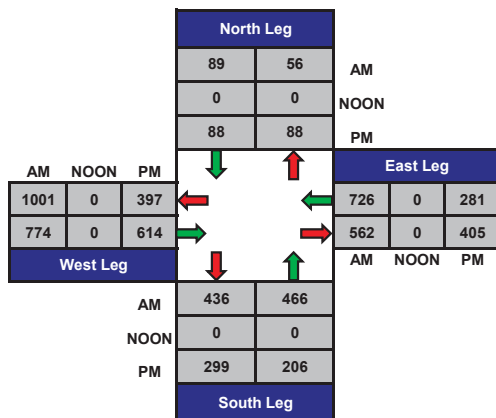
Huente Parkway and Proctor Valley Rd , Chula Vista

Date: 4/30/2014
Day: Wednesday

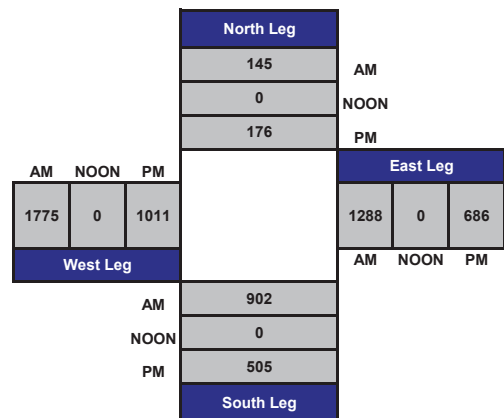
Project #: 14-4114-002
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-021

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:	Northwoods Dr			Northwoods Dr			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	7	7	0	0	2	26	10	0	3	0	2	0	57
7:15 AM	5	3	1	0	9	35	6	2	3	1	2	0	67
7:30 AM	12	6	2	0	10	40	10	3	3	0	4	0	90
7:45 AM	20	8	1	1	28	23	9	0	15	1	1	0	107
8:00 AM	16	11	0	0	9	20	11	1	11	1	0	0	80
8:15 AM	11	7	0	1	2	23	20	6	8	1	0	1	80
8:30 AM	10	6	0	0	5	16	10	1	3	0	0	0	51
8:45 AM	5	1	0	0	2	25	21	2	9	0	0	0	65
TOTAL VOLUMES :	NL 86	NT 49	NR 4	SL 2	ST 67	SR 208	EL 97	ET 15	ER 55	WL 4	WT 9	WR 1	TOTAL 597
APPROACH %'s :	61.87%	35.25%	2.88%	0.72%	24.19%	75.09%	58.08%	8.98%	32.93%	28.57%	64.29%	7.14%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	59	32	3	2	49	106	50	10	37	3	5	1	357
PEAK HR FACTOR :	0.810			0.755			0.713			0.563			0.834

CONTROL : 4-Way Stop

UTURNS			
NB	SB	EB	WB
0	0		0
0	0		1
0	0		0
1	0		0
0	0		0
0	1		0
0	0		0
0	0		0

NB	SB	EB	WB
1	1	0	1

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-021

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:	Northwoods Dr			Northwoods Dr			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
4:00 PM	7	2	1	0	2	22	14	1	9	0	0	1	59
4:15 PM	3	5	1	1	2	9	24	1	9	0	3	0	58
4:30 PM	2	4	0	0	2	17	18	0	3	0	1	0	47
4:45 PM	5	11	0	0	2	16	22	4	11	0	2	0	73
5:00 PM	10	8	0	0	2	17	24	5	6	0	4	0	76
5:15 PM	7	4	0	0	8	11	26	3	10	0	2	1	72
5:30 PM	5	2	1	0	4	21	22	3	8	0	2	1	69
5:45 PM	3	2	0	0	6	9	17	1	8	1	3	1	51
TOTAL VOLUMES :	NL 42	NT 38	NR 3	SL 1	ST 28	SR 122	EL 167	ET 18	ER 64	WL 1	WT 17	WR 4	TOTAL 505
APPROACH %'s :	50.60%	45.78%	3.61%	0.66%	18.54%	80.79%	67.07%	7.23%	25.70%	4.55%	77.27%	18.18%	
PEAK HR START TIME :	445 PM												
PEAK HR VOL :	27	25	1	0	16	65	94	15	35	0	10	2	290
PEAK HR FACTOR :	0.736			0.810			0.923			0.750			0.954

CONTROL : 4-Way Stop

UTURNS			
NB	SB	EB	WB
		1	
		0	
		1	
		0	
		1	
		4	
		1	
		0	
NB 0	SB 0	EB 8	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-021

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	Northwoods Dr			Northwoods Dr			Proctor Valley Rd			Proctor Valley Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : 4-Way Stop

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

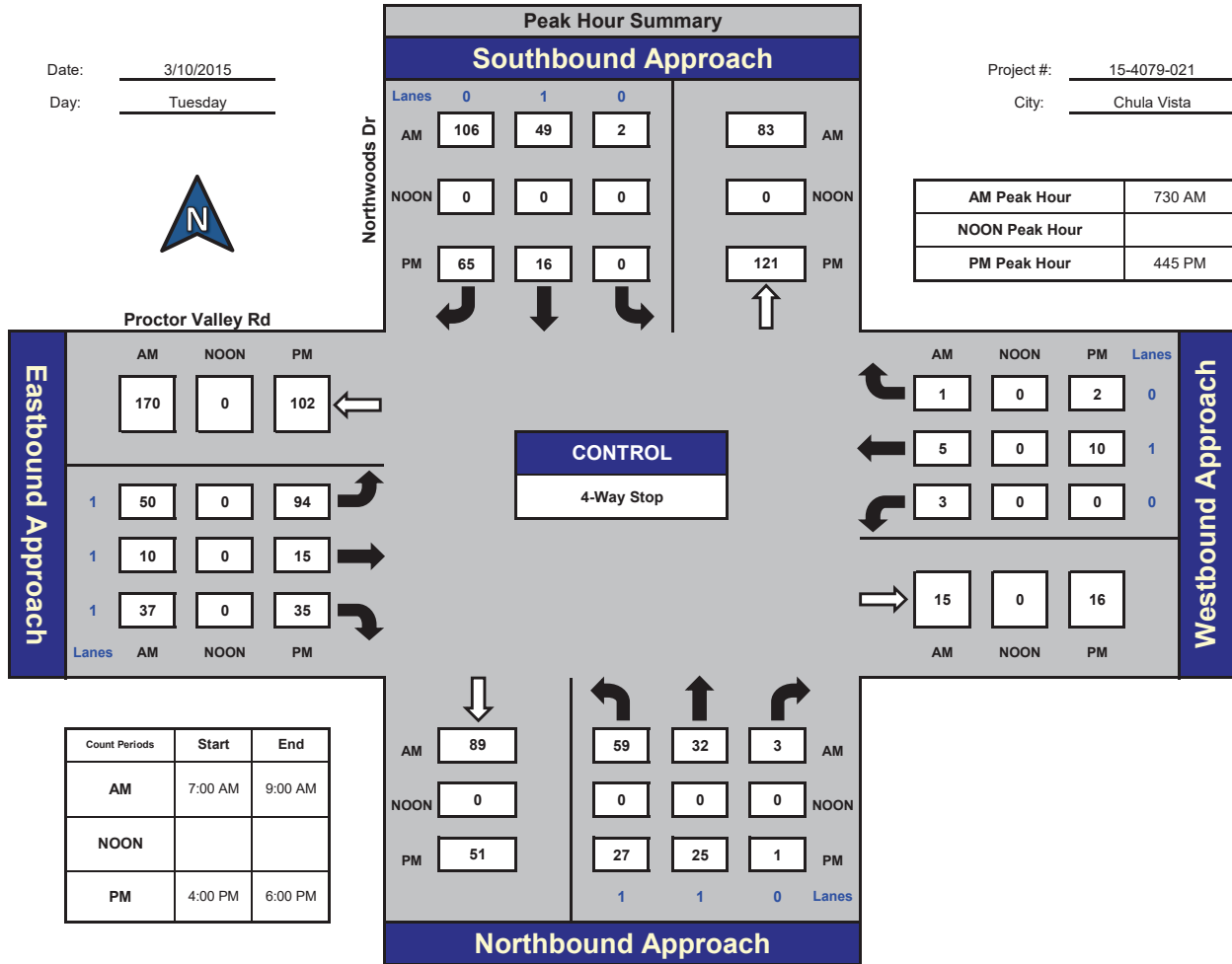
Northwoods Dr and Proctor Valley Rd , Chula Vista

Date: 3/10/2015

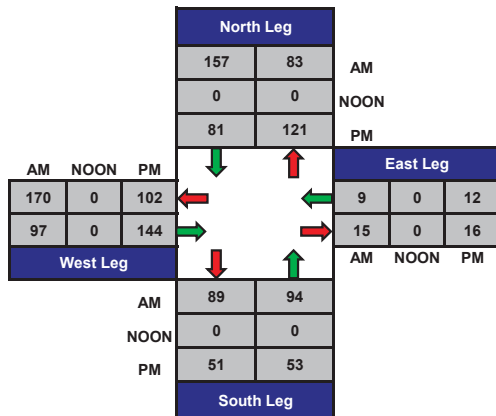
Day: Tuesday

Project #: 15-4079-021

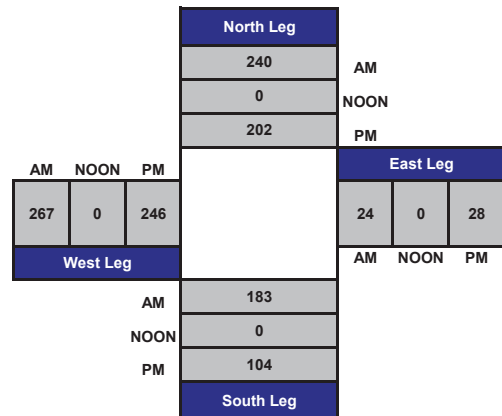
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-022

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM														
NS/EW Streets:		Eastlake Pkwy			Eastlake Pkwy			Fenton St			Fenton St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 2	WT 1	WR 0	TOTAL
7:00 AM		14	84	31	5	44	10	5	18	2	32	5	3	253
7:15 AM		4	42	33	6	41	9	3	8	2	19	5	3	175
7:30 AM		13	77	46	17	30	11	5	19	4	20	6	8	256
7:45 AM		18	84	65	21	55	15	12	12	2	26	24	7	341
8:00 AM		24	98	58	21	60	15	9	17	5	42	16	5	370
8:15 AM		30	113	69	20	70	22	16	24	8	47	22	9	450
8:30 AM		19	103	48	12	59	20	15	31	5	45	21	8	386
8:45 AM		18	95	49	21	77	14	15	23	11	43	22	15	403
TOTAL VOLUMES : APPROACH %'s :		NL 140 11.34%	NT 696 56.36%	NR 399 32.31%	SL 123 18.22%	ST 436 64.59%	SR 116 17.19%	EL 80 29.52%	ET 152 56.09%	ER 39 14.39%	WL 274 60.49%	WT 121 26.71%	WR 58 12.80%	TOTAL 2634
PEAK HR START TIME :		800 AM												TOTAL
PEAK HR VOL :		91	409	224	74	266	71	55	95	29	177	81	37	1609
PEAK HR FACTOR :		0.854			0.917			0.877			0.922			0.894

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0		
0	0		
1	0		
1	0		
0	0		
0	0		
0	1		
0	0		
NB 2	SB 1	EB 0	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-022

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:		PM												
		Eastlake Pkwy			Eastlake Pkwy			Fenton St			Fenton St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 2	WT 1	WR 0	TOTAL	
4:00 PM	30	127	54	24	131	27	35	56	10	69	36	11	610	
4:15 PM	32	153	38	20	138	40	28	41	12	68	25	13	608	
4:30 PM	30	158	48	26	153	30	23	47	25	88	29	21	678	
4:45 PM	34	136	53	33	177	28	31	41	15	103	35	26	712	
5:00 PM	43	138	38	26	163	29	34	42	17	85	44	16	675	
5:15 PM	32	167	27	24	150	39	35	41	23	67	26	21	652	
5:30 PM	38	153	45	19	141	32	42	38	15	59	45	10	637	
5:45 PM	42	121	50	38	134	27	33	42	20	69	31	19	626	
TOTAL VOLUMES : APPROACH %'s :	NL 281 15.72%	NT 1153 64.52%	NR 353 19.75%	SL 210 12.73%	ST 1187 71.98%	SR 252 15.28%	EL 261 34.99%	ET 348 46.65%	ER 137 18.36%	WL 608 59.84%	WT 271 26.67%	WR 137 13.48%	5198	
PEAK HR START TIME :	430 PM													TOTAL
PEAK HR VOL :	139	599	166	109	643	126	123	171	80	343	134	84	2717	
PEAK HR FACTOR :	0.958			0.922			0.944			0.855			0.954	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	2		
0	0		
2	0		
0	0		
1	1		
0	1		
0	0		
2	0		
NB 5	SB 4	EB 0	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-022

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	Eastlake Pkwy			Eastlake Pkwy			Fenton St			Fenton St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 2	WT 1	WR 0	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

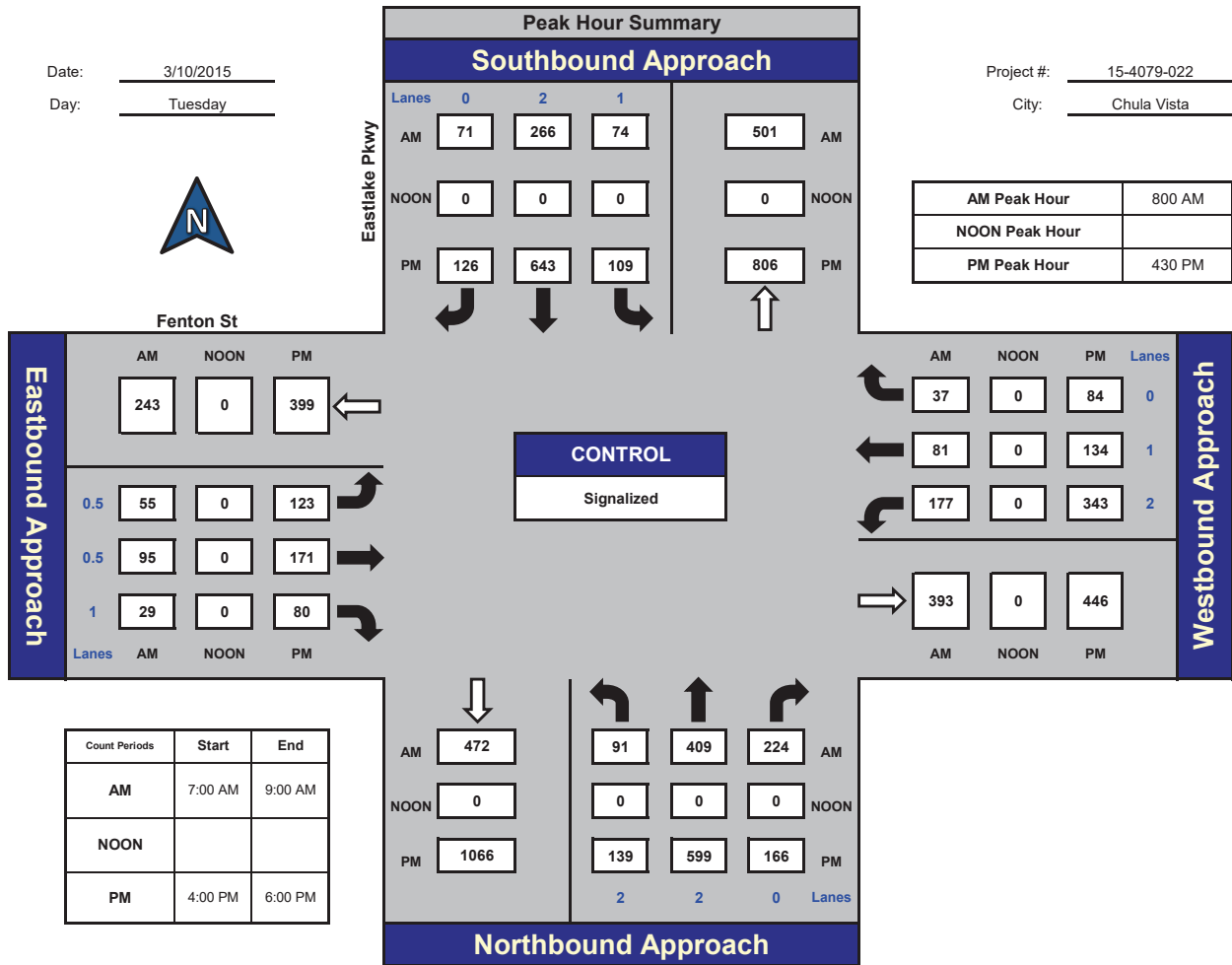
Eastlake Pkwy and Fenton St, Chula Vista

Date: 3/10/2015

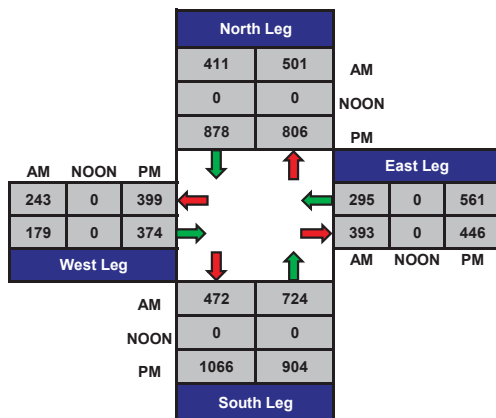
Day: Tuesday

Project #: 15-4079-022

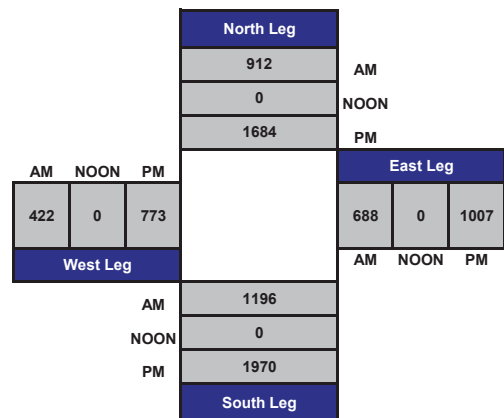
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-023

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

AM													
NS/EW Streets:		Lane Ave			Lane Ave			Fenton St			Fenton St		
NORTHBOUND				SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	
7:00 AM	1	81	20	4	46	31	23	9	5	4	4	10	238
7:15 AM	0	66	25	13	51	17	14	16	4	6	10	13	235
7:30 AM	5	47	39	20	46	16	9	18	3	3	7	7	220
7:45 AM	13	66	88	34	60	30	14	30	6	11	16	10	378
8:00 AM	11	54	46	31	54	23	12	15	11	15	17	10	299
8:15 AM	9	75	43	43	42	31	24	29	5	9	20	10	340
8:30 AM	6	44	35	28	48	27	25	29	10	22	24	20	318
8:45 AM	11	54	49	21	59	32	16	27	4	16	18	15	322
TOTAL VOLUMES :	NL 56	NT 487	NR 345	SL 194	ST 406	SR 207	EL 137	ET 173	ER 48	WL 86	WT 116	WR 95	TOTAL 2350
APPROACH %'s :	6.31%	54.84%	38.85%	24.04%	50.31%	25.65%	38.27%	48.32%	13.41%	28.96%	39.06%	31.99%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	39	239	212	136	204	111	75	103	32	57	77	50	1335
PEAK HR FACTOR :	0.734			0.909			0.820			0.697			0.883

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-023

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

PM													
NS/EW Streets:		Lane Ave			Lane Ave			Fenton St			Fenton St		
NORTHBOUND				SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	
4:00 PM	11	82	22	25	65	23	43	38	12	33	37	25	416
4:15 PM	9	70	21	27	83	31	38	25	10	38	38	30	420
4:30 PM	14	81	26	26	105	34	32	36	10	38	41	40	483
4:45 PM	17	98	41	36	115	32	32	48	21	37	64	51	592
5:00 PM	10	87	23	20	92	43	60	41	18	77	61	46	578
5:15 PM	5	100	23	35	77	25	40	28	17	37	34	23	444
5:30 PM	8	72	16	29	72	36	33	41	8	38	50	38	441
5:45 PM	12	103	34	38	70	38	44	40	13	33	40	39	504
TOTAL VOLUMES :	NL 86	NT 693	NR 206	SL 236	ST 679	SR 262	EL 322	ET 297	ER 109	WL 331	WT 365	WR 292	TOTAL 3878
APPROACH %'s :	8.73%	70.36%	20.91%	20.05%	57.69%	22.26%	44.23%	40.80%	14.97%	33.50%	36.94%	29.55%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	46	366	113	117	389	134	164	153	66	189	200	160	2097
PEAK HR FACTOR :	0.841			0.874			0.805			0.746			0.886

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4079-023

Day: Tuesday

City: Chula Vista

Date: 3/10/2015

NS/EW Streets:	NOON												
	Lane Ave			Lane Ave			Fenton St			Fenton St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

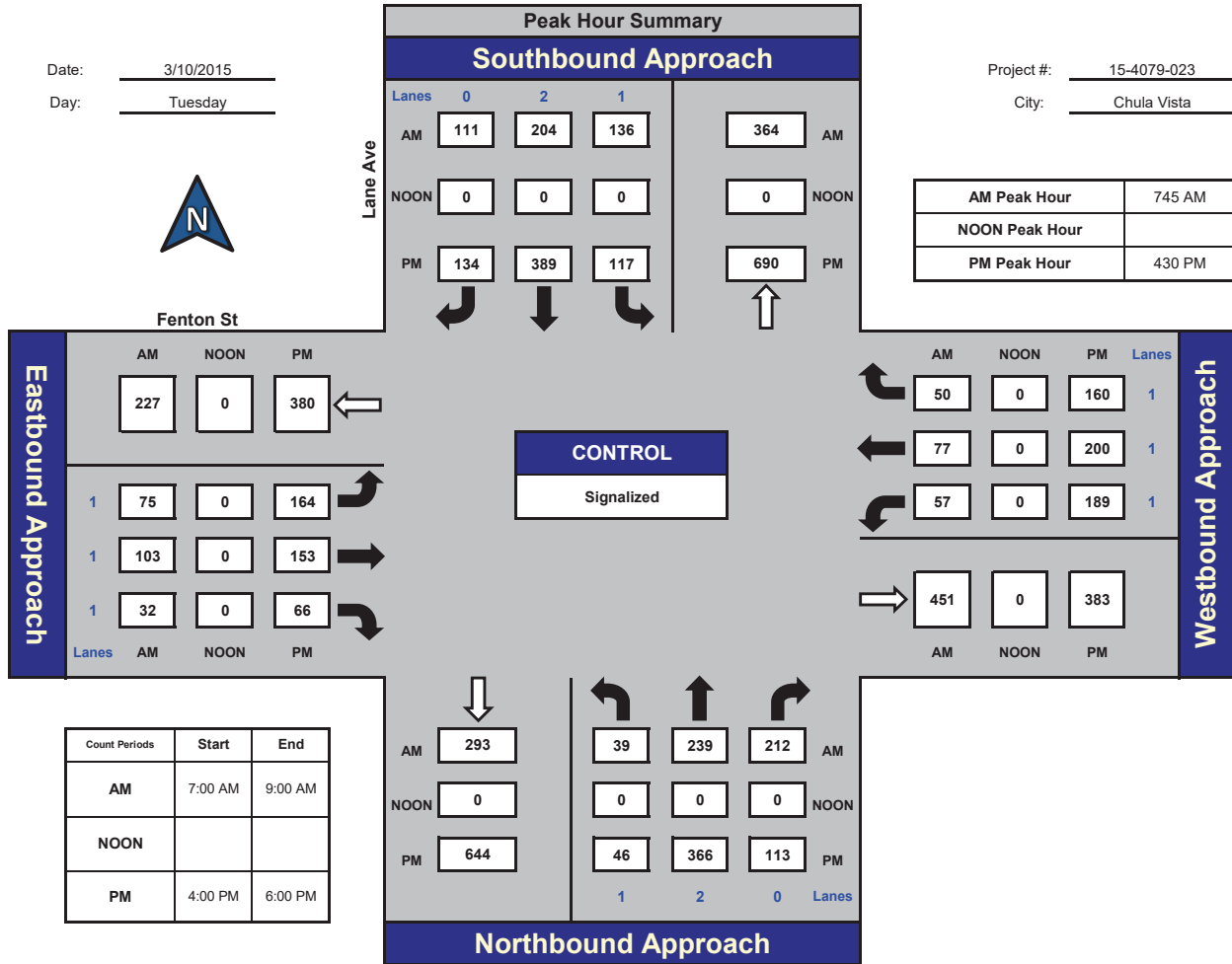
Lane Ave and Fenton St, Chula Vista

Date: 3/10/2015

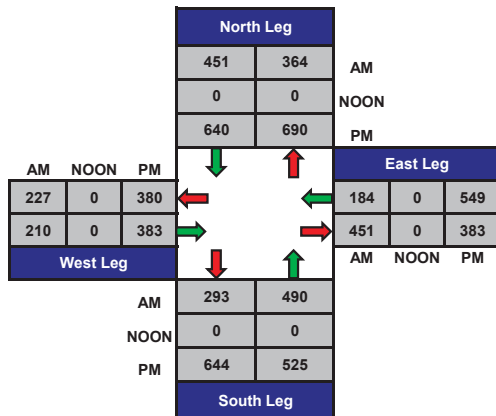
Day: Tuesday

Project #: 15-4079-023

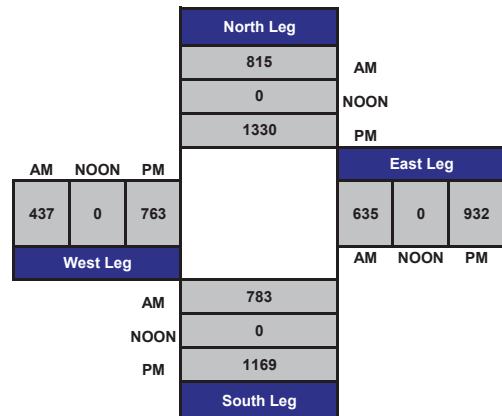
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-009

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM

NS/EW Streets:	Paseo Ranchero/Heritage Rd			Paseo Ranchero/Heritage Rd			Telegraph Canyon Rd			Telegraph Canyon Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 0	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	
7:00 AM	93	226	27	59	186	45	55	249	69	9	237	80	1335
7:15 AM	116	258	40	69	145	64	73	300	64	16	283	78	1506
7:30 AM	153	147	49	51	166	65	33	326	60	19	347	47	1463
7:45 AM	129	128	51	25	80	46	35	366	56	20	345	31	1312
8:00 AM	96	83	20	22	70	37	41	249	49	20	291	16	994
8:15 AM	106	63	16	16	62	31	23	286	48	12	288	28	979
8:30 AM	85	61	31	12	38	24	35	326	50	12	288	18	980
8:45 AM	70	84	22	16	56	20	39	304	41	23	271	32	978
TOTAL VOLUMES : APPROACH %'s :	NL 848 39.37%	NT 1050 48.75%	NR 256 11.88%	SL 270 19.22%	ST 803 57.15%	SR 332 23.63%	EL 334 10.51%	ET 2406 75.73%	ER 437 13.76%	WL 131 4.66%	WT 2350 83.60%	WR 330 11.74%	TOTAL 9547
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	491	759	167	204	577	220	196	1241	249	64	1212	236	5616
PEAK HR FACTOR :	0.856			0.863			0.922			0.915			0.932

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	
0	1	1	
0	0	0	
2	0	0	
0	0	0	
0	0	1	
0	0	0	
0	0	0	

NB	SB	EB	WB
2	1	2	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-009

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	Paseo Ranchero/Heritage Rd			Paseo Ranchero/Heritage Rd			Telegraph Canyon Rd			Telegraph Canyon Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 0	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
4:00 PM	49	57	19	23	60	13	28	333	90	27	254	20	973
4:15 PM	62	68	28	35	73	20	28	364	106	24	276	23	1107
4:30 PM	60	66	31	40	65	15	25	326	128	35	216	21	1028
4:45 PM	69	87	43	30	88	12	33	339	127	27	328	34	1217
5:00 PM	63	67	30	24	82	18	33	359	111	32	315	23	1157
5:15 PM	60	87	29	37	119	12	32	327	103	33	303	32	1174
5:30 PM	73	66	29	26	88	13	39	343	114	34	272	32	1129
5:45 PM	58	70	34	29	86	31	43	381	123	35	228	23	1141
TOTAL VOLUMES :	NL 494	NT 568	NR 243	SL 244	ST 661	SR 134	EL 261	ET 2772	ER 902	WL 247	WT 2192	WR 208	TOTAL 8926
APPROACH %'s :	37.85%	43.52%	18.62%	23.48%	63.62%	12.90%	6.63%	70.44%	22.92%	9.33%	82.81%	7.86%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	265	307	131	117	377	55	137	1368	455	126	1218	121	4677
PEAK HR FACTOR :	0.883			0.817			0.974			0.942			0.961

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0		0	1
1		0	1
0		0	0
1		0	0
0		0	1
0		2	0
1		2	0
0		0	0
NB 3	SB 0	EB 4	WB 3

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-009

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	Paseo Rancho/Heritage Rd			Paseo Rancho/Heritage Rd			Telegraph Canyon Rd			Telegraph Canyon Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 0	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:

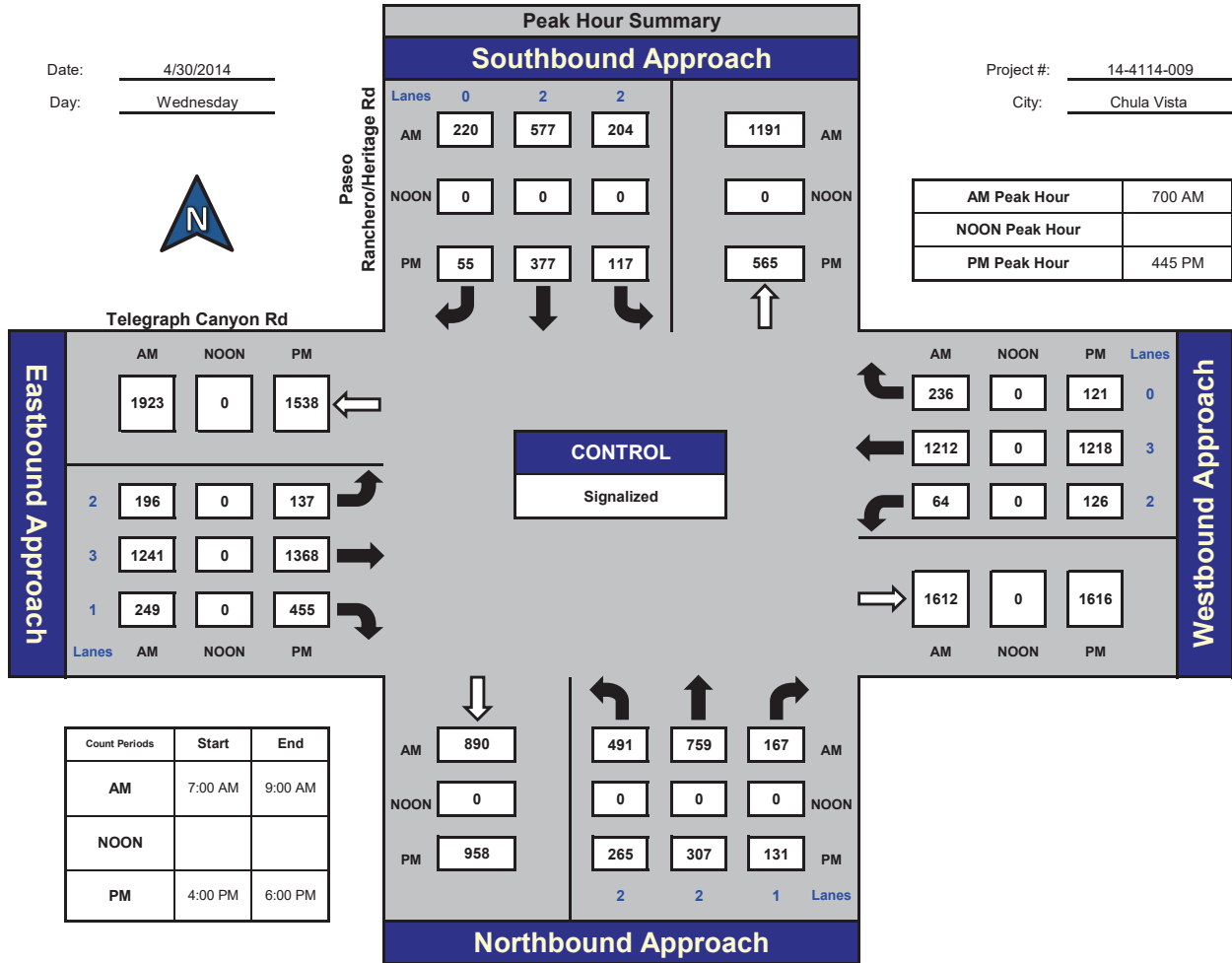


National Data & Surveying Services

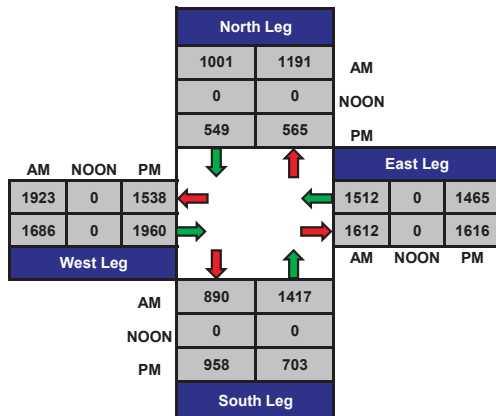
Paseo Ranchero/Heritage Rd and Telegraph Canyon Rd , Chula Vista

Date: 4/30/2014
Day: Wednesday

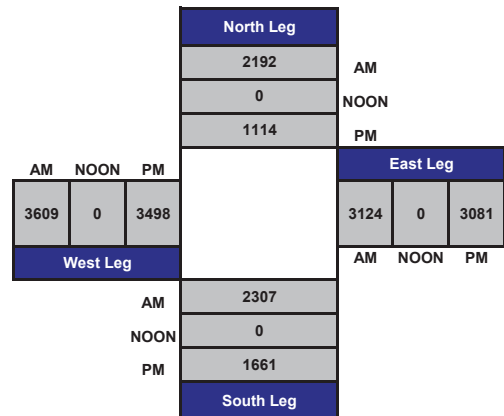
Project #: 14-4114-009
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-010

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM													
NS/EW Streets:	La Media Rd			La Media Rd			Telegraph Canyon Rd/Otay Lakes Rd			Telegraph Canyon Rd/Otay Lakes Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 2	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	
7:00 AM	137	182	64	19	123	24	69	174	100	52	193	74	1211
7:15 AM	118	168	80	27	87	24	67	184	104	61	220	52	1192
7:30 AM	114	226	100	42	91	34	76	240	99	38	255	60	1375
7:45 AM	78	209	131	43	74	29	155	290	30	48	232	64	1383
8:00 AM	41	130	76	35	73	35	61	200	34	54	233	66	1038
8:15 AM	58	151	79	38	69	27	60	230	28	46	222	60	1068
8:30 AM	50	171	75	35	74	42	114	214	17	44	160	57	1053
8:45 AM	54	167	75	66	87	67	100	198	19	35	201	71	1140
TOTAL VOLUMES : APPROACH %'s :	NL 650 23.77%	NT 1404 51.35%	NR 680 24.87%	SL 305 24.11%	ST 678 53.60%	SR 282 22.29%	EL 702 24.52%	ET 1730 60.43%	ER 431 15.05%	WL 378 14.55%	WT 1716 66.05%	WR 504 19.40%	TOTAL 9460
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	447	785	375	131	375	111	367	888	333	199	900	250	5161
PEAK HR FACTOR :	0.913			0.924			0.836			0.955			0.933

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	1
1	1	0	1
1	0	0	0
0	0	0	0
NB 3	SB 1	EB 1	WB 2

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-010

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NS/EW Streets:	PM													
	La Media Rd			La Media Rd			Telegraph Canyon Rd/Otay Lakes Rd			Telegraph Canyon Rd/Otay Lakes Rd			TOTAL	
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	LANES:	NL 2	NT 2	NR 2	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3		WR 1
4:00 PM	22	127	74	83	142	46	35	252	54	71	220	61		1187
4:15 PM	38	127	66	88	116	44	67	279	56	77	218	59	1235	
4:30 PM	35	121	71	91	162	41	55	300	39	77	260	68	1320	
4:45 PM	51	126	73	118	119	42	49	273	62	57	240	92	1302	
5:00 PM	45	106	65	99	145	42	52	281	51	77	253	63	1279	
5:15 PM	34	112	86	79	135	47	63	258	68	100	298	83	1363	
5:30 PM	32	117	59	104	145	46	76	260	58	100	273	85	1355	
5:45 PM	32	124	93	98	159	69	79	283	51	71	170	88	1317	
TOTAL VOLUMES : APPROACH %'s :	NL 289 15.74%	NT 960 52.29%	NR 587 31.97%	SL 760 33.63%	ST 1123 49.69%	SR 377 16.68%	EL 476 15.35%	ET 2186 70.49%	ER 439 14.16%	WL 630 19.93%	WT 1932 61.12%	WR 599 18.95%	TOTAL 10358	
PEAK HR START TIME :	500 PM													TOTAL
PEAK HR VOL :	143	459	303	380	584	204	270	1082	228	348	994	319	5314	
PEAK HR FACTOR :	0.909			0.896			0.956			0.863			0.975	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
1	0		1
1	0		1
1	1		0
0	0		0
0	1		0
0	0		0
0	0		0
0	0		0
0	0		0
NB 3	SB 2	EB 0	WB 2

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 14-4114-010

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON													
NS/EW Streets:	La Media Rd			La Media Rd			Telegraph Canyon Rd/Otay Lakes Rd			Telegraph Canyon Rd/Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 2	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:

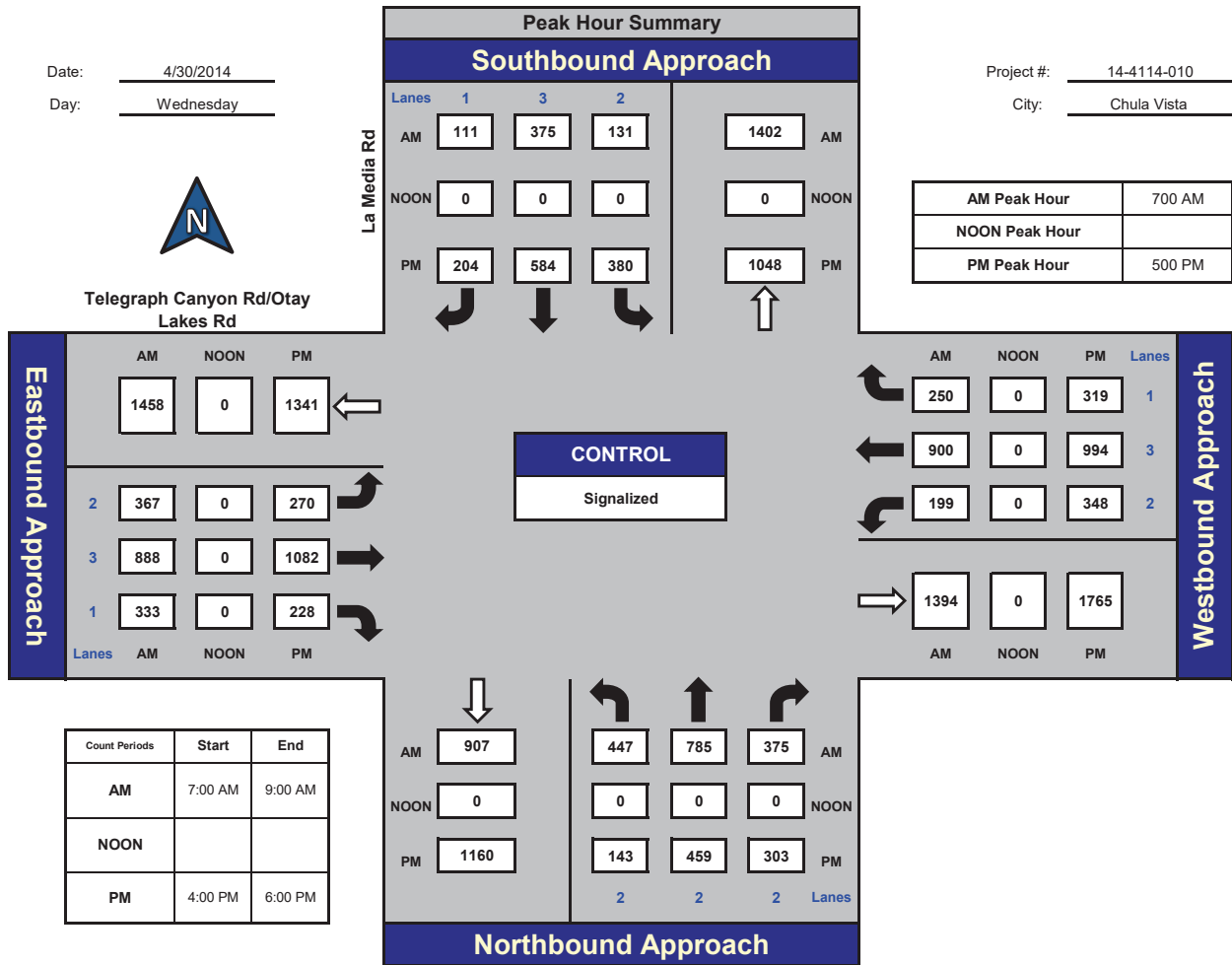


National Data & Surveying Services

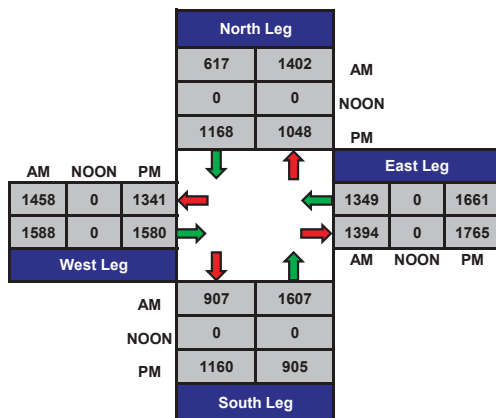
La Media Rd and Telegraph Canyon Rd/Otay Lakes Rd , Chula Vista

Date: 4/30/2014
Day: Wednesday

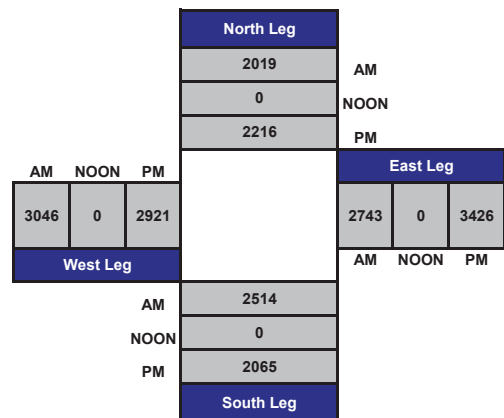
Project #: 14-4114-010
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-012

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM													
NS/EW Streets:	SR-125 SB Ramps			SR-125 SB Ramps			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 2	ST 0	SR 1	EL 1	ET 3	ER 0	WL 0	WT 3	WR 1	TOTAL
7:00 AM				31		7		275	8		266	15	602
7:15 AM				40		6		286	10		263	33	638
7:30 AM				52		6		332	16		301	41	748
7:45 AM				53		13		435	14		281	31	827
8:00 AM				60		11		311	7		299	22	710
8:15 AM				67		12		369	5		297	18	768
8:30 AM				68		11		348	6		270	20	723
8:45 AM				58		12		375	3		293	23	764
TOTAL VOLUMES : APPROACH %'s :	NL 0 #DIV/0!	NT 0 #DIV/0!	NR 0 #DIV/0!	SL 429 84.62%	ST 0 0.00%	SR 78 15.38%	EL 0 0.00%	ET 2731 97.54%	ER 69 2.46%	WL 0 0.00%	WT 2270 91.79%	WR 203 8.21%	5780
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	0	0	0	232	0	42	0	1447	42	0	1178	112	3053
PEAK HR FACTOR :	0.000			0.867			0.829			0.943			0.923

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 14-4114-012

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	SR-125 SB Ramps			SR-125 SB Ramps			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 2	ST 0	SR 1	EL 1	ET 3	ER 0	WL 0	WT 3	WR 1	TOTAL
4:00 PM				98		21		393	6		355	12	885
4:15 PM				105		17		440	5		359	8	934
4:30 PM				99		21		415	4		388	28	955
4:45 PM				108		22		466	8		355	19	978
5:00 PM				113		23		438	6		387	17	984
5:15 PM				111		22		417	4		409	13	976
5:30 PM				114		29		387	5		442	10	987
5:45 PM				114		25		451	3		309	7	909
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 862	ST 0	SR 180	EL 0	ET 3407	ER 41	WL 0	WT 3004	WR 114	TOTAL 7608
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	82.73%	0.00%	17.27%	0.00%	98.81%	1.19%	0.00%	96.34%	3.66%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	0	0	0	446	0	96	0	1708	23	0	1593	59	3925
PEAK HR FACTOR :	0.000			0.948			0.913			0.914			0.994

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-012

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	SR-125 SB Ramps			SR-125 SB Ramps			Otay Lakes Rd			Otay Lakes Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 2	ST 0	SR 1	EL 1	ET 3	ER 0	WL 0	WT 3	WR 1	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:

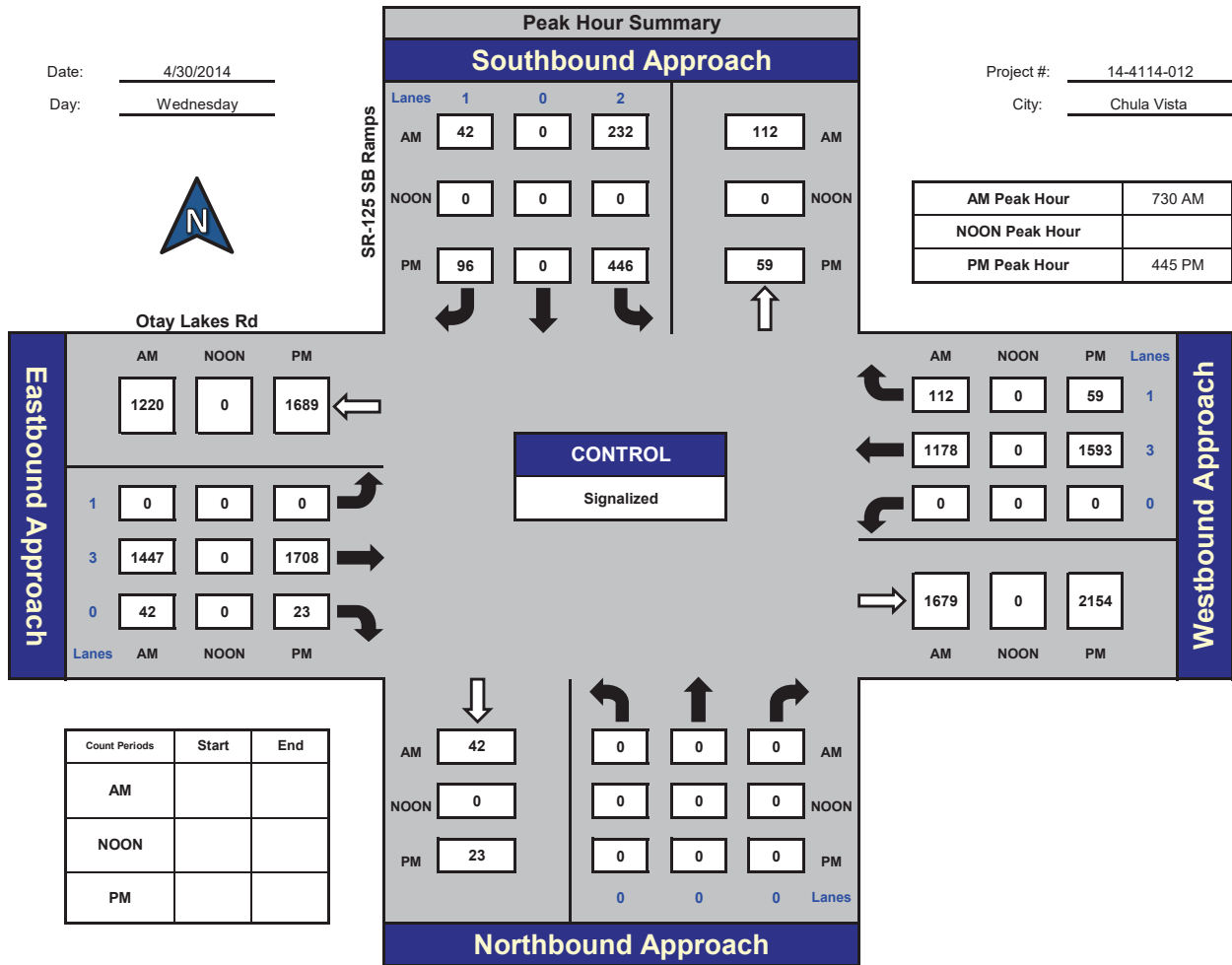


National Data & Surveying Services

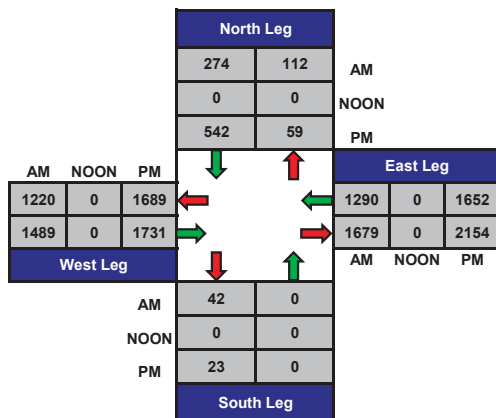
SR-125 SB Ramps and Otay Lakes Rd , Chula Vista

Date: 4/30/2014
Day: Wednesday

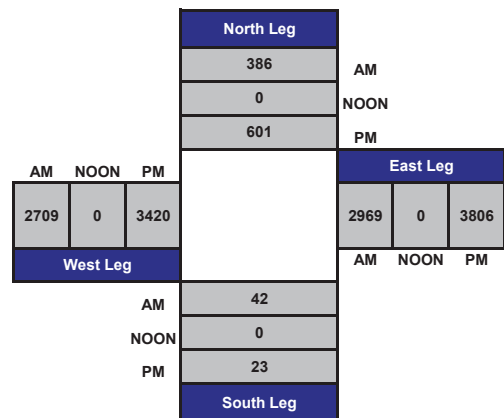
Project #: 14-4114-012
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-013

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM															
NS/EW Streets:		SR-125 NB Ramps			SR-125 NB Ramps			Otay Lakes Rd			Otay Lakes Rd				
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:		NL 1	NT 0	NR 2	SL 0	ST 0	SR 0	EL 1	ET 3	ER 0	WL 0	WT 3	WR 1	TOTAL	
7:00 AM		1		9				270	37		268	135		720	
7:15 AM		3		11				270	44		286	131		745	
7:30 AM		4		17				319	64		348	118		870	
7:45 AM		3		20				453	40		301	112		929	
8:00 AM		2		23				341	27		324	116		833	
8:15 AM		2		18				384	57		306	110		877	
8:30 AM		1		17				376	23		293	107		817	
8:45 AM		6		15				408	22		307	103		861	
TOTAL VOLUMES : APPROACH %'s :		NL 22 14.47%	NT 0 0.00%	NR 130 85.53%	SL 0 #DIV/0!	ST 0 #DIV/0!	SR 0 #DIV/0!	EL 0 0.00%	ET 2821 89.98%	ER 314 10.02%	WL 0 0.00%	WT 2433 72.30%	WR 932 27.70%	TOTAL 6652	
PEAK HR START TIME :		730 AM													TOTAL
PEAK HR VOL :		11	0	78	0	0	0	0	1497	188	0	1279	456	3509	
PEAK HR FACTOR :		0.890			0.000			0.854			0.931			0.944	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-013

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM														
NS/EW Streets:	SR-125 NB Ramps			SR-125 NB Ramps			Otay Lakes Rd			Otay Lakes Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 1	NT 0	NR 2	SL 0	ST 0	SR 0	EL 1	ET 3	ER 0	WL 0	WT 3	WR 1	TOTAL	
4:00 PM	5		30					477	9		347	69	937	
4:15 PM	9		23					547	9		364	48	1000	
4:30 PM	6		29					501	11		399	67	1013	
4:45 PM	7		27					566	16		369	71	1056	
5:00 PM	6		31					531	14		396	75	1053	
5:15 PM	5		34					519	12		420	71	1061	
5:30 PM	5		24					476	13		436	71	1025	
5:45 PM	5		25					542	15		316	58	961	
TOTAL VOLUMES : APPROACH %'s :	NL 48 17.71%	NT 0 0.00%	NR 223 82.29%	SL 0 #DIV/0!	ST 0 #DIV/0!	SR 0 #DIV/0!	EL 0 0.00%	ET 4159 97.67%	ER 99 2.33%	WL 0 0.00%	WT 3047 85.18%	WR 530 14.82%	TOTAL 8106	
PEAK HR START TIME :	445 PM													TOTAL
PEAK HR VOL :	23	0	116	0	0	0	0	2092	55	0	1621	288	4195	
PEAK HR FACTOR :	0.891			0.000			0.922			0.941			0.988	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-013

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	SR-125 NB Ramps			SR-125 NB Ramps			Otay Lakes Rd			Otay Lakes Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 2	SL 0	ST 0	SR 0	EL 1	ET 3	ER 0	WL 0	WT 3	WR 1	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:

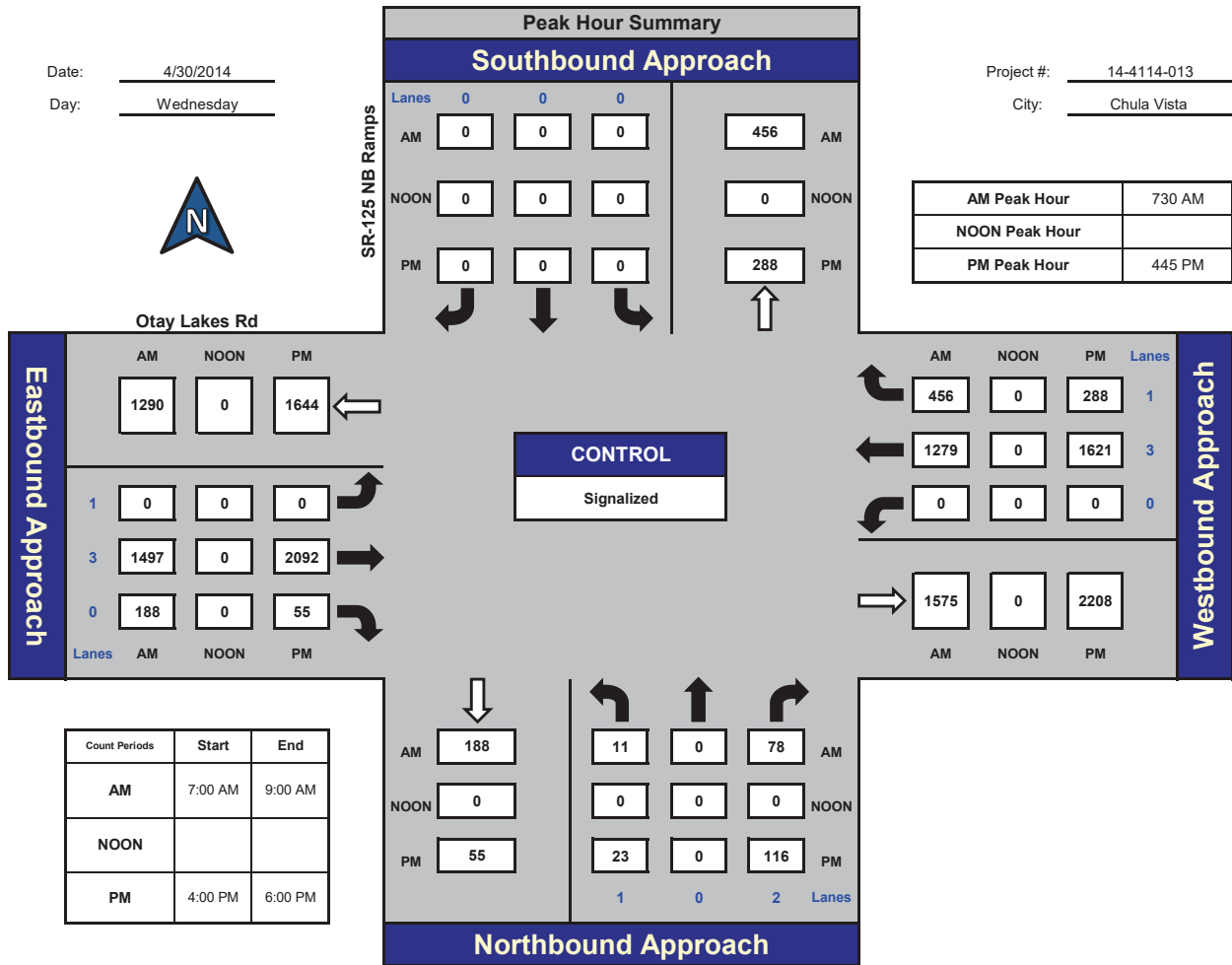


National Data & Surveying Services

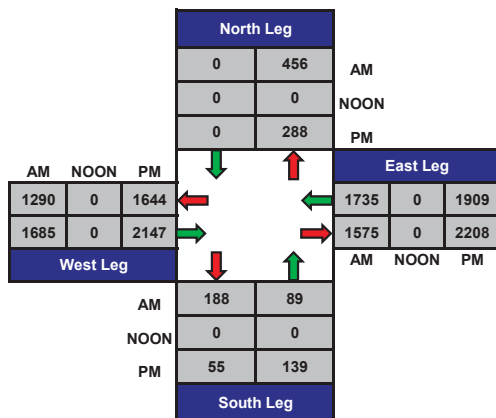
SR-125 NB Ramps and Otay Lakes Rd , Chula Vista

Date: 4/30/2014
Day: Wednesday

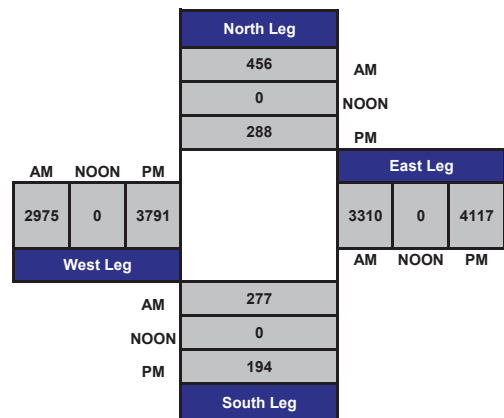
Project #: 14-4114-013
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-014

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM														
NS/EW Streets:	Eastlake Pkwy			Eastlake Pkwy			Otay Lakes Rd			Otay Lakes Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 2	WL 2	WT 3	WR 0	TOTAL	
7:00 AM	172	108	112	7	81	112	30	126	112	52	169	5	1086	
7:15 AM	165	63	56	5	33	56	47	137	58	36	173	5	834	
7:30 AM	132	51	29	6	37	29	61	162	63	44	238	5	857	
7:45 AM	135	97	69	7	46	69	77	230	66	38	200	10	1044	
8:00 AM	128	64	36	11	53	36	72	214	72	53	227	15	981	
8:15 AM	148	83	36	15	81	36	93	201	72	50	183	18	1016	
8:30 AM	124	87	50	15	59	50	89	155	71	43	184	27	954	
8:45 AM	125	87	47	12	74	47	120	183	72	49	181	20	1017	
TOTAL VOLUMES : APPROACH %'s :	NL 1129 51.23%	NT 640 29.04%	NR 435 19.74%	SL 78 7.98%	ST 464 47.49%	SR 435 44.52%	EL 589 22.80%	ET 1408 54.51%	ER 586 22.69%	WL 365 18.02%	WT 1555 76.79%	WR 105 5.19%	TOTAL 7789	
PEAK HR START TIME :	745 AM													TOTAL
PEAK HR VOL :	535	331	191	48	239	191	331	800	281	184	794	70	3995	
PEAK HR FACTOR :	0.878			0.905			0.946			0.888			0.957	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
	0		
	0		
	0		
	0		
	0		
	1		
	1		
NB 0	SB 2	EB 0	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-014

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	Eastlake Pkwy			Eastlake Pkwy			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 2	WL 2	WT 3	WR 0	TOTAL
4:00 PM	127	124	48	28	124	48	108	184	161	81	185	8	1226
4:15 PM	114	83	44	25	136	44	110	185	164	71	140	17	1133
4:30 PM	136	100	49	22	137	52	121	189	151	104	183	7	1251
4:45 PM	120	120	53	26	135	53	103	220	142	80	165	12	1229
5:00 PM	118	107	36	34	157	36	91	221	175	92	201	22	1290
5:15 PM	129	120	49	37	121	49	102	193	168	84	159	22	1233
5:30 PM	130	108	51	24	121	51	88	200	164	101	186	16	1240
5:45 PM	105	104	64	35	146	64	88	207	195	82	161	11	1262
TOTAL VOLUMES :	NL 979	NT 866	NR 394	SL 231	ST 1077	SR 397	EL 811	ET 1599	ER 1320	WL 695	WT 1380	WR 115	TOTAL 9864
APPROACH %'s :	43.72%	38.68%	17.60%	13.55%	63.17%	23.28%	21.74%	42.87%	35.39%	31.74%	63.01%	5.25%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	482	439	200	130	545	200	369	821	702	359	707	71	5025
PEAK HR FACTOR :	0.940			0.893			0.965			0.902			0.974

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
	5		0
	3		0
	0		1
	3		1
	2		0
	0		1
	1		0
	2		0
NB 0	SB 16	EB 0	WB 3

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-014

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	Eastlake Pkwy			Eastlake Pkwy			Otay Lakes Rd			Otay Lakes Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 2	WL 2	WT 3	WR 0	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:

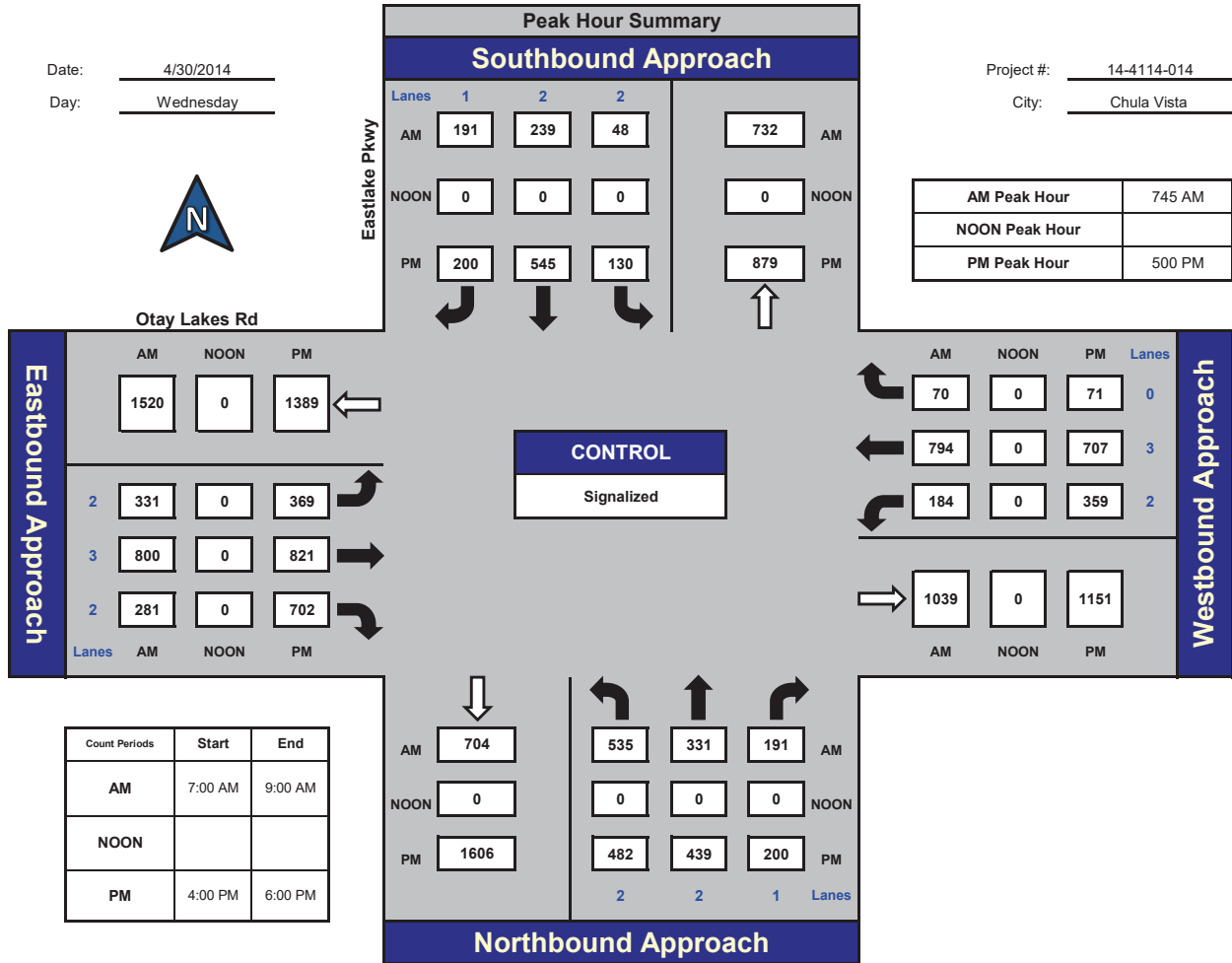


National Data & Surveying Services

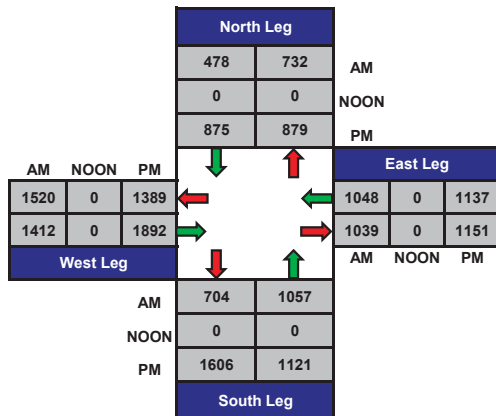
Eastlake Pkwy and Otay Lakes Rd , Chula Vista

Date: 4/30/2014
Day: Wednesday

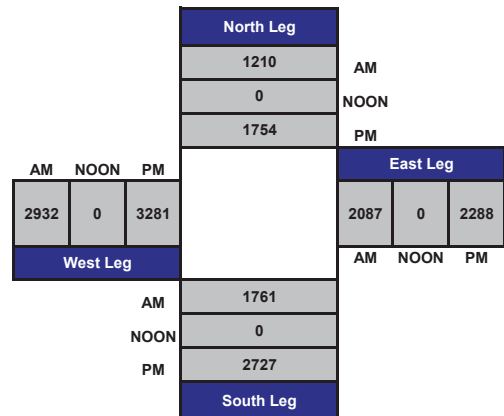
Project #: 14-4114-014
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-015

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM													
NS/EW Streets:		Lane Ave			Lane Ave			Otay Lakes Rd			Otay Lakes Rd		
NORTHBOUND				SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	1.5	0	1.5	2	3	0	0	3	0	
7:00 AM				8		46	156	97			169	12	488
7:15 AM				3		43	92	95			144	8	385
7:30 AM				8		65	89	111			218	13	504
7:45 AM				11		59	144	154			236	21	625
8:00 AM				9		22	113	132			210	31	517
8:15 AM				10		32	140	129			195	28	534
8:30 AM				11		40	101	128			159	58	497
8:45 AM				16		40	100	127			161	50	494
TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
APPROACH %'s :	0	0	0	76	0	347	935	973	0	0	1492	221	4044
	#DIV/0!	#DIV/0!	#DIV/0!	17.97%	0.00%	82.03%	49.00%	51.00%	0.00%	0.00%	87.10%	12.90%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	0	0	0	38	0	178	486	526	0	0	859	93	2180
PEAK HR FACTOR :	0.000			0.740			0.849			0.926			0.872

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-015

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	Lane Ave			Lane Ave			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1.5	ST 0	SR 1.5	EL 2	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL
4:00 PM				22		112	81	170			147	18	550
4:15 PM				23		101	99	164			165	15	567
4:30 PM				23		120	95	176			152	8	574
4:45 PM				30		92	87	195			151	18	573
5:00 PM				38		162	101	172			164	16	653
5:15 PM				37		98	93	212			143	15	598
5:30 PM				29		120	74	173			126	11	533
5:45 PM				27		76	109	204			143	29	588
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 229	ST 0	SR 881	EL 739	ET 1466	ER 0	WL 0	WT 1191	WR 130	TOTAL 4636
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	20.63%	0.00%	79.37%	33.51%	66.49%	0.00%	0.00%	90.16%	9.84%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	0	0	128	0	472	376	755	0	0	610	57	2398
PEAK HR FACTOR :	0.000			0.750			0.927			0.926			0.918

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-015

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NS/EW Streets:	NOON												
	Lane Ave			Lane Ave			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1.5	ST 0	SR 1.5	EL 2	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL

TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

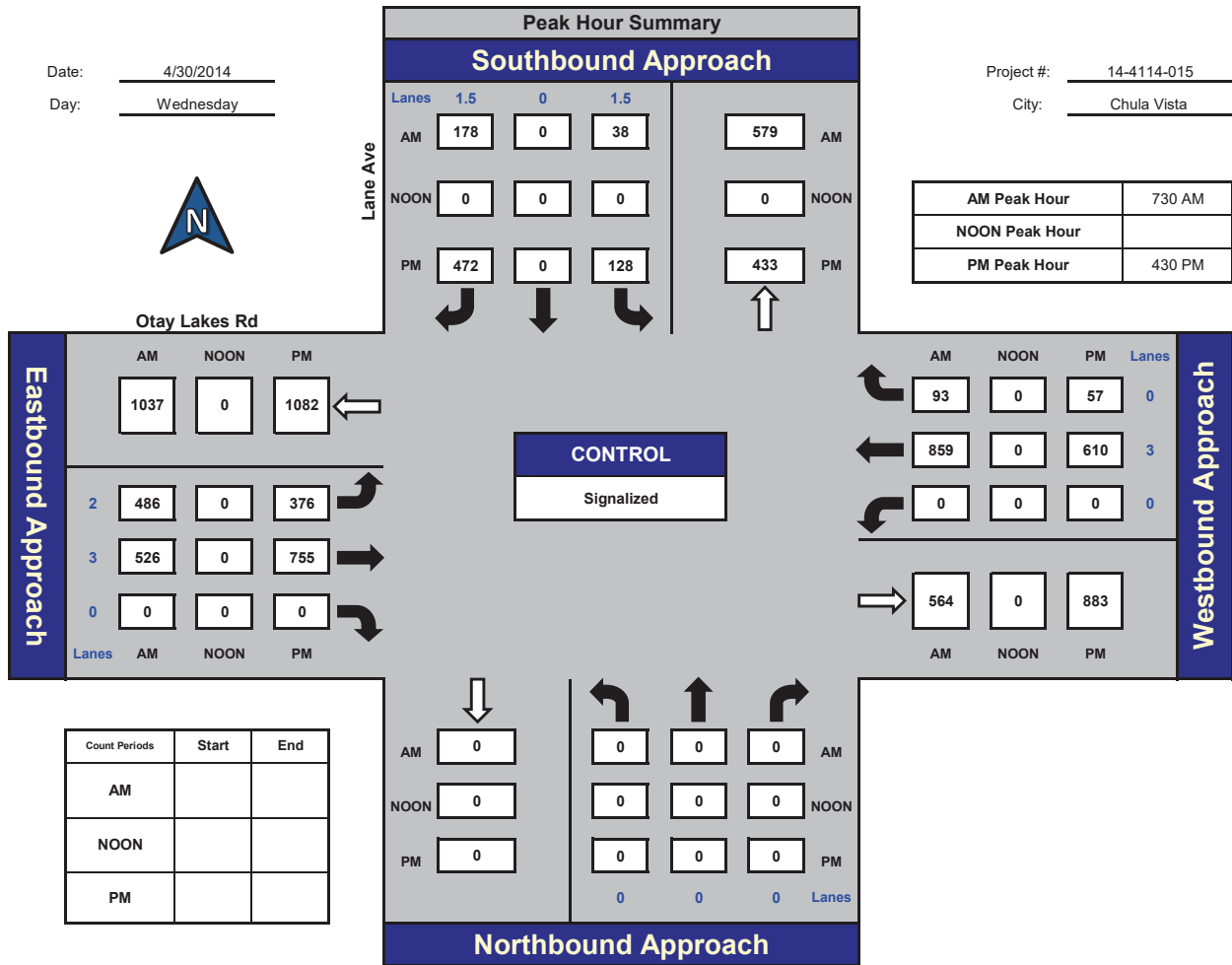
Lane Ave and Otay Lakes Rd , Chula Vista

Date: 4/30/2014

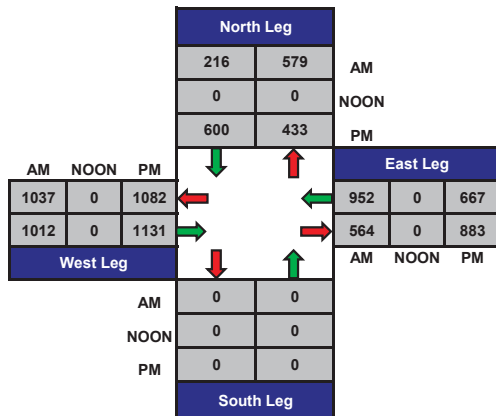
Day: Wednesday

Project #: 14-4114-015

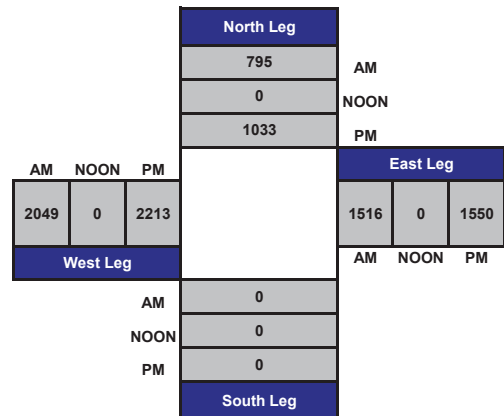
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-017

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM														
NS/EW Streets:	Hunte Parkway			Hunte Parkway			Otay Lakes Rd			Otay Lakes Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 0	WL 2	WT 3	WR 1	TOTAL	
7:00 AM	92	78	19	2	52	44	44	42	33	12	53	2	473	
7:15 AM	87	76	7	1	36	37	35	15	30	10	39	12	385	
7:30 AM	95	136	21	5	73	73	46	28	32	9	81	10	609	
7:45 AM	90	166	30	4	83	66	80	28	35	43	133	29	787	
8:00 AM	85	125	15	19	109	76	61	33	55	63	109	41	791	
8:15 AM	95	44	11	9	68	55	37	25	58	22	118	6	548	
8:30 AM	129	33	12	8	39	42	22	49	54	8	103	4	503	
8:45 AM	128	48	12	6	25	35	21	59	39	5	103	5	486	
TOTAL VOLUMES : APPROACH %'s :	NL 801 49.02%	NT 706 43.21%	NR 127 7.77%	SL 54 5.58%	ST 485 50.16%	SR 428 44.26%	EL 346 36.00%	ET 279 29.03%	ER 336 34.96%	WL 172 16.86%	WT 739 72.45%	WR 109 10.69%	TOTAL 4582	
PEAK HR START TIME :	730 AM												TOTAL	
PEAK HR VOL :	365	471	77	37	333	270	224	114	180	137	441	86	2735	
PEAK HR FACTOR :	0.798			0.784			0.869			0.779			0.864	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
1	0	0	
0	0	0	
0	0	0	
0	0	0	
0	2	0	
0	0	0	
0	0	0	
0	0	1	
NB 1	SB 2	EB 1	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-017

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	Hunte Parkway			Hunte Parkway			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 0	WL 2	WT 3	WR 1	TOTAL
4:00 PM	66	62	16	5	53	36	41	63	78	17	60	4	501
4:15 PM	51	37	8	16	63	36	48	74	82	12	57	6	490
4:30 PM	53	53	20	10	54	42	48	67	94	13	58	10	522
4:45 PM	78	42	11	10	61	50	39	78	111	9	68	7	564
5:00 PM	60	45	15	15	67	41	49	96	113	11	55	6	573
5:15 PM	66	51	10	11	77	30	41	87	109	10	65	4	561
5:30 PM	60	49	8	12	45	35	53	88	110	13	59	4	536
5:45 PM	72	45	12	11	49	47	42	82	129	11	70	13	583
TOTAL VOLUMES :	NL 506	NT 384	NR 100	SL 90	ST 469	SR 317	EL 361	ET 635	ER 826	WL 96	WT 492	WR 54	TOTAL 4330
APPROACH %'s :	51.11%	38.79%	10.10%	10.27%	53.54%	36.19%	19.81%	34.85%	45.33%	14.95%	76.64%	8.41%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	258	190	45	49	238	153	185	353	461	45	249	27	2253
PEAK HR FACTOR :	0.955			0.894			0.968			0.854			0.966

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0		0	0
0		1	0
0		2	0
0		0	0
2		1	1
0		0	0
0		0	0
0		0	0

NB	SB	EB	WB
2	0	4	1

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-017

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	Hunte Parkway			Hunte Parkway			Otay Lakes Rd			Otay Lakes Rd			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 0	WL 2	WT 3	WR 1	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

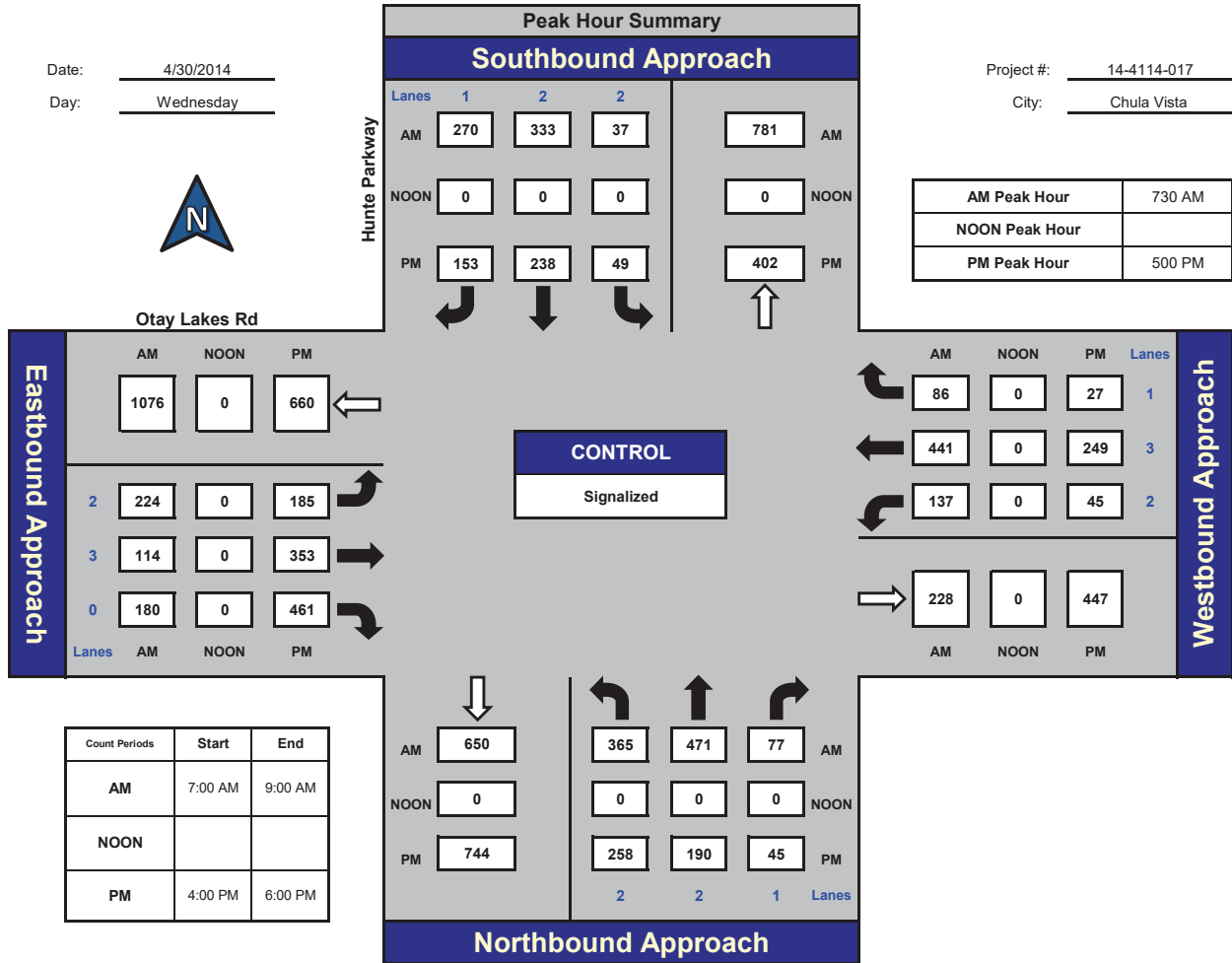
Hunte Parkway and Otoy Lakes Rd , Chula Vista

Date: 4/30/2014

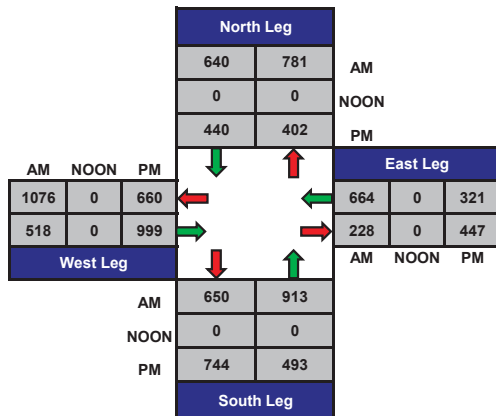
Day: Wednesday

Project #: 14-4114-017

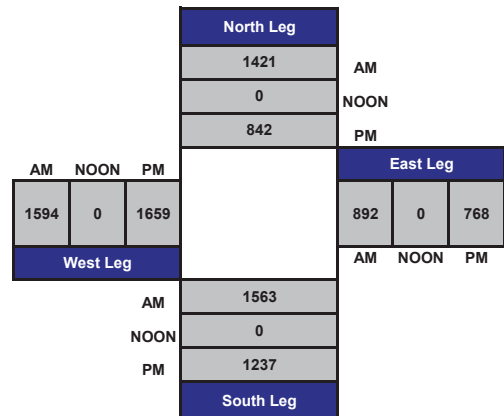
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-027

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

AM													
NS/EW Streets:	Eastlake Pkwy			Eastlake Pkwy			Olympic Parkway			Olympic Parkway			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 2	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
7:00 AM	46	32	3	30	39	86	41	58	21	32	255	22	665
7:15 AM	44	35	9	21	25	51	30	80	41	14	216	6	572
7:30 AM	54	45	9	16	42	38	45	97	35	20	308	14	723
7:45 AM	53	70	15	7	44	38	77	139	73	32	189	8	745
8:00 AM	88	50	7	17	41	46	44	103	67	11	203	23	700
8:15 AM	80	64	8	20	41	46	36	87	51	20	217	31	701
8:30 AM	44	67	10	22	33	41	26	76	38	13	180	20	570
8:45 AM	37	48	11	26	35	41	38	97	27	7	170	24	561
TOTAL VOLUMES :	NL 446	NT 411	NR 72	SL 159	ST 300	SR 387	EL 337	ET 737	ER 353	WL 149	WT 1738	WR 148	TOTAL 5237
APPROACH %'s :	48.01%	44.24%	7.75%	18.79%	35.46%	45.74%	23.62%	51.65%	24.74%	7.32%	85.41%	7.27%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	275	229	39	60	168	168	202	426	226	83	917	76	2869
PEAK HR FACTOR :	0.893			0.925			0.739			0.787			0.963

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	1	
0	0	0	
0	0	0	
0	0	0	
1	0	0	
0	0	0	
0	0	0	
0	1	0	
NB 1	SB 1	EB 1	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-027

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	Eastlake Pkwy			Eastlake Pkwy			Olympic Parkway			Olympic Parkway			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 2	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
4:00 PM	48	75	23	39	105	51	65	184	61	33	98	18	800
4:15 PM	56	91	15	36	97	50	50	187	61	29	127	28	827
4:30 PM	56	86	28	46	108	59	62	168	59	32	121	22	847
4:45 PM	68	107	23	44	106	52	81	161	66	26	128	22	884
5:00 PM	65	81	26	45	135	67	62	220	80	20	125	30	956
5:15 PM	70	111	24	47	124	53	60	196	63	36	127	31	942
5:30 PM	63	95	31	37	119	49	80	173	59	40	133	33	912
5:45 PM	64	78	29	43	109	40	73	205	70	36	121	22	890
TOTAL VOLUMES :	NL 490	NT 724	NR 199	SL 337	ST 903	SR 421	EL 533	ET 1494	ER 519	WL 252	WT 980	WR 206	TOTAL 7058
APPROACH %'s :	34.68%	51.24%	14.08%	20.29%	54.36%	25.35%	20.93%	58.68%	20.38%	17.52%	68.15%	14.33%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	262	365	110	172	487	209	275	794	272	132	506	116	3700
PEAK HR FACTOR :	0.899			0.879			0.926			0.915			0.968

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	1	1
0	1	0	2
0	1	0	0
0	0	0	0
1	1	0	0
0	1	0	0
2	1	0	0
0	0	0	1
NB 3	SB 5	EB 1	WB 4

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-027

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	Eastlake Pkwy			Eastlake Pkwy			Olympic Parkway			Olympic Parkway			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 2	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
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ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

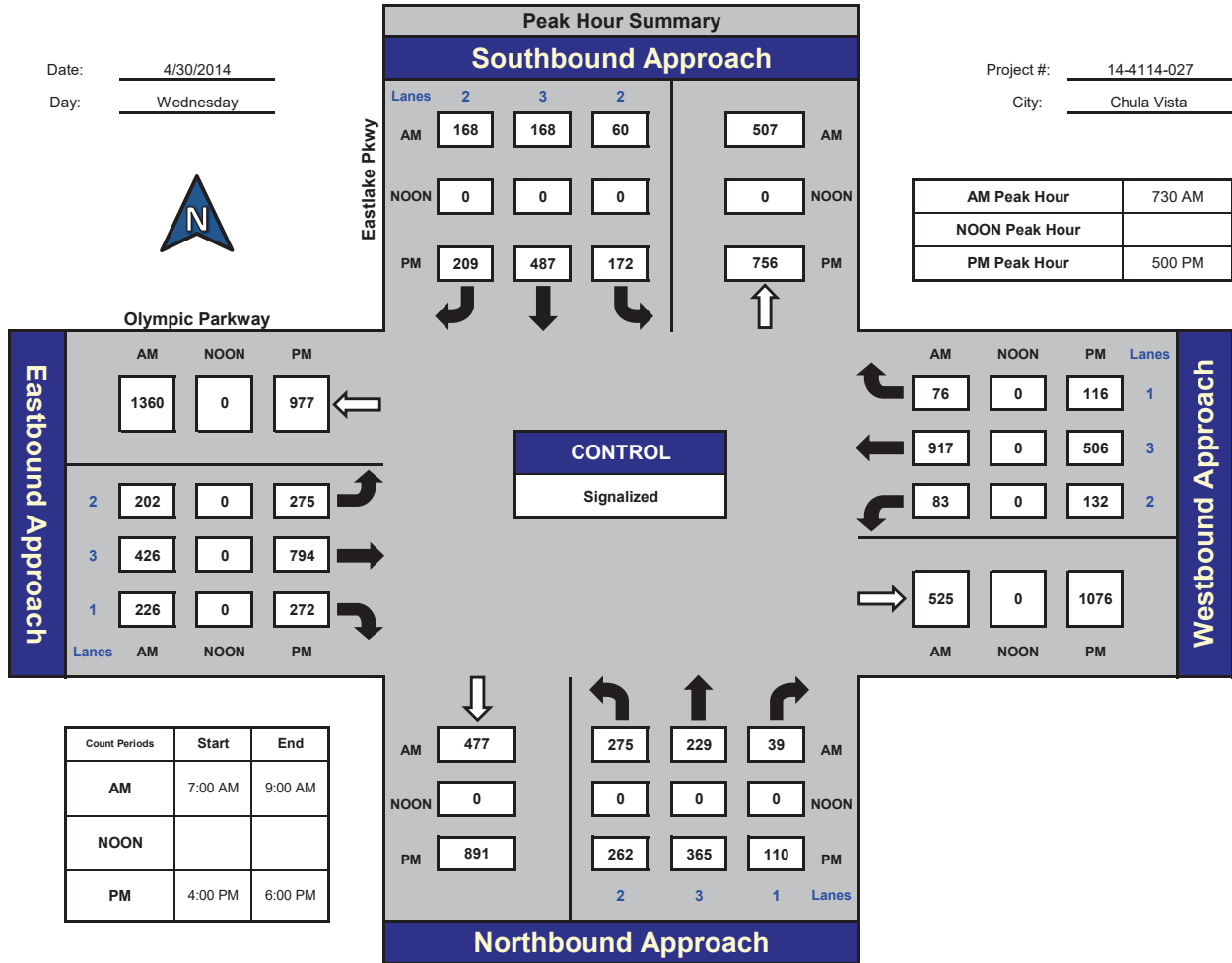
Eastlake Pkwy and Olympic Parkway, Chula Vista

Date: 4/30/2014

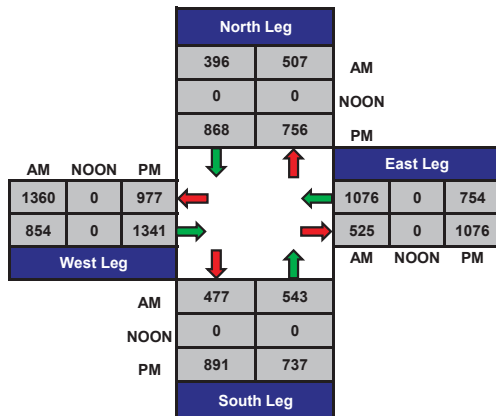
Day: Wednesday

Project #: 14-4114-027

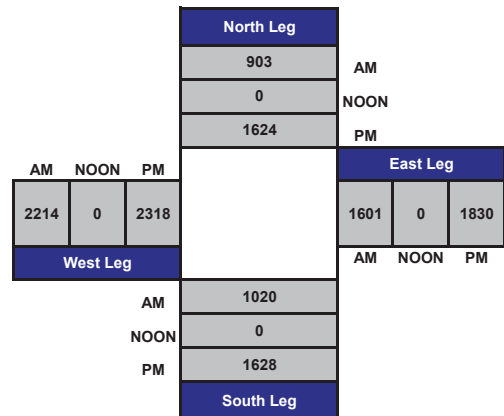
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-028

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NS/EW Streets:		AM												
		Hunte Parkway			Hunte Parkway			Olympic Parkway			Olympic Parkway			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 0	SL 2	ST 3	SR 1	EL 2	ET 3	ER 0	WL 2	WT 2	WR 1	TOTAL	
7:00 AM	6	19	2	13	25	115	37	56	5	3	98	11	390	
7:15 AM	11	23	3	7	9	92	52	27	3	4	101	12	344	
7:30 AM	12	37	8	7	31	114	78	33	2	1	113	27	463	
7:45 AM	9	50	2	12	45	79	85	44	6	14	76	24	446	
8:00 AM	12	43	12	10	42	108	54	31	5	8	71	5	401	
8:15 AM	7	42	7	8	54	94	55	36	7	3	50	27	390	
8:30 AM	12	30	2	14	14	89	69	45	5	3	59	28	370	
8:45 AM	4	15	1	14	12	76	47	51	5	1	61	6	293	
TOTAL VOLUMES : APPROACH %'s :	NL 73 19.78%	NT 259 70.19%	NR 37 10.03%	SL 85 7.84%	ST 232 21.40%	SR 767 70.76%	EL 477 56.92%	ET 323 38.54%	ER 38 4.53%	WL 37 4.59%	WT 629 78.04%	WR 140 17.37%	TOTAL 3097	
PEAK HR START TIME :	730 AM													TOTAL
PEAK HR VOL :	40	172	29	37	172	395	272	144	20	26	310	83	1700	
PEAK HR FACTOR :	0.899			0.944			0.807			0.743			0.918	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	1
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB 0	SB 1	EB 0	WB 1

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-028

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

PM													
NS/EW Streets:	Hunte Parkway			Hunte Parkway			Olympic Parkway			Olympic Parkway			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 0	SL 2	ST 3	SR 1	EL 2	ET 3	ER 0	WL 2	WT 2	WR 1	TOTAL
4:00 PM	4	25	5	17	25	70	88	101	5	6	62	13	421
4:15 PM	8	16	8	13	18	58	87	88	8	1	55	17	377
4:30 PM	3	29	9	22	21	70	76	91	12	4	60	12	409
4:45 PM	3	27	6	17	21	74	86	92	5	3	76	17	427
5:00 PM	6	21	9	12	29	59	101	90	12	4	66	12	421
5:15 PM	2	30	10	19	34	68	84	89	11	6	73	12	438
5:30 PM	4	26	2	15	17	69	84	103	7	2	59	12	400
5:45 PM	3	23	3	11	23	60	89	98	8	3	57	15	393
TOTAL VOLUMES :	NL 33	NT 197	NR 52	SL 126	ST 188	SR 528	EL 695	ET 752	ER 68	WL 29	WT 508	WR 110	TOTAL 3286
APPROACH %'s :	11.70%	69.86%	18.44%	14.96%	22.33%	62.71%	45.87%	49.64%	4.49%	4.48%	78.52%	17.00%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	14	107	34	70	105	271	347	362	40	17	275	53	1695
PEAK HR FACTOR :	0.923			0.921			0.922			0.898			0.967

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	1	0	0
0	0	0	0
2	0	1	1
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB 0	SB 3	EB 1	WB 2

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-4114-028

Day: Wednesday

City: Chula Vista

Date: 4/30/2014

NOON

NS/EW Streets:	Hunte Parkway			Hunte Parkway			Olympic Parkway			Olympic Parkway			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 0	SL 2	ST 3	SR 1	EL 2	ET 3	ER 0	WL 2	WT 2	WR 1	

TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 0
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB 0	SB 0	EB 0	WB 0
---------	---------	---------	---------

ITM Peak Hour Summary

Prepared by:

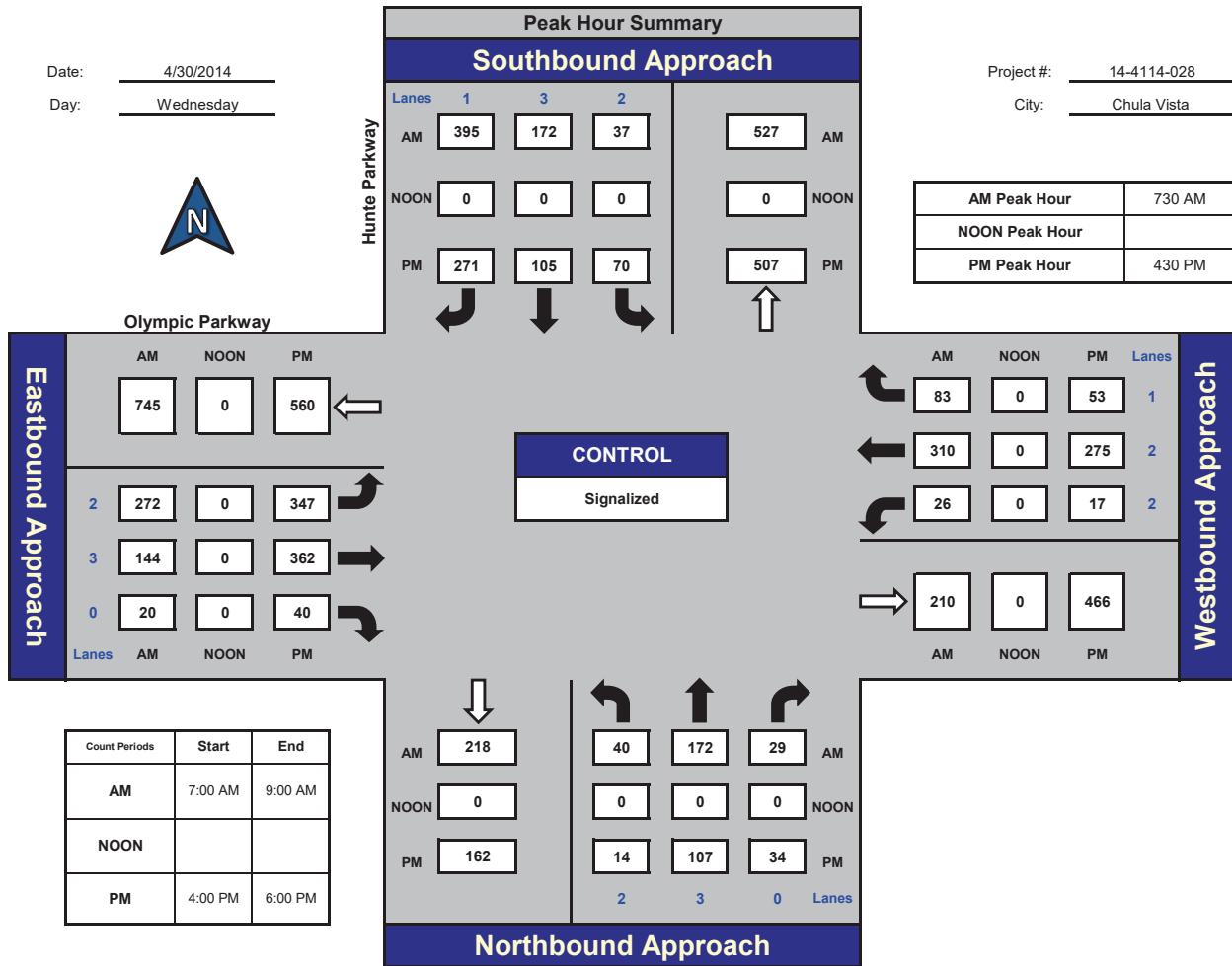


National Data & Surveying Services

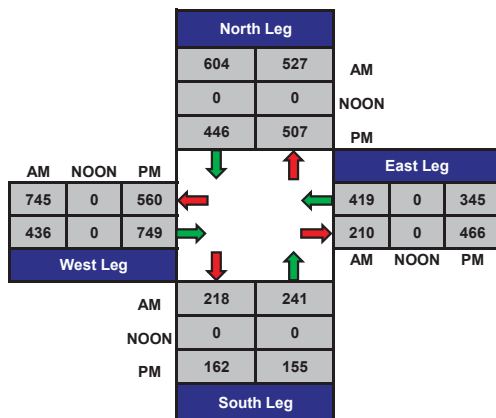
Hunte Parkway and Olympic Parkway, Chula Vista

Date: 4/30/2014
Day: Wednesday

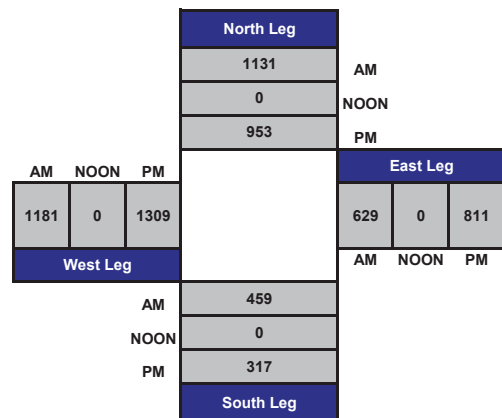
Project #: 14-4114-028
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4167-001

Day: Tuesday

City: Chula Vista

Date: 6/2/2015

AM													
NS/EW Streets:	Fenton St			Fenton St			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 1	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL
7:00 AM	0	0	0	11	0	5	15	86	0	0	160	12	289
7:15 AM	0	0	0	7	0	1	17	59	0	0	156	15	255
7:30 AM	0	0	0	5	0	1	15	71	0	0	146	13	251
7:45 AM	0	0	0	2	0	7	24	92	0	0	196	30	351
8:00 AM	0	0	0	13	0	6	38	131	0	0	232	46	466
8:15 AM	0	0	0	20	0	6	31	85	0	0	221	44	407
8:30 AM	0	0	0	7	0	4	34	75	0	0	151	39	310
8:45 AM	0	0	0	14	0	4	35	73	0	0	101	38	265
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 79	ST 0	SR 34	EL 209	ET 672	ER 0	WL 0	WT 1363	WR 237	TOTAL 2594
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	69.91%	0.00%	30.09%	23.72%	76.28%	0.00%	0.00%	85.19%	14.81%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	0	0	0	42	0	23	127	383	0	0	800	159	1534
PEAK HR FACTOR :	0.000			0.625			0.754			0.862			0.823

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	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
0	0	1	0
NB 0	SB 0	EB 2	WB 0

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

Project ID: 15-4167-001

Day: Tuesday

City: Chula Vista

Date: 6/2/2015

PM														
NS/EW Streets:	Fenton St			Fenton St			Otay Lakes Rd			Otay Lakes Rd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 1	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL	
4:00 PM	0	0	0	38	0	26	27	182	0	0	127	30	430	
4:15 PM	0	0	0	31	0	18	40	163	0	0	127	34	413	
4:30 PM	0	0	0	29	0	45	22	156	0	0	108	25	385	
4:45 PM	0	0	0	25	0	29	47	167	0	0	133	53	454	
5:00 PM	0	0	0	52	0	44	28	174	0	0	100	24	422	
5:15 PM	0	0	0	29	0	26	36	151	0	0	126	33	401	
5:30 PM	0	0	0	29	0	32	29	157	0	0	115	26	388	
5:45 PM	0	0	0	36	0	33	21	113	0	0	78	26	307	
TOTAL VOLUMES : APPROACH %'s :	NL 0	NT 0	NR 0	SL 269	ST 0	SR 253	EL 250	ET 1263	ER 0	WL 0	WT 914	WR 251	TOTAL 3200	
	#DIV/0!	#DIV/0!	#DIV/0!	51.53%	0.00%	48.47%	16.52%	83.48%	0.00%	0.00%	78.45%	21.55%		
PEAK HR START TIME :	400 PM													TOTAL
PEAK HR VOL :	0	0	0	123	0	118	136	668	0	0	495	142	1682	
PEAK HR FACTOR :	0.000			0.814			0.939			0.856			0.926	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
NB 0	SB 0	EB 3	WB 0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-4167-001

Day: Tuesday

City: Chula Vista

Date: 6/2/2015

NS/EW Streets:	NOON												
	Fenton St			Fenton St			Otay Lakes Rd			Otay Lakes Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 0	SR 1	EL 1	ET 3	ER 0	WL 0	WT 3	WR 0	TOTAL

TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

PEAK HR START TIME :	0 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000			0.000			0.000			0.000			0.000

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

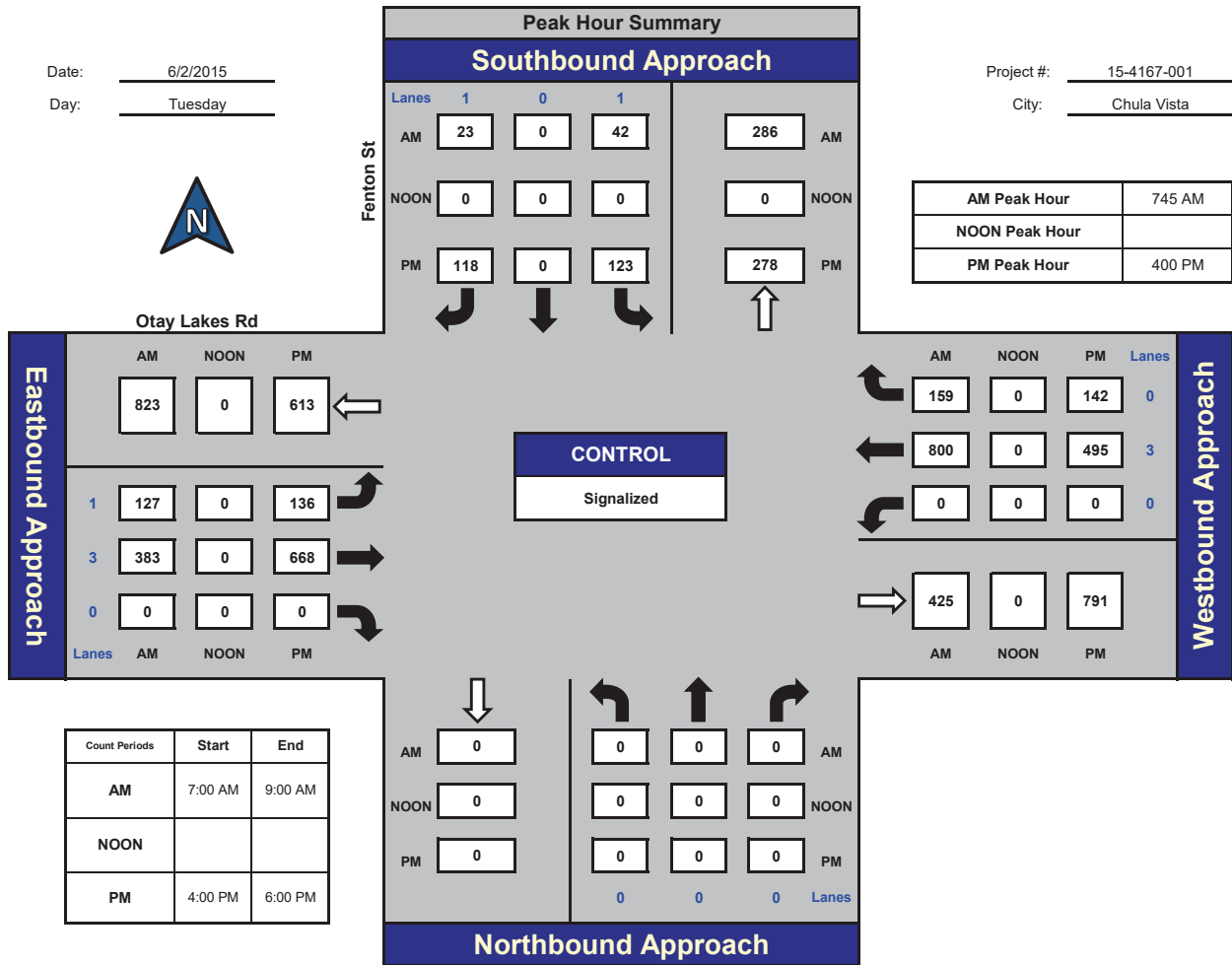
Fenton St and Otay Lakes Rd , Chula Vista

Date: 6/2/2015

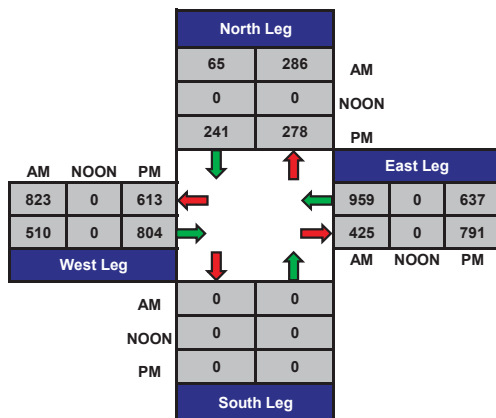
Day: Tuesday

Project #: 15-4167-001

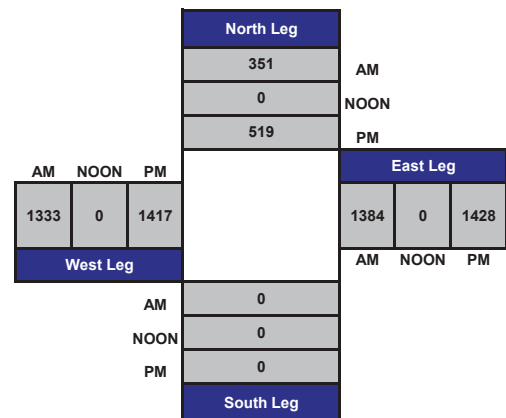
City: Chula Vista



Total Ins & Outs



Total Volume Per Leg



2016 Traffic Volumes on California State Highways



2016 TRAFFIC VOLUMES
ON THE CALIFORNIA STATE HIGHWAY SYSTEM

STATE OF CALIFORNIA
THE TRANSPORTATION AGENCY
DEPARTMENT OF TRANSPORTATION

DIVISION OF TRAFFIC OPERATIONS

Sacramento, CA 95814

916-654-4578

Prepared in Cooperation with the
U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

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PREFACE

Traffic Trend

A comparison of the 2016 over 2015 annual traffic volume data shows that state highway travel increased in 2016. This year's increase in vehicle miles of travel on California highways compares with prior years as follows:

*2016 over 2015.....	+ 2.62%
*2015 over 2014.....	+ 6.67%
2014 over 2013.....	+ 1.20%
2013 over 2012.....	+0.61%
2012 over 2011.....	- 0.31%

Traffic Profile

This booklet lists 2016 traffic volumes for all count locations on the California state highway system. Peak hours, peak month ADTs and annual ADTs are shown at each count location. Significant volume changes (breakpoints) in the traffic profile along each route are counted and identified by name and milepost value. In addition to the profile breakpoints, the booklet lists county lines and landmarks to aid in orientation.

The numbers shown in this booklet apply to the highway immediately back and ahead of the locations. Therefore, between any two successive breakpoints along the route it may be assumed that traffic volumes will vary from one breakpoint to the next at a reasonably uniform rate of increase or decrease. Where only a single set of figures appears between two breakpoints, a constant volume of traffic may be assumed for the intervening section of highway.

All traffic volume figures listed in this booklet include traffic in both directions unless otherwise indicated.

Route Number

All California state highways are listed in this booklet in order of Legislative Route number.

Milepost

Each profile breakpoint is identified by the milepost value corresponding to that point on the highway. The milepost values increase from the beginning of a route within a county to the next county line. The milepost values start over again at each county line. Milepost values usually increase from South to North or West to East depending upon the general direction the route follows within the state.

The milepost at a given location will remain the same year after year. When a section of road is relocated, new mileposts (usually noted by an alphabetical prefix such as "R" or "M") are established for it.

% Change from Previous Year's Yearly Totals published in State of California, The Transportation Agency, Department of Transportation's Collision Data on California State Highways.

* Based on the Traffic Data Branch's Estimated Monthly Vehicle Miles of Travel Report.

Annual Average Daily Traffic (Annual ADT)

Annual average daily traffic is the total traffic volume for the year divided by 365* days. The traffic count year is from October 1st through September 30th. Very few locations in California are actually counted continuously. Traffic counting is generally performed by electronic counting instruments moved from location to location throughout the State in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Peak Month ADT

The peak month ADT is the average daily traffic for the month of heaviest traffic flow. This data is obtained because on many routes, high traffic volumes which occur during a certain season of the year are more representative of traffic conditions than the annual ADT.

Peak Hour

This publication includes an estimate of the “peak hour” traffic at all points on the state highway system. This value is useful to traffic engineers in estimating the amount of congestion experienced, and shows how near to capacity the highway is operating. Unless otherwise indicated, peak hour values indicate the volume in both directions.

A few hours each year are higher than the “peak hour,” but not many. In urban and suburban areas, the peak hour normally occurs every weekday, during what is considered “rush hour” traffic. On roads with large seasonal fluctuations in traffic, the peak hour is the hour near the maximum for the year but excluding a few (30 to 50 hours) that are exceedingly high and are not typical of the frequency of the high hours occurring during the season.

Peak Hour Traffic Directional Split

The Peak Hour Traffic Directional Split listing is given after the last route. The listing is by district, route, control station, milepost, leg, one-way peak hour volume (1-way PHV) and shows the 2-way peak hour percent of AADT (K Factor), the percent traffic in the peak direction (D Factor), the 1-way peak hour percent of AADT (KD Factor), the ending hour, day, and month for the AM and the PM peak hours. The data given is for the latest year available at each of the control stations counted in the last three years. A glossary is also included.

*

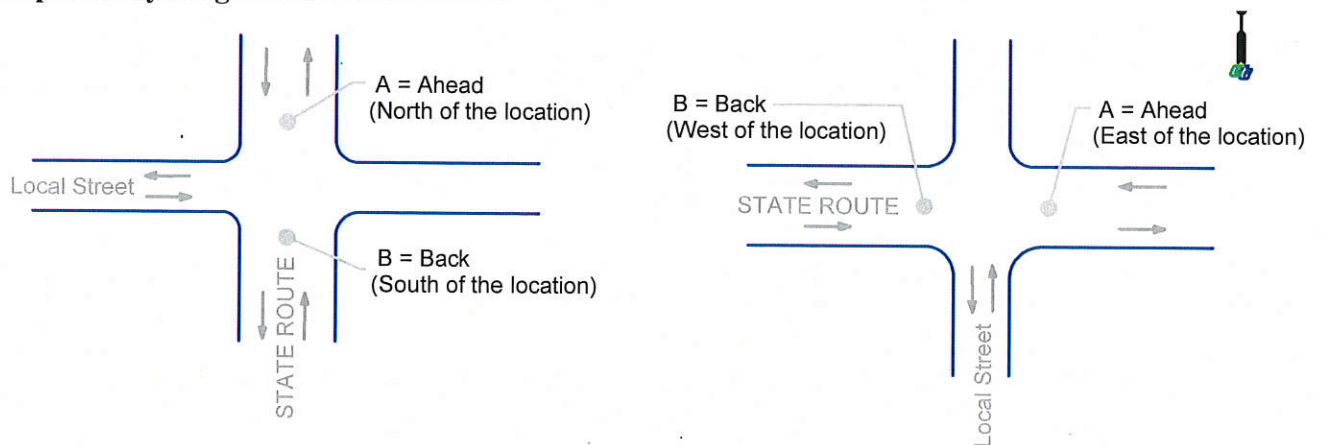
Highway Closures List

Regular Winter Closure

<http://dot.ca.gov/hq/roadinfo/clsdlst.htm>

Explanation of Traffic Counts

Explanatory Diagram of Traffic Counts

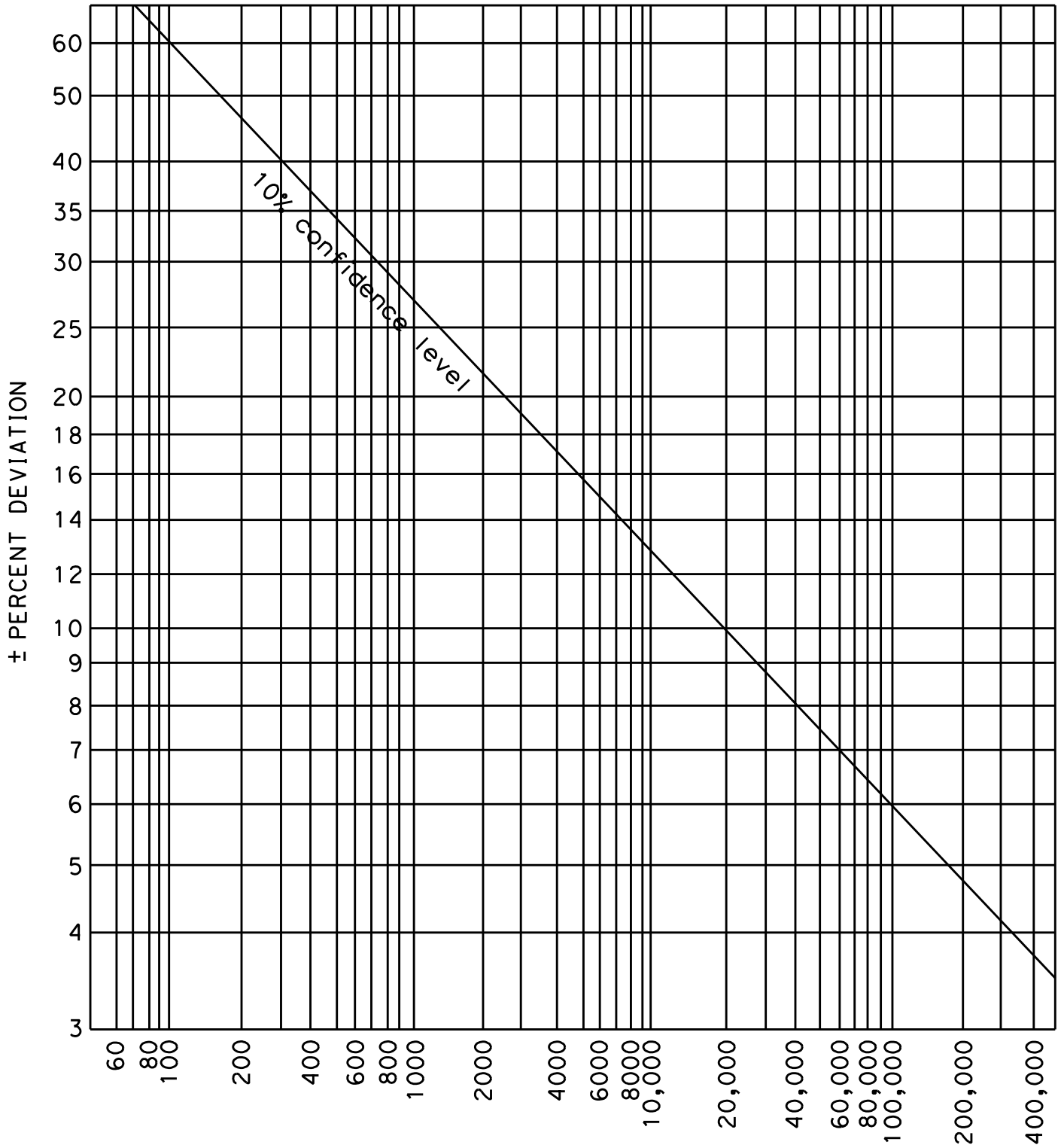


Generally, in California West to East routes are even numbered, while South to North routes are odd numbered. In addition, the postmile values increase from South to North or West to East depending upon the general direction the highway follows within the state, except the following 5 backward routes, Route 71 (North to South), Route 224 (East to West), Route 282 (East to West), Route 580 (East to West), and Route 780 (East to West).

Route Number and Route Direction

Rte.	Dir.	Rte.	Dir.	Rte.	Dir.	Rte.	Dir.	Rte.	Dir.	Rte.	Dir.	Rte.	Dir.	Rte.	Dir.
1	S-N	39	S-N	77	S-N	115	S-N	153	E-W	190	W-E	233	S-N	276	W-E
2	W-E	40	W-E	78	W-E	116	W-E	154	W-E	191	S-N	234	W-E	280	S-N
3	S-N	41	S-N	79	S-N	118	W-E	155	W-E	192	W-E	235	W-E	281	W-E
4	W-E	42	W-E	80	W-E	119	W-E	156	W-E	193	W-E	236	S-N	282	E-W
5	S-N	43	S-N	81	S-N	120	W-E	157	W-E	195	W-E	237	W-E	283	S-N
6	S-N	44	W-E	82	S-N	121	S-N	158	S-N	197	S-N	238	S-N	284	S-N
7	S-N	45	S-N	83	S-N	122	W-E	159	S-N	198	W-E	239	S-N	285	S-N
8	W-E	46	W-E	84	S-N	123	S-N	160	S-N	199	S-N	241	S-N	299	W-E
9	S-N	47	S-N	85	S-N	124	S-N	161	W-E	200	W-E	242	S-N	330	S-N
10	W-E	48	W-E	86	S-N	125	S-N	162	W-E	201	W-E	243	S-N	371	W-E
11	W-E	49	S-N	87	S-N	126	W-E	163	S-N	202	W-E	244	W-E	380	W-E
12	W-E	50	W-E	88	W-E	127	S-N	164	S-N	203	W-E	245	S-N	395	S-N
13	S-N	51	S-N	89	S-N	128	W-E	165	S-N	204	S-N	246	W-E	405	S-N
14	S-N	52	W-E	90	W-E	129	W-E	166	W-E	205	W-E	247	S-N	480	S-N
15	S-N	53	S-N	91	W-E	130	W-E	167	W-E	206	S-N	248	W-E	505	S-N
16	W-E	54	W-E	92	W-E	131	W-E	168	W-E	207	S-N	249	S-N	580	E-W
17	S-N	55	S-N	93	S-N	132	W-E	169	W-E	209	S-N	251	W-E	605	S-N
18	S-N	56	W-E	94	W-E	133	S-N	170	S-N	210	W-E	252	W-E	680	S-N
19	S-N	57	S-N	95	S-N	134	W-E	171	W-E	211	S-N	253	W-E	710	S-N
20	W-E	58	W-E	96	W-E	135	S-N	172	W-E	213	S-N	254	S-N	780	E-W
22	W-E	59	S-N	97	S-N	136	W-E	173	W-E	214	W-E	255	S-N	805	S-N
23	S-N	60	W-E	98	W-E	137	W-E	174	S-N	215	S-N	256	S-N	880	S-N
24	W-E	61	S-N	99	S-N	138	W-E	175	W-E	216	W-E	257	S-N	905	W-E
25	S-N	62	W-E	100	W-E	139	S-N	176	W-E	217	W-E	258	S-N	980	W-E
26	W-E	63	S-N	101	S-N	140	W-E	177	S-N	218	W-E	259	S-N		
27	S-N	64	W-E	102	W-E	141	S-N	178	W-E	219	W-E	260	S-N		
28	W-E	65	S-N	103	S-N	142	W-E	179	S-N	220	W-E	262	S-N		
29	S-N	66	W-E	104	W-E	143	S-N	180	W-E	221	S-N	263	S-N		
30	W-E	67	S-N	105	W-E	144	S-N	181	W-E	222	W-E	265	S-N		
31	S-N	68	W-E	107	S-N	145	S-N	182	S-N	223	W-E	266	S-N		
32	W-E	70	W-E	108	W-E	146	W-E	183	S-N	224	E-W	267	W-E		
33	S-N	71	N-S	109	S-N	147	S-N	184	S-N	225	W-E	269	S-N		
34	W-E	72	S-N	110	S-N	148	W-E	185	S-N	227	S-N	270	W-E		
35	S-N	73	S-N	111	S-N	149	S-N	186	S-N	228	S-N	271	S-N		
36	W-E	74	W-E	112	W-E	150	W-E	187	W-E	229	S-N	273	S-N		
37	W-E	75	S-N	113	S-N	151	W-E	188	S-N	230	W-E	274	W-E		
38	W-E	76	W-E	114	S-N	152	W-E	189	W-E	232	S-N	275	W-E		

ACCURACY LIMITS OF AVERAGE DAILY TRAFFIC (ADT)



2016 Traffic Volumes

2016 Traffic Volumes on California State Highways

Dist	Route	County	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
03	051	SAC	5.498	SACRAMENTO, MARCONI AVENUE	12100	164000	157800	9900	140000	134200
03	051	SAC	5.783	SACRAMENTO, AUBURN BOULEVARD	9900	140000	134200	9900	140000	134200
03	051	SAC	5.963	SACRAMENTO, HOWE AVENUE	9900	140000	134200	9900	141000	136000
03	051	SAC	6.213	SACRAMENTO, BELL STREET	9900	141000	136000	9900	139000	134400
03	051	SAC	6.788	SACRAMENTO, FULTON AVENUE	9900	139000	134400	11100	155000	148600
03	051	SAC	7.701	SACRAMENTO, AUBURN BOULEVARD	11100	155000	148600	10400	144000	138000
03	051	SAC	7.969	SACRAMENTO, WATT AVENUE	10400	144000	138000	10200	142000	136000
03	051	SAC	8.86	JCT. RTE. 80 WEST	10100	133000	129000			
11	052	SD	.324	JCT. RTE. 5				7500	93000	85000
11	052	SD	1.346	REGENTS ROAD	7500	93000	85000	6900	85000	83000
11	052	SD	2.292	SAN DIEGO, GENESEE AVENUE	6900	85000	83000	7600	93000	89000
11	052	SD	3.761	JCT. RTE. 805	7600	93000	89000	9600	111000	107000
11	052	SD	5.494	CONVOY STREET	9600	111000	107000	9500	111000	107000
11	052	SD	6.602	JCT. RTE. 163	9500	111000	107000	8700	96000	94000
11	052	SD	6.926	KEARNEY VILLA OC	8700	96000	94000	8700	96000	94000
11	052	SD	7.314	JCT. RTE. 15	8700	96000	94000	8700	104000	100000
11	052	SD	8.713	SANTO ROAD	8700	104000	100000	8200	99000	96000
11	052	SD	13.273	MAST BOULEVARD	8000	99000	96000	7100	85000	83000
11	052	SD	13.972	MISSION GORGE	7100	85000	83000	7200	86000	83000
11	052	SD	14.962	JCT. RTE. 125	7200	86000	83000	7600	83000	80000
11	052	SD	16.144	CUYAMACA STREET	7600	83000	80000	7000	80000	77000
11	052	SD	17.22	JCT. RTE. 67	7000	80000	77000			
01	053	LAK	0	LOWER LAKE, JCT. RTE. 29				2000	19000	17000
01	053	LAK	1.47	LAKESHORE DRIVE, OLD STATE HIGHWAY	2000	19000	17000	2100	19000	17500
01	053	LAK	2.96	CLEARLAKE HIGHLANDS, 40TH AVENUE	2100	19000	17500	830	9000	8300
01	053	LAK	7.445	JCT. RTE. 20	550	6100	5600			
11	054	SD	0	R JCT. RTE. 5, BEGIN RIGHT ALIGN				4900	57000	56000
11	054	SD	.401	R NATIONAL CITY BOULEVARD	4900	57000	56000	4800	62000	61000
11	054	SD	.899	R NATIONAL CITY, HIGHLAND AVENUE OC	4800	62000	61000	5200	67000	64000
11	054	SD	1.753	R END RIGHT ALIGN	5200	67000	64000			
11	054	SD	0	L WB OFF TO SB 5, BEGIN LEFT ALIGN				3750	52000	51000
11	054	SD	.406	L NATIONAL CITY, NATIONAL CITY BOULEVARD	3750	52000	51000	4600	60000	58000
11	054	SD	.904	L NATIONAL CITY, HIGHLAND AVENUE OC	4600	60000	58000	5000	65000	62000
11	054	SD	1.797	L END LEFT ALIGN	5000	65000	62000			
11	054	SD	1.88	JCT. RTE. 805	10400	135000	132000	10900	143000	139000
11	054	SD	2.968	REO DRIVE	10900	143000	139000	10300	134000	130000
11	054	SD	4.207	WOODMAN STREET	10300	134000	130000	9800	125000	122000

2016 Traffic Volumes on California State Highways

Dist	Route	County	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
04	121	NAP	1.99	DUHIG ROAD	2450	29500	26000	2550	31000	27500
04	121	NAP	2.18	OLD SONOMA ROAD	2550	31000	27500	2550	30500	27000
04	121	NAP	3.04	CUTTING WHARF ROAD	2350	29000	25500	2550	30500	27000
04	121	NAP R	4.469	SOUTH JCT. RTE. 29	2550	30500	27000	2500	30500	28000
04	121	NAP R	4.835	NAPA, JEFFERSON STREET	2500	30500	28000	2150	26500	24000
04	121	NAP R	5.08	NAPA, SOUTH COOMBS STREET	2050	25500	22800	2100	26500	23900
04	121	NAP R	5.891	JCT. RTE. 221 SOUTH	2550	27500	25000	3300	33500	31500
04	121	NAP	6.554	NAPA, SOSCOL AVENUE	1800	18000	17000	1550	15500	14600
04	121	NAP	7.37	NAPA, THIRD STREET	1300	13000	12300	1300	13300	12600
04	121	NAP	8.25	NAPA, LINCOLN AVENUE	1400	14000	13200	1750	17200	16200
04	121	NAP	9.403	NAPA, TRANCAS STREET	1300	13100	12400	1200	12400	11700
04	121	NAP	10.55	ATLAS PEAK ROAD	1100	11200	10500	520	4600	4150
04	121	NAP	10.68	VICHY AVENUE	520	4600	4150	410	3700	3250
04	121	NAP	16.075	WOODEN VALLEY ROAD	250	2550	1800	260	2550	1900
04	121	NAP	22.083	JCT. RTE. 128	260	2550	1900			
04	123	ALA	0	OAKLAND, JCT. RTE. 580				2000	26000	25500
04	123	ALA	1.12	OAKLAND, STANDFORD AVENUE	1600	20700	20400	1500	19200	18900
04	123	ALA	1.906	BERKELEY, JCT. RTE. 13	1650	21200	20800	1750	22400	22000
04	123	ALA	3.15	BERKELEY, UNIVERSITY AVENUE	1400	18200	17900	1500	19600	19300
04	123	ALA	3.98	BERKELEY, GILMAN STREET	1650	21400	21000	1600	21100	20700
04	123	ALA	4.43	ALBANY, MARIN AVENUE	1650	21300	20900	1550	20000	19700
04	123	ALA	4.69	ALBANY, SOLANO AVENUE	1850	24100	23600	1850	23600	23200
04	123	ALA	5.177	ALAMEDA/CONTRA COSTA COUNTY LINE	2200	28000	27500			
04	123	CC	0	ALAMEDA/CONTRA COSTA COUNTY LINE				2200	28000	27500
04	123	CC	.05	EL CERRITO, CARLSON BOULEVARD	2200	28000	27500	1650	21300	20900
04	123	CC	.29	EL CERRITO, CENTRAL AVENUE	1700	22000	21600	1750	22600	22200
04	123	CC	1.75	EL CERRITO, POTRERO AVENUE	1500	19400	19100	1400	18400	18100
04	123	CC	2.1	CUTTING BOULEVARD	2350	30000	29500	1600	20600	20300
04	123	CC	2.198	RICHMOND, JCT. RTE. 80	1600	20600	20300			
10	124	AMA	0	JCT. RTE. 88, IONE SOUTH				320	6100	5800
10	124	AMA R	2.291	IONE, WEST JCT RTE 104	390	9700	9200	290	3100	2700
10	124	AMA R	2.42	IONE, RAYMOND DRIVE	320	5300	3000	250	4000	2300
10	124	AMA R	10.335	WAITES STATION, JCT. RTE. 16	280	4000	2300			
11	125	SD	9.587	JCT. RTE. 54				9400	112000	109000
11	125	SD	9.898	JAMACHA BOULEVARD/PARADISE VALLEY ROAD	9400	112000	109000	7700	104000	103000
11	125	SD	10.622	JAMACHA ROAD UC	7700	104000	103000	9400	126000	124000
11	125	SD	12.967	EAST JCT. RTE. 94	9400	126000	124000	13000	177000	174000

2016 Traffic Volumes on California State Highways

Dist	Route	County	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
07	710	LA	18.44	SOUTH GATE, FIRESTONE BOULEVARD	16200	234000	225000	15000	224000	213000
07	710	LA	19.73	BELL, FLORENCE AVENUE	15000	224000	213000	14700	216000	207000
07	710	LA	21.915	BELL, ATLANTIC BOULEVARD	14700	216000	207000	16100	226000	217000
07	710	LA	22.452	COMMERCE, WASHINGTON BOULEVARD	16100	226000	217000	16300	225000	216000
07	710	LA	23.282	COMMERCE, JCT. RTE. 5	16300	225000	216000	14000	185000	178000
07	710	LA	23.77	WHITTIER BOULEVARD	14000	185000	178000	15300	198000	192000
07	710	LA	24.627	JCT. RTE. 60	15300	198000	192000	10200	134000	127000
07	710	LA	26.497	MONTEREY PARK, JCT. RTE. 10	10200	134000	127000	3900	50000	45500
07	710	LA	T 27.475	LOS ANGELES, VALLEY BOULEVARD	3900	50000	45500	3900	50000	45500
07	710	LA	T 30.953	PASADENA, ON PASADENA AVE AT COLUMBIA ST	3900	50000	45500	3350	28500	25500
07	710	LA	T 31.402	PASADENA, ON PASADENA BELLEFONTAINE ONE WAY	3350	28500	25500	2350	20100	17700
07	710	LA	T 31.403	PASADENA, ON ST. JOHN AT BELLEFONTAINE ONE WAY	2350	20100	17700	2200	18900	16700
07	710	LA	T 31.474	PASADENA, ON PASADENA/BELLEFONTAINE ONE WAY	2350	20100	17700	1950	16800	14800
07	710	LA	T 31.475	PASADENA, ON ST JOHN/BELLEFONTAINE ONE WAY	2200	18900	16700	1750	15100	13300
07	710	LA	T 31.761	PASADENA, ON PASADENA/CALIFORNIA ONE WAY	1950	16800	14800	3350	30500	26500
07	710	LA	T 32.08	PASADENA,	5500	53000	47000	5500	53000	47000
07	710	LA	T 32.105	PASADENA, DEL MAR BOULEVARD	5500	53000	47000	7800	75000	66000
07	710	LA	T 32.13	PASADENA, ON PASADENA AVE END OF NB COUPLET	3350	30500	26500	7800	75000	66000
07	710	LA	R 32.72	PASADENA, JCT. RTES. 134/210	7800	75000	66000			
04	780	SOL	1.221	BEGIN ROUTE 780				5200	60000	58000
04	780	SOL	2.015	BENICIA, SECOND STREET	5500	62000	60000	5600	64000	62000
04	780	SOL	2.955	BENICIA, WEST 7TH STREET	5600	64000	62000	5600	63000	61000
04	780	SOL	3.995	WEST BENICIA	5600	63000	61000	5800	69000	66000
04	780	SOL	4.77	COLUMBUS PARKWAY	5800	69000	66000	5100	60000	58000
04	780	SOL	5.998	GLEN COVE ROAD	5100	60000	58000	5800	69000	66000
04	780	SOL	6.656	BENECIA, HOME ACRES AVENUE POC	5800	69000	66000	5800	69000	66000
04	780	SOL	7.186	VALLEJO, JCT. RTE. 80	6000	71000	68000	2250	28500	27500
04	780	SOL	7.441	LEMON STREET	2250	28500	27500			
11	805	SD	.486	SAN DIEGO, JCT. RTE. 5				4150	56000	50000
11	805	SD	.652	SAN DIEGO, SAN YSIDRO BOULEVARD	4150	56000	50000	5300	67000	66000
11	805	SD	1.805	SAN DIEGO, JCT. RTE. 905	5300	67000	66000	10400	137000	132000
11	805	SD	2.897	SAN DIEGO, PALM AVENUE	10400	137000	132000	11500	157000	155000
11	805	SD	3.654	CHULA VISTA, AUTO PARKWAY DRIVE/MAIN STREET	11500	157000	155000	11500	163000	159000
11	805	SD	4.415	CHULA VISTA, ORANGE AVENUE	11500	163000	159000	12900	172000	168000
11	805	SD	6.059	TELEGRAPH CANYON ROAD	12900	172000	168000	15000	216000	212000
11	805	SD	7.163	CHULA VISTA, H STREET	15000	216000	212000	16100	235000	230000
11	805	SD	7.756	CHULA VISTA, BONITA ROAD	16100	235000	230000	19300	260000	246000

2016 Traffic Volumes on California State Highways

Dist	Route	County	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
11	805	SD	8.854	JCT. RTE. 54, SWEETWATER ROAD	19300	260000	246000	16800	223000	215000
11	805	SD	10.281	NATIONAL CITY, PLAZA BOULEVARD	16800	223000	215000	17300	234000	227000
11	805	SD	11.096	SAN DIEGO, 47TH STREET	17300	234000	227000	17600	243000	240000
11	805	SD	12.344	SAN DIEGO, IMPERIAL AVENUE	17600	243000	240000	19300	262000	260000
11	805	SD	12.953	SAN DIEGO, MARKET STREET	19300	262000	260000	17500	239000	229000
11	805	SD	13.507	SAN DIEGO, JCT. RTE. 94	17500	239000	229000	18100	236000	230000
11	805	SD	13.95	SAN DIEGO, HOME AVENUE	18100	236000	230000	23000	242000	235000
11	805	SD	14.641	SAN DIEGO, JCT. RTE. 15	23000	242000	235000	14000	187000	180000
11	805	SD	15.95	SAN DIEGO, UNIVERSITY AVENUE	14000	187000	180000	14900	196000	188000
11	805	SD	16.431	EL CAJON BOULEVARD	14900	196000	188000	15800	193000	192000
11	805	SD	16.989	SAN DIEGO, ADAMS AVENUE	15800	193000	192000	17700	215000	213000
11	805	SD	17.645	JCT. RTE. 8	17700	215000	213000	15900	211000	203000
11	805	SD	18.888	MURRAY RIDGE	15900	211000	203000	17000	202000	199000
11	805	SD	20.23	SAN DIEGO, KEARNY VILLA ROAD	17000	202000	199000	14700	180000	176000
11	805	SD	20.6	SAN DIEGO, JCT. RTE. 163	14700	180000	176000	17000	205000	197000
11	805	SD	21.654	SAN DIEGO, BALBOA AVENUE	17000	205000	197000	16400	198000	195000
11	805	SD	22.561	SAN DIEGO, CLAIREMONT MESA DRIVE	16400	198000	195000	14400	191000	185000
11	805	SD	23.651	JCT. RTE. 52	14400	191000	185000	16200	216000	204000
11	805	SD	24.44	GOVERNOR DRIVE	16200	216000	204000	15800	210000	200000
11	805	SD	25.476	SAN DIEGO, NOBEL DRIVE	15800	210000	200000	14400	192000	180000
11	805	SD	25.935	SAN DIEGO, MIRAMAR ROAD	14400	192000	180000	14200	190000	179000
11	805	SD	27.067	SAN DIEGO, MIRA MESA BOULEVARD	14200	190000	179000	13400	167000	163000
11	805	SD	28.502	JCT. RTE. 5	13400	167000	163000			
04	880	S ALA	0	R BEG RIGHT ALIGN, PORT OF OAKLAND				3150	49500	47000
04	880	S ALA	1.257	R END RIGHT ALIGN AT WB 80	3150	49500	47000			
04	880	S ALA	0	L BEGIN LEFT ALIGN, PORT OF OAKLAND				3150	49500	47000
04	880	S ALA	1.463	L END LEFT ALIGN	3150	49500	47000			
04	880	SCL	0	JCT. RTE. 280				11500	178000	169000
04	880	SCL	1.25	BASCOM AVENUE	11500	178000	169000	11400	176000	167000
04	880	SCL	2.075	SAN JOSE, JCT. RTE. 82	11400	176000	167000	11400	176000	167000
04	880	SCL	2.667	SAN JOSE, COLEMAN AVENUE	11400	176000	167000	11000	170000	161000
04	880	SCL	3.565	SAN JOSE, NORTH FIRST STREET	11000	170000	161000	11600	179000	170000
04	880	SCL	4.078	SAN JOSE, JCT. RTE. 101	11600	179000	170000	12400	192000	182000
04	880	SCL	4.275	SAN JOSE, OLD BAYSHORE HIGHWAY	12400	192000	182000	12300	190000	180000
04	880	SCL	5.337	COYOTE CREEK	12300	190000	180000	11700	181000	172000
04	880	SCL	6.712	TRIMBLE ROAD, MONTAGUE EXPRESSWAY	11700	181000	172000	12500	194000	184000
04	880	SCL	7.69	MILPITAS, GREAT MALL PARKWAY	12500	194000	184000	12100	188000	178000

PEAK HOUR VOLUME DATA

Peak hour volume data consists of hourly volume relationships and data location. The hourly volumes are expressed as a percentage of the Annual Average Daily Traffic (AADT). The percentages are shown for both the AM and the PM peak periods.

The principle data described here are the K factor, the D factor and their product (KD). The K factor is the percentage of AADT during the peak hour for both directions of travel. The D factor is the percentage of the peak hour travel in the peak direction. KD multiplied with the AADT gives the one way peak period directional flow rate or the design hourly volume (DHV). The design hourly volume is used for either Operational Analysis or Design Analysis. Refer to the 2010 Highway Capacity Manual for more details.

Following is a glossary of terms used in this listing of peak hour volume data:

Dir	Indicates direction of travel for peak volume.
AADT	Annual Average Daily Traffic in vehicles per day (vpd).
AM Peak	Represents the morning peak period for traffic analysis.
CS	Control Station Number, Caltrans identification number for monitoring site.
CO	County abbreviation used by Caltrans.
D	D factor. The percentage of traffic in the peak direction during the peak hour. Values in this book are derived by dividing the measured PHV by the sum of both directions of travel during the peak hour.
DAY	Day of week for the peak volume.
DDHV	The directional design hour volume, in vehicles per hour (vph) $DDHV = AADT \times K \times D$. See equation (3-1) on page 3-11 of the 2010 Highway Capacity Manual.
DI	Caltrans has twelve transportation districts statewide. This abbreviation identifies the district in which the count station is located.
HR	The ending time for the peak hour volume listed. The volume observed from 1 to 2 would be recorded as 2.

K	The percentage of the AADT in both directions during the peak hour. Values in this table are derived by dividing the measured 2-way PHV by the AADT.
KD	The product of K and D. The percentage of AADT in the peak direction during the peak hour. Values in this table are derived by dividing the measured 1-way PHV by the AADT.
LEG	For traffic counting purposes, a highway intersection or interchange is assigned two legs according to increasing postmiles (route direction) and with a postmile reference at the center of the intersection or interchange. The volume of traffic on each leg is denoted by an A, B or O. A = ahead leg, B = back leg, and O – traffic volume being same for both back and ahead legs.
MNTH	The month that the peak volume occurred.
PHV	Peak Hour Volume in the peak direction. A one way volume in vehicles per hour (vph) as used here. The PHV is analogous to the DDHV as used for design purposes.
PM	The Post Mile is the mileage measured from the county line, or from the beginning of a route. Each postmile along a route in a county is a unique location on the state highway system.
PM Peak	Represents the afternoon peak period for traffic analysis.
PRE	The postmile may have a prefix like R, T, L, M, etc. When a length of highway is changed due to construction or realignment, new postmile values are assigned. To distinguish the new values from the old, an alpha code is prefixed to the new postmile.
RTE	The state highway route number.
YR	The year when the count was made. Traffic counting is on a 3-year cycle.

CALIFORNIA DEPARTMENT OF TRANSPORT

REPORT : OTM32420

REPORT TITLE : PRINT TRAFFIC BOOK

PARAMETERS

YEAR : 2016

OTM32420			CALTRANS TRAFFIC VOLUMES													PAGE #		15					
10/27/2017			LATEST TRAFFIC YEAR SELECTED																				
11:17:51			PEAK HOUR VOLUME DATA																				
DI	RTE	CO	PRE	PM	CS	LEG	YR	Dir	AM PEAK			HR	DAY	Mnth	Dir	PM PEAK			HR	DAY	Mnth		
									1 WAY	%	%					%	1 WAY	%				%	%
									PHV	K	D	KD				PHV	K	D	KD				
03	049	SIE		47.44	217	B	16	S	49	25	57.65	14.41	12	SUN	JUL	S	48	27.06	52.17	14.12	13	SUN	JUL
02	049	PLU		7.5	121	B	16	S	62	9.41	65.96	6.21	8	TUE	AUG	S	76	10.81	70.37	7.61	17	MON	AUG
03	050	YOL		2.477	410	B	15	E	6046	8.64	56.53	4.88	7	TUE	JAN	E	5857	7.32	64.65	4.73	16	WED	FEB
03	050	SAC	R	3.674	228	A	15	W	8851	9.02	53.77	4.85	7	THU	SEP	E	8096	8.44	52.59	4.44	16	TUE	SEP
03	050	SAC	R	5.336	230	A	16	E	8175	9.09	50.01	4.54	7	THU	FEB	W	8121	8.78	51.39	4.51	16	THU	OCT
03	050	SAC	R	7.746	232	A	16	E	8423	8.41	55.37	4.66	8	THU	AUG	E	8363	9	51.36	4.62	16	THU	APR
03	050	ED	R	8.564	245	B	15	E	3259	8.56	59.34	5.08	11	SAT	OCT	E	3521	9.26	59.25	5.48	15	FRI	JAN
03	050	ED		18.03	314	A	15	E	2123	9.84	60.16	5.92	10	SUN	OCT	E	2186	10.15	60.07	6.1	14	FRI	AUG
03	050	ED	R	31.30	315	A	16	W	1365	16.69	70.73	11.8	12	SUN	AUG	W	1327	18.47	62.13	11.48	14	SUN	AUG
03	050	ED		70.62	382	B	16	W	1176	14.11	71.58	10.1	11	SUN	SEP	W	1032	17.35	51.09	8.86	13	SUN	JUL
03	050	ED		70.62	383	A	16	W	1310	11.54	83.07	9.59	10	SUN	NOV	W	1085	12.19	65.13	7.94	14	SUN	SEP
03	050	ED		78.42	384	B	16	W	1506	9.11	56.17	5.12	11	THU	JUL	E	1464	9.5	52.36	4.98	15	WED	JUL
03	050	ED		78.42	385	A	16	W	1497	9.86	50.51	4.98	12	SUN	SEP	W	1501	9.2	54.29	4.99	15	SAT	JUN
03	050	ED		80.44	387	O	16	W	1016	7.13	50.8	3.62	12	SAT	JAN	E	1277	8.49	53.63	4.55	16	SAT	JAN
03	051	SAC		1.204	426	B	16	N	7669	7.59	56.41	4.28	7	TUE	APR	N	6472	6.46	55.89	3.61	13	THU	NOV
03	051	SAC		1.204	427	A	16	N	7187	7.25	56.61	4.1	7	THU	OCT	N	6487	6.73	55.06	3.7	13	WED	OCT
03	051	SAC		3.357	430	B	16	S	6312	7.2	51.81	3.73	7	TUE	APR	S	5866	6.61	52.46	3.47	15	MON	APR
03	051	SAC		4.061	432	A	16	S	7804	7.52	61.3	4.61	7	WED	DEC	N	6961	7.37	55.76	4.11	16	WED	MAR
03	051	SAC		7.969	433	A	16	S	5205	6.02	63.52	3.82	6	THU	JAN	N	6077	7.49	59.57	4.46	17	WED	MAR
11	052	SD		3.761	703	B	16	E	3859	7.81	55.31	4.32	7	TUE	FEB	E	4432	8.35	59.39	4.96	15	THU	FEB
11	052	SD		5.494	725	B	16	W	6042	8.93	63.35	5.66	7	WED	DEC	E	5599	8.48	61.85	5.24	15	THU	MAR
11	052	SD		5.494	726	A	16	W	5670	8.46	62.83	5.31	8	FRI	SEP	E	6092	8.74	65.34	5.71	15	THU	AUG
11	052	SD		8.713	727	B	16	W	6472	8.48	75.95	6.44	7	WED	JAN	E	5507	8.17	67.09	5.48	15	TUE	NOV
11	052	SD		8.713	728	A	16	W	5898	8.41	73.46	6.17	7	WED	JUN	E	5624	8.37	70.39	5.89	16	WED	AUG
11	052	SD		13.27	729	B	16	W	5968	7.81	79.71	6.23	6	MON	FEB	E	5516	8.27	69.62	5.76	16	TUE	FEB
11	052	SD		13.27	730	A	16	W	4058	6.68	73.53	4.91	6	MON	MAY	E	4614	8.59	64.97	5.58	15	MON	NOV
11	052	SD		14.96	732	B	16	W	4215	6.79	74.68	5.07	6	TUE	AUG	E	4630	8.27	67.33	5.57	17	WED	MAR
11	052	SD		15.83	733	O	16	W	3235	6.16	65.12	4.01	6	FRI	OCT	E	4305	8.88	60.08	5.34	15	THU	OCT
11	052	SD		16.74	734	O	16	W	3252	5.82	71.44	4.16	6	THU	OCT	E	4052	8.38	61.89	5.18	16	MON	MAR
01	053	LAK		5.15	728	A	16	S	396	9.3	51.36	4.78	11	SAT	JUL	N	452	9.56	57	5.45	16	FRI	OCT
01	053	LAK		7.413	729	B	16	N	341	8.12	75.11	6.1	11	MON	JUL	N	396	9.64	73.47	7.08	15	FRI	FEB
11	054	SD		1.88	814	A	16	W	6687	7.5	64	4.8	7	TUE	MAY	E	6074	7.73	56.42	4.36	16	THU	JUN
11	054	SD		4.207	815	B	16	W	6276	7.88	62.07	4.89	7	WED	FEB	E	5517	7.89	54.52	4.3	16	THU	JUN

OTM32420			CALTRANS TRAFFIC VOLUMES														PAGE #		30			
10/27/2017			LATEST TRAFFIC YEAR SELECTED																			
11:17:51			PEAK HOUR VOLUME DATA																			
DI	RTE	CO	PRE	PM CS		LEG	YR	Dir	AM PEAK			HR	DAY	Mnth	Dir	PM PEAK			HR	DAY	Mnth	
									1 WAY	%	%					%	1 WAY	%				%
									PHV	K	D	KD				PHV	K	D	KD			
07	118	VEN	R	23.6	459	A	15	W	5196	9.39	59.25	5.56	7 THU NOV	E	4728	8.78	57.67	5.06	16 WED NOV			
07	118	VEN	R	27.81	782	O	16	E	6134	8.53	51.7	4.41	7 THU MAY	W	6476	8.79	53	4.66	16 MON SEP			
07	118	LA	R	1.19	444	O	14	E	6515	9.68	57.5	5.57	7 TUE NOV	W	6099	9.74	53.51	5.21	17 TUE OCT			
07	118	LA	R	5.195	480	A	15	W	9635	8.93	53.91	4.82	7 WED MAR	E	8455	7.9	53.47	4.23	16 TUE MAR			
07	118	LA	R	10.8	422	O	16	W	10733	8.04	54.79	4.4	7 FRI APR	W	10155	8.12	51.31	4.17	17 WED JUN			
06	119	KER		0	93	A	15	W	334	8.04	80.48	6.47	6 MON APR	E	360	9.94	70.18	6.98	16 TUE OCT			
06	119	KER		3.17	189	A	15	W	746	10.14	64.37	6.53	6 MON JAN	E	846	11.56	64.04	7.4	16 WED OCT			
06	119	KER		18.17	64	B	16	W	750	9.75	76.38	7.45	6 THU DEC	E	762	11.01	68.71	7.57	16 TUE NOV			
06	119	KER		19.77	6	B	15	W	674	11.51	88.8	10.22	5 TUE OCT	E	601	12.2	74.66	9.11	16 MON OCT			
06	119	KER		19.77	7	A	15	W	830	12.83	90.02	11.55	5 THU OCT	E	661	12.39	74.27	9.2	16 THU JAN			
06	119	KER		31.28	94	B	15	E	737	8.47	55.54	4.7	7 THU APR	W	823	9.64	54.47	5.25	17 THU JAN			
10	120	SJ		21.18	2	B	16	W	787	10.74	62.86	6.75	12 MON MAY	W	834	9.62	74.4	7.16	17 SUN SEP			
10	120	STA		7.225	163	A	16	E	1128	10.53	56.97	6	12 SUN JUL	W	1127	8.54	70.17	5.99	17 SUN MAR			
10	120	TUO	R	5.982	420	A	16	E	937	9.57	75.81	7.25	9 SAT SEP	W	957	10.92	67.82	7.41	16 SUN JUL			
10	120	TUO		15.52	174	A	16	E	436	14.28	73.52	10.5	9 SAT JUL	W	427	14.49	70.93	10.28	16 SUN JUL			
10	120	TUO	R	23.90	35	B	16	E	431	13.24	69.63	9.22	10 SAT JUN	W	445	16.57	57.42	9.52	13 SUN AUG			
09	120	MNO	R	12.06	948	B	16	W	370	27.55	72.84	20.07	10 FRI AUG	E	298	24.95	64.78	16.16	16 SUN SEP			
09	120	MNO		13.37	625	A	16	W	77	29.4	54.23	15.94	11 SUN AUG	E	76	29.81	52.78	15.74	16 SAT SEP			
09	120	MNO		51.86	100	B	16	W	36	17	70.59	12	10 WED SEP	W	42	20.33	68.85	14	16 THU JUL			
09	120	MNO		58.99	626	B	16	E	47	14.29	66.2	9.46	12 TUE JUL	W	51	19.72	52.04	10.26	16 WED JUL			
04	121	SON		0	93	A	14	N	1124	8.77	69.38	6.09	11 SAT MAY	S	1286	9.99	69.7	6.96	17 THU DEC			
04	121	SON	R	7.438	16	B	14	N	1044	8.92	56.01	5	11 SAT SEP	S	1071	8.65	59.24	5.13	17 SAT JUN			
04	121	SON		7.442	17	A	14	S	886	8.95	51.6	4.62	8 WED SEP	N	907	8.45	55.95	4.73	18 FRI SEP			
04	121	SON		9.54	467	A	14	N	794	8.91	53.04	4.73	8 WED SEP	S	808	9.38	51.3	4.81	16 FRI SEP			
04	121	NAP		10.55	96	B	14	S	652	9.44	68.13	6.43	7 TUE OCT	N	677	10.51	63.57	6.68	16 FRI JUL			
04	121	NAP		10.68	412	B	14	S	859	22.11	61.53	13.6	8 TUE OCT	N	538	12.24	69.6	8.52	16 FRI JUL			
04	121	NAP		10.68	422	A	14	S	420	12.83	83.17	10.67	7 TUE OCT	N	485	15.14	81.38	12.32	16 FRI OCT			
04	121	NAP		22.08	18	B	14	S	165	15.93	57.49	9.16	11 SUN JUL	N	188	14.82	70.41	10.43	16 FRI JUL			
11	125	SD		9.898	746	B	16	N	4768	8.32	52.72	4.39	7 THU OCT	S	5249	8.45	57.16	4.83	17 WED APR			
11	125	SD		12.97	991	A	16	N	6701	6.78	57	3.86	6 MON NOV	S	6643	7.43	51.55	3.83	16 WED SEP			
11	125	SD		22.17	749	B	16	N	3109	7.37	60.89	4.49	8 THU NOV	S	3505	9.02	56.08	5.06	17 WED MAR			
11	125	SD		22.30	748	B	16	S	1812	9.73	57.47	5.59	7 WED FEB	S	1785	8.56	64.35	5.51	17 THU JAN			
07	126	VEN		1.83	408	O	14	W	2365	7.37	69.6	5.13	7 THU OCT	E	2685	9.39	62.02	5.82	17 THU OCT			

OTM32420			CALTRANS TRAFFIC VOLUMES														PAGE #		43				
10/27/2017			LATEST TRAFFIC YEAR SELECTED																				
11:17:51			PEAK HOUR VOLUME DATA																				
DI	RTE	CO	PRE	PM	CS	LEG	YR	Dir	AM PEAK			HR	DAY	Mnth	Dir	PM PEAK			HR	DAY	Mnth		
									1 WAY	%	%					1 WAY	%	%					
									PHV	K	D	KD				PHV	K	D	KD				
02	395	LAS	R	4.615	198	A	16	N	343	6.58	88.4	5.82	5	THU	SEP	S	434	12.38	59.45	7.36	16	MON	MAY
02	395	LAS	R	4.615	215	B	16	S	578	11.02	56.17	6.19	11	TUE	JAN	S	671	12.36	58.15	7.18	13	SUN	JUL
02	395	LAS		29.84	289	A	16	N	324	12.66	52.68	6.67	12	SUN	AUG	S	401	13.83	59.67	8.25	13	MON	MAY
02	395	LAS		51.87	150	B	16	N	332	9.14	63.12	5.77	12	THU	JUN	S	390	10.71	63.31	6.78	14	THU	SEP
02	395	LAS	R	61.09	175	B	16	N	441	7.39	73.5	5.43	7	FRI	MAY	S	481	11.6	51.06	5.92	14	FRI	MAY
02	395	LAS	R	61.09	176	A	16	S	195	9.93	52.99	5.26	8	THU	MAY	S	237	11.04	57.95	6.4	14	FRI	MAY
02	395	LAS		70.12	261	A	16	N	92	9.3	66.19	6.15	11	MON	SEP	S	104	11.44	60.82	6.96	15	THU	SEP
02	395	MOD		22.07	177	B	14	N	328	11.42	52.99	6.05	12	FRI	AUG	N	293	10.46	51.68	5.4	13	FRI	AUG
02	395	MOD		23.04	234	O	16	S	166	8.53	68.6	5.85	7	TUE	SEP	N	175	10.86	56.82	6.17	15	THU	APR
12	405	ORA		.949	939	B	16	N	8073	6.45	70.24	4.53	6	THU	JUL	S	7699	8.3	52.01	4.32	16	MON	MAY
12	405	ORA		6.178	915	A	16	N	11839	8.18	51.16	4.18	7	THU	MAY	S	11641	7.53	54.67	4.11	15	WED	JUN
12	405	ORA		15.9	208	B	16	N	9723	5.68	61.64	3.5	7	THU	FEB	N	10019	6.88	52.42	3.61	16	TUE	JAN
12	405	ORA		19.16	659	B	16	S	9236	6.61	52.92	3.5	10	SAT	AUG	N	9381	6.77	52.5	3.55	18	TUE	APR
12	405	ORA		21.2	434	A	16	N	12887	6.45	51.44	3.32	6	WED	AUG	S	13649	7.01	50.12	3.51	15	FRI	JAN
07	405	LA		.4	210	A	15	N	9007	6.57	52.64	3.46	6	TUE	JUL	S	9919	6.85	55.56	3.81	15	THU	OCT
07	405	LA		6.81	211	B	16	N	11041	6.61	55.44	3.66	7	THU	AUG	S	10235	6.49	52.3	3.4	15	TUE	SEP
07	405	LA		8.2	600	A	14	S	12035	8.02	53.84	4.32	7	MON	NOV	S	14997	8.71	61.81	5.38	16	WED	NOV
07	405	LA		11.9	212	B	14	N	9289	6.28	54.93	3.45	7	WED	JUN	S	9647	6.72	53.28	3.58	14	FRI	JAN
07	405	LA		14.92	213	A	16	N	8571	6.23	53.59	3.34	11	SAT	NOV	N	8769	6.64	51.4	3.41	13	SAT	OCT
07	405	LA		25.27	490	B	16	N	9802	5.33	59.57	3.17	6	THU	MAR	N	9544	5.85	52.8	3.09	16	SAT	APR
07	405	LA		40.6	730	A	16	S	7962	6.19	59.19	3.67	8	SAT	JUN	N	8208	6.53	57.88	3.78	13	MON	JUN
07	405	LA		44.27	217	A	14	S	7750	5.49	66.09	3.62	6	FRI	MAY	N	8714	6.88	59.24	4.08	16	TUE	FEB
07	405	LA		47.6	218	B	16	S	6135	6.62	63.65	4.22	6	MON	AUG	N	5154	6.35	55.82	3.54	15	TUE	MAR
04	505	SOL	R	3.058	903	B	16	N	1448	8.63	56.26	4.86	11	THU	NOV	S	2090	11.2	62.56	7.01	15	SUN	AUG
03	505	YOL		10.62	342	B	16	S	929	9.34	54.71	5.11	12	SUN	AUG	S	1206	10.51	63.14	6.63	15	SUN	JUN
03	505	YOL		10.62	964	A	16	S	769	11.16	58.39	6.52	12	SUN	AUG	S	953	12.99	62.21	8.08	15	SAT	NOV
03	505	YOL	R	22.36	965	B	16	N	750	12.41	54.59	6.78	12	WED	NOV	S	935	11.17	75.59	8.45	13	MON	JUL
10	580	SJ		8.149	421	X	16	W	2519	8.06	86.45	6.97	6	WED	MAY	E	2282	9.1	69.36	6.31	17	FRI	SEP
04	580	ALA	R	8.265	152	A	14	W	6355	5.41	80.84	4.37	5	FRI	MAY	E	7111	7.19	68.04	4.89	16	WED	FEB
04	580	ALA		13.22	533	A	14	W	6949	4.72	78.27	3.7	5	TUE	MAY	E	8913	6.98	67.98	4.74	15	WED	FEB
04	580	ALA	R	28.41	238	B	14	E	7278	7.22	53.68	3.87	8	WED	MAY	W	7846	7.86	53.16	4.18	17	WED	AUG
04	580	ALA		30.35	535	A	14	E	7334	7.53	50.9	3.83	7	THU	NOV	E	8081	7.95	53.11	4.22	17	WED	MAY
04	580	ALA	R	30.59	38	A	14	W	6676	8.94	51.26	4.58	7	TUE	MAY	W	6621	8.98	50.62	4.54	17	TUE	AUG

OTM32420			CALTRANS TRAFFIC VOLUMES														PAGE #		44				
10/27/2017			LATEST TRAFFIC YEAR SELECTED																				
11:17:51			PEAK HOUR VOLUME DATA																				
DI	RTE	CO	PRE	PM CS		LEG	YR	Dir	AM PEAK			HR	DAY	Mnth	Dir	PM PEAK			HR	DAY	Mnth		
									1 WAY	%	%					%	1 WAY	%				%	%
									PHV	K	D	KD				PHV	K	D	KD				
04	580	ALA	R	39.24	153	A	14	W	6435	7.84	57.63	4.52	7	TUE	FEB	E	7162	8.17	61.56	5.03	15	MON	MAY
04	580	ALA	R	47.35	28	A	14	E	3784	7.29	55.78	4.07	7	WED	MAY	W	4106	7.75	56.96	4.41	17	WED	MAY
12	605	ORA	R	1.1	219	A	16	N	7464	6.4	58.28	3.73	8	TUE	JUN	N	8444	7.27	58.03	4.22	16	TUE	OCT
07	605	LA	R	2.31	220	O	16	N	7651	7.42	50.43	3.74	7	WED	APR	N	8860	7.52	57.66	4.34	17	MON	OCT
07	605	LA	R	5.58	221	A	14	S	10418	6.57	53.81	3.53	7	TUE	OCT	S	10795	7.17	51.08	3.66	17	THU	OCT
07	605	LA	R	8.9	485	B	15	S	9482	5.88	54.85	3.22	6	THU	APR	S	9636	5.8	56.48	3.28	17	WED	APR
07	605	LA	R	11	222	B	14	N	7788	6.34	53.21	3.37	7	WED	NOV	N	8079	6.06	57.7	3.5	16	MON	NOV
07	605	LA	R	17.75	223	A	14	S	8294	6.31	58.59	3.7	6	WED	FEB	N	7777	6.33	54.76	3.46	17	WED	FEB
07	605	LA		22.92	547	O	15	S	5933	6.63	54.69	3.62	7	WED	MAY	N	5701	6.85	50.83	3.48	14	SAT	OCT
04	680	ALA	M	1.961	39	A	15	S	6856	8.98	56.75	5.1	9	THU	AUG	S	5717	7.88	53.96	4.25	17	TUE	SEP
04	680	ALA	R	20.06	157	A	15	N	6867	7.28	55.93	4.07	9	WED	NOV	N	7978	7.91	59.85	4.73	18	TUE	NOV
04	680	CC	R	.01	557	A	15	S	6653	7.57	51.37	3.89	8	TUE	AUG	S	7380	7.48	57.68	4.31	16	FRI	MAY
04	680	CC	R	.02	900	O	16	S	6311	7.61	52.59	4	8	MON	JUL	S	6619	7.48	56.1	4.2	16	FRI	SEP
04	680	CC	R	6.764	419	O	15	S	6575	7.89	55.32	4.37	7	THU	FEB	N	6055	7.6	52.88	4.02	14	FRI	MAY
04	680	CC	R	18.71	301	B	15	S	9880	5.64	70.94	4	6	TUE	MAY	N	10782	6.5	67.15	4.37	17	THU	MAY
07	710	LA		7.6	37	A	16	S	5694	6.64	55.99	3.72	6	WED	MAY	S	5131	6.4	52.34	3.35	16	THU	OCT
07	710	LA		10.31	38	A	15	S	7252	7.47	52.77	3.94	7	MON	APR	N	6714	7.1	51.39	3.65	16	MON	MAY
07	710	LA		11.5	421	A	16	S	7488	6.97	56.48	3.94	6	FRI	NOV	N	7297	7.14	53.74	3.84	16	WED	MAY
07	710	LA		14.4	39	O	14	S	9960	7.4	57.57	4.26	7	WED	NOV	N	9271	6.96	57.01	3.96	17	THU	APR
07	710	LA	R	27.11	436	A	16	S	2258	8.12	61.03	4.95	7	WED	FEB	N	1971	7.36	58.77	4.32	17	WED	MAR
04	780	SOL		6.656	341	A	15	E	2665	8.03	55.25	4.44	7	WED	MAR	W	2883	8.77	54.72	4.8	17	THU	FEB
11	805	SD		.647	922	A	16	S	3103	6.73	70.17	4.72	9	SAT	MAY	S	3589	8.17	66.85	5.46	15	FRI	AUG
11	805	SD		1.805	681	A	16	S	4964	6	62.92	3.77	9	SAT	MAR	S	5653	7.8	55.12	4.3	15	FRI	NOV
11	805	SD		6.059	923	B	16	N	6493	5.59	69.23	3.87	6	TUE	OCT	S	7135	7.75	54.89	4.25	16	FRI	DEC
11	805	SD		8.854	924	B	16	N	10377	5.95	71	4.22	6	MON	NOV	S	11472	7.76	60.19	4.67	16	FRI	JAN
11	805	SD		8.854	944	A	16	N	9340	5.99	72.41	4.34	6	WED	MAY	S	9938	7.79	59.22	4.61	16	THU	JAN
11	805	SD		11.10	925	B	16	N	11446	6.61	76.3	5.04	6	THU	SEP	S	9961	7.53	58.31	4.39	16	WED	MAR
11	805	SD		13.51	926	B	16	N	9200	5.69	70.68	4.02	6	THU	NOV	S	10438	7.5	60.87	4.56	17	MON	MAY
11	805	SD		16.43	927	B	16	N	7747	5.61	73.39	4.12	6	TUE	AUG	S	9265	7.62	64.63	4.92	15	WED	NOV
11	805	SD		17.65	928	A	16	N	10509	6.84	75.86	5.19	6	THU	APR	S	10191	7.41	67.83	5.03	15	TUE	OCT
11	805	SD		28.50	930	B	16	S	7661	7.45	63.25	4.71	8	WED	AUG	N	6994	6.92	62.19	4.3	17	MON	MAY
04	880	ALA		2.283	127	A	14	S	7785	6.93	56.71	3.93	7	TUE	NOV	N	8790	7.67	57.79	4.43	14	FRI	MAY
04	880	ALA		26.61	129	A	14	N	7220	6.63	51.11	3.39	7	MON	MAY	N	7521	6.53	54.03	3.53	16	FRI	MAY

Appendix B

Analysis Worksheets – Existing Conditions

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

8/4/2015

Intersection												
Int Delay, s/veh	21.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	4	3	2	1	307	8	657	2	129	163	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	78	78	78	83	83	83	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	5	4	3	1	394	10	792	2	159	201	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1336	1336	205	1340	1339	793	209	0	0	794	0	0
Stage 1	523	523	-	812	812	-	-	-	-	-	-	-
Stage 2	813	813	-	528	527	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	130	153	836	130	153	~ 389	1362	-	-	827	-	-
Stage 1	537	530	-	373	392	-	-	-	-	-	-	-
Stage 2	372	392	-	534	528	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	123	836	106	123	~ 389	1362	-	-	827	-	-
Mov Cap-2 Maneuver	-	123	-	106	123	-	-	-	-	-	-	-
Stage 1	533	428	-	370	389	-	-	-	-	-	-	-
Stage 2	-	389	-	424	426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		81.5	0.1	4.5
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1362	-	-	- 111 389	827	-	-
HCM Lane V/C Ratio	0.007	-	-	- 0.035 1.012	0.193	-	-
HCM Control Delay (s)	7.7	-	-	- 38.6 81.9	10.4	-	-
HCM Lane LOS	A	-	-	- E F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	- 0.1 12.4	0.7	-	-

Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	113	29	4	461	59	98	38	2	26	28	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	16	143	24	5	530	45	111	43	1	32	35	37
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	691	116	10	734	62	347	89	2	191	126	102
Arrive On Green	0.02	0.44	0.44	0.01	0.43	0.43	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1774	1556	261	1774	1694	144	1020	525	10	341	743	598
Grp Volume(v), veh/h	16	0	167	5	0	575	155	0	0	104	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1817	1774	0	1837	1555	0	0	1681	0	0
Q Serve(g_s), s	0.3	0.0	2.0	0.1	0.0	9.2	1.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	2.0	0.1	0.0	9.2	3.0	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		0.14	1.00		0.08	0.72		0.01	0.31		0.36
Lane Grp Cap(c), veh/h	29	0	807	10	0	796	438	0	0	418	0	0
V/C Ratio(X)	0.55	0.00	0.21	0.52	0.00	0.72	0.35	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	205	0	1561	205	0	1579	879	0	0	903	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.3	0.0	6.0	17.6	0.0	8.3	13.4	0.0	0.0	13.0	0.0	0.0
Incr Delay (d2), s/veh	15.1	0.0	0.1	37.3	0.0	1.3	0.5	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.0	0.1	0.0	4.8	1.4	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	32.4	0.0	6.2	54.9	0.0	9.5	13.9	0.0	0.0	13.3	0.0	0.0
LnGrp LOS	C		A	D		A	B			B		
Approach Vol, veh/h		183			580			155			104	
Approach Delay, s/veh		8.5			9.9			13.9			13.3	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.5	4.7	20.3		10.5	5.1	19.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.9	4.1	30.5		16.9	4.1	30.5				
Max Q Clear Time (g_c+l1), s		5.0	2.1	4.0		3.9	2.3	11.2				
Green Ext Time (p_c), s		1.0	0.0	4.6		1.1	0.0	4.2				
Intersection Summary												
HCM 2010 Ctrl Delay			10.6									
HCM 2010 LOS			B									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

8/4/2015

Intersection

Int Delay, s/veh 2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	37	3	0	98	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	85	85	67	67
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	4	0	115	12	0

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	115	0	58
Stage 1	-	-	0
Stage 2	-	-	58
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1474	-	949
Stage 1	-	-	-
Stage 2	-	-	965
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1474	-	916
Mov Cap-2 Maneuver	-	-	916
Stage 1	-	-	-
Stage 2	-	-	965

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

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1474	-	916
HCM Lane V/C Ratio	-	-	0.035	-	0.013
HCM Control Delay (s)	-	-	7.5	-	9
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.1	-	0

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

8/4/2015

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	57	11	3	7	2	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	50	50	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	14	6	14	2	37

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	37	0	204
Stage 1	-	-	162
Stage 2	-	-	42
Critical Hdwy	-	-	6.52
Critical Hdwy Stg 1	-	-	5.52
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	4.018
Pot Cap-1 Maneuver	-	-	692
Stage 1	-	-	764
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	0
Mov Cap-2 Maneuver	-	-	0
Stage 1	-	-	0
Stage 2	-	-	0

Approach	EB	WB	SB
HCM Control Delay, s		8.4	0.4
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	-	1066	1604
HCM Lane V/C Ratio	-	-	0.019	0.002
HCM Control Delay (s)	-	-	8.4	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	0	6	1	0	6	1	471	0	6	109	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	58	58	58	93	93	93	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	0	8	2	0	10	1	506	0	7	120	10
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	652	647	125	651	652	506	130	0	0	506	0	0
Stage 1	138	138	-	509	509	-	-	-	-	-	-	-
Stage 2	514	509	-	142	143	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	381	390	926	382	387	566	1455	-	-	1059	-	-
Stage 1	865	782	-	547	538	-	-	-	-	-	-	-
Stage 2	543	538	-	861	779	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	372	387	926	377	384	566	1455	-	-	1059	-	-
Mov Cap-2 Maneuver	372	387	-	377	384	-	-	-	-	-	-	-
Stage 1	864	777	-	546	537	-	-	-	-	-	-	-
Stage 2	533	537	-	848	774	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.6			12			0			0.4		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1455	-	-	445	528	1059	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.063	0.023	0.006	-	-				
HCM Control Delay (s)	7.5	0	-	13.6	12	8.4	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-				

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↑	↑		
Traffic Volume (veh/h)	0	318	274	0	59	9		
Future Volume (veh/h)	0	318	274	0	59	9		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	393	322	0	83	6		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.81	0.81	0.85	0.85	0.71	0.71		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1739	1739	0	130	116		
Arrive On Green	0.00	0.49	0.49	0.00	0.07	0.07		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	393	322	0	83	6		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	1.6	1.3	0.0	1.2	0.1		
Cycle Q Clear(g_c), s	0.0	1.6	1.3	0.0	1.2	0.1		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1739	1739	0	130	116		
V/C Ratio(X)	0.00	0.23	0.19	0.00	0.64	0.05		
Avail Cap(c_a), veh/h	0	4804	4804	0	1265	1129		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	3.8	3.7	0.0	11.7	11.2		
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	5.6	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.7	0.0	0.8	0.0		
LnGrp Delay(d),s/veh	0.0	3.9	3.8	0.0	17.3	11.4		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		393	322		89			
Approach Delay, s/veh		3.9	3.8		16.9			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		18.5		7.4		18.5		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		35.2		18.5		35.2		
Max Q Clear Time (g_c+I1), s		3.6		3.2		3.3		
Green Ext Time (p_c), s		9.1		0.2		9.1		
Intersection Summary								
HCM 2010 Ctrl Delay			5.3					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	39	338	278	244	0	0			
Future Volume (veh/h)	39	338	278	244	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	45	389	305	235					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.87	0.87	0.91	0.91					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	51	2791	1184	889					
Arrive On Green	0.03	0.79	0.61	0.61					
Sat Flow, veh/h	1774	3632	2021	1449					
Grp Volume(v), veh/h	45	389	279	261					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1607					
Q Serve(g_s), s	0.7	0.7	2.0	2.1					
Cycle Q Clear(g_c), s	0.7	0.7	2.0	2.1					
Prop In Lane	1.00			0.90					
Lane Grp Cap(c), veh/h	51	2791	1086	987					
V/C Ratio(X)	0.88	0.14	0.26	0.26					
Avail Cap(c_a), veh/h	906	7640	2659	2414					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	13.3	0.7	2.4	2.4					
Incr Delay (d2), s/veh	16.3	0.0	0.3	0.3					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	0.6	0.3	1.0	1.0					
LnGrp Delay(d),s/veh	29.6	0.7	2.7	2.7					
LnGrp LOS	C	A	A	A					
Approach Vol, veh/h		434	540						
Approach Delay, s/veh		3.7	2.7						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		27.4			4.8	22.6			
Change Period (Y+Rc), s		5.8			4.0	5.8			
Max Green Setting (Gmax), s		59.2			14.0	41.2			
Max Q Clear Time (g_c+l1), s		2.7			2.7	4.1			
Green Ext Time (p_c), s		14.3			0.0	12.8			
Intersection Summary									
HCM 2010 Ctrl Delay			3.2						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

8/4/2015



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑		↗		
Volume (veh/h)	919	293	473	1099	0	946		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1044	219	584	1357	0	807		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.88	0.88	0.81	0.81	0.80	0.80		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	1743	365	675	3174	0	0		
Arrive On Green	0.41	0.41	0.38	0.90	0.00	0.00		
Sat Flow, veh/h	4382	883	1774	3632	0			
Grp Volume(v), veh/h	840	423	584	1357	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1707	1774	1770				
Q Serve(g_s), s	8.4	8.4	13.3	2.8				
Cycle Q Clear(g_c), s	8.4	8.4	13.3	2.8				
Prop In Lane		0.52	1.00					
Lane Grp Cap(c), veh/h	1402	706	675	3174				
V/C Ratio(X)	0.60	0.60	0.87	0.43				
Avail Cap(c_a), veh/h	1475	743	967	3834				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	10.0	10.0	12.5	0.4				
Incr Delay (d2), s/veh	0.6	1.2	5.9	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	4.0	4.1	7.4	1.2				
LnGrp Delay(d),s/veh	10.6	11.2	18.4	0.5				
LnGrp LOS	B	B	B	A				
Approach Vol, veh/h	1263			1941				
Approach Delay, s/veh	10.8			5.9				
Approach LOS	B			A				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			21.1	22.6				43.7
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			23.8	19.0				47.3
Max Q Clear Time (g_c+I1), s			15.3	10.4				4.8
Green Ext Time (p_c), s			1.3	7.6				28.2
Intersection Summary								
HCM 2010 Ctrl Delay			7.8					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

8/4/2015



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	1454	412	0	1205	366	436		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	1691	0	0	1268	547	277		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.86	0.86	0.95	0.95	0.82	0.82		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	2954	920	0	2056	875	390		
Arrive On Green	0.58	0.00	0.00	0.58	0.25	0.25		
Sat Flow, veh/h	5253	1583	0	3725	3548	1583		
Grp Volume(v), veh/h	1691	0	0	1268	547	277		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	10.9	0.0	0.0	12.2	7.2	8.3		
Cycle Q Clear(g_c), s	10.9	0.0	0.0	12.2	7.2	8.3		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2954	920	0	2056	875	390		
V/C Ratio(X)	0.57	0.00	0.00	0.62	0.63	0.71		
Avail Cap(c_a), veh/h	3170	987	0	2206	1599	714		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	6.9	0.0	0.0	7.1	17.5	17.9		
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.7	2.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.0	5.9	3.6	3.9		
LnGrp Delay(d),s/veh	7.1	0.0	0.0	7.6	18.2	20.3		
LnGrp LOS	A			A	B	C		
Approach Vol, veh/h	1691			1268	824			
Approach Delay, s/veh	7.1			7.6	18.9			
Approach LOS	A			A	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		17.4		34.8				34.8
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		23.5		32.5				32.5
Max Q Clear Time (g_c+I1), s		10.3		12.9				14.2
Green Ext Time (p_c), s		2.5		17.1				16.1
Intersection Summary								
HCM 2010 Ctrl Delay			9.8					
HCM 2010 LOS			A					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲			↰ ↱ ↲			↰	↱			↰	↱
Volume (veh/h)	74	1663	9	6	2015	35	55	3	17	40	1	174
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	92	2079	7	6	2167	27	65	4	16	50	1	181
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.80	0.80	0.80	0.93	0.93	0.93	0.85	0.85	0.85	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	3027	10	11	2687	33	279	53	211	340	6	255
Arrive On Green	0.07	0.58	0.58	0.01	0.52	0.52	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	5232	18	1774	5177	64	1197	326	1306	1278	34	1583
Grp Volume(v), veh/h	92	1347	739	6	1418	776	65	0	20	51	0	181
Grp Sat Flow(s),veh/h/ln	1774	1695	1860	1774	1695	1851	1197	0	1632	1312	0	1583
Q Serve(g_s), s	2.7	14.8	14.8	0.2	18.4	18.4	2.7	0.0	0.6	1.7	0.0	5.8
Cycle Q Clear(g_c), s	2.7	14.8	14.8	0.2	18.4	18.4	4.9	0.0	0.6	2.2	0.0	5.8
Prop In Lane	1.00		0.01	1.00		0.03	1.00		0.80	0.98		1.00
Lane Grp Cap(c), veh/h	117	1961	1076	11	1759	961	279	0	263	346	0	255
V/C Ratio(X)	0.79	0.69	0.69	0.53	0.81	0.81	0.23	0.00	0.08	0.15	0.00	0.71
Avail Cap(c_a), veh/h	157	1961	1076	137	1843	1006	489	0	549	590	0	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	7.8	7.8	26.3	10.6	10.6	21.8	0.0	18.9	19.8	0.0	21.1
Incr Delay (d2), s/veh	17.0	1.0	1.8	33.5	2.6	4.8	0.4	0.0	0.1	0.2	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.0	7.9	0.2	9.1	10.5	0.9	0.0	0.3	0.7	0.0	2.7
LnGrp Delay(d),s/veh	41.5	8.9	9.7	59.8	13.2	15.4	22.2	0.0	19.1	20.0	0.0	24.7
LnGrp LOS	D	A	A	E	B	B	C		B	C		C
Approach Vol, veh/h	2178				2200		85				232	
Approach Delay, s/veh	10.5				14.1		21.5				23.7	
Approach LOS	B				B		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	13.1		4.8	35.3	13.1		8.0	32.1				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	17.9		4.1	29.5	17.9		4.7	28.9				
Max Q Clear Time (g_c+I1), s	6.9		2.2	16.8	7.8		4.7	20.4				
Green Ext Time (p_c), s	0.9		0.0	12.5	0.8		0.0	7.1				
Intersection Summary												
HCM 2010 Ctrl Delay			13.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

8/4/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰↱	↑↑↑↑	↑↑↑↱		↰	↱		
Volume (veh/h)	142	1533	1789	44	30	269		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	189	2044	1988	38	33	205		
Adj No. of Lanes	2	3	3	0	1	1		
Peak Hour Factor	0.75	0.75	0.90	0.90	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	291	3436	2632	50	295	263		
Arrive On Green	0.08	0.68	0.51	0.51	0.17	0.17		
Sat Flow, veh/h	3442	5253	5305	98	1774	1583		
Grp Volume(v), veh/h	189	2044	1311	715	33	205		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1845	1774	1583		
Q Serve(g_s), s	3.0	12.4	17.5	17.6	0.9	7.1		
Cycle Q Clear(g_c), s	3.0	12.4	17.5	17.6	0.9	7.1		
Prop In Lane	1.00			0.05	1.00	1.00		
Lane Grp Cap(c), veh/h	291	3436	1737	945	295	263		
V/C Ratio(X)	0.65	0.59	0.75	0.76	0.11	0.78		
Avail Cap(c_a), veh/h	344	3533	1749	952	511	456		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	25.3	5.0	11.1	11.1	20.2	22.8		
Incr Delay (d2), s/veh	3.3	0.3	1.9	3.5	0.2	4.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.6	5.8	8.5	9.7	0.5	6.3		
LnGrp Delay(d),s/veh	28.6	5.3	13.0	14.5	20.3	27.7		
LnGrp LOS	C	A	B	B	C	C		
Approach Vol, veh/h		2233	2026		238			
Approach Delay, s/veh		7.2	13.5		26.7			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				43.0		14.0	9.3	33.7
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				39.6		16.4	5.7	29.4
Max Q Clear Time (g_c+I1), s				14.4		9.1	5.0	19.6
Green Ext Time (p_c), s				24.0		0.4	0.0	9.6
Intersection Summary								
HCM 2010 Ctrl Delay			11.1					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	113	1348	90	152	1514	63	212	57	285	36	28	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	151	1797	80	167	1664	47	244	66	213	40	31	85
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.75	0.75	0.75	0.91	0.91	0.91	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	2322	723	253	2349	731	338	617	276	107	379	170
Arrive On Green	0.07	0.46	0.46	0.07	0.46	0.46	0.10	0.17	0.17	0.03	0.11	0.11
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	151	1797	80	167	1664	47	244	66	213	40	31	85
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	2.9	20.2	2.0	3.2	17.8	1.1	4.7	1.1	8.7	0.8	0.5	3.4
Cycle Q Clear(g_c), s	2.9	20.2	2.0	3.2	17.8	1.1	4.7	1.1	8.7	0.8	0.5	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	2322	723	253	2349	731	338	617	276	107	379	170
V/C Ratio(X)	0.64	0.77	0.11	0.66	0.71	0.06	0.72	0.11	0.77	0.37	0.08	0.50
Avail Cap(c_a), veh/h	283	2352	732	278	2349	731	379	1091	488	202	910	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	15.5	10.6	30.7	14.7	10.2	29.8	23.7	26.8	32.3	27.4	28.7
Incr Delay (d2), s/veh	3.6	1.6	0.1	5.0	1.0	0.0	5.8	0.1	4.6	2.1	0.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.7	0.9	1.7	8.5	0.5	2.5	0.5	4.2	0.4	0.3	1.6
LnGrp Delay(d),s/veh	34.5	17.2	10.7	35.7	15.7	10.2	35.6	23.7	31.4	34.5	27.5	31.0
LnGrp LOS	C	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h	2028					1878		523		156		
Approach Delay, s/veh	18.2					17.3		32.4		31.2		
Approach LOS	B					B		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	16.4	9.5	35.6	11.2	11.8	9.2	36.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	1.0	21.0	5.5	31.5	7.5	17.5	5.6	31.4				
Max Q Clear Time (g_c+I), s	12.8	10.7	5.2	22.2	6.7	5.4	4.9	19.8				
Green Ext Time (p_c), s	0.0	1.1	0.0	8.9	0.1	1.2	0.0	11.1				
Intersection Summary												
HCM 2010 Ctrl Delay			19.9									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

8/4/2015

	           											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	
Volume (veh/h)	172	1208	134	164	1189	106	424	287	301	154	192	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	210	1473	108	198	1433	74	551	373	209	183	229	150
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.77	0.77	0.77	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	1579	116	213	1589	82	548	714	394	218	289	182
Arrive On Green	0.07	0.33	0.33	0.06	0.32	0.32	0.31	0.32	0.32	0.12	0.14	0.14
Sat Flow, veh/h	3442	4836	355	3442	4952	256	1774	2202	1216	1774	2087	1313
Grp Volume(v), veh/h	210	1033	548	198	981	526	551	299	283	183	193	186
Grp Sat Flow(s),veh/h/ln	1721	1695	1800	1721	1695	1818	1774	1770	1648	1774	1770	1631
Q Serve(g_s), s	5.9	28.7	28.7	5.6	26.9	26.9	30.0	13.3	13.6	9.8	10.2	10.8
Cycle Q Clear(g_c), s	5.9	28.7	28.7	5.6	26.9	26.9	30.0	13.3	13.6	9.8	10.2	10.8
Prop In Lane	1.00		0.20	1.00		0.14	1.00		0.74	1.00		0.81
Lane Grp Cap(c), veh/h	232	1107	588	213	1088	583	548	574	534	218	245	226
V/C Ratio(X)	0.91	0.93	0.93	0.93	0.90	0.90	1.01	0.52	0.53	0.84	0.79	0.83
Avail Cap(c_a), veh/h	232	1117	593	213	1117	599	548	574	534	329	291	269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	31.7	31.7	45.4	31.5	31.5	33.6	26.7	26.8	41.7	40.5	40.7
Incr Delay (d2), s/veh	35.0	13.7	21.9	43.0	10.0	16.7	39.9	0.8	1.0	11.3	11.4	16.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	15.4	17.7	3.9	14.1	16.1	20.7	6.6	6.4	5.5	5.8	5.9
LnGrp Delay(d),s/veh	80.0	45.4	53.6	88.4	41.6	48.2	73.5	27.5	27.8	53.0	51.9	56.9
LnGrp LOS	F	D	D	F	D	D	F	C	C	D	D	E
Approach Vol, veh/h	1791				1705		1133				562	
Approach Delay, s/veh	52.0				49.0		50.0				53.9	
Approach LOS	D				D		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	35.7	34.0	17.4	10.5	35.2	16.0	35.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	32.0	30.0	16.0	6.0	32.0	18.0	28.0				
Max Q Clear Time (g_c+I), s	17.6	30.7	32.0	12.8	7.9	28.9	11.8	15.6				
Green Ext Time (p_c), s	0.0	1.0	0.0	0.7	0.0	2.3	0.2	4.5				
Intersection Summary												
HCM 2010 Ctrl Delay			50.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	253	467	342	128	805	215	313	657	43	275	587	238
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	347	640	331	147	925	178	333	699	0	353	753	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.73	0.73	0.73	0.87	0.87	0.87	0.94	0.94	0.94	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	1354	606	204	1038	464	395	936	292	395	936	292
Arrive On Green	0.20	0.38	0.38	0.11	0.29	0.29	0.11	0.18	0.00	0.11	0.18	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	347	640	331	147	925	178	333	699	0	353	753	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	15.2	10.7	12.8	6.3	19.6	7.0	7.4	10.2	0.0	7.9	11.1	0.0
Cycle Q Clear(g_c), s	15.2	10.7	12.8	6.3	19.6	7.0	7.4	10.2	0.0	7.9	11.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	1354	606	204	1038	464	395	936	292	395	936	292
V/C Ratio(X)	0.96	0.47	0.55	0.72	0.89	0.38	0.84	0.75	0.00	0.89	0.80	0.00
Avail Cap(c_a), veh/h	362	1354	606	204	1038	464	395	1037	323	395	1037	323
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	18.3	18.9	33.5	26.5	22.1	34.0	30.3	0.0	34.3	30.6	0.0
Incr Delay (d2), s/veh	36.5	1.2	3.5	11.9	11.5	2.4	15.2	2.7	0.0	21.9	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	5.4	6.2	3.7	11.2	3.3	4.3	5.0	0.0	5.0	5.5	0.0
LnGrp Delay(d),s/veh	67.4	19.4	22.4	45.4	38.0	24.5	49.3	33.0	0.0	56.2	34.9	0.0
LnGrp LOS	E	B	C	D	D	C	D	C		E	C	
Approach Vol, veh/h	1318			1250			1032			1106		
Approach Delay, s/veh	32.8			37.0			38.2			41.7		
Approach LOS	C			D			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	34.0	13.0	18.4	20.0	27.0	13.0	18.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	9.0	16.0	16.0	23.0	9.0	16.0				
Max Q Clear Time (g_c+I), s	14.8	14.8	9.4	13.1	17.2	21.6	9.9	12.2				
Green Ext Time (p_c), s	0.5	4.4	0.0	1.3	0.0	0.9	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay	37.2											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	  		  	  	
Traffic Volume (veh/h)	253	467	342	128	805	215	313	657	43	275	587	238
Future Volume (veh/h)	253	467	342	128	805	215	313	657	43	275	587	238
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	347	640	331	147	925	178	333	699	0	353	753	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.73	0.73	0.73	0.87	0.87	0.87	0.94	0.94	0.94	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	1354	606	204	1038	464	395	936	292	395	936	292
Arrive On Green	0.20	0.38	0.38	0.11	0.29	0.29	0.11	0.18	0.00	0.11	0.18	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	347	640	331	147	925	178	333	699	0	353	753	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	15.2	10.7	12.8	6.3	19.6	7.0	7.4	10.2	0.0	7.9	11.1	0.0
Cycle Q Clear(g_c), s	15.2	10.7	12.8	6.3	19.6	7.0	7.4	10.2	0.0	7.9	11.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	1354	606	204	1038	464	395	936	292	395	936	292
V/C Ratio(X)	0.96	0.47	0.55	0.72	0.89	0.38	0.84	0.75	0.00	0.89	0.80	0.00
Avail Cap(c_a), veh/h	362	1354	606	204	1038	464	395	1037	323	395	1037	323
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	18.3	18.9	33.5	26.5	22.1	34.0	30.3	0.0	34.3	30.6	0.0
Incr Delay (d2), s/veh	36.5	1.2	3.5	11.9	11.5	2.4	15.2	2.7	0.0	21.9	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	5.4	6.2	3.7	11.2	3.3	4.3	5.0	0.0	5.0	5.5	0.0
LnGrp Delay(d),s/veh	67.4	19.4	22.4	45.4	38.0	24.5	49.3	33.0	0.0	56.2	34.9	0.0
LnGrp LOS	E	B	C	D	D	C	D	C		E	C	
Approach Vol, veh/h	1318				1250				1032			
Approach Delay, s/veh	32.8				37.0				38.2			
Approach LOS	C				D				D			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	34.0	13.0	18.4	20.0	27.0	13.0	18.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	9.0	16.0	16.0	23.0	9.0	16.0				
Max Q Clear Time (g_c+1/3), s	14.8	14.8	9.4	13.1	17.2	21.6	9.9	12.2				
Green Ext Time (p_c), s	0.5	4.4	0.0	1.3	0.0	0.9	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			37.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary 15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑		↑
Traffic Volume (veh/h)	0	656	96	0	770	150	0	0	0	151	0	85
Future Volume (veh/h)	0	656	96	0	770	150	0	0	0	151	0	85
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	691	0	0	928	133				210	0	90
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83				0.72	0.72	0.72
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3326	1036	0	2315	1212				384	0	177
Arrive On Green	0.00	0.65	0.00	0.00	0.65	0.65				0.11	0.00	0.11
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	691	0	0	928	133				210	0	90
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	2.6	0.0	0.0	5.9	1.0				2.8	0.0	2.6
Cycle Q Clear(g_c), s	0.0	2.6	0.0	0.0	5.9	1.0				2.8	0.0	2.6
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3326	1036	0	2315	1212				384	0	177
V/C Ratio(X)	0.00	0.21	0.00	0.00	0.40	0.11				0.55	0.00	0.51
Avail Cap(c_a), veh/h	0	4239	1320	0	2950	1497				963	0	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.3	0.0	0.0	3.9	1.4				20.3	0.0	20.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.2	0.1				1.3	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	0.0	0.0	2.9	0.7				1.4	0.0	1.2
LnGrp Delay(d),s/veh	0.0	3.4	0.0	0.0	4.2	1.5				21.6	0.0	22.6
LnGrp LOS		A			A	A				C		C
Approach Vol, veh/h		691			1061						300	
Approach Delay, s/veh		3.4			3.8						21.9	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		37.3		10.9		37.3						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		40.2		13.5		40.2						
Max Q Clear Time (g_c+l1), s		4.6		4.8		7.9						
Green Ext Time (p_c), s		25.4		0.7		23.6						
Intersection Summary												
HCM 2010 Ctrl Delay			6.3									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	 
Volume (veh/h)	165	401	95	17	776	307	199	105	46	283	129	327
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	190	461	75	18	800	213	246	130	45	354	161	272
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.81	0.81	0.81	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	1715	804	59	1087	287	303	314	105	412	644	739
Arrive On Green	0.08	0.34	0.34	0.02	0.27	0.27	0.17	0.12	0.12	0.23	0.18	0.18
Sat Flow, veh/h	3442	5085	1583	3442	4008	1059	1774	2610	869	1774	3539	2787
Grp Volume(v), veh/h	190	461	75	18	676	337	246	87	88	354	161	272
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1676	1774	1770	1709	1774	1770	1393
Q Serve(g_s), s	3.3	4.1	1.5	0.3	11.1	11.3	8.2	2.8	3.0	11.8	2.4	4.9
Cycle Q Clear(g_c), s	3.3	4.1	1.5	0.3	11.1	11.3	8.2	2.8	3.0	11.8	2.4	4.9
Prop In Lane	1.00		1.00	1.00		0.63	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	286	1715	804	59	920	455	303	213	206	412	644	739
V/C Ratio(X)	0.66	0.27	0.09	0.30	0.73	0.74	0.81	0.41	0.43	0.86	0.25	0.37
Avail Cap(c_a), veh/h	319	1715	804	224	1021	505	549	527	509	563	1083	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	14.8	7.8	29.8	20.4	20.4	24.5	25.0	25.1	22.6	21.5	18.4
Incr Delay (d2), s/veh	4.4	0.1	0.0	2.8	2.5	5.2	5.2	1.2	1.4	9.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.9	0.7	0.2	5.5	5.8	4.5	1.4	1.5	6.8	1.2	1.9
LnGrp Delay(d),s/veh	31.7	14.9	7.9	32.7	22.9	25.6	29.8	26.2	26.5	32.3	21.7	18.7
LnGrp LOS	C	B	A	C	C	C	C	C	C	C	C	B
Approach Vol, veh/h	726		1031				421			787		
Approach Delay, s/veh	18.6		23.9				28.4			25.4		
Approach LOS	B		C				C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.8	11.9	5.6	25.2	15.0	15.7	9.6	21.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.5	18.3	4.0	20.2	19.0	18.8	5.7	18.5				
Max Q Clear Time (g_c+1.3), s	13.8	5.0	2.3	6.1	10.2	6.9	5.3	13.3				
Green Ext Time (p_c), s	0.5	2.4	0.0	7.8	0.4	2.3	0.0	3.4				
Intersection Summary												
HCM 2010 Ctrl Delay			23.7									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲	↱ ↲	↲	↰ ↱ ↲	↱ ↲	↲	↰ ↱ ↲	↱ ↲	↲	↰ ↱ ↲	↱ ↲	↲
Volume (veh/h)	20	512	221	81	793	29	156	11	78	34	38	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	26	656	206	89	871	21	168	12	62	46	51	74
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.91	0.91	0.91	0.93	0.93	0.93	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	1136	351	112	1705	41	251	264	224	218	85	123
Arrive On Green	0.02	0.29	0.29	0.06	0.33	0.33	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1774	3853	1190	1774	5108	123	1774	1863	1583	1774	688	998
Grp Volume(v), veh/h	26	576	286	89	578	314	168	12	62	46	0	125
Grp Sat Flow(s),veh/h/ln	1774	1695	1653	1774	1695	1841	1774	1863	1583	1774	0	1687
Q Serve(g_s), s	0.7	6.9	7.0	2.4	6.5	6.5	4.3	0.3	1.7	1.1	0.0	3.4
Cycle Q Clear(g_c), s	0.7	6.9	7.0	2.4	6.5	6.5	4.3	0.3	1.7	1.1	0.0	3.4
Prop In Lane	1.00		0.72	1.00		0.07	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	43	1000	487	112	1132	615	251	264	224	218	0	207
V/C Ratio(X)	0.60	0.58	0.59	0.79	0.51	0.51	0.67	0.05	0.28	0.21	0.00	0.60
Avail Cap(c_a), veh/h	149	1136	554	149	1136	617	595	624	531	595	0	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	14.3	14.4	22.1	12.8	12.8	19.4	17.7	18.3	18.8	0.0	19.8
Incr Delay (d2), s/veh	12.6	0.6	1.3	18.9	0.4	0.7	3.0	0.1	0.7	0.5	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.3	3.4	1.7	3.1	3.4	2.3	0.1	0.8	0.6	0.0	1.7
LnGrp Delay(d),s/veh	35.6	14.8	15.6	40.9	13.2	13.5	22.5	17.8	19.0	19.3	0.0	22.6
LnGrp LOS	D	B	B	D	B	B	C	B	B	B		C
Approach Vol, veh/h		888			981			242			171	
Approach Delay, s/veh		15.7			15.8			21.3			21.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.3	7.5	18.6		10.4	5.7	20.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.0	4.0	16.0		16.0	4.0	16.0				
Max Q Clear Time (g_c+I1), s		6.3	4.4	9.0		5.4	2.7	8.5				
Green Ext Time (p_c), s		0.5	0.0	5.0		0.5	0.0	5.3				
Intersection Summary												
HCM 2010 Ctrl Delay			16.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑		↰	↑	↱	↰	↑	
Volume (veh/h)	37	456	281	145	577	4	351	15	100	6	10	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	51	633	307	193	769	5	433	19	98	9	15	94
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.72	0.72	0.72	0.75	0.75	0.75	0.81	0.81	0.81	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	1428	445	300	1709	11	563	505	430	17	26	163
Arrive On Green	0.04	0.28	0.28	0.09	0.33	0.33	0.16	0.27	0.27	0.01	0.12	0.12
Sat Flow, veh/h	1774	5085	1583	3442	5213	34	3442	1863	1583	1774	222	1394
Grp Volume(v), veh/h	51	633	307	193	500	274	433	19	98	9	0	109
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1857	1721	1863	1583	1774	0	1617
Q Serve(g_s), s	1.5	5.2	8.9	2.8	6.0	6.0	6.2	0.4	2.5	0.3	0.0	3.3
Cycle Q Clear(g_c), s	1.5	5.2	8.9	2.8	6.0	6.0	6.2	0.4	2.5	0.3	0.0	3.3
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	71	1428	445	300	1112	609	563	505	430	17	0	189
V/C Ratio(X)	0.71	0.44	0.69	0.64	0.45	0.45	0.77	0.04	0.23	0.54	0.00	0.58
Avail Cap(c_a), veh/h	142	1587	494	316	1112	609	638	810	689	138	0	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	15.1	16.4	22.6	13.6	13.6	20.5	13.7	14.5	25.3	0.0	21.4
Incr Delay (d2), s/veh	12.4	0.2	3.6	4.1	0.3	0.5	5.0	0.0	0.3	24.6	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.5	4.3	1.5	2.8	3.1	3.3	0.2	1.1	0.2	0.0	1.6
LnGrp Delay(d),s/veh	36.7	15.4	20.0	26.7	13.9	14.1	25.5	13.8	14.8	49.8	0.0	24.2
LnGrp LOS	D	B	C	C	B	B	C	B	B	D		C
Approach Vol, veh/h	991			967			550			118		
Approach Delay, s/veh	17.9			16.5			23.2			26.1		
Approach LOS	B			B			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	18.4	9.0	18.9	12.9	10.5	6.6	21.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	22.3	4.7	16.0	9.5	16.8	4.1	16.6				
Max Q Clear Time (g_c+I), s	12.3	4.5	4.8	10.9	8.2	5.3	3.5	8.0				
Green Ext Time (p_c), s	0.0	0.9	0.0	3.5	0.2	0.7	0.0	5.7				
Intersection Summary												
HCM 2010 Ctrl Delay	18.9											
HCM 2010 LOS	B											

Intersection																
Intersection Delay, s/veh 8.6																
Intersection LOS A																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	50	10	37	0	3	5	1	0	59	32	3	0	2	49	106
Peak Hour Factor	0.95	0.71	0.71	0.71	0.95	0.56	0.56	0.56	0.95	0.81	0.81	0.81	0.95	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	14	52	0	5	9	2	0	73	40	4	0	3	64	139
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	8.7	8.6	9	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	55%	0%	4%	0%
Vol Thru, %	0%	91%	0%	100%	0%	45%	71%	96%	0%
Vol Right, %	0%	9%	0%	0%	100%	0%	29%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	35	50	10	37	6	4	51	106
LT Vol	59	0	50	0	0	3	0	2	0
Through Vol	0	32	0	10	0	3	3	49	0
RT Vol	0	3	0	0	37	0	1	0	106
Lane Flow Rate	73	43	70	14	52	10	6	67	139
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.118	0.064	0.116	0.021	0.068	0.016	0.01	0.098	0.175
Departure Headway (Hd)	5.853	5.292	5.938	5.436	4.732	5.973	5.496	5.248	4.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	611	675	602	657	754	597	648	682	791
Service Time	3.6	3.039	3.687	3.184	2.48	3.735	3.258	2.986	2.265
HCM Lane V/C Ratio	0.119	0.064	0.116	0.021	0.069	0.017	0.009	0.098	0.176
HCM Control Delay	9.4	8.4	9.5	8.3	7.8	8.8	8.3	8.6	8.2
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.4	0.1	0.2	0	0	0.3	0.6

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	95	29	177	81	37	91	409	224	74	266	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	62	108	22	192	88	29	107	481	193	80	289	66
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	155	211	429	167	55	226	706	282	100	794	178
Arrive On Green	0.13	0.13	0.13	0.12	0.12	0.12	0.07	0.29	0.29	0.06	0.28	0.28
Sat Flow, veh/h	667	1162	1583	3442	1342	442	3442	2473	986	1774	2872	646
Grp Volume(v), veh/h	170	0	22	192	0	117	107	343	331	80	176	179
Grp Sat Flow(s),veh/h/ln	1829	0	1583	1721	0	1785	1721	1770	1689	1774	1770	1749
Q Serve(g_s), s	4.0	0.0	0.5	2.3	0.0	2.8	1.3	7.7	7.8	2.0	3.6	3.7
Cycle Q Clear(g_c), s	4.0	0.0	0.5	2.3	0.0	2.8	1.3	7.7	7.8	2.0	3.6	3.7
Prop In Lane	0.36		1.00	1.00		0.25	1.00		0.58	1.00		0.37
Lane Grp Cap(c), veh/h	244	0	211	429	0	222	226	505	482	100	489	483
V/C Ratio(X)	0.70	0.00	0.10	0.45	0.00	0.53	0.47	0.68	0.69	0.80	0.36	0.37
Avail Cap(c_a), veh/h	651	0	563	1224	0	635	306	629	601	158	629	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	17.1	18.3	0.0	18.5	20.3	14.2	14.3	21.0	13.1	13.1
Incr Delay (d2), s/veh	3.6	0.0	0.2	0.7	0.0	1.9	1.5	2.1	2.4	14.3	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.3	1.1	0.0	1.5	0.7	4.0	3.9	1.4	1.8	1.8
LnGrp Delay(d),s/veh	22.2	0.0	17.3	19.0	0.0	20.4	21.8	16.4	16.6	35.3	13.5	13.6
LnGrp LOS	C		B	B		C	C	B	B	D	B	B
Approach Vol, veh/h	192		309			781			435			
Approach Delay, s/veh	21.6		19.5			17.2			17.6			
Approach LOS	C		B			B			B			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	17.3		10.5	7.4	16.9		10.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.0	16.0		16.0	4.0	16.0		16.0				
Max Q Clear Time (g_c+14), s	9.8	9.8		6.0	3.3	5.7		4.8				
Green Ext Time (p_c), s	0.0	3.0		0.6	0.0	4.3		1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			18.2									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	103	32	57	77	50	39	239	212	136	204	111
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	91	126	27	81	110	57	53	327	208	149	224	89
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.70	0.70	0.70	0.73	0.73	0.73	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	256	218	104	245	208	78	553	344	193	820	316
Arrive On Green	0.06	0.14	0.14	0.06	0.13	0.13	0.04	0.26	0.26	0.11	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2097	1305	1774	2499	963
Grp Volume(v), veh/h	91	126	27	81	110	57	53	275	260	149	157	156
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1632	1774	1770	1693
Q Serve(g_s), s	2.1	2.6	0.6	1.9	2.3	1.4	1.2	5.6	5.8	3.4	2.7	2.9
Cycle Q Clear(g_c), s	2.1	2.6	0.6	1.9	2.3	1.4	1.2	5.6	5.8	3.4	2.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.80	1.00		0.57
Lane Grp Cap(c), veh/h	115	256	218	104	245	208	78	467	431	193	581	556
V/C Ratio(X)	0.79	0.49	0.12	0.78	0.45	0.27	0.68	0.59	0.60	0.77	0.27	0.28
Avail Cap(c_a), veh/h	259	755	642	221	715	607	264	696	642	362	794	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	16.6	15.8	19.4	16.7	16.3	19.6	13.4	13.4	18.1	10.3	10.4
Incr Delay (d2), s/veh	11.6	1.5	0.3	12.0	1.3	0.7	9.9	1.2	1.4	6.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.4	0.3	1.2	1.2	0.6	0.8	2.9	2.8	2.0	1.3	1.3
LnGrp Delay(d),s/veh	30.8	18.1	16.0	31.4	18.0	17.0	29.5	14.6	14.8	24.6	10.6	10.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h	244				248		588				462	
Approach Delay, s/veh	22.6				22.1		16.0				15.1	
Approach LOS	C				C		B				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	15.5	6.9	10.2	6.3	18.2	7.2	10.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.5	16.4	5.2	16.9	6.2	18.7	6.1	16.0				
Max Q Clear Time (g_c+I), s	15.4	7.8	3.9	4.6	3.2	4.9	4.1	4.3				
Green Ext Time (p_c), s	0.1	3.2	0.0	1.2	0.0	4.2	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			17.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	196	1241	249	64	1212	236	491	759	167	204	577	220
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	213	1349	206	70	1317	192	571	883	142	237	671	186
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	280	1984	618	116	1535	224	605	1238	554	296	712	197
Arrive On Green	0.08	0.39	0.39	0.03	0.34	0.34	0.18	0.35	0.35	0.09	0.26	0.26
Sat Flow, veh/h	3442	5085	1583	3442	4484	654	3442	3539	1583	3442	2740	759
Grp Volume(v), veh/h	213	1349	206	70	996	513	571	883	142	237	433	424
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1747	1721	1770	1583	1721	1770	1729
Q Serve(g_s), s	6.9	25.1	10.4	2.3	31.1	31.1	18.7	24.6	7.3	7.7	27.3	27.4
Cycle Q Clear(g_c), s	6.9	25.1	10.4	2.3	31.1	31.1	18.7	24.6	7.3	7.7	27.3	27.4
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	280	1984	618	116	1161	598	605	1238	554	296	460	450
V/C Ratio(X)	0.76	0.68	0.33	0.61	0.86	0.86	0.94	0.71	0.26	0.80	0.94	0.94
Avail Cap(c_a), veh/h	484	2188	681	151	1161	598	605	1238	554	332	466	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	28.8	24.3	54.3	34.9	34.9	46.4	32.1	26.4	51.1	41.3	41.3
Incr Delay (d2), s/veh	4.2	0.8	0.3	5.0	6.6	11.9	23.7	2.0	0.2	11.8	27.4	28.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	11.9	4.6	1.2	15.6	16.9	10.9	12.4	3.2	4.1	16.9	16.6
LnGrp Delay(d),s/veh	55.5	29.6	24.7	59.3	41.4	46.8	70.1	34.0	26.7	62.9	68.7	69.3
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h	1768					1579		1596		1094		
Approach Delay, s/veh	32.1					44.0		46.3		67.7		
Approach LOS	C					D		D		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	48.4	24.0	33.6	13.3	43.0	13.8	43.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	49.0	20.0	30.0	16.0	38.0	11.0	39.0				
Max Q Clear Time (g_c+14.3)	14.3	27.1	20.7	29.4	8.9	33.1	9.7	26.6				
Green Ext Time (p_c), s	0.0	17.4	0.0	0.3	0.4	4.6	0.1	8.4				
Intersection Summary												
HCM 2010 Ctrl Delay			45.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	367	888	333	199	900	250	447	785	375	131	375	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	437	1057	277	207	938	166	491	863	280	142	408	88
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.84	0.84	0.84	0.96	0.96	0.96	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	441	1465	456	330	1302	405	764	1047	1092	220	702	218
Arrive On Green	0.13	0.29	0.29	0.10	0.26	0.26	0.22	0.30	0.30	0.06	0.14	0.14
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	437	1057	277	207	938	166	491	863	280	142	408	88
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	7.9	11.7	9.4	3.6	10.5	4.0	8.1	14.2	0.9	2.5	4.7	3.2
Cycle Q Clear(g_c), s	7.9	11.7	9.4	3.6	10.5	4.0	8.1	14.2	0.9	2.5	4.7	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	441	1465	456	330	1302	405	764	1047	1092	220	702	218
V/C Ratio(X)	0.99	0.72	0.61	0.63	0.72	0.41	0.64	0.82	0.26	0.64	0.58	0.40
Avail Cap(c_a), veh/h	441	1465	456	330	1302	405	764	1189	1204	220	1302	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	20.0	19.2	27.2	21.2	10.6	22.1	20.5	4.9	28.6	25.2	24.6
Incr Delay (d2), s/veh	40.6	3.1	5.9	3.7	3.5	3.0	1.8	4.3	0.1	6.3	0.8	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	5.8	4.9	1.9	5.3	2.5	4.0	7.5	0.9	1.4	2.2	1.5
LnGrp Delay(d),s/veh	67.8	23.1	25.1	30.9	24.7	13.7	23.9	24.8	5.0	34.9	26.0	25.8
LnGrp LOS	E	C	C	C	C	B	C	C	A	C	C	C
Approach Vol, veh/h	1771				1311		1634				638	
Approach Delay, s/veh	34.5				24.3		21.2				27.9	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	22.0	17.9	12.6	12.0	20.0	8.0	22.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	9.0	16.0	8.0	16.0	4.0	21.0				
Max Q Clear Time (g_c+I), s	15.6	13.7	10.1	6.7	9.9	12.5	4.5	16.2				
Green Ext Time (p_c), s	0.1	2.7	0.0	1.9	0.0	2.0	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			27.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 	  	 	  	
Traffic Volume (veh/h)	367	888	333	199	900	250	447	785	375	131	375	111
Future Volume (veh/h)	367	888	333	199	900	250	447	785	375	131	375	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	437	1057	277	207	938	166	491	863	280	142	408	88
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.84	0.84	0.84	0.96	0.96	0.96	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	441	1465	456	330	1302	405	764	1047	1092	220	702	218
Arrive On Green	0.13	0.29	0.29	0.10	0.26	0.26	0.22	0.30	0.30	0.06	0.14	0.14
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	437	1057	277	207	938	166	491	863	280	142	408	88
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	7.9	11.7	9.4	3.6	10.5	4.0	8.1	14.2	0.9	2.5	4.7	3.2
Cycle Q Clear(g_c), s	7.9	11.7	9.4	3.6	10.5	4.0	8.1	14.2	0.9	2.5	4.7	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	441	1465	456	330	1302	405	764	1047	1092	220	702	218
V/C Ratio(X)	0.99	0.72	0.61	0.63	0.72	0.41	0.64	0.82	0.26	0.64	0.58	0.40
Avail Cap(c_a), veh/h	441	1465	456	330	1302	405	764	1189	1204	220	1302	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	20.0	19.2	27.2	21.2	10.6	22.1	20.5	4.9	28.6	25.2	24.6
Incr Delay (d2), s/veh	40.6	3.1	5.9	3.7	3.5	3.0	1.8	4.3	0.1	6.3	0.8	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	5.8	4.9	1.9	5.3	2.5	4.0	7.5	0.9	1.4	2.2	1.5
LnGrp Delay(d),s/veh	67.8	23.1	25.1	30.9	24.7	13.7	23.9	24.8	5.0	34.9	26.0	25.8
LnGrp LOS	E	C	C	C	C	B	C	C	A	C	C	C
Approach Vol, veh/h		1771			1311			1634			638	
Approach Delay, s/veh		34.5			24.3			21.2			27.9	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	22.0	17.9	12.6	12.0	20.0	8.0	22.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	9.0	16.0	8.0	16.0	4.0	21.0				
Max Q Clear Time (g_c+1.5), s	13.7	13.7	10.1	6.7	9.9	12.5	4.5	16.2				
Green Ext Time (p_c), s	0.1	2.7	0.0	1.9	0.0	2.0	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			27.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary 25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	1447	42	0	1178	112	0	0	0	232	0	42
Future Volume (veh/h)	0	1447	42	0	1178	112	0	0	0	232	0	42
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1743	39	0	1253	87				267	0	37
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94				0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3604	1122	0	3604	1304				395	0	182
Arrive On Green	0.00	0.71	0.71	0.00	0.23	0.23				0.11	0.00	0.11
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	1743	39	0	1253	87				267	0	37
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	9.7	0.5	0.0	13.2	1.7				4.8	0.0	1.4
Cycle Q Clear(g_c), s	0.0	9.7	0.5	0.0	13.2	1.7				4.8	0.0	1.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3604	1122	0	3604	1304				395	0	182
V/C Ratio(X)	0.00	0.48	0.03	0.00	0.35	0.07				0.68	0.00	0.20
Avail Cap(c_a), veh/h	0	3604	1122	0	3604	1304				726	0	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.93	0.93				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.1	2.8	0.0	12.2	3.0				27.2	0.0	25.7
Incr Delay (d2), s/veh	0.0	0.5	0.1	0.0	0.2	0.1				2.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.2	0.0	6.3	1.2				2.4	0.0	0.6
LnGrp Delay(d),s/veh	0.0	4.6	2.8	0.0	12.4	3.1				29.4	0.0	26.3
LnGrp LOS		A	A		B	A				C		C
Approach Vol, veh/h	1782			1340						304		
Approach Delay, s/veh	4.6			11.8						29.0		
Approach LOS	A			B						C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	51.2		12.8		51.2							
Change Period (Y+Rc), s	5.8		5.5		5.8							
Max Green Setting (Gmax), s	39.2		13.5		39.2							
Max Q Clear Time (g_c+l1), s	11.7		6.8		15.2							
Green Ext Time (p_c), s	26.7		0.6		23.5							
Intersection Summary												
HCM 2010 Ctrl Delay	9.6											
HCM 2010 LOS	A											

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  	 	 	  		 	 		 	 	
Volume (veh/h)	331	800	281	184	794	70	0	331	191	48	239	191
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	348	842	170	207	892	68	0	376	149	53	263	144
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	434	1298	711	294	1033	79	5	1382	753	124	1728	973
Arrive On Green	0.13	0.26	0.26	0.09	0.21	0.21	0.00	0.39	0.39	0.04	0.49	0.49
Sat Flow, veh/h	3442	5085	2787	3442	4822	367	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	348	842	170	207	626	334	0	376	149	53	263	144
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1798	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	7.2	10.8	3.5	4.3	13.0	13.1	0.0	5.3	4.0	1.1	3.0	2.8
Cycle Q Clear(g_c), s	7.2	10.8	3.5	4.3	13.0	13.1	0.0	5.3	4.0	1.1	3.0	2.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	434	1298	711	294	727	385	5	1382	753	124	1728	973
V/C Ratio(X)	0.80	0.65	0.24	0.70	0.86	0.87	0.00	0.27	0.20	0.43	0.15	0.15
Avail Cap(c_a), veh/h	448	1298	711	335	743	394	731	1382	753	189	1728	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	24.3	21.6	32.5	27.6	27.7	0.0	15.2	11.1	34.4	10.3	6.0
Incr Delay (d2), s/veh	9.8	1.1	0.2	5.6	10.0	17.7	0.0	0.5	0.6	2.3	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.1	1.4	2.3	7.1	8.4	0.0	2.7	1.8	0.6	1.5	1.3
LnGrp Delay(d),s/veh	40.8	25.4	21.7	38.1	37.7	45.3	0.0	15.7	11.7	36.7	10.5	6.3
LnGrp LOS	D	C	C	D	D	D		B	B	D	B	A
Approach Vol, veh/h	1360				1167				525		460	
Approach Delay, s/veh	28.9				39.9				14.5		12.2	
Approach LOS	C				D				B		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	32.5	10.7	22.6	0.0	39.6	13.7	19.6				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	4.0	28.5	7.1	18.4	15.5	17.0	9.5	16.0				
Max Q Clear Time (g_c+I), s	13.1	7.3	6.3	12.8	0.0	5.0	9.2	15.1				
Green Ext Time (p_c), s	0.0	4.9	0.1	4.4	0.0	3.9	0.0	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			28.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

8/10/2015

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	486	526	859	93	38	178		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	572	619	924	89	51	187		
Adj No. of Lanes	2	3	3	0	1	2		
Peak Hour Factor	0.85	0.85	0.93	0.93	0.74	0.74		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	797	3451	1611	155	195	349		
Arrive On Green	0.23	0.68	0.34	0.34	0.11	0.11		
Sat Flow, veh/h	3442	5253	4887	453	1774	3167		
Grp Volume(v), veh/h	572	619	663	350	51	187		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1783	1774	1583		
Q Serve(g_s), s	6.5	1.9	6.8	6.9	1.1	2.4		
Cycle Q Clear(g_c), s	6.5	1.9	6.8	6.9	1.1	2.4		
Prop In Lane	1.00			0.25	1.00	1.00		
Lane Grp Cap(c), veh/h	797	3451	1157	608	195	349		
V/C Ratio(X)	0.72	0.18	0.57	0.58	0.26	0.54		
Avail Cap(c_a), veh/h	1333	4597	1393	732	666	1190		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	15.1	2.5	11.5	11.5	17.4	17.9		
Incr Delay (d2), s/veh	1.2	0.0	0.5	0.9	0.7	1.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.2	0.9	3.2	3.5	0.6	2.1		
LnGrp Delay(d),s/veh	16.3	2.5	11.9	12.4	18.1	19.2		
LnGrp LOS	B	A	B	B	B	B		
Approach Vol, veh/h		1191	1013		238			
Approach Delay, s/veh		9.1	12.1		19.0			
Approach LOS		A	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		33.4		9.2	14.4	19.0		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		38.5		16.0	16.5	17.5		
Max Q Clear Time (g_c+l1), s		3.9		4.4	8.5	8.9		
Green Ext Time (p_c), s		12.7		0.6	1.4	5.7		
Intersection Summary								
HCM 2010 Ctrl Delay			11.3					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

8/4/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	127	383	800	159	42	23
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	169	511	930	185	67	37
Adj No. of Lanes	1	3	3	0	1	1
Peak Hour Factor	0.75	0.75	0.86	0.86	0.63	0.63
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	265	3349	1664	330	186	166
Arrive On Green	0.15	0.66	0.39	0.39	0.11	0.11
Sat Flow, veh/h	1774	5253	4427	844	1774	1583
Grp Volume(v), veh/h	169	511	740	375	67	37
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1714	1774	1583
Q Serve(g_s), s	3.4	1.5	6.5	6.5	1.3	0.8
Cycle Q Clear(g_c), s	3.4	1.5	6.5	6.5	1.3	0.8
Prop In Lane	1.00			0.49	1.00	1.00
Lane Grp Cap(c), veh/h	265	3349	1324	669	186	166
V/C Ratio(X)	0.64	0.15	0.56	0.56	0.36	0.22
Avail Cap(c_a), veh/h	750	5223	1648	833	788	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	2.5	9.0	9.1	15.8	15.6
Incr Delay (d2), s/veh	2.5	0.0	0.4	0.7	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.7	3.0	3.2	0.7	0.8
LnGrp Delay(d),s/veh	17.7	2.5	9.4	9.8	17.0	16.3
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		680	1115		104	
Approach Delay, s/veh		6.3	9.5		16.7	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				29.6		8.5	10.2	19.4
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				39.1		16.9	16.1	18.5
Max Q Clear Time (g_c+I1), s				3.5		3.3	5.4	8.5
Green Ext Time (p_c), s				12.9		0.2	0.3	6.4

Intersection Summary								
HCM 2010 Ctrl Delay			8.8					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	224	114	180	137	441	86	365	471	77	37	333	270
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	257	131	138	176	565	97	456	589	84	47	427	256
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.87	0.87	0.87	0.78	0.78	0.78	0.80	0.80	0.80	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	346	1024	478	289	1450	452	568	1095	490	125	639	286
Arrive On Green	0.10	0.30	0.30	0.08	0.29	0.29	0.17	0.31	0.31	0.04	0.18	0.18
Sat Flow, veh/h	3442	3390	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	257	131	138	176	565	97	456	589	84	47	427	256
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	4.3	1.7	4.0	2.9	5.3	2.8	7.6	8.2	1.6	0.8	6.7	6.7
Cycle Q Clear(g_c), s	4.3	1.7	4.0	2.9	5.3	2.8	7.6	8.2	1.6	0.8	6.7	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	1024	478	289	1450	452	568	1095	490	125	639	286
V/C Ratio(X)	0.74	0.13	0.29	0.61	0.39	0.21	0.80	0.54	0.17	0.38	0.67	0.90
Avail Cap(c_a), veh/h	346	1024	478	289	1450	452	577	1306	584	231	950	425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	15.1	15.9	26.4	17.1	16.2	23.9	17.1	7.0	28.1	22.8	12.1
Incr Delay (d2), s/veh	8.3	0.3	1.5	3.7	0.8	1.1	7.9	0.4	0.2	1.9	1.2	15.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.8	1.9	1.5	2.6	1.3	4.2	4.1	1.0	0.4	3.4	4.6
LnGrp Delay(d),s/veh	34.3	15.4	17.4	30.1	17.9	17.3	31.9	17.5	7.2	29.9	24.0	27.4
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	C	C
Approach Vol, veh/h	526					838		1129		730		
Approach Delay, s/veh	25.2					20.4		22.5		25.6		
Approach LOS	C					C		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	22.0	13.8	14.8	10.0	21.0	6.2	22.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	10.0	16.0	6.0	17.0	4.0	22.0				
Max Q Clear Time (g_c+I), s	14.5	6.0	9.6	8.7	6.3	7.3	2.8	10.2				
Green Ext Time (p_c), s	0.0	1.1	0.2	2.0	0.0	3.1	0.0	4.4				
Intersection Summary												
HCM 2010 Ctrl Delay			23.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	202	426	226	83	917	76	275	229	39	60	168	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	273	576	224	105	1161	71	309	257	33	65	181	133
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.74	0.74	0.74	0.79	0.79	0.79	0.89	0.89	0.89	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	1967	613	261	1771	551	454	919	406	162	487	586
Arrive On Green	0.11	0.39	0.39	0.08	0.35	0.35	0.13	0.18	0.18	0.05	0.10	0.10
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	273	576	224	105	1161	71	309	257	33	65	181	133
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	3.9	4.0	5.2	1.5	10.0	1.6	4.4	2.3	0.1	0.9	1.7	1.1
Cycle Q Clear(g_c), s	3.9	4.0	5.2	1.5	10.0	1.6	4.4	2.3	0.1	0.9	1.7	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	1967	613	261	1771	551	454	919	406	162	487	586
V/C Ratio(X)	0.69	0.29	0.37	0.40	0.66	0.13	0.68	0.28	0.08	0.40	0.37	0.23
Avail Cap(c_a), veh/h	466	1967	613	333	1771	551	533	1967	733	266	1574	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	11.0	11.3	22.8	14.2	11.5	21.4	18.3	6.1	23.9	21.9	6.1
Incr Delay (d2), s/veh	3.5	0.4	1.7	1.0	1.9	0.5	2.8	0.2	0.1	1.6	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.9	2.6	0.8	4.9	0.8	2.3	1.1	0.2	0.5	0.8	0.6
LnGrp Delay(d),s/veh	25.5	11.3	13.0	23.8	16.1	12.0	24.2	18.4	6.2	25.5	22.4	6.3
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	C	A
Approach Vol, veh/h	1073				1337				599		379	
Approach Delay, s/veh	15.3				16.5				20.7		17.3	
Approach LOS	B				B				C		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	24.0	10.8	8.9	9.9	22.0	6.4	13.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	20.0	8.0	16.0	7.0	18.0	4.0	20.0				
Max Q Clear Time (g_c+I), s	13.5	7.2	6.4	3.7	5.9	12.0	2.9	4.3				
Green Ext Time (p_c), s	1.1	3.5	0.5	1.2	0.1	3.7	0.0	2.4				
Intersection Summary												
HCM 2010 Ctrl Delay			17.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Volume (veh/h)	272	144	20	26	310	83	40	172	29	37	172	395
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	340	180	19	35	419	98	44	191	21	39	183	292
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.80	0.80	0.80	0.74	0.74	0.74	0.90	0.90	0.90	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	491	2229	229	76	1257	562	124	769	82	114	572	482
Arrive On Green	0.14	0.48	0.48	0.02	0.36	0.36	0.04	0.16	0.16	0.03	0.16	0.16
Sat Flow, veh/h	3442	4685	482	3442	3539	1583	3442	4665	500	3442	3539	1583
Grp Volume(v), veh/h	340	129	70	35	419	98	44	137	75	39	183	292
Grp Sat Flow(s),veh/h/ln	1721	1695	1778	1721	1770	1583	1721	1695	1775	1721	1770	1583
Q Serve(g_s), s	4.9	1.1	1.1	0.5	4.6	2.2	0.7	1.9	1.9	0.6	2.4	5.1
Cycle Q Clear(g_c), s	4.9	1.1	1.1	0.5	4.6	2.2	0.7	1.9	1.9	0.6	2.4	5.1
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	491	1612	845	76	1257	562	124	559	292	114	572	482
V/C Ratio(X)	0.69	0.08	0.08	0.46	0.33	0.17	0.35	0.25	0.25	0.34	0.32	0.61
Avail Cap(c_a), veh/h	851	1612	845	262	1257	562	262	1032	540	262	1077	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	7.5	7.5	25.4	12.4	11.6	24.7	19.1	19.1	24.9	19.5	6.4
Incr Delay (d2), s/veh	1.8	0.1	0.2	4.3	0.7	0.7	1.7	0.2	0.5	1.8	0.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.5	0.6	0.3	2.3	1.1	0.3	0.9	1.0	0.3	1.2	2.6
LnGrp Delay(d),s/veh	23.2	7.6	7.7	29.6	13.1	12.3	26.4	19.3	19.6	26.6	19.8	7.6
LnGrp LOS	C	A	A	C	B	B	C	B	B	C	B	A
Approach Vol, veh/h		539			552			256			514	
Approach Delay, s/veh		17.5			14.0			20.6			13.4	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	29.0	5.9	12.5	11.5	22.7	5.7	12.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	25.0	4.0	16.0	13.0	16.0	4.0	16.0				
Max Q Clear Time (g_c+I), s	12.5	3.1	2.7	7.1	6.9	6.6	2.6	3.9				
Green Ext Time (p_c), s	0.0	1.0	0.2	1.4	0.6	2.0	0.0	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			15.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 	 		 		  		
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3230	4772	0	5	5	4	3	5	0	5	8	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	5253	0	3442	3539	2787	1774	3632	0	3442	5253	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1721	1770	1393	1774	1770	0	1721	1695	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	3230	4772	0	5	5	4	3	5	0	5	8	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	3230	4772	0	318	1035	815	164	980	0	318	1408	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS												
Approach Vol, veh/h	0			0			0			0		
Approach Delay, s/veh	0.0			0.0			0.0			0.0		
Approach LOS												
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	65.0	0.0	0.0	65.0	0.0	0.0	0.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	0.0	19.0	6.0	18.0	6.0	19.0	6.0	18.0				
Max Q Clear Time (g_c+I), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	0.0											
HCM 2010 LOS	A											

Intersection			
Intersection Delay, s/veh	3.3		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	16	9
Demand Flow Rate, veh/h	0	16	9
Vehicles Circulating, veh/h	16	0	0
Vehicles Exiting, veh/h	0	9	16
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	3.4	3.3
Approach LOS	-	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	0	16	9
Cap Entry Lane, veh/h	1112	1130	1130
Entry HV Adj Factor	1.000	0.980	0.980
Flow Entry, veh/h	0	16	9
Cap Entry, veh/h	1112	1108	1108
V/C Ratio	0.000	0.014	0.008
Control Delay, s/veh	3.2	3.4	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection

Int Delay, s/veh 0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	15	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	16	0	0	9

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	25	16	0
Stage 1	16	-	-
Stage 2	9	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	991	1063	1602
Stage 1	1007	-	-
Stage 2	1014	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	991	1063	1602
Mov Cap-2 Maneuver	991	-	-
Stage 1	1007	-	-
Stage 2	1014	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1602	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	0	-
HCM Lane LOS	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection			
Intersection Delay, s/veh	3.3		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	16	9
Demand Flow Rate, veh/h	0	16	9
Vehicles Circulating, veh/h	16	0	0
Vehicles Exiting, veh/h	0	9	16
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	3.4	3.3
Approach LOS	-	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	0	16	9
Cap Entry Lane, veh/h	1112	1130	1130
Entry HV Adj Factor	1.000	0.980	0.980
Flow Entry, veh/h	0	16	9
Cap Entry, veh/h	1112	1108	1108
V/C Ratio	0.000	0.014	0.008
Control Delay, s/veh	3.2	3.4	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection				
Intersection Delay, s/veh	3.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	0	16	9
Demand Flow Rate, veh/h	0	0	16	9
Vehicles Circulating, veh/h	9	16	0	0
Vehicles Exiting, veh/h	0	0	9	16
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	3.4	3.3
Approach LOS	-	-	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	0	16	9
Cap Entry Lane, veh/h	1120	1112	1130	1130
Entry HV Adj Factor	1.000	1.000	0.980	0.980
Flow Entry, veh/h	0	0	16	9
Cap Entry, veh/h	1120	1112	1108	1108
V/C Ratio	0.000	0.000	0.014	0.008
Control Delay, s/veh	3.2	3.2	3.4	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection				
Intersection Delay, s/veh	3.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	0	16	9
Demand Flow Rate, veh/h	0	0	16	9
Vehicles Circulating, veh/h	9	16	0	0
Vehicles Exiting, veh/h	0	0	9	16
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	3.4	3.3
Approach LOS	-	-	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	0	16	9
Cap Entry Lane, veh/h	1120	1112	1130	1130
Entry HV Adj Factor	1.000	1.000	0.980	0.980
Flow Entry, veh/h	0	0	16	9
Cap Entry, veh/h	1120	1112	1108	1108
V/C Ratio	0.000	0.000	0.014	0.008
Control Delay, s/veh	3.2	3.2	3.4	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	15	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	9	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	25	9	9	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	991	1073	1611	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	991	1073	1611	-	-	-
Mov Cap-2 Maneuver	991	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1611	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection				
Intersection Delay, s/veh	3.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	0	16	9
Demand Flow Rate, veh/h	0	0	16	9
Vehicles Circulating, veh/h	9	16	0	0
Vehicles Exiting, veh/h	0	0	9	16
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	3.4	3.3
Approach LOS	-	-	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	0	16	9
Cap Entry Lane, veh/h	1120	1112	1130	1130
Entry HV Adj Factor	1.000	1.000	0.980	0.980
Flow Entry, veh/h	0	0	16	9
Cap Entry, veh/h	1120	1112	1108	1108
V/C Ratio	0.000	0.000	0.014	0.008
Control Delay, s/veh	3.2	3.2	3.4	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	15	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	9	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	25	9	9 0
Stage 1	9	-	- -
Stage 2	16	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	991	1073	1611 -
Stage 1	1014	-	- -
Stage 2	1007	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	991	1073	1611 -
Mov Cap-2 Maneuver	991	-	- -
Stage 1	1014	-	- -
Stage 2	1007	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1611	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection									
Intersection Delay, s/veh	6.9								
Intersection LOS	A								
Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Vol, veh/h	0	15	0	0	0	0	0	0	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	16	0	0	0	0	0	0	9
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.2	0	6.4
HCM LOS	A	-	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	0%	100%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	15	9
LT Vol	0	15	0
Through Vol	0	0	0
RT Vol	0	0	9
Lane Flow Rate	0	16	9
Geometry Grp	1	1	1
Degree of Util (X)	0	0.018	0.009
Departure Headway (Hd)	3.968	4.15	3.361
Convergence, Y/N	Yes	Yes	Yes
Cap	0	867	1069
Service Time	1.977	2.152	1.369
HCM Lane V/C Ratio	0	0.018	0.008
HCM Control Delay	7	7.2	6.4
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.1	0

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

8/4/2015

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	8	2	3	2	3	151	2	270	9	283	601	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	41	41	41	87	87	87	88	88	88	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	5	7	2	3	174	2	307	10	292	620	15
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1529	1533	627	1533	1535	312	635	0	0	317	0	0
Stage 1	1211	1211	-	316	316	-	-	-	-	-	-	-
Stage 2	318	322	-	1217	1219	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	96	116	484	95	116	728	948	-	-	1243	-	-
Stage 1	223	255	-	695	655	-	-	-	-	-	-	-
Stage 2	693	651	-	221	253	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	58	89	484	73	89	728	948	-	-	1243	-	-
Mov Cap-2 Maneuver	58	89	-	73	89	-	-	-	-	-	-	-
Stage 1	223	195	-	694	654	-	-	-	-	-	-	-
Stage 2	524	650	-	162	194	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	79.7			12.8			0.1			2.8		
HCM LOS	F			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	948	-	-	78	82	728	1243	-	-			
HCM Lane V/C Ratio	0.002	-	-	0.407	0.07	0.238	0.235	-	-			
HCM Control Delay (s)	8.8	-	-	79.7	52.2	11.5	8.8	-	-			
HCM Lane LOS	A	-	-	F	F	B	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	1.6	0.2	0.9	0.9	-	-			

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	417	89	5	184	33	50	50	24	54	35	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	19	434	83	6	230	29	60	60	23	64	41	18
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.80	0.80	0.80	0.84	0.84	0.84	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	642	123	12	664	84	245	140	44	278	119	40
Arrive On Green	0.02	0.42	0.42	0.01	0.41	0.41	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1774	1521	291	1774	1622	205	549	840	266	683	714	239
Grp Volume(v), veh/h	19	0	517	6	0	259	143	0	0	123	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1811	1774	0	1827	1655	0	0	1636	0	0
Q Serve(g_s), s	0.4	0.0	7.7	0.1	0.0	3.3	0.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	7.7	0.1	0.0	3.3	2.4	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.16	1.00		0.11	0.42		0.16	0.52		0.15
Lane Grp Cap(c), veh/h	34	0	765	12	0	748	428	0	0	436	0	0
V/C Ratio(X)	0.55	0.00	0.68	0.52	0.00	0.35	0.33	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	218	0	1602	218	0	1616	1007	0	0	990	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.2	0.0	7.8	16.5	0.0	6.8	12.6	0.0	0.0	12.4	0.0	0.0
Incr Delay (d2), s/veh	13.2	0.0	1.1	32.1	0.0	0.3	0.5	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	4.0	0.2	0.0	1.6	1.2	0.0	0.0	1.0	0.0	0.0
LnGrp Delay(d),s/veh	29.4	0.0	8.8	48.6	0.0	7.0	13.0	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	C		A	D		A	B			B		
Approach Vol, veh/h		536			265			143			123	
Approach Delay, s/veh		9.6			8.0			13.0			12.8	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	4.7	18.6		10.0	5.1	18.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.9	4.1	29.5		17.9	4.1	29.5				
Max Q Clear Time (g_c+l1), s		4.4	2.1	9.7		4.0	2.4	5.3				
Green Ext Time (p_c), s		1.1	0.0	4.4		1.1	0.0	4.7				
Intersection Summary												
HCM 2010 Ctrl Delay			10.0									
HCM 2010 LOS			B									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

8/4/2015

Intersection

Int Delay, s/veh 4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	89	8	0	52	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	68	68	25	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	11	0	76	4	0

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	76	0	38
Stage 1	-	-	0
Stage 2	-	-	38
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1523	-	974
Stage 1	-	-	-
Stage 2	-	-	984
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1523	-	899
Mov Cap-2 Maneuver	-	-	899
Stage 1	-	-	-
Stage 2	-	-	984

Approach	WB	NB	SB
HCM Control Delay, s	6.9	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1523	-	899
HCM Lane V/C Ratio	-	-	0.077	-	0.004
HCM Control Delay (s)	-	-	7.6	-	9
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.2	-	0

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

8/4/2015

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	35	1	5	3	5	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	69	69	67	67	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	1	7	4	6	77
Major/Minor	Major1		Minor1		Major2	
Conflicting Flow All	77	0	192	1	1	-
Stage 1	-	-	103	-	-	-
Stage 2	-	-	89	-	-	-
Critical Hdwy	-	-	6.52	6.22	4.12	-
Critical Hdwy Stg 1	-	-	5.52	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	-	-	703	1084	1622	-
Stage 1	-	-	810	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	0	1084	1622	-
Mov Cap-2 Maneuver	-	-	0	-	-	-
Stage 1	-	-	0	-	-	-
Stage 2	-	-	0	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s			8.4		0.5	
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR		
Capacity (veh/h)	-	-	1084	1622	-	
HCM Lane V/C Ratio	-	-	0.011	0.004	-	
HCM Control Delay (s)	-	-	8.4	7.2	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	0	1	0	0	4	5	154	1	1	484	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	50	50	50	85	85	85	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	0	2	0	0	8	6	181	1	1	621	18
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	830	826	629	827	835	182	638	0	0	182	0	0
Stage 1	632	632	-	194	194	-	-	-	-	-	-	-
Stage 2	198	194	-	633	641	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	289	307	482	291	304	861	946	-	-	1393	-	-
Stage 1	468	474	-	808	740	-	-	-	-	-	-	-
Stage 2	804	740	-	468	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	285	305	482	288	302	861	946	-	-	1393	-	-
Mov Cap-2 Maneuver	285	305	-	288	302	-	-	-	-	-	-	-
Stage 1	465	474	-	802	735	-	-	-	-	-	-	-
Stage 2	791	735	-	466	469	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	18.1			9.2			0.3			0		
HCM LOS	C			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	946	-	-	294	861	1393	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.068	0.009	0.001	-	-				
HCM Control Delay (s)	8.8	0	-	18.1	9.2	7.6	0	-				
HCM Lane LOS	A	A	-	C	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-				

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↑	↑		
Traffic Volume (veh/h)	0	485	285	0	174	28		
Future Volume (veh/h)	0	485	285	0	174	28		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	516	324	0	207	21		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.94	0.94	0.88	0.88	0.84	0.84		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1672	1672	0	297	265		
Arrive On Green	0.00	0.47	0.47	0.00	0.17	0.17		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	516	324	0	207	21		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	2.8	1.7	0.0	3.4	0.4		
Cycle Q Clear(g_c), s	0.0	2.8	1.7	0.0	3.4	0.4		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1672	1672	0	297	265		
V/C Ratio(X)	0.00	0.31	0.19	0.00	0.70	0.08		
Avail Cap(c_a), veh/h	0	3410	3410	0	1330	1187		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	5.1	4.8	0.0	12.3	11.0		
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	3.2	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	1.4	0.8	0.0	1.9	0.2		
LnGrp Delay(d),s/veh	0.0	5.3	4.9	0.0	15.5	11.2		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		516	324		228			
Approach Delay, s/veh		5.3	4.9		15.1			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		20.6		10.7		20.6		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		30.2		23.5		30.2		
Max Q Clear Time (g_c+I1), s		4.8		5.4		3.7		
Green Ext Time (p_c), s		10.0		0.6		10.2		
Intersection Summary								
HCM 2010 Ctrl Delay			7.3					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	12	633	293	80	0	0			
Future Volume (veh/h)	12	633	293	80	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	14	719	357	86					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.88	0.88	0.82	0.82					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	15	2875	1915	456					
Arrive On Green	0.01	0.81	0.67	0.67					
Sat Flow, veh/h	1774	3632	2931	675					
Grp Volume(v), veh/h	14	719	221	222					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1744					
Q Serve(g_s), s	0.2	1.5	1.4	1.5					
Cycle Q Clear(g_c), s	0.2	1.5	1.4	1.5					
Prop In Lane	1.00			0.39					
Lane Grp Cap(c), veh/h	15	2875	1194	1176					
V/C Ratio(X)	0.96	0.25	0.19	0.19					
Avail Cap(c_a), veh/h	689	6779	2473	2437					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	15.3	0.7	1.9	1.9					
Incr Delay (d2), s/veh	56.7	0.1	0.2	0.2					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	0.3	0.7	0.7	0.7					
LnGrp Delay(d),s/veh	72.0	0.8	2.0	2.0					
LnGrp LOS	E	A	A	A					
Approach Vol, veh/h		733	443						
Approach Delay, s/veh		2.1	2.0						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		30.9			4.3	26.7			
Change Period (Y+Rc), s		5.8			4.0	5.8			
Max Green Setting (Gmax), s		59.2			12.0	43.2			
Max Q Clear Time (g_c+l1), s		3.5			2.2	3.5			
Green Ext Time (p_c), s		19.7			0.0	17.4			
Intersection Summary									
HCM 2010 Ctrl Delay			2.1						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

8/4/2015



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↵	↑↑		↵↵		
Volume (veh/h)	1382	268	471	910	0	1690		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1470	211	491	948	0	1463		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.94	0.94	0.96	0.96	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	2427	348	559	3283	0	0		
Arrive On Green	0.54	0.54	0.32	0.93	0.00	0.00		
Sat Flow, veh/h	4662	644	1774	3632	0			
Grp Volume(v), veh/h	1108	573	491	948	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1749	1774	1770				
Q Serve(g_s), s	13.9	13.9	16.3	1.6				
Cycle Q Clear(g_c), s	13.9	13.9	16.3	1.6				
Prop In Lane		0.37	1.00					
Lane Grp Cap(c), veh/h	1831	945	559	3283				
V/C Ratio(X)	0.61	0.61	0.88	0.29				
Avail Cap(c_a), veh/h	2101	1084	899	4243				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(l)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	9.8	9.8	20.1	0.2				
Incr Delay (d2), s/veh	0.4	0.8	6.0	0.0				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	6.6	6.9	8.8	0.7				
LnGrp Delay(d),s/veh	10.2	10.5	26.2	0.3				
LnGrp LOS	B	B	C	A				
Approach Vol, veh/h	1681			1439				
Approach Delay, s/veh	10.3			9.1				
Approach LOS	B			A				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			24.1	38.1				62.1
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			31.5	38.5				74.5
Max Q Clear Time (g_c+l1), s			18.3	15.9				3.6
Green Ext Time (p_c), s			1.3	17.6				37.4
Intersection Summary								
HCM 2010 Ctrl Delay			9.7					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

8/4/2015



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	2576	507	0	1025	326	513		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	2683	0	0	1057	495	252		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.96	0.96	0.97	0.97	0.91	0.91		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	3245	1010	0	2259	747	333		
Arrive On Green	0.64	0.00	0.00	0.64	0.21	0.21		
Sat Flow, veh/h	5253	1583	0	3725	3548	1583		
Grp Volume(v), veh/h	2683	0	0	1057	495	252		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	24.0	0.0	0.0	9.2	7.6	8.9		
Cycle Q Clear(g_c), s	24.0	0.0	0.0	9.2	7.6	8.9		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	3245	1010	0	2259	747	333		
V/C Ratio(X)	0.83	0.00	0.00	0.47	0.66	0.76		
Avail Cap(c_a), veh/h	3274	1019	0	2278	1056	471		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.2	0.0	0.0	5.6	21.5	22.0		
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.2	1.0	4.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	11.5	0.0	0.0	4.5	3.8	4.3		
LnGrp Delay(d),s/veh	10.1	0.0	0.0	5.7	22.6	26.4		
LnGrp LOS	B			A	C	C		
Approach Vol, veh/h	2683			1057	747			
Approach Delay, s/veh	10.1			5.7	23.9			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		17.0		42.5				42.5
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		17.7		38.3				38.3
Max Q Clear Time (g_c+I1), s		10.9		26.0				11.2
Green Ext Time (p_c), s		1.6		11.9				25.7
Intersection Summary								
HCM 2010 Ctrl Delay		11.4						
HCM 2010 LOS		B						
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲			↰ ↱ ↲			↰ ↱ ↲	↱			↱	↱
Volume (veh/h)	129	2440	39	21	1640	45	38	2	11	35	2	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	136	2568	30	23	1802	38	57	3	9	39	2	61
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.67	0.67	0.67	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	3366	39	37	2936	62	223	46	137	254	10	175
Arrive On Green	0.10	0.65	0.65	0.02	0.57	0.57	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1774	5182	60	1774	5126	108	1334	411	1234	1267	93	1583
Grp Volume(v), veh/h	136	1678	920	23	1192	648	57	0	12	41	0	61
Grp Sat Flow(s),veh/h/ln	1774	1695	1852	1774	1695	1844	1334	0	1645	1360	0	1583
Q Serve(g_s), s	4.6	21.2	21.4	0.8	14.3	14.3	2.5	0.0	0.4	1.5	0.0	2.2
Cycle Q Clear(g_c), s	4.6	21.2	21.4	0.8	14.3	14.3	4.4	0.0	0.4	1.9	0.0	2.2
Prop In Lane	1.00		0.03	1.00		0.06	1.00		0.75	0.95		1.00
Lane Grp Cap(c), veh/h	174	2202	1203	37	1942	1056	223	0	182	264	0	175
V/C Ratio(X)	0.78	0.76	0.76	0.61	0.61	0.61	0.26	0.00	0.07	0.16	0.00	0.35
Avail Cap(c_a), veh/h	267	2223	1215	118	1942	1056	440	0	450	495	0	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	7.5	7.5	30.0	8.7	8.7	27.3	0.0	24.6	25.4	0.0	25.4
Incr Delay (d2), s/veh	7.9	1.6	2.9	15.2	0.6	1.1	0.6	0.0	0.2	0.3	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	10.0	11.7	0.5	6.8	7.5	1.0	0.0	0.2	0.7	0.0	1.0
LnGrp Delay(d),s/veh	35.1	9.1	10.5	45.2	9.3	9.8	27.9	0.0	24.8	25.6	0.0	26.6
LnGrp LOS	D	A	B	D	A	A	C		C	C		C
Approach Vol, veh/h	2734				1863		69				102	
Approach Delay, s/veh	10.9				9.9		27.4				26.2	
Approach LOS	B				A		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.3	5.8	44.6		11.3	10.6	39.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.9	4.1	40.5		16.9	9.3	35.3				
Max Q Clear Time (g_c+I1), s		6.4	2.8	23.4		4.2	6.6	16.3				
Green Ext Time (p_c), s		0.4	0.0	16.8		0.4	0.1	18.6				
Intersection Summary												
HCM 2010 Ctrl Delay			11.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

8/4/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰↱	↑↑↑	↑↑↑↱		↰	↱		
Volume (veh/h)	196	2276	1563	65	38	118		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	206	2396	1776	63	49	125		
Adj No. of Lanes	2	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.88	0.88	0.78	0.78		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	319	3607	2679	95	213	190		
Arrive On Green	0.09	0.71	0.53	0.53	0.12	0.12		
Sat Flow, veh/h	3442	5253	5210	179	1774	1583		
Grp Volume(v), veh/h	206	2396	1194	645	49	125		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1831	1774	1583		
Q Serve(g_s), s	3.0	13.7	13.4	13.5	1.3	4.0		
Cycle Q Clear(g_c), s	3.0	13.7	13.4	13.5	1.3	4.0		
Prop In Lane	1.00			0.10	1.00	1.00		
Lane Grp Cap(c), veh/h	319	3607	1801	973	213	190		
V/C Ratio(X)	0.65	0.66	0.66	0.66	0.23	0.66		
Avail Cap(c_a), veh/h	424	3713	1801	973	589	526		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	23.1	4.2	8.9	8.9	21.0	22.2		
Incr Delay (d2), s/veh	2.2	0.4	0.9	1.7	0.5	3.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.5	6.4	6.4	7.1	0.7	3.6		
LnGrp Delay(d),s/veh	25.3	4.6	9.9	10.6	21.5	26.0		
LnGrp LOS	C	A	A	B	C	C		
Approach Vol, veh/h		2602	1839		174			
Approach Delay, s/veh		6.3	10.1		24.8			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				41.9		10.8	9.4	32.5
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				38.5		17.5	6.5	27.5
Max Q Clear Time (g_c+I1), s				15.7		6.0	5.0	15.5
Green Ext Time (p_c), s				21.7		0.3	0.1	11.8
Intersection Summary								
HCM 2010 Ctrl Delay			8.5					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	1866	268	237	1251	113	127	121	216	114	99	186
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	234	1985	221	300	1584	105	161	153	197	127	110	140
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.79	0.79	0.79	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	317	2310	719	378	2400	747	234	573	256	197	534	239
Arrive On Green	0.09	0.45	0.45	0.11	0.47	0.47	0.07	0.16	0.16	0.06	0.15	0.15
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	234	1985	221	300	1584	105	161	153	197	127	110	140
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	5.5	29.0	7.3	7.1	19.8	3.1	3.8	3.1	9.9	3.0	2.3	6.8
Cycle Q Clear(g_c), s	5.5	29.0	7.3	7.1	19.8	3.1	3.8	3.1	9.9	3.0	2.3	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	2310	719	378	2400	747	234	573	256	197	534	239
V/C Ratio(X)	0.74	0.86	0.31	0.79	0.66	0.14	0.69	0.27	0.77	0.65	0.21	0.59
Avail Cap(c_a), veh/h	411	2360	735	402	2400	747	241	785	351	224	768	344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	20.3	14.4	36.0	16.8	12.4	37.8	30.5	33.3	38.3	30.9	32.8
Incr Delay (d2), s/veh	5.0	3.4	0.2	9.9	0.7	0.1	7.7	0.2	6.8	5.2	0.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	14.1	3.3	3.9	9.4	1.4	2.1	1.5	4.8	1.6	1.1	3.1
LnGrp Delay(d),s/veh	41.7	23.7	14.6	45.9	17.5	12.5	45.5	30.7	40.1	43.5	31.1	35.1
LnGrp LOS	D	C	B	D	B	B	D	C	D	D	C	D
Approach Vol, veh/h	2440					1989		511		377		
Approach Delay, s/veh	24.6					21.5		39.0		36.7		
Approach LOS	C					C		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	17.9	13.6	42.2	10.2	17.0	12.1	43.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.4	18.4	9.7	38.5	5.8	18.0	9.9	38.3				
Max Q Clear Time (g_c+I), s	15.0	11.9	9.1	31.0	5.8	8.8	7.5	21.8				
Green Ext Time (p_c), s	0.0	1.5	0.1	6.7	0.0	1.9	0.2	15.8				
Intersection Summary												
HCM 2010 Ctrl Delay			25.7									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	👉👉👉	👉👉👉		👉👉👉	👉👉👉		👉	👉👉		👉	👉👉	
Volume (veh/h)	303	1476	443	189	1009	87	260	174	162	95	204	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	319	1554	340	210	1062	60	310	207	133	100	215	157
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.90	0.95	0.95	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	535	1673	364	229	1532	86	315	598	367	128	355	247
Arrive On Green	0.16	0.40	0.40	0.07	0.31	0.31	0.18	0.28	0.28	0.07	0.18	0.18
Sat Flow, veh/h	3442	4183	910	3442	4926	278	1774	2108	1296	1774	1995	1392
Grp Volume(v), veh/h	319	1258	636	210	731	391	310	172	168	100	190	182
Grp Sat Flow(s),veh/h/ln	1721	1695	1702	1721	1695	1814	1774	1770	1634	1774	1770	1617
Q Serve(g_s), s	7.8	31.8	32.2	5.5	17.0	17.1	15.7	7.0	7.4	5.0	8.9	9.4
Cycle Q Clear(g_c), s	7.8	31.8	32.2	5.5	17.0	17.1	15.7	7.0	7.4	5.0	8.9	9.4
Prop In Lane	1.00		0.53	1.00		0.15	1.00		0.79	1.00		0.86
Lane Grp Cap(c), veh/h	535	1356	681	229	1055	564	315	502	463	128	315	287
V/C Ratio(X)	0.60	0.93	0.93	0.92	0.69	0.69	0.98	0.34	0.36	0.78	0.60	0.63
Avail Cap(c_a), veh/h	535	1356	681	229	1055	564	315	502	463	217	315	287
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	25.8	25.9	41.7	27.2	27.2	36.9	25.6	25.7	41.1	34.1	34.3
Incr Delay (d2), s/veh	1.8	12.3	21.7	37.2	3.7	6.9	45.9	1.9	2.2	10.0	8.3	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	17.2	19.1	3.8	8.5	9.6	11.7	3.7	3.6	2.8	5.0	5.0
LnGrp Delay(d),s/veh	37.2	38.1	47.6	78.9	31.0	34.1	82.7	27.5	27.9	51.0	42.4	44.5
LnGrp LOS	D	D	D	E	C	C	F	C	C	D	D	D
Approach Vol, veh/h	2213					1332		650		472		
Approach Delay, s/veh	40.7					39.5		53.9		45.0		
Approach LOS	D					D		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	40.0	20.0	20.0	18.0	32.0	10.5	29.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	36.0	36.0	16.0	16.0	14.0	28.0	11.0	21.0				
Max Q Clear Time (g_c+I), s	17.5	34.2	17.7	11.4	9.8	19.1	7.0	9.4				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.7	3.7	4.3	0.1	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay			42.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		 	  		  	  	
Volume (veh/h)	162	732	398	107	581	197	362	557	81	450	774	170
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	180	813	309	119	646	152	389	599	0	479	823	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	1029	460	143	915	409	523	1060	330	556	1109	345
Arrive On Green	0.11	0.29	0.29	0.08	0.26	0.26	0.15	0.21	0.00	0.16	0.22	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	180	813	309	119	646	152	389	599	0	479	823	0
Grp Sat Flow(s),veh/h/ln	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Q Serve(g_s), s	6.2	13.1	10.6	4.1	10.2	4.9	6.7	6.5	0.0	8.4	9.3	0.0
Cycle Q Clear(g_c), s	6.2	13.1	10.6	4.1	10.2	4.9	6.7	6.5	0.0	8.4	9.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	1029	460	143	915	409	523	1060	330	556	1109	345
V/C Ratio(X)	0.90	0.79	0.67	0.83	0.71	0.37	0.74	0.57	0.00	0.86	0.74	0.00
Avail Cap(c_a), veh/h	201	1029	460	143	915	409	556	1314	409	556	1314	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.1	20.2	19.3	28.0	20.8	18.8	25.1	22.0	0.0	25.3	22.6	0.0
Incr Delay (d2), s/veh	36.7	6.2	7.6	31.9	4.6	2.6	5.1	0.5	0.0	13.0	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	7.2	5.6	3.3	5.6	2.4	3.6	3.1	0.0	5.0	4.5	0.0
LnGrp Delay(d),s/veh	63.8	26.4	26.9	59.9	25.4	21.4	30.2	22.5	0.0	38.3	24.5	0.0
LnGrp LOS	E	C	C	E	C	C	C	C		D	C	
Approach Vol, veh/h	1302				917				988		1302	
Approach Delay, s/veh	31.7				29.2				25.5		29.6	
Approach LOS	C				C				C		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	22.0	13.4	17.5	11.0	20.0	14.0	16.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	18.0	10.0	16.0	7.0	16.0	10.0	16.0				
Max Q Clear Time (g_c+10), s	10.1	15.1	8.7	11.3	8.2	12.2	10.4	8.5				
Green Ext Time (p_c), s	0.0	1.7	0.7	2.2	0.0	1.7	0.0	3.1				
Intersection Summary												
HCM 2010 Ctrl Delay			29.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑		↑
Traffic Volume (veh/h)	0	753	36	0	644	64	0	0	0	253	0	201
Future Volume (veh/h)	0	753	36	0	644	64	0	0	0	253	0	201
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	866	0	0	671	57				291	0	162
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96				0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3013	938	0	2097	1199				566	0	260
Arrive On Green	0.00	0.59	0.00	0.00	0.59	0.59				0.16	0.00	0.16
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	866	0	0	671	57				291	0	162
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	3.9	0.0	0.0	4.4	0.4				3.6	0.0	4.4
Cycle Q Clear(g_c), s	0.0	3.9	0.0	0.0	4.4	0.4				3.6	0.0	4.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3013	938	0	2097	1199				566	0	260
V/C Ratio(X)	0.00	0.29	0.00	0.00	0.32	0.05				0.51	0.00	0.62
Avail Cap(c_a), veh/h	0	4068	1267	0	2831	1527				1221	0	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.7	0.0	0.0	4.8	1.4				17.7	0.0	18.1
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.2	0.0				0.8	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	0.0	0.0	2.2	0.3				1.8	0.0	2.1
LnGrp Delay(d),s/veh	0.0	4.8	0.0	0.0	5.0	1.5				18.5	0.0	20.7
LnGrp LOS		A			A	A				B		C
Approach Vol, veh/h		866			728						453	
Approach Delay, s/veh		4.8			4.7						19.3	
Approach LOS		A			A						B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		33.4		13.2		33.4						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		37.2		16.5		37.2						
Max Q Clear Time (g_c+l1), s		5.9		6.4		6.4						
Green Ext Time (p_c), s		21.4		1.2		21.1						
Intersection Summary												
HCM 2010 Ctrl Delay			8.0									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑↑	↑	↑		↑↑			
Traffic Volume (veh/h)	0	968	82	0	615	137	71	0	94	0	0	0
Future Volume (veh/h)	0	968	82	0	615	137	71	0	94	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	998	75	0	707	0	85	0	76			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.97	0.97	0.97	0.87	0.87	0.87	0.84	0.84	0.84			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3427	1199	0	3427	1067	148	0	233			
Arrive On Green	0.00	0.67	0.67	0.00	0.67	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	998	75	0	707	0	85	0	76			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	3.7	0.6	0.0	2.5	0.0	2.1	0.0	1.2			
Cycle Q Clear(g_c), s	0.0	3.7	0.6	0.0	2.5	0.0	2.1	0.0	1.2			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3427	1199	0	3427	1067	148	0	233			
V/C Ratio(X)	0.00	0.29	0.06	0.00	0.21	0.00	0.57	0.00	0.33			
Avail Cap(c_a), veh/h	0	4496	1532	0	4496	1400	476	0	747			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	3.1	1.4	0.0	2.9	0.0	20.6	0.0	20.1			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.1	0.0	3.8	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.7	0.3	0.0	1.1	0.0	1.2	0.0	0.5			
LnGrp Delay(d),s/veh	0.0	3.2	1.5	0.0	2.9	0.0	24.3	0.0	21.0			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h		1073			707			161				
Approach Delay, s/veh		3.1			2.9			22.7				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		37.2				37.2		9.4				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		41.2				41.2		12.5				
Max Q Clear Time (g_c+I1), s		5.7				4.5		4.1				
Green Ext Time (p_c), s		25.7				26.4		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			4.7									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	 
Volume (veh/h)	190	648	218	13	451	276	127	82	16	337	163	168
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	204	697	169	16	550	264	131	85	11	370	179	130
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	309	1650	666	54	850	396	170	288	37	434	848	918
Arrive On Green	0.09	0.32	0.32	0.02	0.25	0.25	0.10	0.09	0.09	0.24	0.24	0.24
Sat Flow, veh/h	3442	5085	1583	3442	3393	1581	1774	3160	402	1774	3539	2787
Grp Volume(v), veh/h	204	697	169	16	550	264	131	47	49	370	179	130
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1584	1774	1770	1792	1774	1770	1393
Q Serve(g_s), s	3.2	6.0	3.8	0.3	8.0	8.3	4.0	1.4	1.4	11.1	2.2	1.8
Cycle Q Clear(g_c), s	3.2	6.0	3.8	0.3	8.0	8.3	4.0	1.4	1.4	11.1	2.2	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	309	1650	666	54	849	397	170	161	163	434	848	918
V/C Ratio(X)	0.66	0.42	0.25	0.30	0.65	0.67	0.77	0.29	0.30	0.85	0.21	0.14
Avail Cap(c_a), veh/h	341	1650	666	248	977	457	387	542	549	591	1492	1425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	14.7	10.4	27.0	18.6	18.7	24.5	23.5	23.6	20.0	16.9	13.1
Incr Delay (d2), s/veh	4.1	0.2	0.2	3.0	1.2	3.0	7.1	1.0	1.0	8.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.8	1.7	0.1	3.9	3.9	2.3	0.7	0.7	6.4	1.1	0.7
LnGrp Delay(d),s/veh	28.5	14.9	10.6	30.0	19.8	21.7	31.6	24.5	24.6	28.8	17.0	13.2
LnGrp LOS	C	B	B	C	B	C	C	C	C	C	B	B
Approach Vol, veh/h	1070				830		227				679	
Approach Delay, s/veh	16.8				20.6		28.6				22.7	
Approach LOS	B				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.1	9.6	5.4	22.5	9.8	17.8	9.5	18.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	17.0	4.0	17.5	12.1	23.4	5.5	16.0				
Max Q Clear Time (g_c+1.1), s	13.1	3.4	2.3	8.0	6.0	4.2	5.2	10.3				
Green Ext Time (p_c), s	0.6	1.6	0.0	6.2	0.1	1.9	0.0	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			20.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (veh/h)	58	566	276	88	366	12	319	75	98	9	53	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	71	690	264	95	394	8	380	89	81	11	67	25
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.82	0.82	0.82	0.93	0.93	0.93	0.84	0.84	0.84	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	951	358	121	1433	29	457	480	408	161	117	44
Arrive On Green	0.05	0.26	0.26	0.07	0.28	0.28	0.26	0.26	0.26	0.09	0.09	0.09
Sat Flow, veh/h	1774	3639	1372	1774	5131	104	1774	1863	1583	1774	1294	483
Grp Volume(v), veh/h	71	642	312	95	260	142	380	89	81	11	0	92
Grp Sat Flow(s),veh/h/ln	1774	1695	1621	1774	1695	1844	1774	1863	1583	1774	0	1778
Q Serve(g_s), s	2.2	9.6	9.8	2.9	3.3	3.4	11.3	2.1	2.2	0.3	0.0	2.8
Cycle Q Clear(g_c), s	2.2	9.6	9.8	2.9	3.3	3.4	11.3	2.1	2.2	0.3	0.0	2.8
Prop In Lane	1.00		0.85	1.00		0.06	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	90	886	423	121	947	515	457	480	408	161	0	161
V/C Ratio(X)	0.79	0.72	0.74	0.78	0.27	0.28	0.83	0.19	0.20	0.07	0.00	0.57
Avail Cap(c_a), veh/h	165	971	464	175	989	538	619	650	553	508	0	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	18.8	18.9	25.6	15.7	15.7	19.6	16.2	16.2	23.3	0.0	24.4
Incr Delay (d2), s/veh	14.4	2.5	5.5	13.4	0.2	0.3	7.0	0.2	0.2	0.2	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.8	5.0	1.9	1.6	1.7	6.4	1.1	1.0	0.2	0.0	1.5
LnGrp Delay(d),s/veh	40.7	21.3	24.4	39.1	15.9	16.0	26.6	16.4	16.5	23.4	0.0	27.5
LnGrp LOS	D	C	C	D	B	B	C	B	B	C		C
Approach Vol, veh/h	1025				497		550				103	
Approach Delay, s/veh	23.6				20.3		23.5				27.1	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.9	8.3	19.1		9.6	7.3	20.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	5.5	16.0		16.0	5.2	16.3				
Max Q Clear Time (g_c+I1), s		13.3	4.9	11.8		4.8	4.2	5.4				
Green Ext Time (p_c), s		1.1	0.0	2.8		0.3	0.0	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay			23.0									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	342	212	45	233	3	120	25	61	2	42	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	62	356	159	54	277	4	133	28	57	3	59	48
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.84	0.84	0.84	0.90	0.90	0.90	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	1214	378	160	1208	17	282	393	334	6	126	102
Arrive On Green	0.05	0.24	0.24	0.05	0.23	0.23	0.08	0.21	0.21	0.00	0.13	0.13
Sat Flow, veh/h	1774	5085	1583	3442	5165	74	3442	1863	1583	1774	952	774
Grp Volume(v), veh/h	62	356	159	54	182	99	133	28	57	3	0	107
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1850	1721	1863	1583	1774	0	1726
Q Serve(g_s), s	1.2	2.1	3.1	0.5	1.6	1.6	1.3	0.4	1.1	0.1	0.0	2.1
Cycle Q Clear(g_c), s	1.2	2.1	3.1	0.5	1.6	1.6	1.3	0.4	1.1	0.1	0.0	2.1
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	91	1214	378	160	793	432	282	393	334	6	0	228
V/C Ratio(X)	0.68	0.29	0.42	0.34	0.23	0.23	0.47	0.07	0.17	0.51	0.00	0.47
Avail Cap(c_a), veh/h	321	2547	793	431	1509	823	565	1062	903	197	0	893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.8	11.2	11.6	16.6	11.1	11.2	15.8	11.4	11.6	17.9	0.0	14.4
Incr Delay (d2), s/veh	8.6	0.1	0.7	1.2	0.1	0.3	1.2	0.1	0.2	56.3	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.0	1.4	0.3	0.7	0.8	0.7	0.2	0.5	0.1	0.0	1.1
LnGrp Delay(d),s/veh	25.3	11.3	12.3	17.8	11.3	11.4	17.0	11.4	11.9	74.2	0.0	15.9
LnGrp LOS	C	B	B	B	B	B	B	B	B	E		B
Approach Vol, veh/h		577			335			218			110	
Approach Delay, s/veh		13.1			12.4			14.9			17.5	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	12.1	6.2	13.1	7.4	9.3	6.3	12.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	1.0	20.5	4.5	18.0	5.9	18.6	6.5	16.0				
Max Q Clear Time (g_c+1.0), s	1.0	3.1	2.5	5.1	3.3	4.1	3.2	3.6				
Green Ext Time (p_c), s	0.0	0.8	0.0	3.5	0.1	0.7	0.0	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay			13.6									
HCM 2010 LOS			B									

Intersection																
Intersection Delay, s/veh 8.4																
Intersection LOS A																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	94	15	35	0	0	10	2	0	27	25	1	0	0	16	65
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.75	0.75	0.75	0.95	0.74	0.74	0.74	0.95	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	102	16	38	0	0	13	3	0	36	34	1	0	0	20	80
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	8.7	8	8.5	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	0%	0%	0%
Vol Thru, %	0%	96%	0%	100%	0%	100%	62%	100%	0%
Vol Right, %	0%	4%	0%	0%	100%	0%	38%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	26	94	15	35	7	5	16	65
LT Vol	27	0	94	0	0	0	0	0	0
Through Vol	0	25	0	15	0	7	3	16	0
RT Vol	0	1	0	0	35	0	2	0	65
Lane Flow Rate	36	35	102	16	38	9	7	20	80
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.058	0.05	0.157	0.023	0.046	0.013	0.01	0.028	0.1
Departure Headway (Hd)	5.698	5.17	5.533	5.031	4.329	5.327	5.063	5.17	4.469
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	629	693	649	712	827	672	707	693	802
Service Time	3.425	2.898	3.258	2.757	2.055	3.059	2.796	2.894	2.192
HCM Lane V/C Ratio	0.057	0.051	0.157	0.022	0.046	0.013	0.01	0.029	0.1
HCM Control Delay	8.8	8.2	9.3	7.9	7.3	8.1	7.8	8	7.7
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.6	0.1	0.1	0	0	0.1	0.3

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	123	171	80	343	134	84	139	599	166	109	643	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	131	182	74	404	158	87	145	624	126	118	699	104
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	213	318	616	202	111	224	837	169	150	942	140
Arrive On Green	0.20	0.20	0.20	0.18	0.18	0.18	0.07	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	764	1061	1583	3442	1130	622	3442	2936	592	1774	3092	460
Grp Volume(v), veh/h	313	0	74	404	0	245	145	376	374	118	400	403
Grp Sat Flow(s),veh/h/ln	1825	0	1583	1721	0	1753	1721	1770	1758	1774	1770	1782
Q Serve(g_s), s	11.9	0.0	2.8	7.8	0.0	9.6	3.0	13.8	13.9	4.7	14.6	14.6
Cycle Q Clear(g_c), s	11.9	0.0	2.8	7.8	0.0	9.6	3.0	13.8	13.9	4.7	14.6	14.6
Prop In Lane	0.42		1.00	1.00		0.36	1.00		0.34	1.00		0.26
Lane Grp Cap(c), veh/h	366	0	318	616	0	314	224	505	502	150	539	543
V/C Ratio(X)	0.85	0.00	0.23	0.66	0.00	0.78	0.65	0.74	0.75	0.79	0.74	0.74
Avail Cap(c_a), veh/h	419	0	364	767	0	391	225	542	539	185	611	615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	0.0	24.1	27.4	0.0	28.1	32.8	23.3	23.3	32.2	22.4	22.4
Incr Delay (d2), s/veh	14.3	0.0	0.4	1.4	0.0	7.9	6.2	5.1	5.3	16.3	4.2	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	1.3	3.8	0.0	5.3	1.6	7.4	7.5	3.0	7.7	7.8
LnGrp Delay(d),s/veh	42.0	0.0	24.4	28.8	0.0	36.0	39.0	28.4	28.6	48.6	26.7	26.7
LnGrp LOS	D		C	C		D	D	C	C	D	C	C
Approach Vol, veh/h		387			649			895			921	
Approach Delay, s/veh		38.6			31.6			30.2			29.5	
Approach LOS		D			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	25.0		18.9	9.2	26.4		17.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	22.0		16.5	4.7	24.8		16.0				
Max Q Clear Time (g_c+I), s	10.7	15.9		13.9	5.0	16.6		11.6				
Green Ext Time (p_c), s	0.0	4.2		0.5	0.0	5.3		1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			31.4									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	164	153	66	189	200	160	46	366	113	117	389	134
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	205	191	70	252	267	153	55	436	99	134	447	120
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.80	0.80	0.80	0.75	0.75	0.75	0.84	0.84	0.84	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	328	279	304	381	323	72	691	156	170	819	218
Arrive On Green	0.14	0.18	0.18	0.17	0.20	0.20	0.04	0.24	0.24	0.10	0.30	0.30
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2871	647	1774	2766	737
Grp Volume(v), veh/h	205	191	70	252	267	153	55	267	268	134	285	282
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1749	1774	1770	1733
Q Serve(g_s), s	6.4	5.4	2.2	7.8	7.6	4.9	1.8	7.7	7.8	4.2	7.7	7.8
Cycle Q Clear(g_c), s	6.4	5.4	2.2	7.8	7.6	4.9	1.8	7.7	7.8	4.2	7.7	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.43
Lane Grp Cap(c), veh/h	254	328	279	304	381	323	72	426	421	170	524	513
V/C Ratio(X)	0.81	0.58	0.25	0.83	0.70	0.47	0.76	0.63	0.64	0.79	0.54	0.55
Avail Cap(c_a), veh/h	327	523	444	358	555	472	140	559	552	202	621	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	21.6	20.2	22.8	21.1	20.0	27.1	19.4	19.4	25.2	16.8	16.9
Incr Delay (d2), s/veh	10.9	1.6	0.5	13.2	2.4	1.1	14.9	1.5	1.6	15.8	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	2.9	1.0	4.9	4.1	2.2	1.2	3.9	3.9	2.8	3.8	3.8
LnGrp Delay(d),s/veh	34.6	23.2	20.7	36.0	23.4	21.1	42.0	20.9	21.0	41.0	17.7	17.8
LnGrp LOS	C	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h	466				672		590				701	
Approach Delay, s/veh	27.8				27.6		22.9				22.2	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	18.2	14.3	14.6	6.8	21.4	12.7	16.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.0	18.0	11.5	16.0	4.5	20.0	10.5	17.0				
Max Q Clear Time (g_c+I), s	9.8	9.8	9.8	7.4	3.8	9.8	8.4	9.6				
Green Ext Time (p_c), s	0.0	3.9	0.1	2.3	0.0	4.5	0.1	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			24.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	137	1368	455	126	1218	121	265	307	131	117	377	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	141	1410	345	134	1296	97	301	349	115	143	460	55
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.94	0.94	0.94	0.88	0.88	0.88	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	240	2216	690	211	2063	154	364	803	359	222	592	71
Arrive On Green	0.07	0.44	0.44	0.06	0.43	0.43	0.11	0.23	0.23	0.06	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	4828	361	3442	3539	1583	3442	3186	379
Grp Volume(v), veh/h	141	1410	345	134	910	483	301	349	115	143	255	260
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1799	1721	1770	1583	1721	1770	1796
Q Serve(g_s), s	3.0	16.4	11.9	2.9	15.9	15.9	6.5	6.4	4.6	3.1	10.4	10.5
Cycle Q Clear(g_c), s	3.0	16.4	11.9	2.9	15.9	15.9	6.5	6.4	4.6	3.1	10.4	10.5
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	240	2216	690	211	1449	769	364	803	359	222	329	334
V/C Ratio(X)	0.59	0.64	0.50	0.63	0.63	0.63	0.83	0.43	0.32	0.64	0.77	0.78
Avail Cap(c_a), veh/h	727	2216	690	318	1449	769	364	803	359	318	374	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	16.7	15.4	34.7	17.0	17.0	33.2	25.1	24.4	34.6	29.3	29.4
Incr Delay (d2), s/veh	2.3	1.4	2.6	3.1	2.1	3.9	14.6	0.4	0.5	3.1	8.6	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.9	5.6	1.5	7.7	8.6	3.8	3.1	2.0	1.5	5.8	6.0
LnGrp Delay(d),s/veh	36.4	18.1	18.0	37.8	19.0	20.8	47.8	25.5	24.9	37.7	37.9	38.3
LnGrp LOS	D	B	B	D	B	C	D	C	C	D	D	D
Approach Vol, veh/h	1896			1527			765			658		
Approach Delay, s/veh	19.4			21.3			34.2			38.0		
Approach LOS	B			C			C			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	37.0	12.0	18.1	9.3	36.4	8.9	21.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	33.0	8.0	16.0	16.0	24.0	7.0	17.0					
Max Q Clear Time (g_c+14), s	18.4	8.5	12.5	5.0	17.9	5.1	8.4					
Green Ext Time (p_c), s	0.1	12.9	0.0	1.6	0.3	5.7	0.1	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay	24.9											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	270	1082	228	348	994	319	143	459	303	380	584	204
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	281	1127	176	405	1156	255	157	504	223	427	656	162
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.96	0.96	0.96	0.86	0.86	0.86	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	1333	415	451	1416	441	479	698	915	508	1045	325
Arrive On Green	0.11	0.26	0.26	0.13	0.28	0.28	0.14	0.20	0.20	0.15	0.21	0.21
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	281	1127	176	405	1156	255	157	504	223	427	656	162
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	4.8	12.8	5.6	7.1	13.0	5.2	2.5	8.1	1.1	7.4	7.2	5.5
Cycle Q Clear(g_c), s	4.8	12.8	5.6	7.1	13.0	5.2	2.5	8.1	1.1	7.4	7.2	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	1333	415	451	1416	441	479	698	915	508	1045	325
V/C Ratio(X)	0.71	0.85	0.42	0.90	0.82	0.58	0.33	0.72	0.24	0.84	0.63	0.50
Avail Cap(c_a), veh/h	395	1333	415	451	1416	441	479	928	1096	508	1583	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	21.3	18.7	26.1	20.6	7.1	23.7	22.9	5.1	25.3	22.1	21.5
Incr Delay (d2), s/veh	5.9	6.7	3.2	20.4	5.3	5.4	0.4	1.9	0.1	12.1	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.8	2.8	4.7	6.7	2.9	1.2	4.1	0.6	4.4	3.4	2.5
LnGrp Delay(d),s/veh	32.0	28.1	21.8	46.5	25.9	12.6	24.1	24.8	5.2	37.4	22.7	22.6
LnGrp LOS	C	C	C	D	C	B	C	C	A	D	C	C
Approach Vol, veh/h	1584				1816				884		1245	
Approach Delay, s/veh	28.1				28.6				19.7		27.8	
Approach LOS	C				C				B		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	20.0	12.5	16.5	11.0	21.0	13.0	16.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	16.0	16.0	6.0	19.0	7.0	17.0	9.0	16.0				
Max Q Clear Time (g_c+1.1), s	14.8	14.8	4.5	9.2	6.8	15.0	9.4	10.1				
Green Ext Time (p_c), s	0.0	0.8	0.7	3.4	0.1	1.5	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			26.8									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	1708	23	0	1593	59	0	0	0	446	0	96
Future Volume (veh/h)	0	1708	23	0	1593	59	0	0	0	446	0	96
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1877	14	0	1751	54				469	0	69
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3286	1023	0	3286	1304				610	0	281
Arrive On Green	0.00	0.65	0.65	0.00	1.00	1.00				0.18	0.00	0.18
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	1877	14	0	1751	54				469	0	69
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	13.2	0.2	0.0	0.0	0.0				8.3	0.0	2.4
Cycle Q Clear(g_c), s	0.0	13.2	0.2	0.0	0.0	0.0				8.3	0.0	2.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3286	1023	0	3286	1304				610	0	281
V/C Ratio(X)	0.00	0.57	0.01	0.00	0.53	0.04				0.77	0.00	0.25
Avail Cap(c_a), veh/h	0	3286	1023	0	3286	1304				834	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.90	0.90				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.3	4.0	0.0	0.0	0.0				25.1	0.0	22.6
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.6	0.1				3.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.3	0.1	0.0	0.2	0.0				4.2	0.0	1.1
LnGrp Delay(d),s/veh	0.0	7.1	4.1	0.0	0.6	0.1				28.2	0.0	23.1
LnGrp LOS		A	A		A	A				C		C
Approach Vol, veh/h	1891			1805						538		
Approach Delay, s/veh	7.1			0.5						27.6		
Approach LOS	A			A						C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	47.2		16.8		47.2							
Change Period (Y+Rc), s	5.8		5.5		5.8							
Max Green Setting (Gmax), s	37.2		15.5		37.2							
Max Q Clear Time (g_c+l1), s	15.2		10.3		2.0							
Green Ext Time (p_c), s	21.8		1.0		34.8							
Intersection Summary												
HCM 2010 Ctrl Delay	6.9											
HCM 2010 LOS	A											

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↗↗			
Traffic Volume (veh/h)	0	2092	55	0	1621	288	23	0	116	0	0	0
Future Volume (veh/h)	0	2092	55	0	1621	288	23	0	116	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2274	49	0	1724	200	26	0	96			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3888	1304	0	3888	1210	105	0	164			
Arrive On Green	0.00	1.00	1.00	0.00	0.76	0.76	0.06	0.00	0.06			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	2274	49	0	1724	200	26	0	96			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	7.7	2.2	0.9	0.0	2.1			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	7.7	2.2	0.9	0.0	2.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3888	1304	0	3888	1210	105	0	164			
V/C Ratio(X)	0.00	0.58	0.04	0.00	0.44	0.17	0.25	0.00	0.58			
Avail Cap(c_a), veh/h	0	3888	1304	0	3888	1210	208	0	327			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.76	0.76	0.00	0.61	0.61	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	2.7	2.0	28.8	0.0	29.4			
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.2	0.2	1.3	0.0	3.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	3.6	1.0	0.5	0.0	0.9			
LnGrp Delay(d),s/veh	0.0	0.5	0.0	0.0	2.9	2.2	30.1	0.0	32.9			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h	2323			1924			122					
Approach Delay, s/veh	0.5			2.8			32.3					
Approach LOS	A			A			C					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2						6			8		
Phs Duration (G+Y+Rc), s	54.7						54.7			9.3		
Change Period (Y+Rc), s	5.8						5.8			5.5		
Max Green Setting (Gmax), s	45.2						45.2			7.5		
Max Q Clear Time (g_c+I1), s	2.0						9.7			4.1		
Green Ext Time (p_c), s	43.0						35.3			0.1		
Intersection Summary												
HCM 2010 Ctrl Delay	2.4											
HCM 2010 LOS	A											

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	369	821	702	359	707	71	482	439	200	130	545	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	380	846	518	399	786	68	513	467	149	144	606	155
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.90	0.90	0.90	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	1151	631	449	1107	95	567	1181	735	228	832	569
Arrive On Green	0.12	0.23	0.23	0.13	0.23	0.23	0.16	0.33	0.33	0.07	0.23	0.23
Sat Flow, veh/h	3442	5085	2787	3442	4770	411	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	380	846	518	399	558	296	513	467	149	144	606	155
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1790	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	7.6	10.8	12.3	8.0	10.6	10.6	10.2	7.1	3.9	2.8	11.0	4.9
Cycle Q Clear(g_c), s	7.6	10.8	12.3	8.0	10.6	10.6	10.2	7.1	3.9	2.8	11.0	4.9
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	1151	631	449	787	416	567	1181	735	228	832	569
V/C Ratio(X)	0.89	0.73	0.82	0.89	0.71	0.71	0.90	0.40	0.20	0.63	0.73	0.27
Avail Cap(c_a), veh/h	429	1166	639	449	797	421	567	1181	735	335	832	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	25.1	25.7	29.9	24.6	24.7	28.6	17.9	11.1	31.8	24.6	15.9
Incr Delay (d2), s/veh	19.4	2.4	8.4	19.2	2.9	5.6	18.0	1.0	0.6	2.9	5.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	5.3	5.5	5.0	5.3	5.9	6.3	3.6	1.8	1.5	6.0	2.3
LnGrp Delay(d),s/veh	49.5	27.5	34.0	49.1	27.5	30.2	46.7	18.9	11.7	34.7	30.2	17.0
LnGrp LOS	D	C	C	D	C	C	D	B	B	C	C	B
Approach Vol, veh/h	1744			1253			1129			905		
Approach Delay, s/veh	34.2			35.0			30.5			28.7		
Approach LOS	C			D			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	27.3	13.6	19.8	16.0	20.4	13.2	20.2				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	6.8	21.1	9.1	16.0	11.5	16.4	8.7	16.4				
Max Q Clear Time (g_c+14.8)	14.8	9.1	10.0	14.3	12.2	13.0	9.6	12.6				
Green Ext Time (p_c), s	0.1	6.1	0.0	1.5	0.0	2.3	0.0	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay	32.6											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

8/10/2015

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	376	755	610	57	128	472		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1148	950		
Adj Flow Rate, veh/h	404	812	656	45	171	576		
Adj No. of Lanes	2	3	3	0	1	2		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.75	0.75		
Percent Heavy Veh, %	2	2	2	2	2	100		
Cap, veh/h	536	2516	1286	88	389	575		
Arrive On Green	0.16	0.49	0.26	0.26	0.36	0.36		
Sat Flow, veh/h	3442	5253	5030	332	1093	1615		
Grp Volume(v), veh/h	404	812	456	245	171	576		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1804	1093	807		
Q Serve(g_s), s	6.8	5.8	6.9	7.0	7.2	21.5		
Cycle Q Clear(g_c), s	6.8	5.8	6.9	7.0	7.2	21.5		
Prop In Lane	1.00			0.18	1.00	1.00		
Lane Grp Cap(c), veh/h	536	2516	897	477	389	575		
V/C Ratio(X)	0.75	0.32	0.51	0.51	0.44	1.00		
Avail Cap(c_a), veh/h	770	2907	1208	643	389	575		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	24.4	9.2	18.9	18.9	14.8	19.4		
Incr Delay (d2), s/veh	2.6	0.1	0.4	0.9	0.8	37.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.4	2.7	3.3	3.6	2.2	10.9		
LnGrp Delay(d),s/veh	26.9	9.2	19.3	19.7	15.6	57.3		
LnGrp LOS	C	A	B	B	B	F		
Approach Vol, veh/h	1216		701	747				
Approach Delay, s/veh	15.1		19.5	47.7				
Approach LOS	B		B	D				
Timer	1	2	3	4	5	6	7	8
Assigned Phs	2		4		5	6		
Phs Duration (G+Y+Rc), s	34.4		26.0		13.9	20.5		
Change Period (Y+Rc), s	4.5		4.5		4.5	4.5		
Max Green Setting (Gmax), s	34.5		21.5		13.5	21.5		
Max Q Clear Time (g_c+l1), s	7.8		23.5		8.8	9.0		
Green Ext Time (p_c), s	10.5		0.0		0.6	7.0		
Intersection Summary								
HCM 2010 Ctrl Delay			25.4					
HCM 2010 LOS			C					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

8/4/2015



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	 					
Volume (veh/h)	136	668	495	142	126	118		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	145	711	576	165	154	144		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.94	0.94	0.86	0.86	0.82	0.82		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	245	3025	1317	369	281	251		
Arrive On Green	0.14	0.59	0.33	0.33	0.16	0.16		
Sat Flow, veh/h	1774	5253	4118	1107	1774	1583		
Grp Volume(v), veh/h	145	711	492	249	154	144		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1667	1774	1583		
Q Serve(g_s), s	2.8	2.4	4.1	4.3	2.9	3.1		
Cycle Q Clear(g_c), s	2.8	2.4	4.1	4.3	2.9	3.1		
Prop In Lane	1.00			0.66	1.00	1.00		
Lane Grp Cap(c), veh/h	245	3025	1130	556	281	251		
V/C Ratio(X)	0.59	0.24	0.44	0.45	0.55	0.57		
Avail Cap(c_a), veh/h	802	5224	1533	754	899	802		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	14.8	3.5	9.5	9.5	14.2	14.2		
Incr Delay (d2), s/veh	2.3	0.0	0.3	0.6	1.7	2.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.5	1.1	2.0	2.0	1.5	2.8		
LnGrp Delay(d),s/veh	17.0	3.5	9.8	10.1	15.8	16.3		
LnGrp LOS	B	A	A	B	B	B		
Approach Vol, veh/h		856	741		298			
Approach Delay, s/veh		5.8	9.9		16.0			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				26.2		10.3	9.5	16.7
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				37.5		18.5	16.5	16.5
Max Q Clear Time (g_c+I1), s				4.4		5.1	4.8	6.3
Green Ext Time (p_c), s				10.8		0.7	0.3	5.9
Intersection Summary								
HCM 2010 Ctrl Delay			9.0					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	185	353	461	45	249	27	258	190	45	49	238	153
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	191	364	351	53	293	20	269	198	37	55	267	121
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.85	0.85	0.85	0.96	0.96	0.96	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	305	1322	618	128	1722	536	428	773	346	146	482	216
Arrive On Green	0.09	0.39	0.39	0.04	0.34	0.34	0.12	0.22	0.22	0.04	0.14	0.14
Sat Flow, veh/h	3442	3390	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	191	364	351	53	293	20	269	198	37	55	267	121
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	2.7	3.8	8.9	0.8	2.1	0.4	3.8	2.4	0.7	0.8	3.6	2.6
Cycle Q Clear(g_c), s	2.7	3.8	8.9	0.8	2.1	0.4	3.8	2.4	0.7	0.8	3.6	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	1322	618	128	1722	536	428	773	346	146	482	216
V/C Ratio(X)	0.63	0.28	0.57	0.41	0.17	0.04	0.63	0.26	0.11	0.38	0.55	0.56
Avail Cap(c_a), veh/h	470	1322	618	268	1722	536	604	1449	648	268	1104	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	10.7	12.3	24.1	11.9	11.4	21.3	16.6	9.1	23.9	20.7	10.6
Incr Delay (d2), s/veh	2.1	0.5	3.8	2.1	0.2	0.1	1.5	0.2	0.1	1.6	1.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.8	4.4	0.4	1.0	0.2	1.9	1.2	0.4	0.4	1.8	1.6
LnGrp Delay(d),s/veh	24.6	11.2	16.0	26.3	12.1	11.5	22.8	16.8	9.2	25.5	21.7	12.9
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	C	B
Approach Vol, veh/h	906				366		504				443	
Approach Delay, s/veh	15.9				14.1		19.5				19.8	
Approach LOS	B				B		B				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	24.0	10.4	11.0	8.5	21.4	6.2	15.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	20.0	9.0	16.0	7.0	17.0	4.0	21.0				
Max Q Clear Time (g_c+I), s	12.8	10.9	5.8	5.6	4.7	4.1	2.8	4.4				
Green Ext Time (p_c), s	0.0	2.8	0.7	1.4	0.1	1.5	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			17.2									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	275	794	272	132	506	116	262	365	110	172	487	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	299	863	231	143	550	93	291	406	89	195	553	170
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	1682	524	293	1505	469	428	1105	479	304	921	839
Arrive On Green	0.12	0.33	0.33	0.09	0.30	0.30	0.12	0.22	0.22	0.09	0.18	0.18
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	299	863	231	143	550	93	291	406	89	195	553	170
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	4.8	7.9	6.6	2.3	4.9	2.5	4.6	3.9	0.5	3.1	5.7	1.4
Cycle Q Clear(g_c), s	4.8	7.9	6.6	2.3	4.9	2.5	4.6	3.9	0.5	3.1	5.7	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	412	1682	524	293	1505	469	428	1105	479	304	921	839
V/C Ratio(X)	0.72	0.51	0.44	0.49	0.37	0.20	0.68	0.37	0.19	0.64	0.60	0.20
Avail Cap(c_a), veh/h	479	1682	524	360	1505	469	479	1417	576	479	1417	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	15.5	15.1	25.1	16.0	15.1	24.0	19.1	5.6	25.3	21.6	5.2
Incr Delay (d2), s/veh	4.6	1.1	2.7	1.3	0.7	0.9	3.3	0.2	0.2	2.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.9	3.2	1.1	2.4	1.2	2.4	1.8	0.6	1.6	2.7	0.7
LnGrp Delay(d),s/veh	28.9	16.6	17.7	26.3	16.6	16.1	27.4	19.3	5.8	27.6	22.2	5.4
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	C	A
Approach Vol, veh/h	1393				786		786				918	
Approach Delay, s/veh	19.4				18.3		20.8				20.2	
Approach LOS	B				B		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	23.0	11.1	14.4	10.9	21.0	9.1	16.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	8.0	16.0	8.0	17.0	8.0	16.0				
Max Q Clear Time (g_c+I), s	14.3	9.9	6.6	7.7	6.8	6.9	5.1	5.9				
Green Ext Time (p_c), s	0.8	4.2	0.6	2.7	0.1	3.0	0.2	2.7				
Intersection Summary												
HCM 2010 Ctrl Delay			19.7									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	347	362	40	17	275	53	14	107	34	70	105	271
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	377	393	32	19	306	48	15	116	26	76	114	230
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	537	2447	197	41	1295	579	52	418	88	181	484	464
Arrive On Green	0.16	0.51	0.51	0.01	0.37	0.37	0.02	0.10	0.10	0.05	0.14	0.14
Sat Flow, veh/h	3442	4799	386	3442	3539	1583	3442	4205	890	3442	3539	1583
Grp Volume(v), veh/h	377	276	149	19	306	48	15	92	50	76	114	230
Grp Sat Flow(s),veh/h/ln	1721	1695	1795	1721	1770	1583	1721	1695	1706	1721	1770	1583
Q Serve(g_s), s	5.1	2.1	2.2	0.3	2.9	1.0	0.2	1.2	1.3	1.0	1.4	3.7
Cycle Q Clear(g_c), s	5.1	2.1	2.2	0.3	2.9	1.0	0.2	1.2	1.3	1.0	1.4	3.7
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	537	1729	915	41	1295	579	52	337	169	181	484	464
V/C Ratio(X)	0.70	0.16	0.16	0.46	0.24	0.08	0.29	0.27	0.29	0.42	0.24	0.50
Avail Cap(c_a), veh/h	842	1729	915	281	1295	579	281	1106	557	281	1155	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	6.4	6.4	24.1	10.8	10.2	23.9	20.4	20.5	22.5	18.9	6.0
Incr Delay (d2), s/veh	1.7	0.2	0.4	8.0	0.4	0.3	3.0	0.4	1.0	1.5	0.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.0	1.2	0.2	1.5	0.5	0.1	0.6	0.7	0.5	0.7	1.7
LnGrp Delay(d),s/veh	21.3	6.6	6.8	32.1	11.2	10.4	26.9	20.9	21.4	24.0	19.1	6.8
LnGrp LOS	C	A	A	C	B	B	C	C	C	C	B	A
Approach Vol, veh/h		802			373			157			420	
Approach Delay, s/veh		13.6			12.2			21.6			13.3	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	29.0	4.7	10.7	11.6	21.9	6.6	8.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	25.0	4.0	16.0	12.0	17.0	4.0	16.0				
Max Q Clear Time (g_c+I), s	12.3	4.2	2.2	5.7	7.1	4.9	3.0	3.3				
Green Ext Time (p_c), s	0.0	2.3	0.1	1.0	0.6	1.5	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			13.9									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

8/4/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 	 	 	 		 	 	
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3212	4746	0	6	6	5	3	6	0	6	8	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	5253	0	3442	3539	2787	1774	3632	0	3442	5253	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1721	1770	1393	1774	1770	0	1721	1695	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	3212	4746	0	6	6	5	3	6	0	6	8	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	3212	4746	0	287	1003	790	148	1003	0	287	1441	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS												
Approach Vol, veh/h	0				0				0		0	
Approach Delay, s/veh	0.0				0.0				0.0		0.0	
Approach LOS												
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	60.0	0.0	0.0	60.0	0.0	0.0	0.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	17.0	5.0	17.0	5.0	17.0	5.0	17.0				
Max Q Clear Time (g_c+I10), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			0.0									
HCM 2010 LOS			A									

Intersection			
Intersection Delay, s/veh	3.4		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	17	13
Demand Flow Rate, veh/h	0	17	13
Vehicles Circulating, veh/h	17	0	0
Vehicles Exiting, veh/h	0	13	17
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	3.4	3.3
Approach LOS	-	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	0	17	13
Cap Entry Lane, veh/h	1111	1130	1130
Entry HV Adj Factor	1.000	0.980	0.980
Flow Entry, veh/h	0	17	13
Cap Entry, veh/h	1111	1108	1108
V/C Ratio	0.000	0.015	0.012
Control Delay, s/veh	3.2	3.4	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection

Int Delay, s/veh 0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	16	0	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	17	0	0	13

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	30	17	0
Stage 1	17	-	-
Stage 2	13	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	984	1062	1600
Stage 1	1006	-	-
Stage 2	1010	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	984	1062	1600
Mov Cap-2 Maneuver	984	-	-
Stage 1	1006	-	-
Stage 2	1010	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1600	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	0	-
HCM Lane LOS	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection			
Intersection Delay, s/veh	3.4		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	17	13
Demand Flow Rate, veh/h	0	17	13
Vehicles Circulating, veh/h	17	0	0
Vehicles Exiting, veh/h	0	13	17
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	3.4	3.3
Approach LOS	-	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	0	17	13
Cap Entry Lane, veh/h	1111	1130	1130
Entry HV Adj Factor	1.000	0.980	0.980
Flow Entry, veh/h	0	17	13
Cap Entry, veh/h	1111	1108	1108
V/C Ratio	0.000	0.015	0.012
Control Delay, s/veh	3.2	3.4	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection				
Intersection Delay, s/veh	3.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	0	17	13
Demand Flow Rate, veh/h	0	0	17	13
Vehicles Circulating, veh/h	13	17	0	0
Vehicles Exiting, veh/h	0	0	13	17
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	3.4	3.3
Approach LOS	-	-	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	0	17	13
Cap Entry Lane, veh/h	1115	1111	1130	1130
Entry HV Adj Factor	1.000	1.000	0.980	0.980
Flow Entry, veh/h	0	0	17	13
Cap Entry, veh/h	1115	1111	1108	1108
V/C Ratio	0.000	0.000	0.015	0.012
Control Delay, s/veh	3.2	3.2	3.4	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection

Intersection Delay, s/veh 3.4

Intersection LOS A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	0	17	13
Demand Flow Rate, veh/h	0	0	17	13
Vehicles Circulating, veh/h	13	17	0	0
Vehicles Exiting, veh/h	0	0	13	17
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	3.4	3.3
Approach LOS	-	-	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	0	17	13
Cap Entry Lane, veh/h	1115	1111	1130	1130
Entry HV Adj Factor	1.000	1.000	0.980	0.980
Flow Entry, veh/h	0	0	17	13
Cap Entry, veh/h	1115	1111	1108	1108
V/C Ratio	0.000	0.000	0.015	0.012
Control Delay, s/veh	3.2	3.2	3.4	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	16	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	17	13	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	30	13	13	0	-	0
Stage 1	13	-	-	-	-	-
Stage 2	17	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	984	1067	1606	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	984	1067	1606	-	-	-
Mov Cap-2 Maneuver	984	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1006	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1606	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection				
Intersection Delay, s/veh	3.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	0	17	13
Demand Flow Rate, veh/h	0	0	17	13
Vehicles Circulating, veh/h	13	17	0	0
Vehicles Exiting, veh/h	0	0	13	17
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	0.0	3.4	3.3
Approach LOS	-	-	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	0	17	13
Cap Entry Lane, veh/h	1115	1111	1130	1130
Entry HV Adj Factor	1.000	1.000	0.980	0.980
Flow Entry, veh/h	0	0	17	13
Cap Entry, veh/h	1115	1111	1108	1108
V/C Ratio	0.000	0.000	0.015	0.012
Control Delay, s/veh	3.2	3.2	3.4	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	16	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	17	13	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	30	13	13 0
Stage 1	13	-	- -
Stage 2	17	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	984	1067	1606 -
Stage 1	1010	-	- -
Stage 2	1006	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	984	1067	1606 -
Mov Cap-2 Maneuver	984	-	- -
Stage 1	1010	-	- -
Stage 2	1006	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1606	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection									
Intersection Delay, s/veh	6.9								
Intersection LOS	A								
Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Vol, veh/h	0	16	0	0	0	0	0	0	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	0	0	0	0	0	0	13
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.2	0	6.4
HCM LOS	A	-	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	100%	0%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	0%	100%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	16	12
LT Vol	0	16	0
Through Vol	0	0	0
RT Vol	0	0	12
Lane Flow Rate	0	17	13
Geometry Grp	1	1	1
Degree of Util (X)	0	0.019	0.012
Departure Headway (Hd)	3.973	4.156	3.363
Convergence, Y/N	Yes	Yes	Yes
Cap	0	866	1068
Service Time	1.982	2.158	1.371
HCM Lane V/C Ratio	0	0.02	0.012
HCM Control Delay	7	7.2	6.4
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.1	0

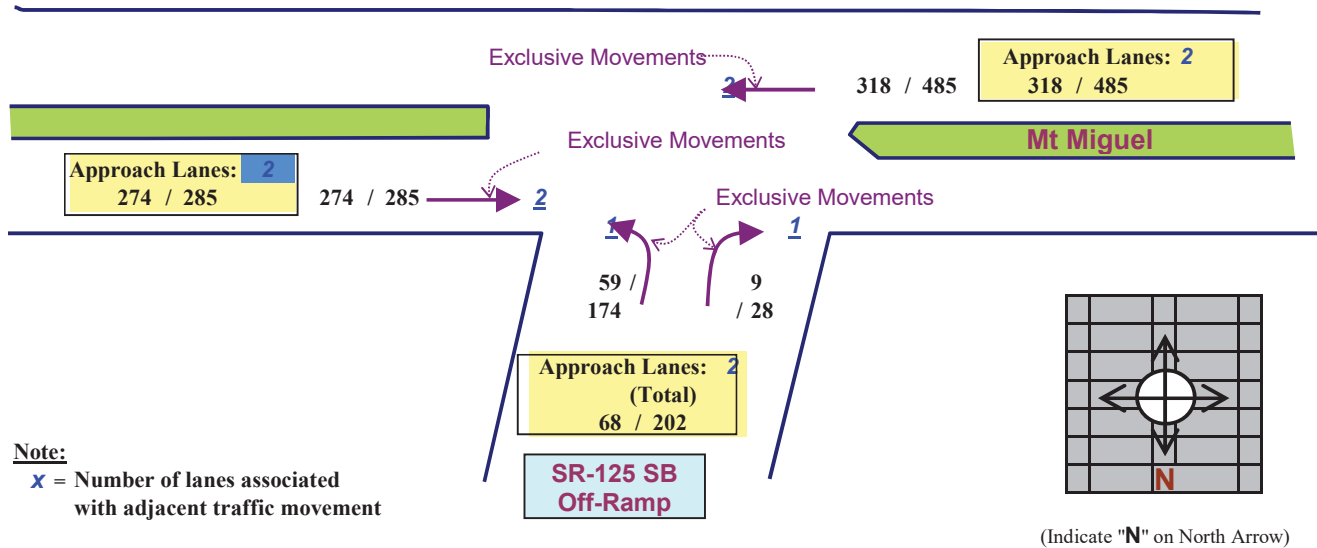
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: SR-125 SB / Mt. Miguel

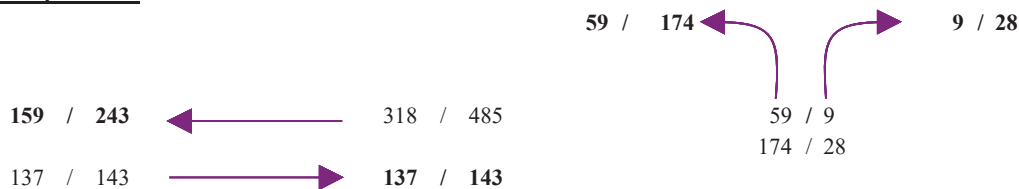
Scenario: Existing
(AM/PM Peak)



Note:

X = Number of lanes associated with adjacent traffic movement

ILV per Lane:



PHASE 1:

159	/	243
137	/	143

 $\Rightarrow$

159	/	243
-----	---	-----

PHASE 2:

59	/	174
9	/	28

 $\Rightarrow$

59	/	174
----	---	-----

PHASE 3:

0	/	0
0	/	0

 $\Rightarrow$

0	/	0
---	---	---

TOTAL = 218 / 417 ILV/HR. in the AM / PM peak hours

OPERATING LEVEL:

ILV/HR. = 218 in AM $\Rightarrow$ ILV: <1,200M
and 417 in PM $\Rightarrow$ ILV <1,200

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

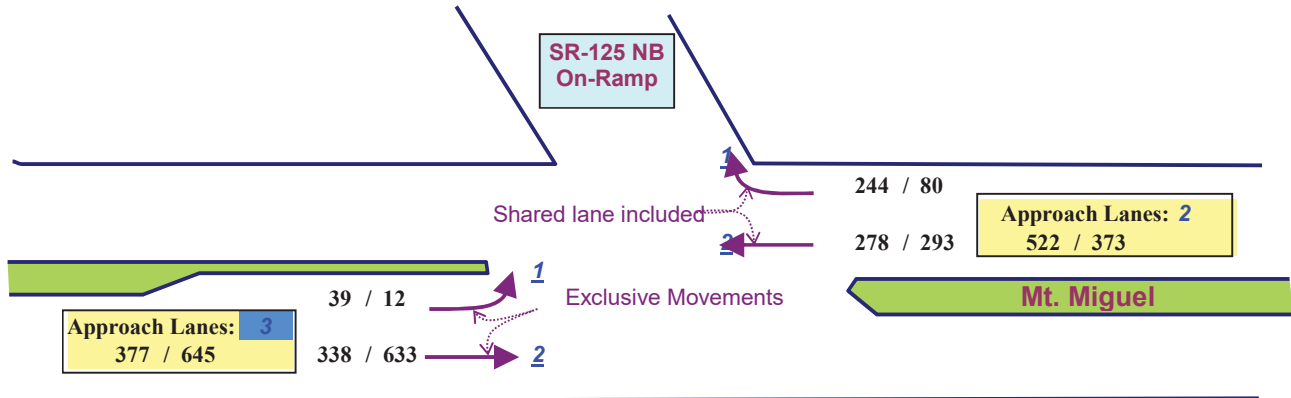
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

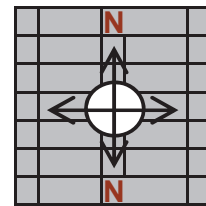
LOCATION: SR-125 NB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



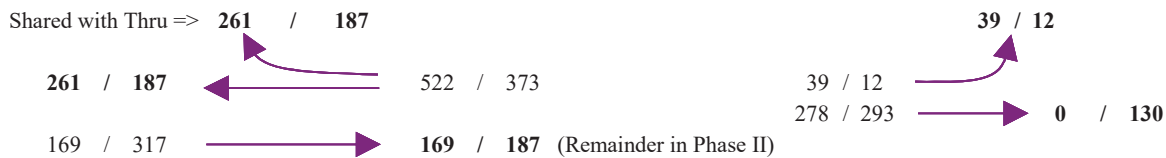
Note:

X = Number of lanes associated
with adjacent traffic movement



(Indicate "N" on North Arrow)

ILV per Lane:



PHASE 1: 261 / 187 / 187 => 261 / 187

PHASE 2: 39 / 0 / 130 => 39 / 130

OPERATING LEVEL:

ILV/HR. = 300 in AM => ILV: <1,200M
and 317 in PM => ILV <1,200

TOTAL = 300 / 317 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

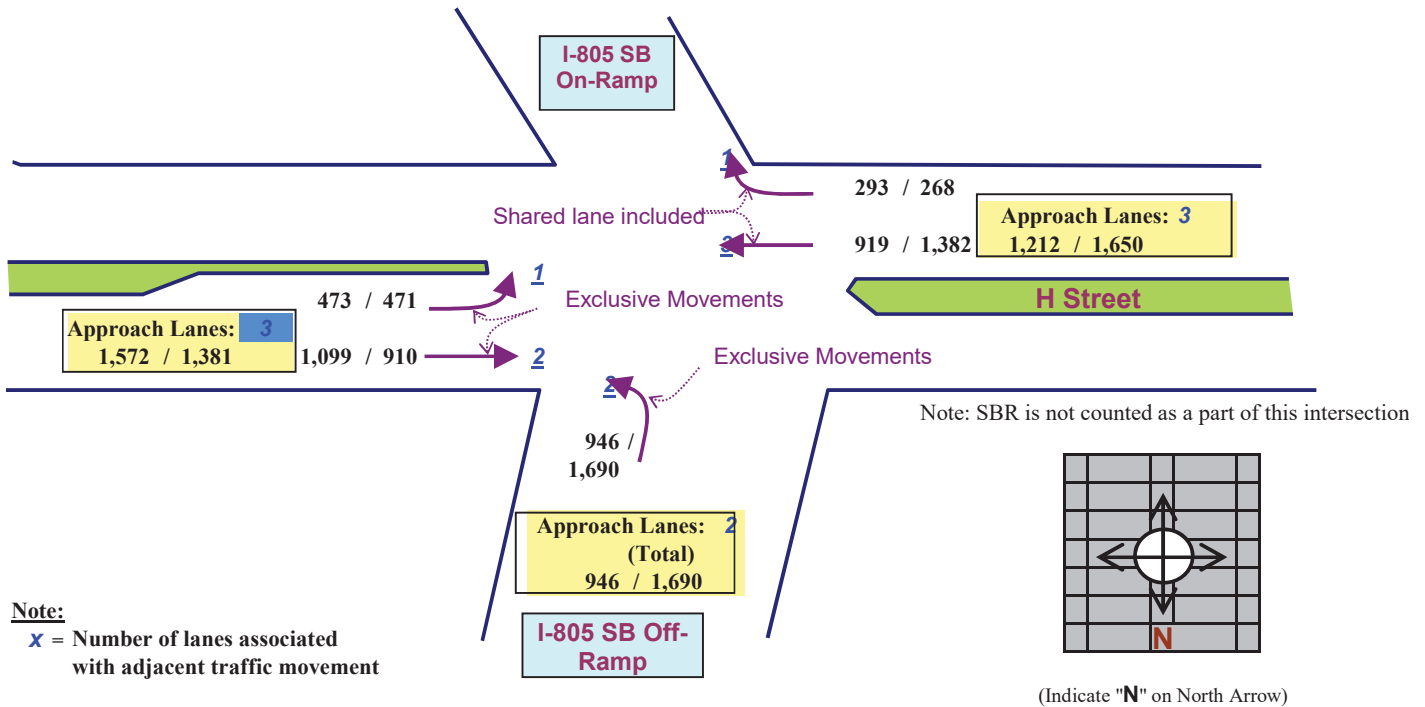
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: I-805 SB / H Street

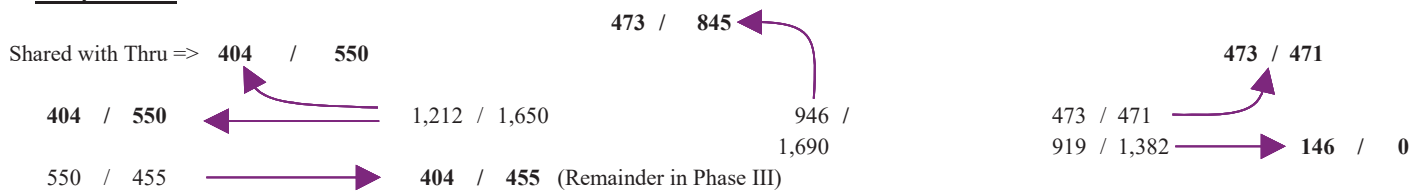
Scenario: Existing
(AM/PM Peak)



Note:

X = Number of lanes associated with adjacent traffic movement

ILV per Lane:



PHASE 1: 404 / 550 => 404 / 550

PHASE 2: 473 / 845 => 473 / 845

PHASE 3: 473 / 471 => 473 / 471

TOTAL = 1,350 / 1,866 ILV/HR. in the AM / PM peak hours

OPERATING LEVEL:

ILV/HR. = 1,350 in AM => ILV: BETWEEN 1,200 & 1,500
and 1,866 in PM => ILV > 1,500

THEREFORE, INTERSECTION OPERATES : AT CAPACITY (in AM)
& OVER CAPACITY (in PM)

INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

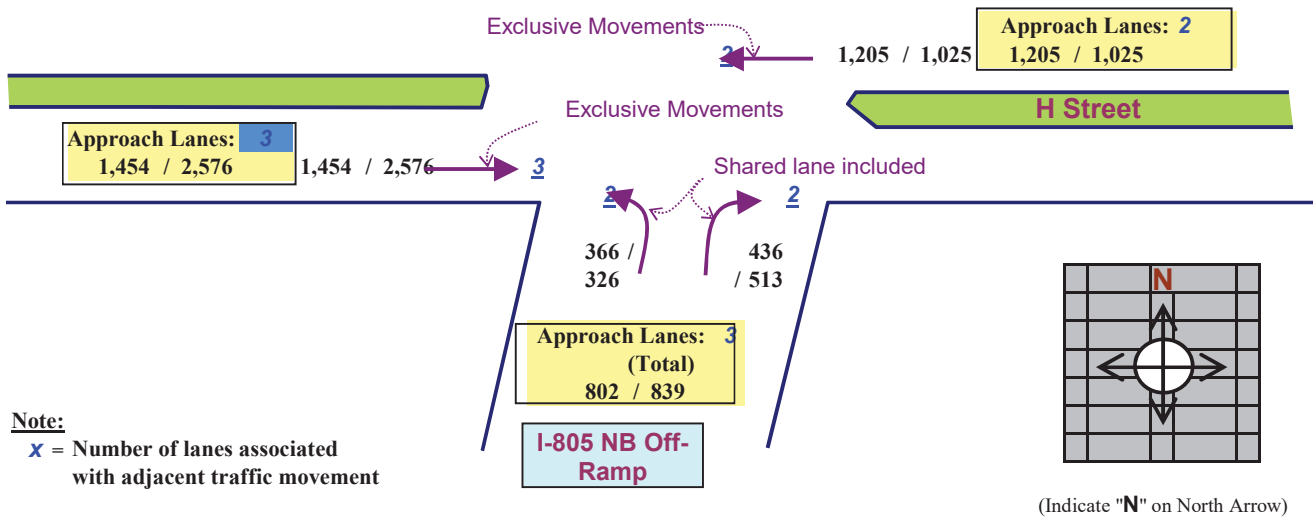
(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

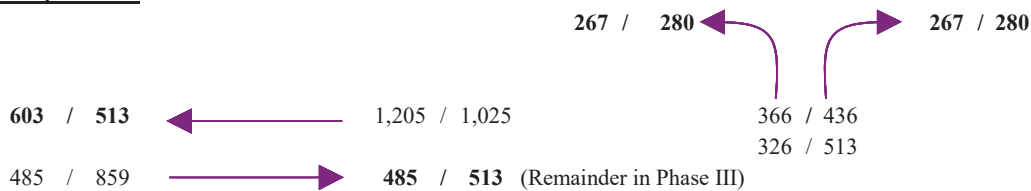
LOCATION: I-805 NB / H Street

Scenario: Existing
(AM/PM Peak)

Note: NBR turn before this intersection



ILV per Lane:



PHASE 1:

603	/	513
485	/	513

 ⇒

603	/	513
-----	---	-----

PHASE 2:

267	/	280
267	/	280

 ⇒

267	/	280
-----	---	-----

OPERATING LEVEL:

ILV/HR. = 870 in AM ⇒ ILV: <1,200M
and 792 in PM ⇒ ILV <1,200

TOTAL = 870 / 792 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

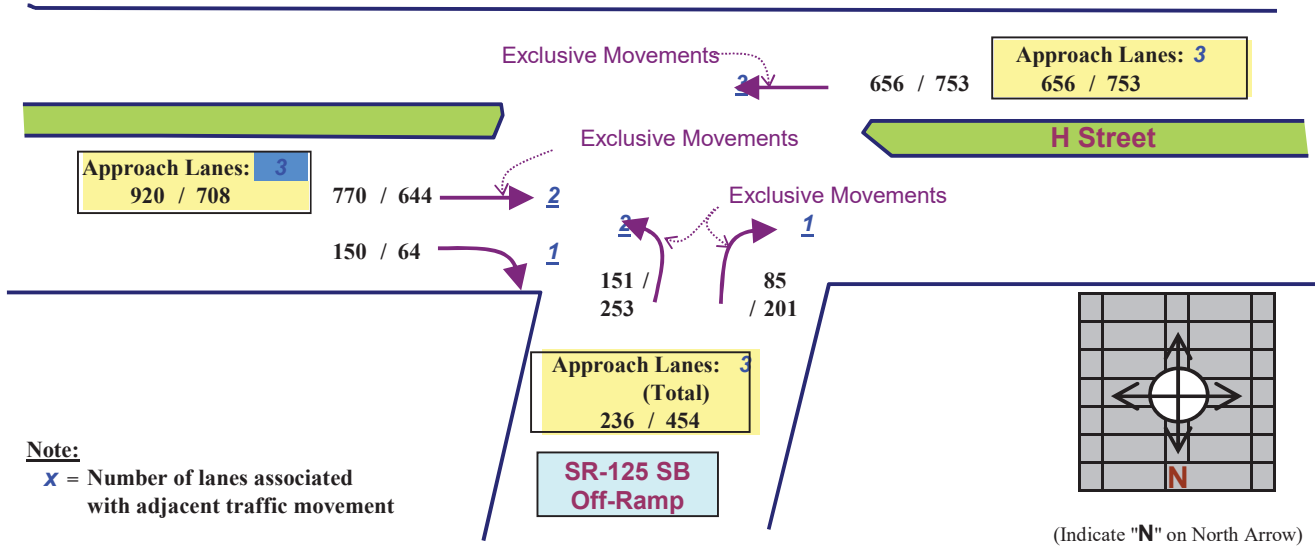
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: SR-125 SB / H STREET

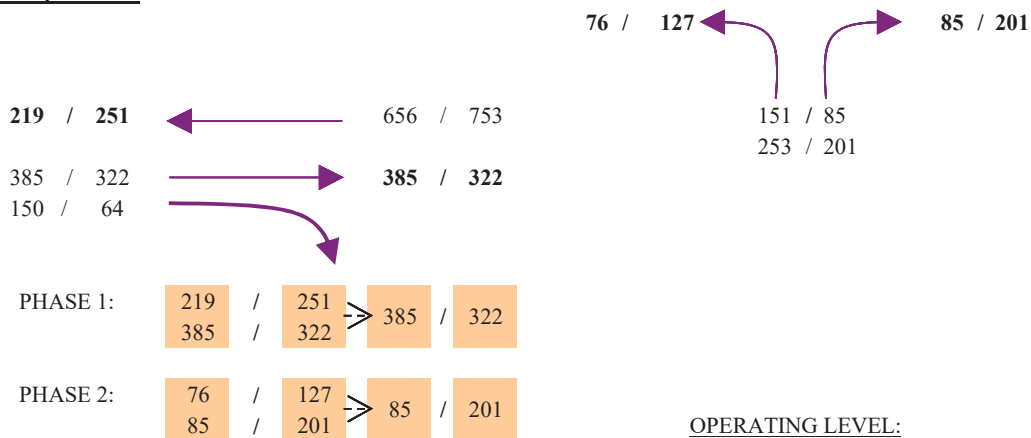
Scenario: Existing
(AM/PM Peak)



Note:

X = Number of lanes associated with adjacent traffic movement

ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 470 in AM ==> ILV: <1,200M
and 523 in PM ==> ILV <1,200

TOTAL = 470 / 523 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

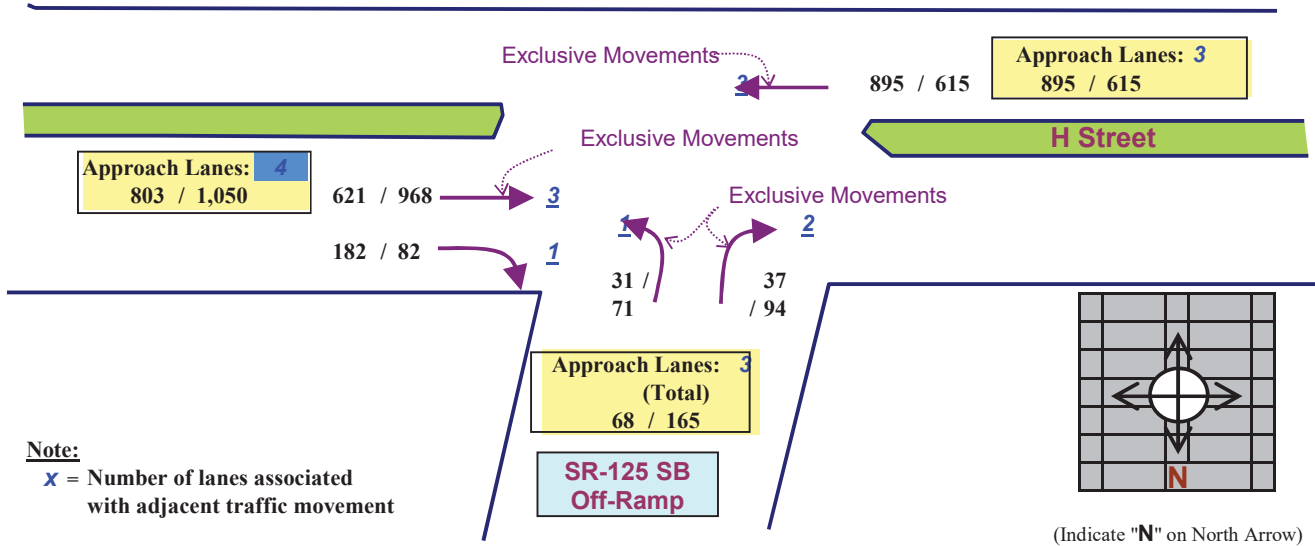
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

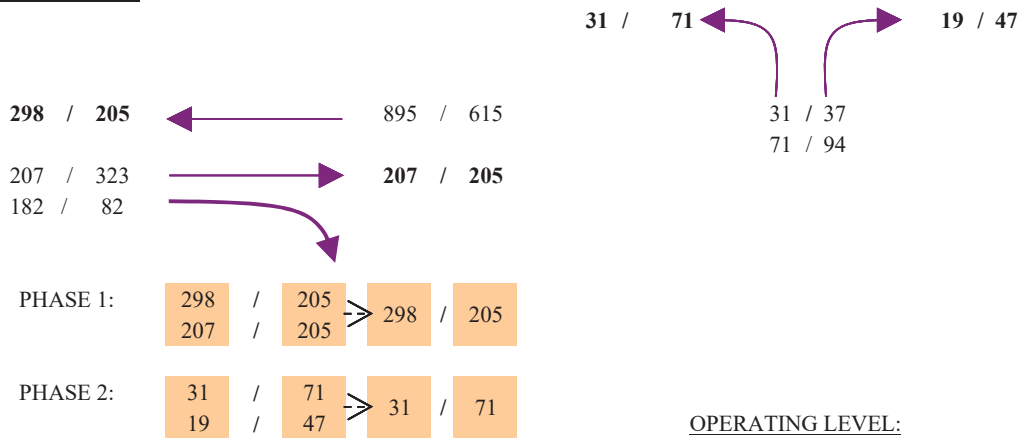
PROJECT: OVL

LOCATION: SR-125 NB / H STREET

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 329 in AM ⇒ ILV: <1,200M
and 276 in PM ⇒ ILV <1,200

TOTAL = 329 / 276 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

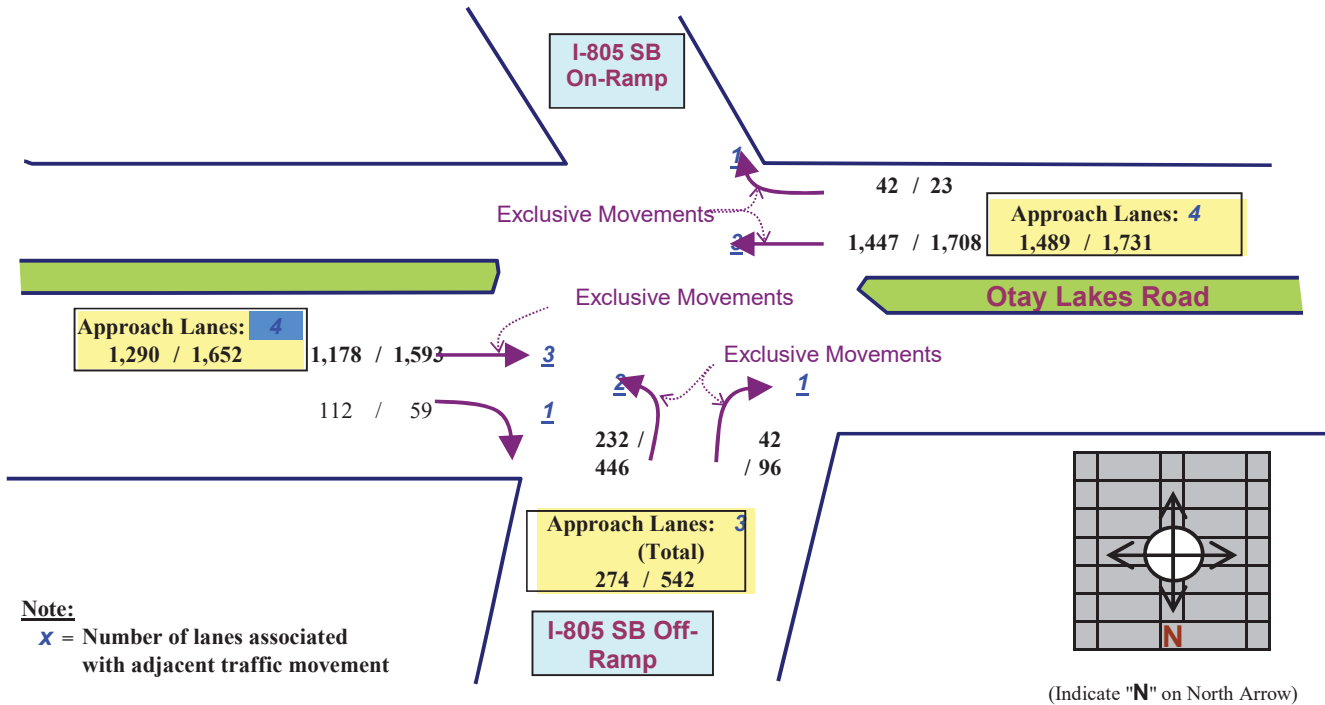
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

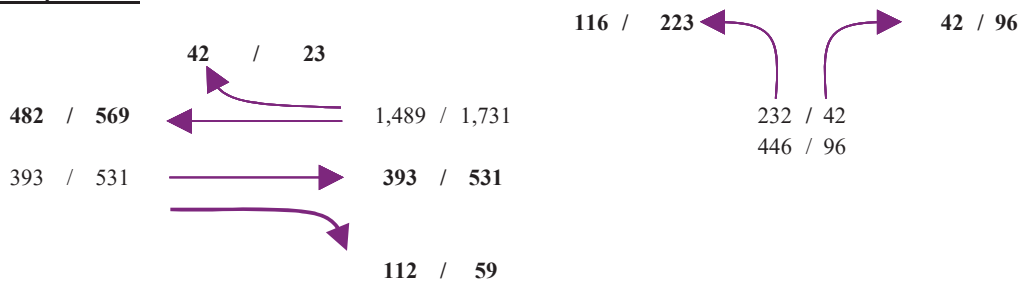
PROJECT: OVL

LOCATION: SR-125 SB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 482 / 569 > 482 / 569

PHASE 2: 116 / 223 > 116 / 223

OPERATING LEVEL:

ILV/HR. = 598 in AM ==> ILV: <1,200M
and 792 in PM ==> ILV <1,200

TOTAL = 598 / 792 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

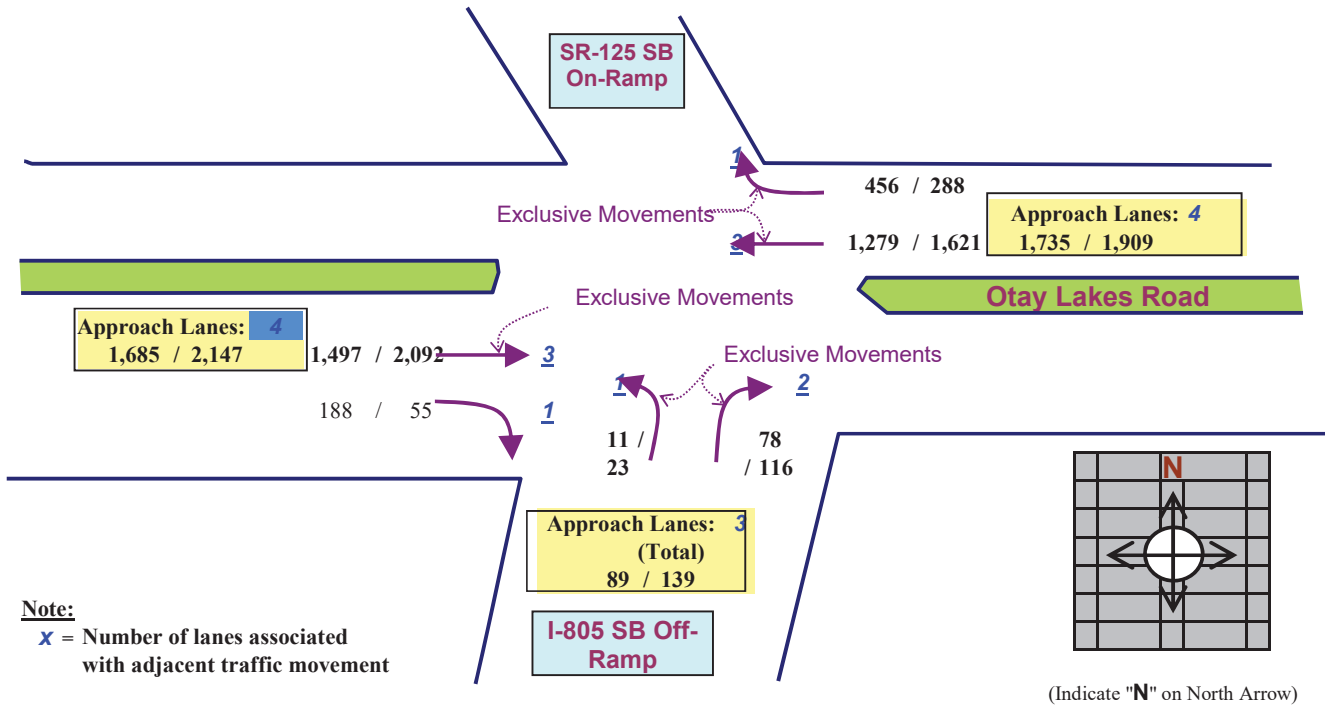
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

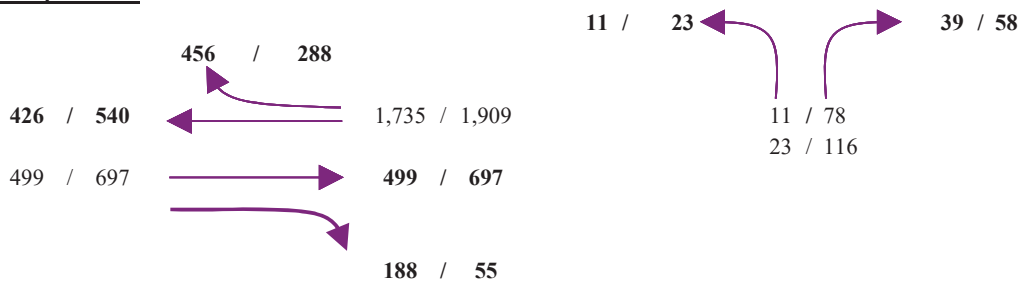
PROJECT: OVL

LOCATION: SR-125 NB / OTAY LAKES ROAD

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 456 / 499 / 540 / 697 $\Rightarrow$ 499 / 697

PHASE 2: 11 / 39 / 23 / 58 $\Rightarrow$ 39 / 58

OPERATING LEVEL:

ILV/HR. = 538 in AM $\Rightarrow$ ILV: <1,200M
and 755 in PM $\Rightarrow$ ILV <1,200

TOTAL = 538 / 755 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

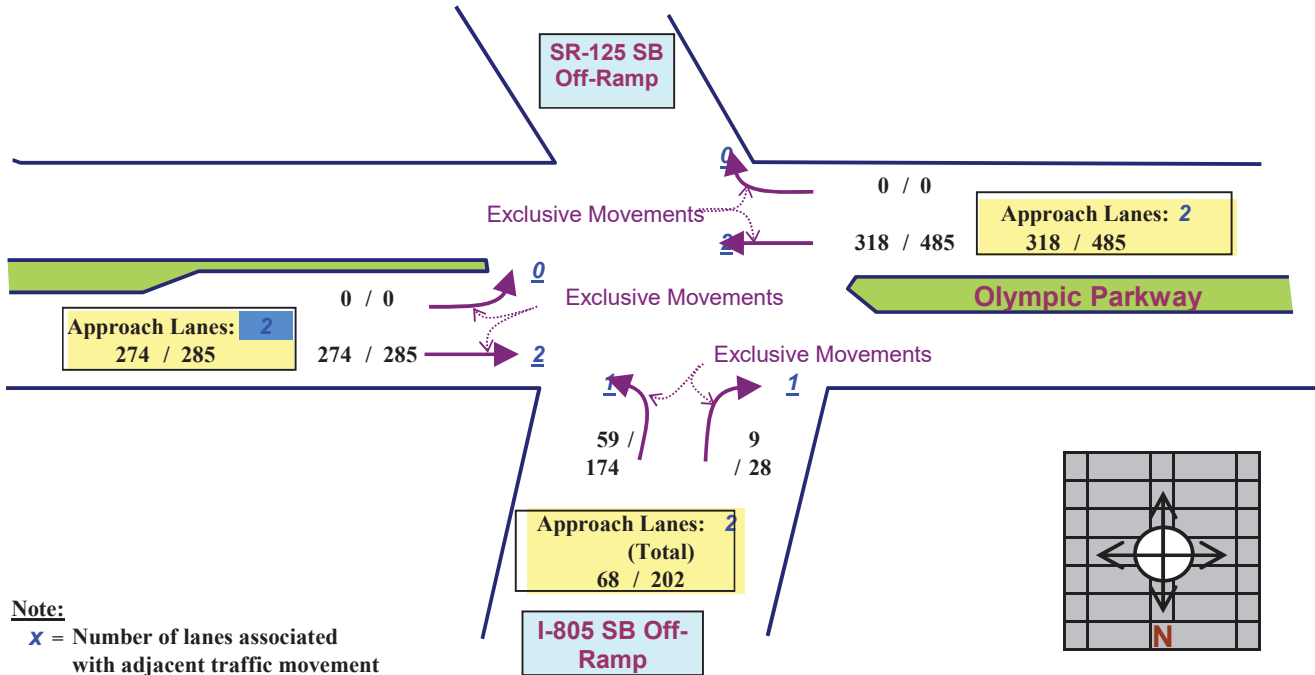
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

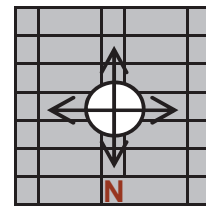
LOCATION: SR-125 SB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



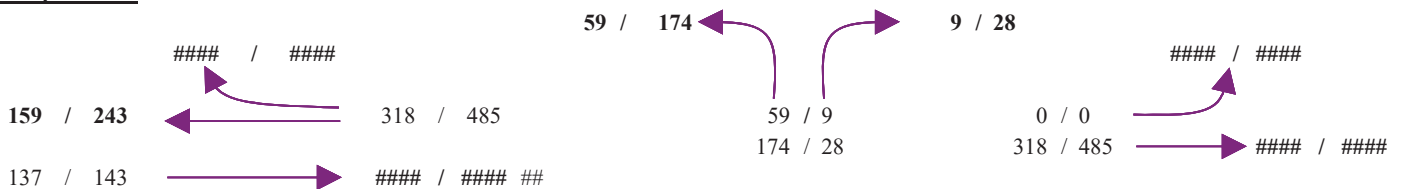
Note:

x = Number of lanes associated with adjacent traffic movement



(Indicate "N" on North Arrow)

ILV per Lane:



PHASE 1:

####	/	####	>	####	/	####
####	/	####	>	####	/	####

PHASE 2:

59	/	174	>	59	/	174
9	/	28	>	9	/	28

PHASE 3:

####	/	####	>	####	/	####
####	/	####	>	####	/	####

OPERATING LEVEL:

ILV/HR. = #### in AM ==> ILV: ####
and #### in PM ==> ####

TOTAL = #### / #### ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : ####
& ####

Appendix C

SANDAG Series 11 Traffic Forecast Model Results

SANDAG
Series 11
Southbay2

Otay Ranch
V-14 Nearterm
Cumulative Model
with Updated Otay Mesa
Land Use

Year 2020
Select Zone Run
TAZ 4051

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

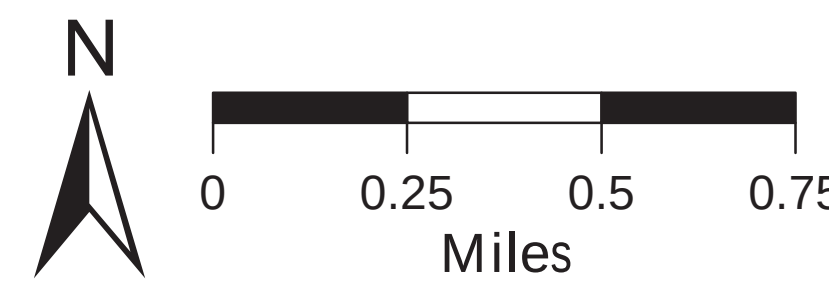
Traffic Analysis Zones

Selz Volumes & Percentage

Unadjusted ADT(x1000)

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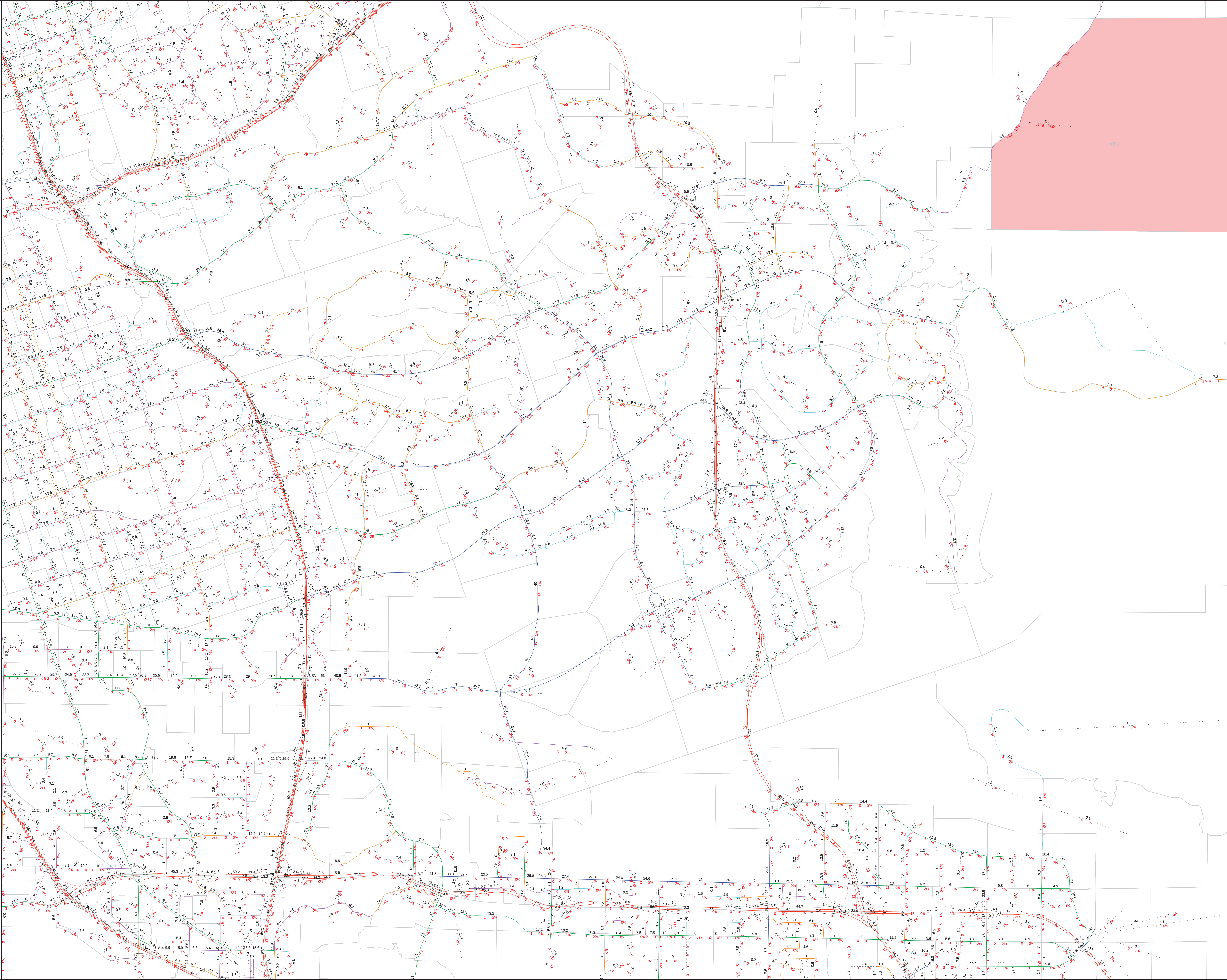
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401 B STREET, SUITE 800
SAN DIEGO, CALIFORNIA 92101 USA
(619) 689-1900
E-mail: sandag@sandag.org
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SANDAG

servicebureau

March 11, 2015



SANDAG
Series 11
Southbay2

Otay Ranch
V-14 Nearterm
Cumulative Model
with Updated Otay Mesa
Land Use

Year 2020
Select Zone Run
TAZ 4051

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

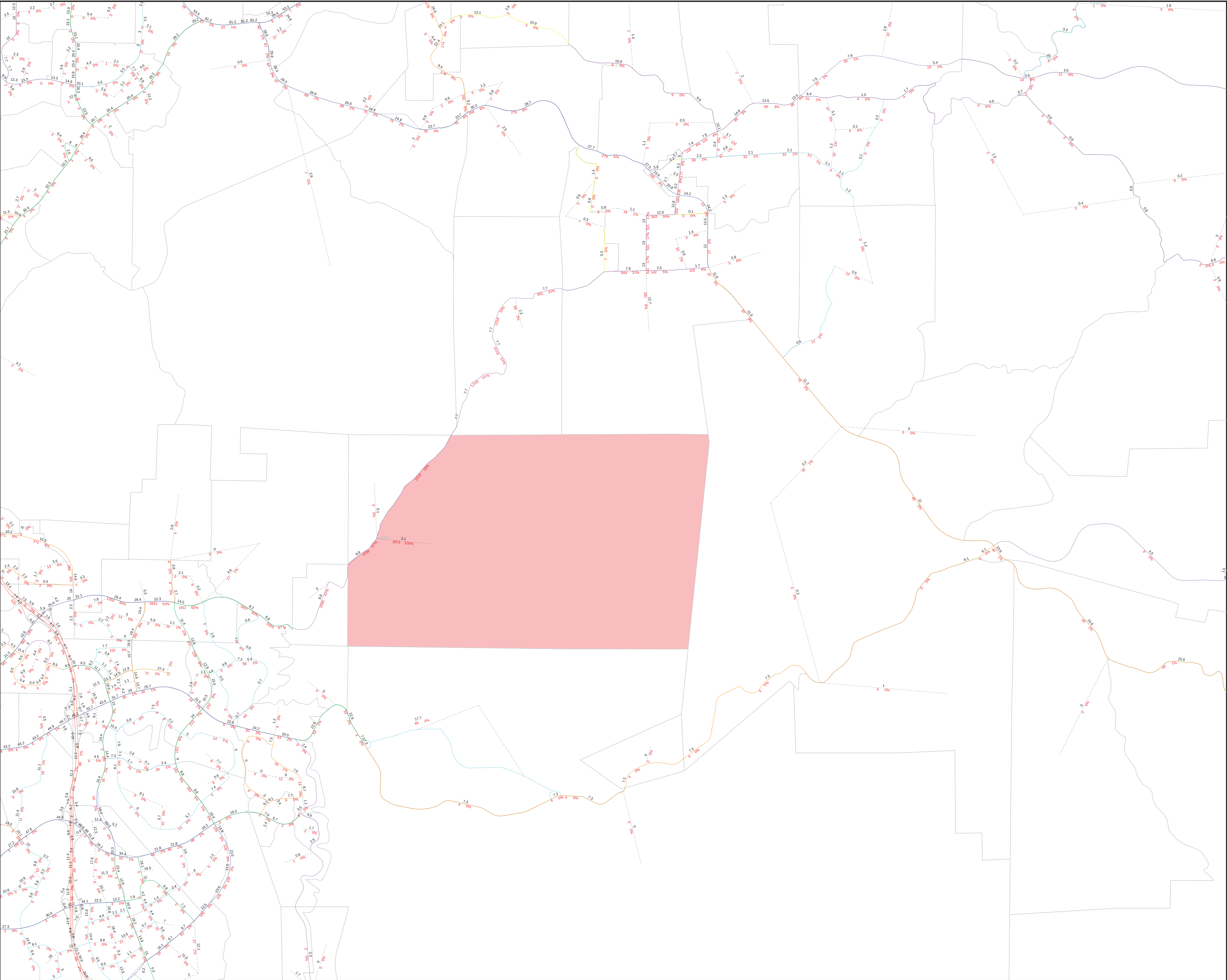
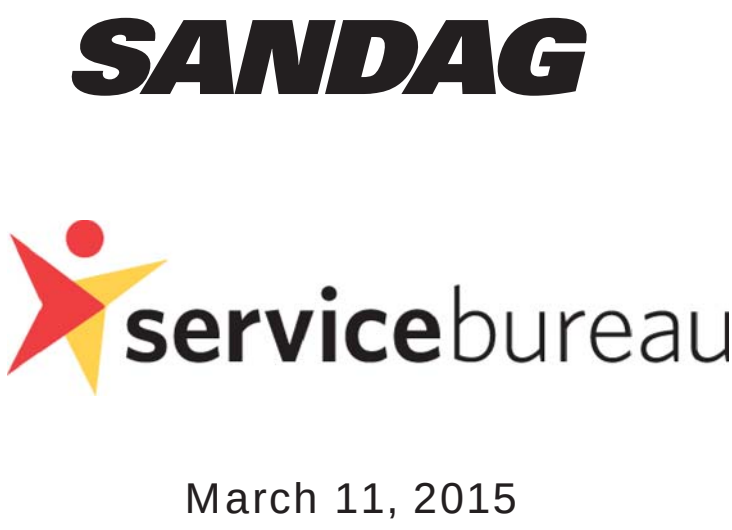
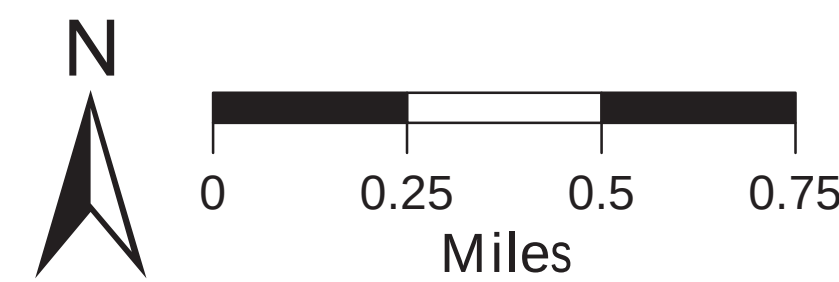
Traffic Analysis Zones

Selz Volumes & Percentage

Unadjusted ADT(x1000)

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Village 2 B&S

Otay Ranch V-14
Nearterm Cumulative
Model with Updated
Otay Mesa Land use

(2015 follow up run
with lu/network changes
along Proctor Vallley)

2025
Select Zone Run
TAZ 4051

Functional Classifications

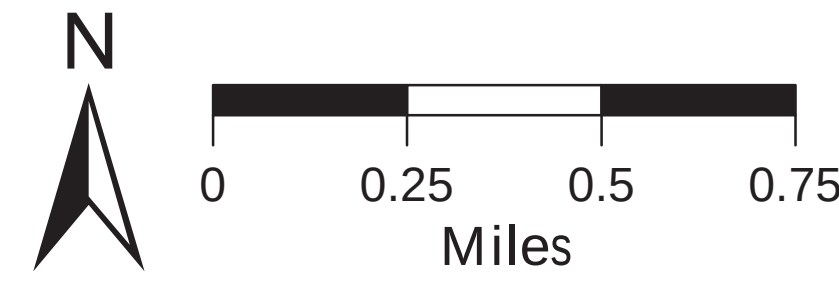
- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

Traffic Analysis Zones

- Selz Volumes & Percentage
- Unadjusted ADT(x1000)

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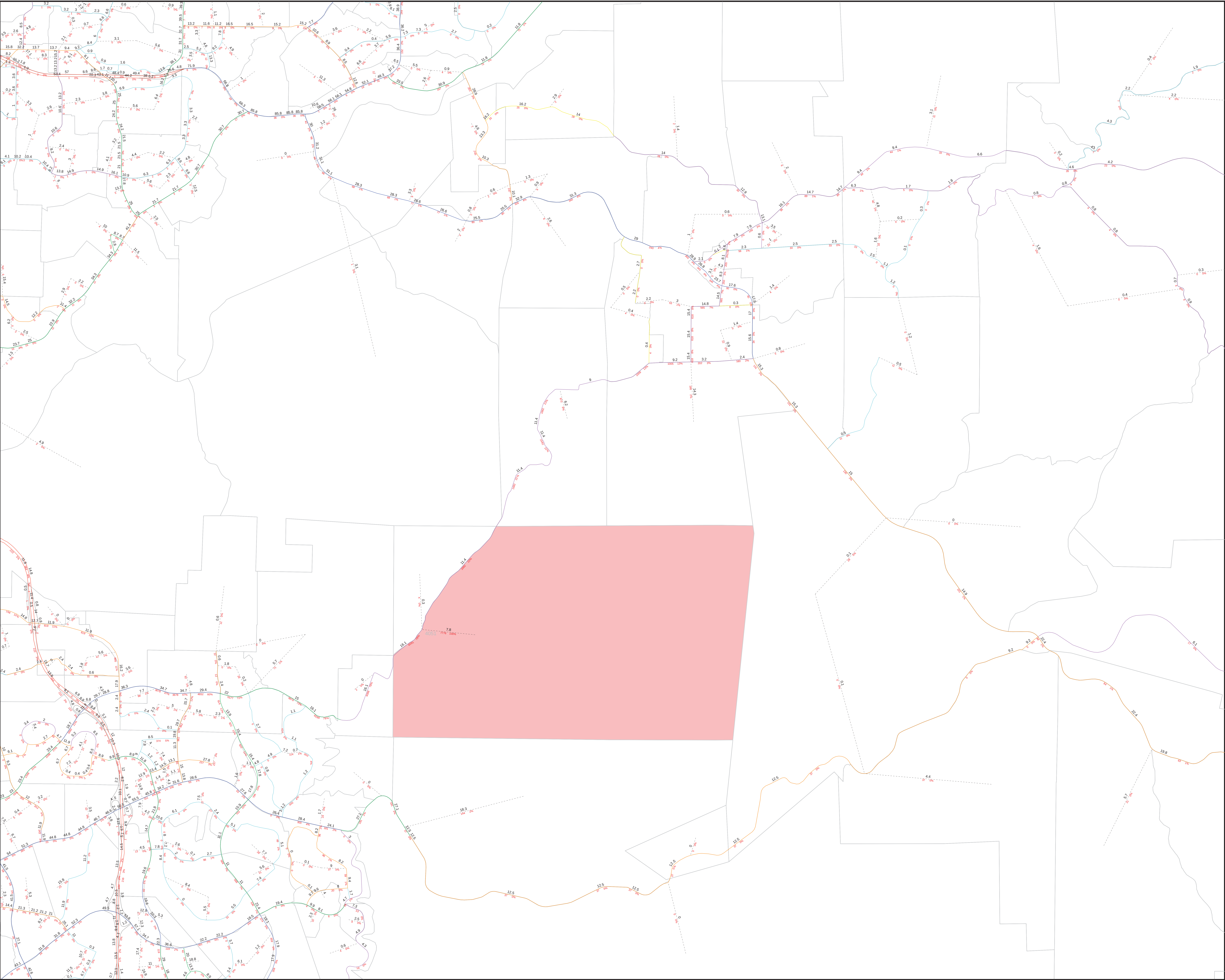
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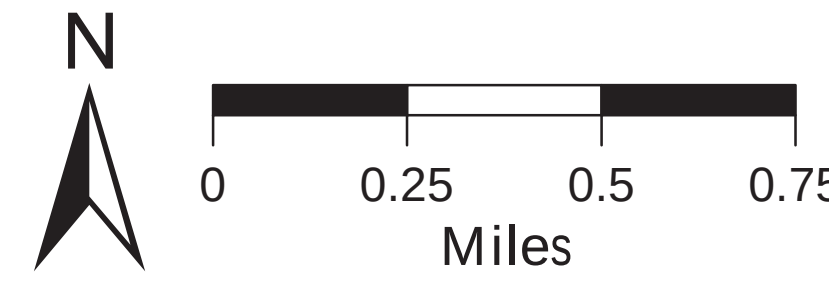
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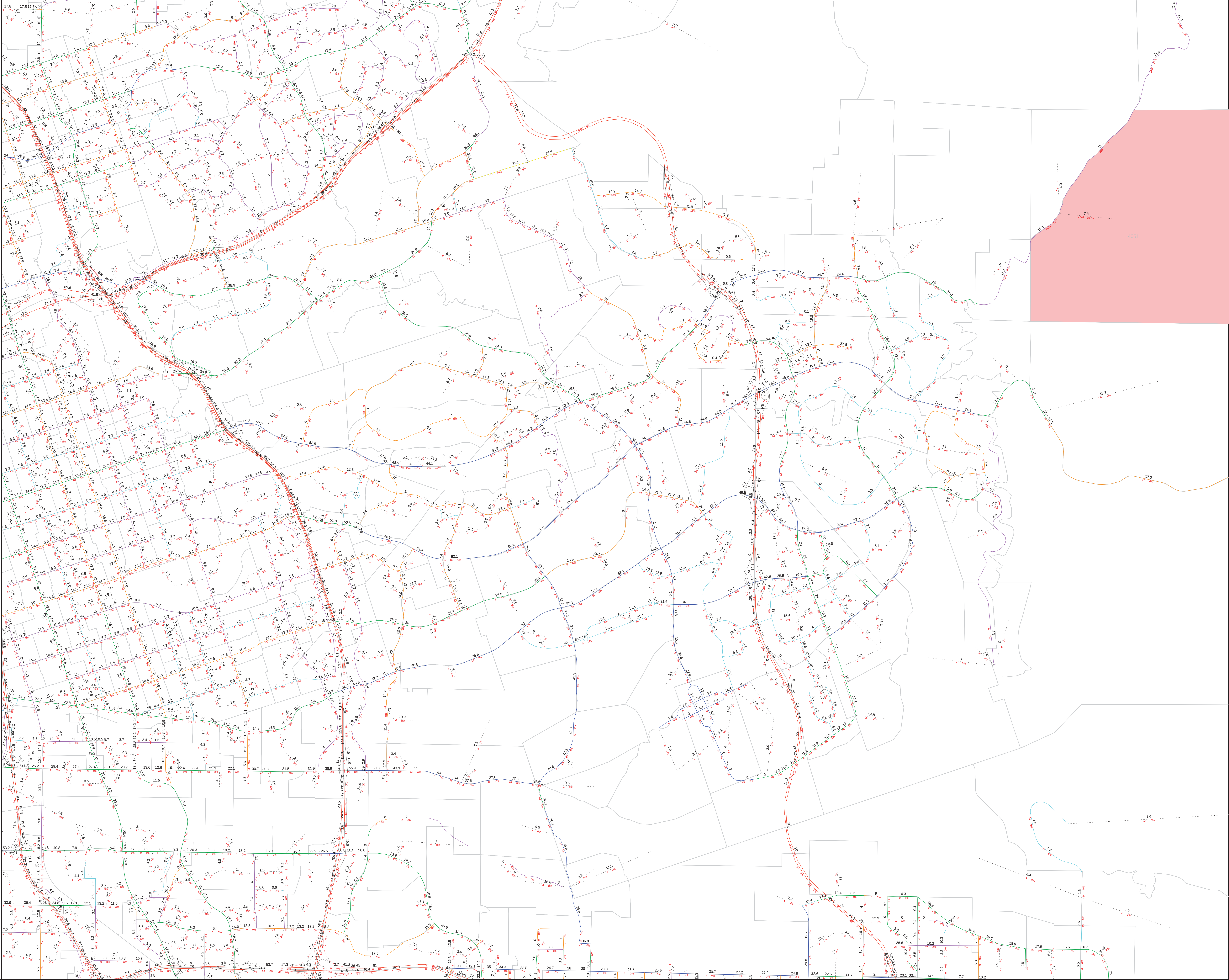
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Select Zone Run
TAZ 4051

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

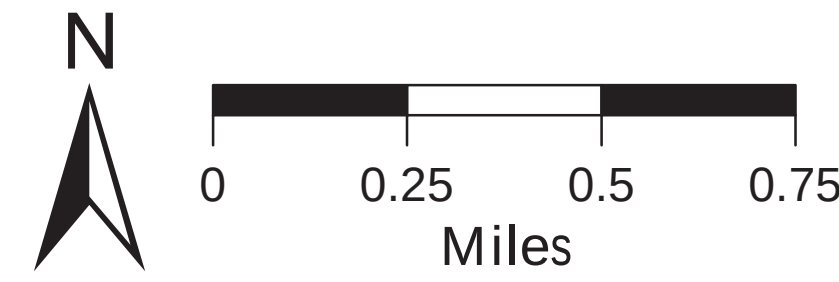
Traffic Analysis Zones

Selz Volumes & Percentage

Unadjusted ADT(x1000)

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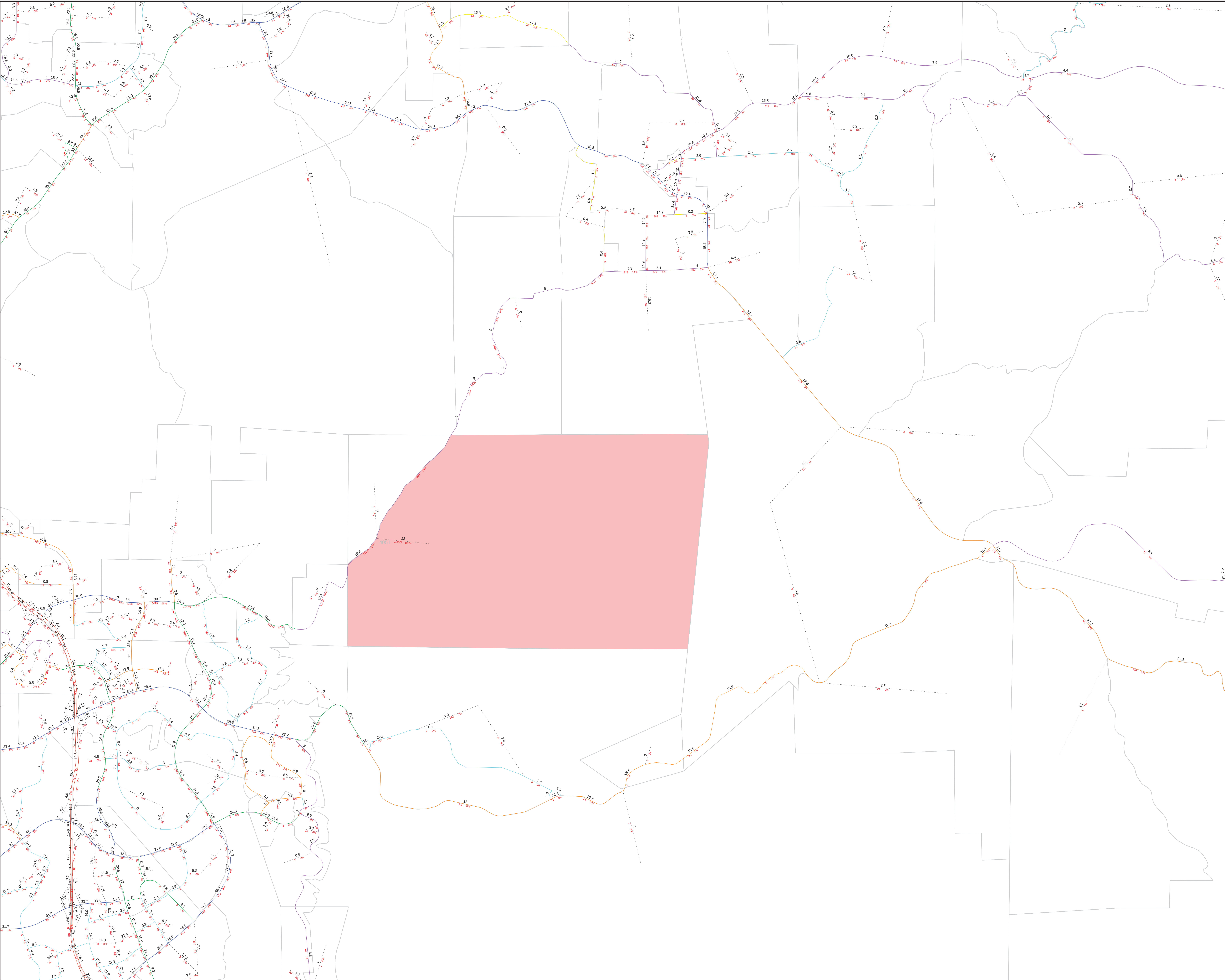
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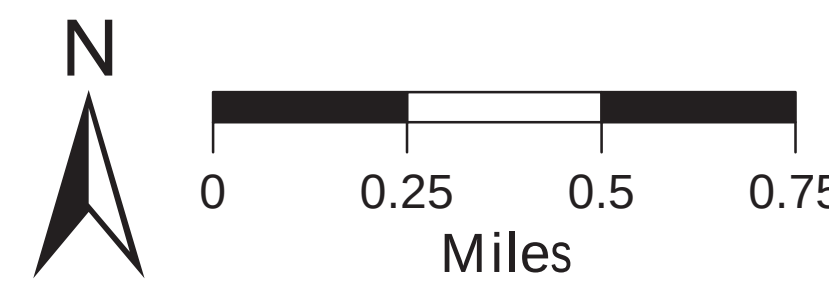
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Selz Volumes & Percentage

Unadjusted ADT(x1000)

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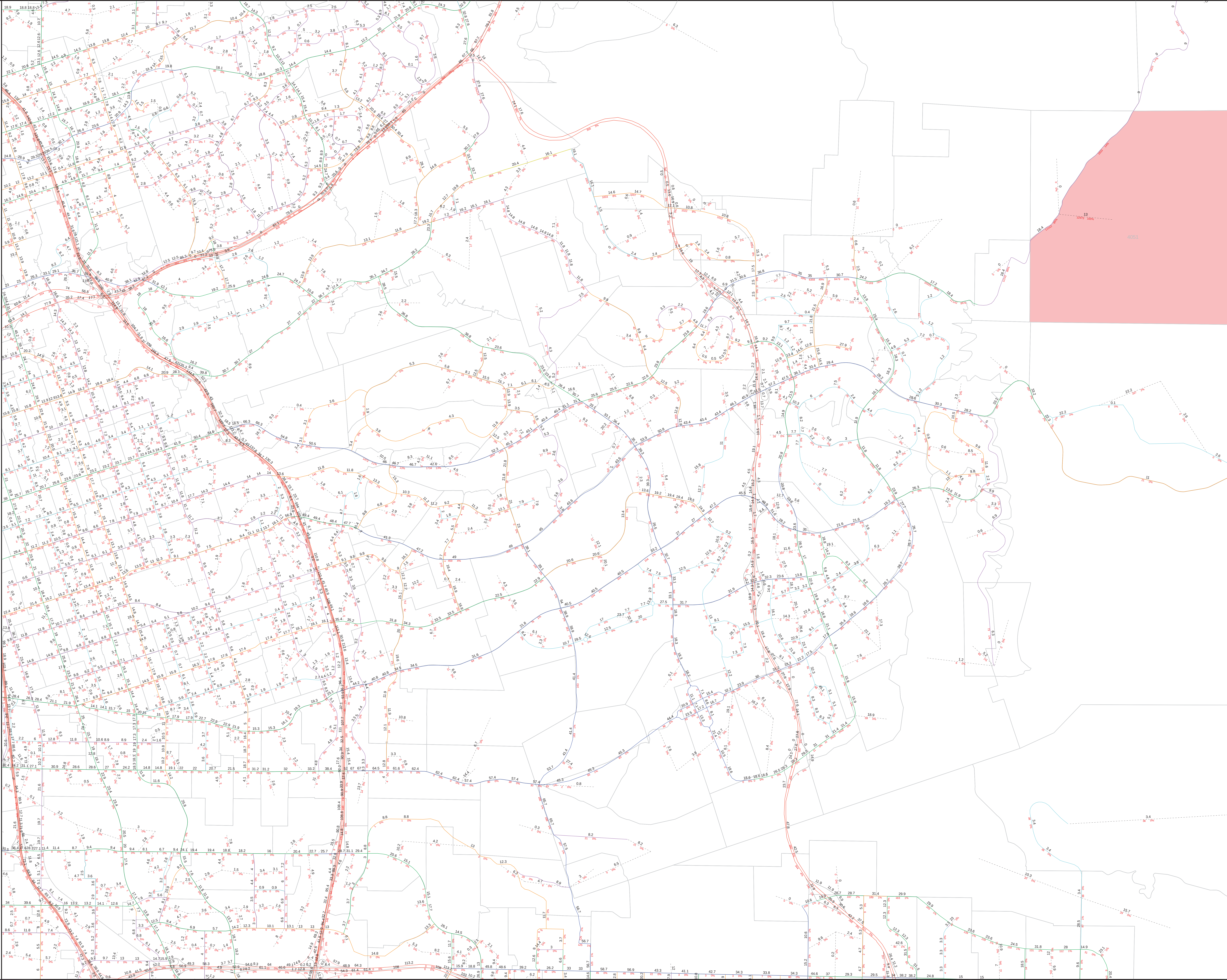
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February 24, 2015



Appendix D

Otay Ranch Village 14 and Planning Areas 16 & 19 - Project Vehicular Trip Distribution

MEMORANDUM

TO: Nick Ortiz, County of San Diego
Dave Kaplan, City of Chula Vista

FROM: Stephen Cook, Chen Ryan Associates

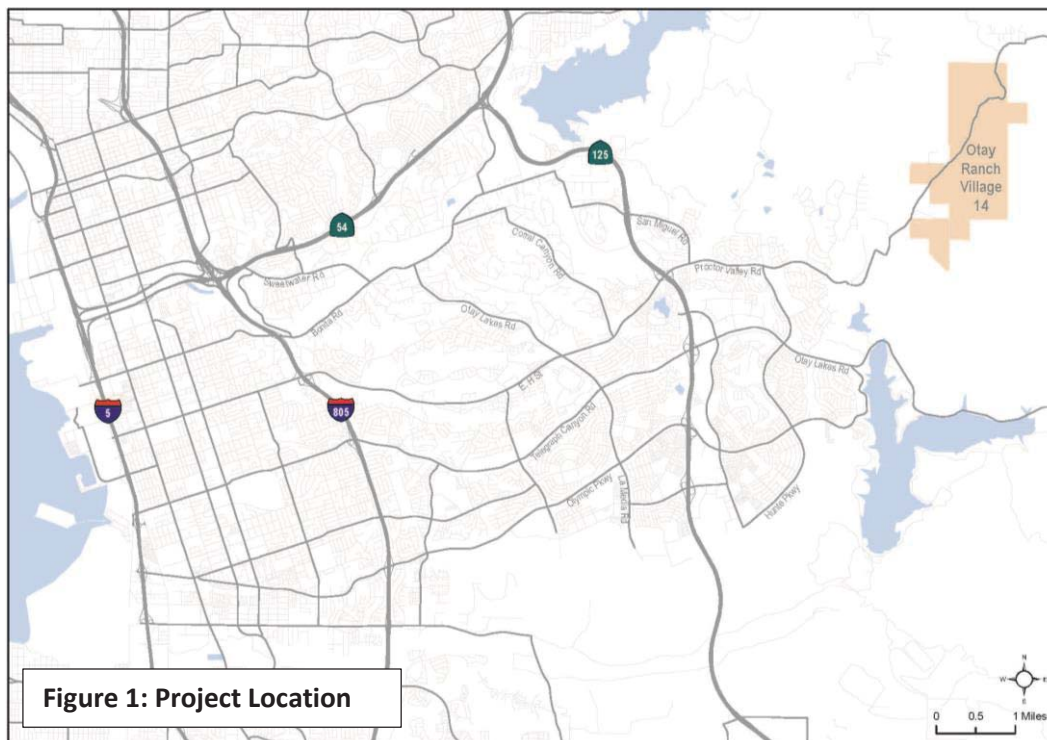
DATE: March 9, 2015

RE: Proctor Valley Village - Project Vehicular Trip Distribution

The purpose of this memorandum is to document the anticipated vehicular trip distribution pattern for the proposed Proctor Valley Village project (proposed project), as well as the methodology and assumptions used to establish the pattern.

PROPOSED PROJECT

The proposed Proctor Valley Village project is located along Proctor Valley Road north of the City of Chula Vista City Limits in the Otay Community Planning Area of the unincorporated County of San Diego, as shown in **Figure 1**. The proposed project will be predominately comprised of single family dwelling units but will also include multi-family and senior housing, neighborhood commercial, public parks, an elementary school and a fire station. All neighborhoods within the proposed project will take access via Proctor Valley Road.



Select Zone Assignment

To understand the land use interactions around the proposed project site, a select zone assignment was conducted for the proposed project TAZ, using the Year 2030 SANDAG Series 11 Transportation Forecast previously developed for the Village 13 project. This model represents the latest planned land uses in Chula Vista and the County of San Diego. The project TAZ was updated to include the proposed project land uses. Additionally, Proctor Valley Road was coded as a two-lane facility with a posted speed limit of 35 mph south of the project and as a Local Public Road with a 25 mph posted speed limit, along its current alignment, to the north of the project. The results of the select zone assignment is provided in **Attachment 1**.

Manual Adjustments

Based on a review of the select zone assignment, some illogical assumptions and anomalies within the model were discovered, particularly within the Jamul area. Therefore, the following manual adjustments were made to the select zone assignment distribution:

- Traffic to Commercial Uses in Rancho San Diego** – As shown in the **Figure 2**, the model assigned 5% of the project traffic to commercial uses located in Rancho San Diego, which are located over 10 miles away (22 minute drive)¹ from the project site. Conversely, only 1% of the project traffic was assigned to the neighborhood shopping center (with supermarket) located on Proctor Valley Road directly east of the SR-125 ramps only, which is located 3.4 miles away from the project (7 minute drive)¹. Since it is illogical to assume that commercial uses located over 10 miles away will draw 5 times the amount of project traffic than commercial uses only 3.4 miles away, 4% of the traffic was redistributed from the commercial uses in Rancho San Diego to the commercial uses located on Proctor Valley Road.



¹ Source: Google Maps

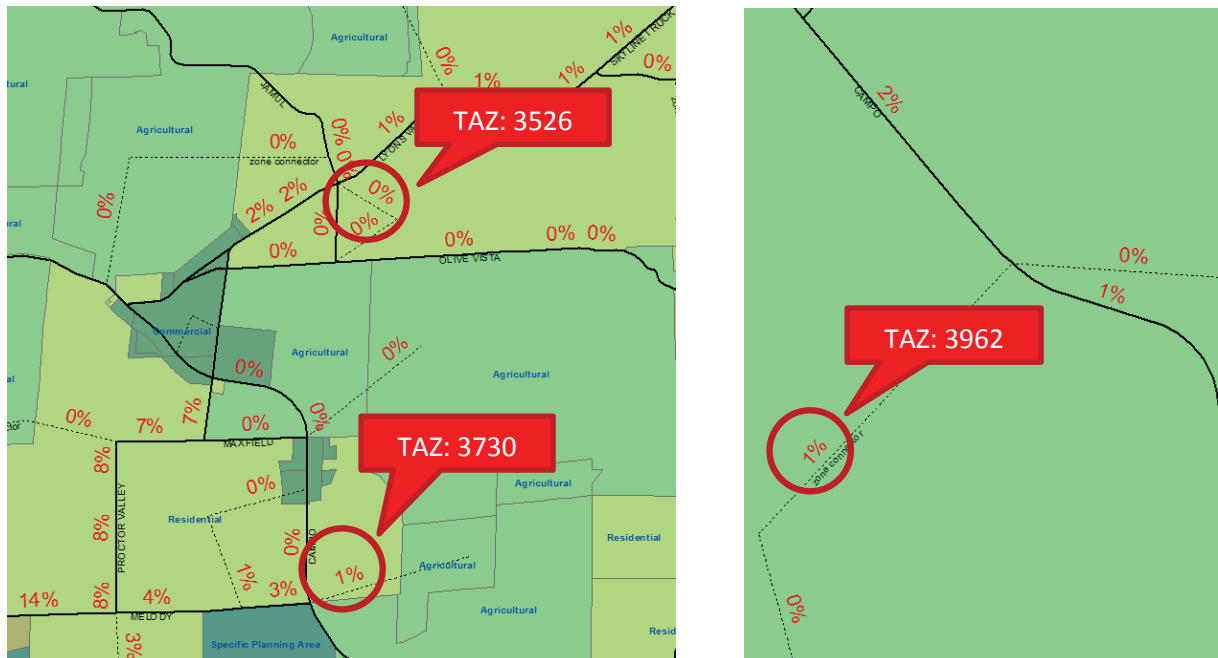
Figure 2: Proposed Project Commercial Trip Distribution

- *Project Traffic Distributed to Agricultural and Residential Uses in Jamul – As shown in the Figure 3 the model distributed 2% of the project traffic to agricultural/residential uses in Jamul (future land uses were based on the County Land Use Element). Since the proposed project is predominantly comprised of residential units, it seems illogical that this amount of project traffic would be distributed to agricultural and low density residential uses. Based on a review of the future year model land uses, the TAZs in which this project traffic was assigned to were coded to include following land uses as shown in Table 1 below:*

Table 1: Jamul TAZs with Inconsistent Land Uses from the County General Plan

TAZ	Lane Use	Amount	TAZ ADT
3730	Single Family Residential	99 DUs	1,078
	Neighborhood Prof (C-3)	3.5 Acres	3,765
3962	Single Family Residential	10 DUs	109
	Other Reaction	100.3 Acres	452

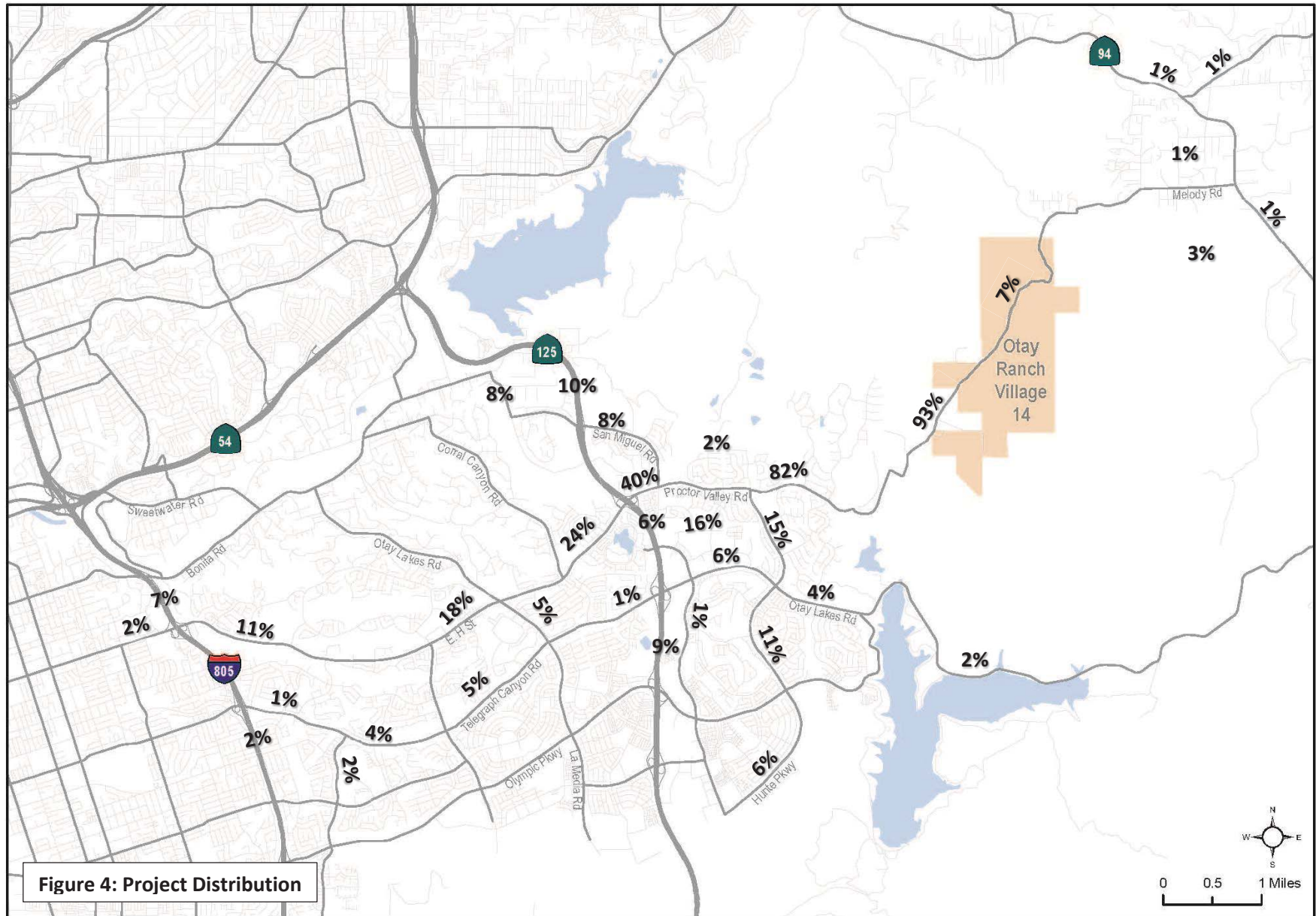
As shown in the table, TAZ 3730 contains 3.5 acres of commercial uses, based on a review of the County Land Use Element it was found that this area is zoned for agriculture uses. Therefore, the project traffic attracted to this zone was redistributed to other commercial uses in Chula Vista. Additionally, 1% of the proposed traffic is distributed to the Other Recreational uses TAZ 3962 which is zoned as agricultural lands in the County Land Use Element; therefore this traffic was also redistributed to Chula Vista.

**Figure 3: Project Traffic Distributed to Agricultural and Residential Uses in Jamul**

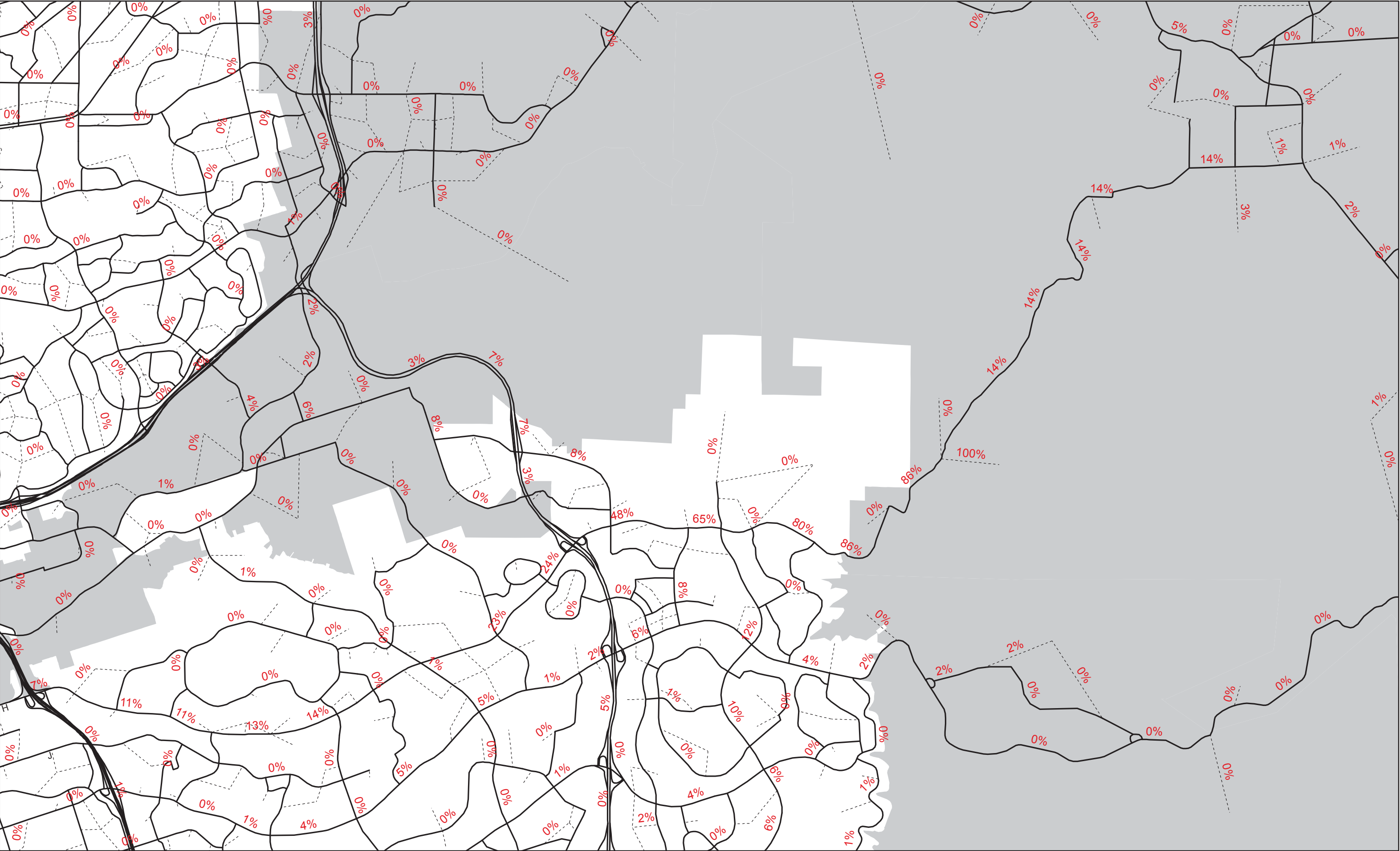
- *School Distribution* – Just under 1% of the project traffic assigned to TAZ 3526 (See Figure 3) whose predominate land use is a Middle school. The proposed project will actually be located within the City of Chula Vista School district, therefore these trips were redistributed to Eastlake Middle School, which will serve the project.

Project Distribution

The proposed project's vehicular trip distribution pattern was based on the Year 2030 Select Zone assignment with the assumed manual adjustments, as discussed above. **Figure 4** displays the assumed trip distribution pattern for the proposed project.



Attachment 1
Raw Select Zone Assignment



**Year 2030 SANDAG Series 11 Select Zone Assignment
Proctor Valley Village**

MEMORANDUM

TO: Nick Ortiz, County of San Diego
Dave Kaplan, City of Chula Vista

FROM: Stephen Cook, PE
Phuong Nguyen, PE

DATE: August 20, 2015

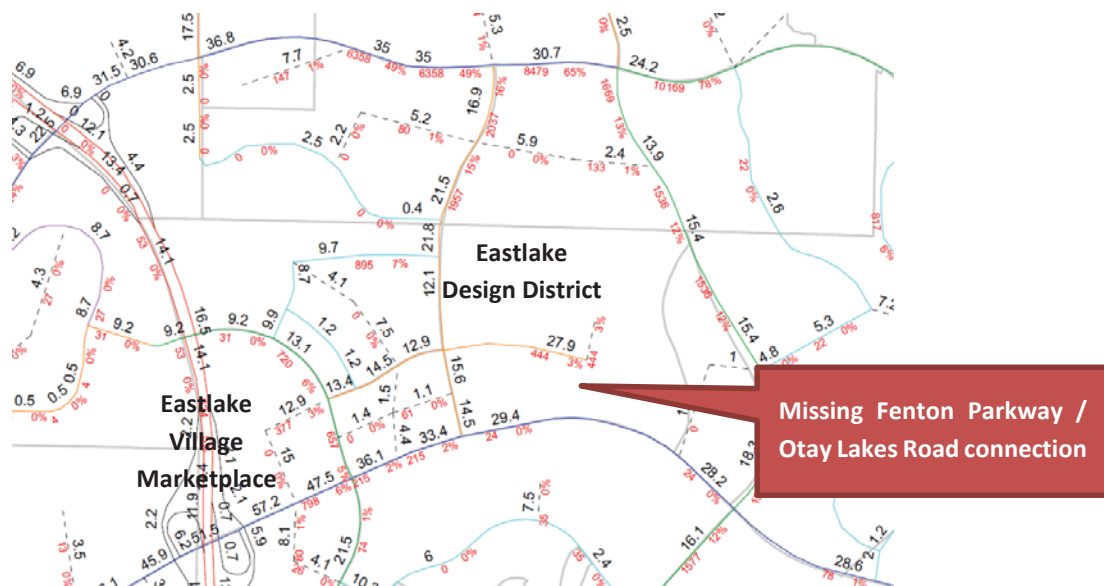
RE: Proctor Valley Village 14 and Preserve Project Vehicular Trip Distribution – Lane Avenue Traffic Distribution

The purpose of this memo is to document the proposed manual adjustments to the Proctor Valley Village 14 and Preserve project (Proposed Project) trip distribution pattern around the Eastlake Design District and the Eastlake Village Marketplace.

Select Zone Assignment

To understand the Proposed Project trip distribution, a select zone assignment was conducted for the Project TAZ updated to represent proposed land uses, using the Year 2030 SANDAG Series 11 Transportation Forecast previously developed for the Otay Ranch Village 13 project. The results of the select zone assignment is provided in **Attachment 1**. A screen shot is provided in **Figure 1** below of the focus are for the proposed manual adjustments, around the Eastlake Design District and the Eastlake Village Marketplace area.

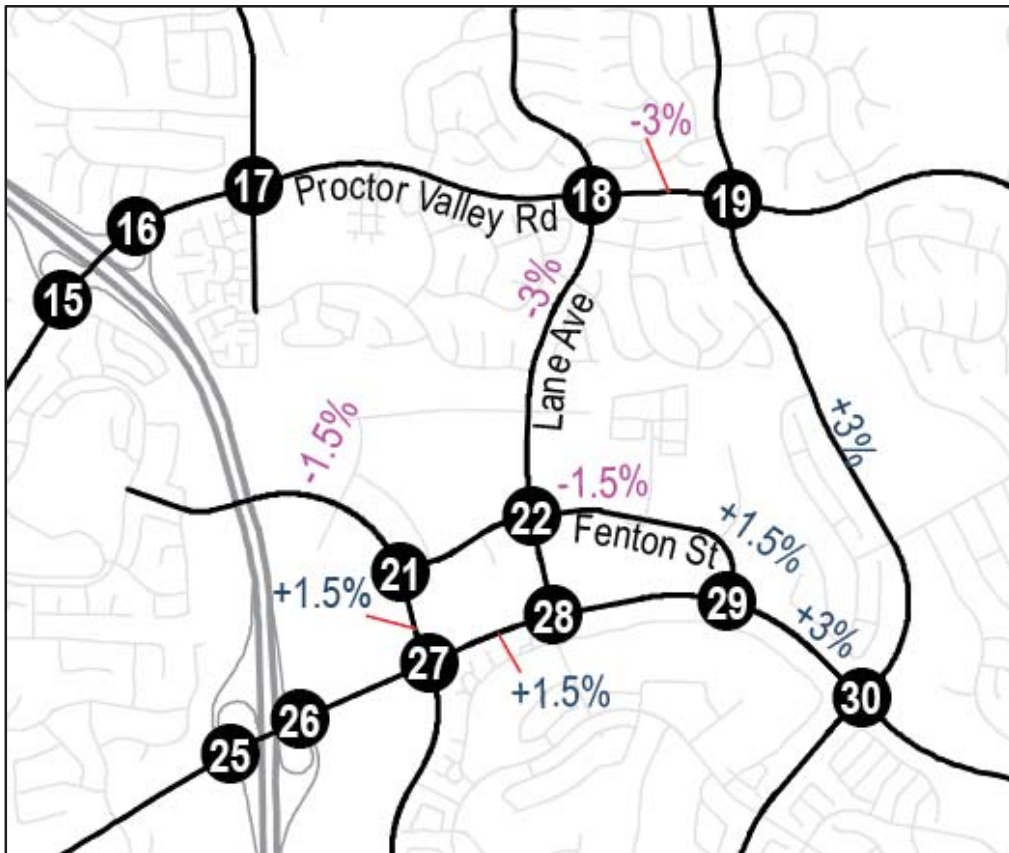
FIGURE 1
Year 2030 SANDAG SERIES 11 TRANSPORTATION FORECAST
SELECT ZONE ASSIGNMENT RESULTS



Proposed Manual Adjustments

As shown in Figure 1, the model does not include the eastern connection of Fenton Parkway to Otay Lakes Road, i.e. the Fenton Parkway / Otay Lakes Road intersection. Additionally, the Select Zone Assignment indicated that all of the Proposed Project trips (approximately 7%) traveling to and from the Eastlake Village Marketplace or the Eastlake Design District would solely use Lane Avenue and a number of non-circulation element roads (not typically analyzed in traffic studies) such as Bosewell Road and Miller Drive. 0% of the Proposed Project traffic would travel on Hunte Parkway (a circulation element roadway with a higher speed limit) to get to those destinations. To avoid underestimate of the potential traffic impacts to circulation element roads, approximately half (3%) of the Proposed Project traffic assigned to the Eastlake Village Marketplace or the Eastlake Design District via Lane Avenue and other non-circulation element roadways was assigned to use Hunte Parkway and Otay Lakes Road. This traffic would access the Design District from the Fenton Street / Otay Lakes Road intersection, which was not assumed on the model. **Figure 2** below displays the proposed shift in the project trip distribution.

**FIGURE 2
PROCTOR VALLEY VILLAGE
PROJECT'S DISTRIBUTION ADJUSTMENT**



Source: Chen Ryan Associates, August 2015

ATTACHMENT A

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Village 2 B&S

Otay Ranch V-14
Nearterm Cumulative
Model with Updated
Otay Mesa Land use

(2015 follow up run
with lu/network changes
along Proctor Vallley)

2030
Select Zone Run
TAZ 4051

Functional Classifications

- Freeway
- Prime
- Major
- Collector
- Light Collector
- Rural Collector
- Local
- Freeway Ramp
- Local Ramp
- Zone Connector

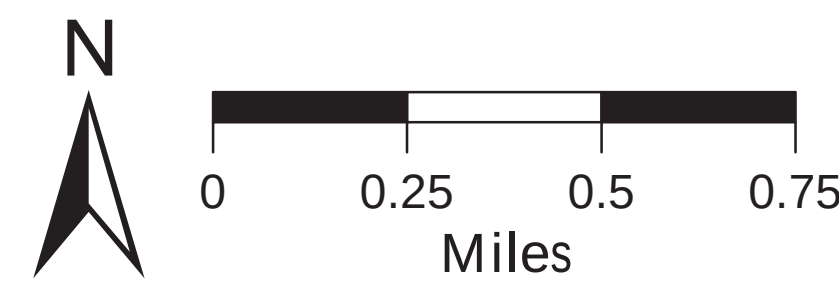
Traffic Analysis Zones

Selz Volumes & Percentage

Unadjusted ADT(x1000)

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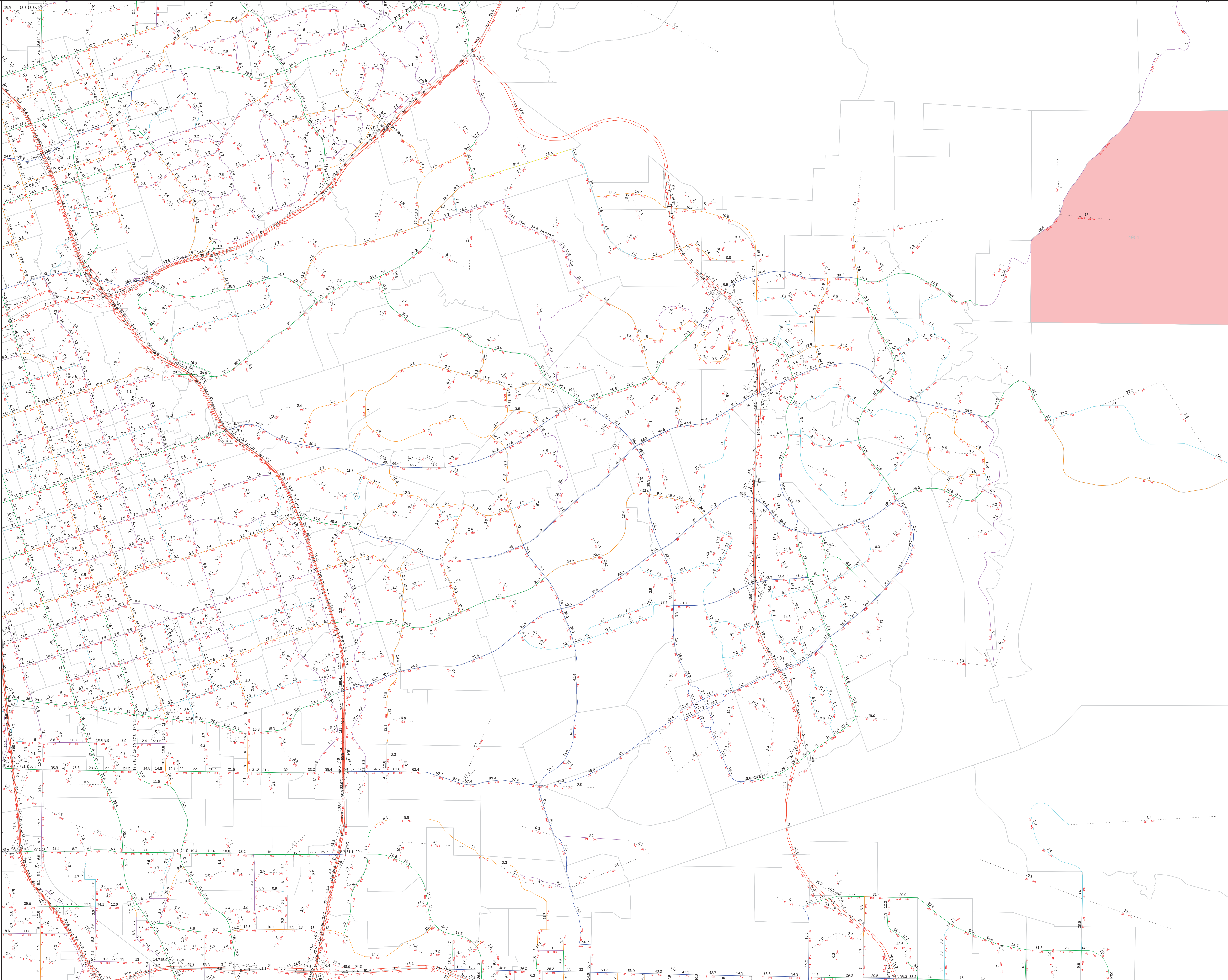
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February 24, 2015



Appendix E

Project Construction Timeline

Proctor Valley Village Central Phase

Phase Name	Phase Number	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Start Date	End Date	Num Days Week	Num Days
Site Preparation	1	18	0	0	10.8	7.3	20	9/1/2018	9/30/2018	5	20
Mass Grading	2	20	0	0	10.8	7.3	20	10/1/2018	6/30/2019	5	195
Slope Landscaping	3	20	0	0	10.8	7.3	20	7/1/2019	12/31/2019	5	132
Community Center	4	776	210	0	10.8	7.3	20	7/1/2019	10/31/2019	5	89
Home Construction	5	776	210	0	10.8	7.3	20	9/1/2019	3/31/2023	5	935
Exterior Painting	6	155	0	0	10.8	7.3	20	10/1/2019	1/31/2020	5	89
Commercial Phase 1	7	776	210	0	10.8	7.3	20	11/1/2019	5/31/2023	5	934
Elementary School	8	776	210	0	10.8	7.3	20	6/1/2021	11/30/2021	5	131
Fire Station	9	776	210	0	10.8	7.3	20	7/1/2021	7/31/2022	5	282
Commercial Phase 2	10	776	210	0	10.8	7.3	20	2/1/2022	10/31/2022	5	195
School Paving	11	15	0	0	10.8	7.3	20	6/1/2022	11/30/2022	5	131
Fire Station Paving	12	15	0	0	10.8	7.3	20	6/1/2022	6/30/2022	5	22
Commercial Phase 3	13	776	210	0	10.8	7.3	20	10/1/2022	10/31/2022	5	21
Parks	14	20	0	0	10.8	7.3	20	6/1/2023	11/30/2023	5	131
		3104	840								

Proctor Valley Village North Phase

Phase Name	Phase Number	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Start Date	End Date	Num Days Week	Num Days
Site Preparation	1	18	0	0	10.8	7.3	20	9/1/2020	9/30/2020	5	22
Mass Grading	2	20	0	0	10.8	7.3	20	10/1/2020	3/31/2021	5	130
Slope Landscaping	3	20	0	0	10.8	7.3	20	4/1/2021	7/31/2021	5	87
Home Construction	4	273	74	0	10.8	7.3	20	8/1/2021	4/30/2024	5	717
Exterior Painting	5	55	0	0	10.8	7.3	20	6/30/2022	9/30/2022	5	67
Parks	6	20	0	0	10.8	7.3	20	2/1/2024	5/31/2024	5	87
		328	74								

Proctor Valley Village South Phase

Phase Name	Phase Number	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Start Date	End Date	Num Days Week	Num Days
Site Preparation	1	18	0	0	10.8	7.3	20	10/1/2021	10/31/2021	5	21
Mass Grading	2	20	0	0	10.8	7.3	20	11/1/2021	3/31/2022	5	109
Slope Landscaping	3	20	0	0	10.8	7.3	20	4/1/2022	6/30/2022	5	65
Home Construction	4	144	0	0	10.8	7.3	20	8/1/2022	12/31/2024	5	632
Exterior Painting	5	29	0	0	10.8	7.3	20	1/1/2024	4/30/2024	5	87
Parks	6	20	0	0	10.8	7.3	20	10/1/2024	1/31/2025	5	89

PEAK CONSTRUCTION TRAFFIC WOULD OCCUR BETWEEN 6/30/2022 AND 7/31/2022

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	2018															
		Sep-18				Oct-18				Nov-18				Dec-18			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C			2.5													
Site Preparation	N																
Site Preparation	S																
Mass Grading	C							15.0				15.0				15.0	
Mass Grading	N																
Mass Grading	S																
Slope Landscaping	C																
Slope Landscaping	N																
Slope Landscaping	S																
Community Center - C	C																
Senior Center - C	C																
Swim Club - C	C																
Commercial - C1	C																
Elementary School - C	C																
Fire Station - C	C																
Commercial - C2	C																
Swim Club - N	N																
Commercial - C3	C																
Swim Club - S	S																
Home Construction - SF-1	C																
Home Construction - SF-2	C																
Home Construction - SF-3	C																
Home Construction - MF	C																
Home Construction - MU	C																
Home Construction - SF-1	N																
Home Construction - SF-2	N																
Home Construction - SF-1	S																
Totals		0	0	3	0	0	0	15	0	0	0	15	0	0	0	15	0
Monthly Totals		3				15				15				15			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q1-2019												Q2-2019											
		Jan-19				Feb-19				Mar-19				Apr-19				May-19				Jun-19			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C	15.0				15.0				15.0				15.0				15.0				15.0			
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C																								
Home Construction - SF-2	C																								
Home Construction - SF-3	C																								
Home Construction - MF	C																								
Home Construction - MU	C																								
Home Construction - SF-1	N																								
Home Construction - SF-2	N																								
Home Construction - SF-1	S																								
Totals		0	0	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0	15	0
Monthly Totals		15				15				15				15				15				15			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q3-2019												Q4-2019																									
		Jul-19				Aug-19				Sep-19				Oct-19				Nov-19				Dec-19																	
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P														
Site Preparation	C	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0															
Site Preparation	N																																						
Site Preparation	S																																						
Mass Grading	C																																						
Mass Grading	N																																						
Mass Grading	S																																						
Slope Landscaping	C																																						
Slope Landscaping	N																																						
Slope Landscaping	S																																						
Community Center - C	C	3.2	1.6	5.0	3.2	1.6	5.0	3.2	1.6	5.0	3.2	1.6	5.0	0.6	0.6																								
Senior Center - C	C	6.3	2.5	5.0	6.3	2.5	5.0	6.3	2.5	5.0	6.3	2.5	5.0	1.3	1.3	1.0	0.5	5.0																					
Swim Club - C	C																																						
Commercial - C1	C																																						
Elementary School - C	C																																						
Fire Station - C	C																																						
Commercial - C2	C																																						
Swim Club - N	N																																						
Commercial - C3	C																																						
Swim Club - S	S																																						
Home Construction - SF-1	C	326.2	96.9	5.0	326.2	96.9	5.0	326.2	96.9	5.0	326.2	96.9	5.0	326.2	96.9	5.0	326.2	96.9	5.0	65.2																			
Home Construction - SF-2	C																				99.4	29.5	5.0	99.4	29.5	5.0	99.4	29.5	5.0	99.4	29.5	5.0	99.4	29.5	5.0	99.4	29.5	5.0	19.9
Home Construction - SF-3	C																				137.5	40.8	5.0	137.5	40.8	5.0	137.5	40.8	5.0	137.5	40.8	5.0	137.5	40.8	5.0	137.5	40.8	5.0	27.5
Home Construction - MF	C																				99.4	14.8	5.0	99.4	14.8	5.0	99.4	14.8	5.0	99.4	14.8	5.0	99.4	14.8	5.0	99.4	14.8	5.0	19.9
Home Construction - MU	C																				77.8	11.5	5.0	77.8	11.5	5.0	77.8	11.5	5.0	77.8	11.5	5.0	77.8	11.5	5.0	77.8	11.5	5.0	15.6
Home Construction - SF-1	N																																						
Home Construction - SF-2	N																																						
Home Construction - SF-1	S																																						
Totals																					10	4	15	0	10	4	15	0	750	198	40	0	750	198	40	2	740	193	30
Monthly Totals		29				29				987				989				966				1,118																	

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q1-2020												Q2-2020											
		Jan-20				Feb-20				Mar-20				Apr-20				May-20				Jun-20			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C																								
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C	1.0	0.5	5.0		1.0	0.5	5.0		1.0	0.5	5.0				0.2				0.2					
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2
Home Construction - SF-2	C	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9
Home Construction - SF-3	C	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5
Home Construction - MF	C	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9
Home Construction - MU	C	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6
Home Construction - SF-1	N																								
Home Construction - SF-2	N																								
Home Construction - SF-1	S																								
Totals		741	194	30	148	741	194	30	148	741	194	30	148	740	193	25	148	740	193	25	148	740	193	25	148
Monthly Totals		1,113				1,113				1,113				1,107				1,107				1,107			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q3-2020												Q4-2020											
		Jul-20				Aug-20				Sep-20				Oct-20				Nov-20				Dec-20			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C																								
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C																								326.2
Home Construction - SF-2	C	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9
Home Construction - SF-3	C	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5
Home Construction - MF	C	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9
Home Construction - MU	C	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6
Home Construction - SF-1	N																								
Home Construction - SF-2	N																								
Home Construction - SF-1	S																								
Totals		740	193	25	148	740	193	25	148	740	193	28	148	740	193	40	148	740	193	40	148	740	193	40	148
Monthly Totals		1,107				1,107				1,109				1,122				1,122				1,122			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q1-2021												Q2-2021											
		Jan-21				Feb-21				Mar-21				Apr-21				May-21				Jun-21			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C	15.0	15.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C																								
Home Construction - SF-2	C																								
Home Construction - SF-3	C																								
Home Construction - MF	C																								
Home Construction - MU	C																								
Home Construction - SF-1	N																								
Home Construction - SF-2	N																								
Home Construction - SF-1	S																								
Totals		740	193	40	148	740	193	40	148	740	193	25	148	740	193	29	148	740	193	29	148	743	195	35	148
Monthly Totals		1,122				1,122				1,107				1,110				1,110				1,122			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q3-2021												Q4-2021												
		Jul-21				Aug-21				Sep-21				Oct-21				Nov-21				Dec-21				
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	
Site Preparation	C	3.8												2.5				15.0					15.0			
Site Preparation	N																									
Site Preparation	S																									
Mass Grading	C																									
Mass Grading	N																									
Mass Grading	S																									
Slope Landscaping	C																									
Slope Landscaping	N																									
Slope Landscaping	S																									
Community Center - C	C																									
Senior Center - C	C																									
Swim Club - C	C																									
Commercial - C1	C	3.2	1.6	6.3		3.2	1.6	6.3		3.2	1.6	6.3		3.2	1.6	6.3	0.6	3.2	1.6	6.3	0.6				0.6	
Elementary School - C	C	38.4	19.7	6.3		38.4	19.7	6.3		38.4	19.7	6.3		38.4	19.7	6.3		38.4	19.7	6.3		38.4	19.7	6.3		
Fire Station - C	C																									
Commercial - C2	C																									
Swim Club - N	N																									
Commercial - C3	C																									
Swim Club - S	S																									
Home Construction - SF-1	C	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	
Home Construction - SF-2	C	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	
Home Construction - SF-3	C	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	
Home Construction - MF	C	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	
Home Construction - MU	C	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	
Home Construction - SF-1	N													164.2	48.7	3.8		164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	
Home Construction - SF-2	N													105.1	31.2	3.8		105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	
Home Construction - SF-1	S																									
Totals		782	215	41	148	782	215	38	148	782	215	38	148	1,051	295	48	149	1,051	295	60	203	1,048	293	54	203	
Monthly Totals		1,186				1,182				1,182				1,542				1,608				1,597				

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q1-2022												Q2-2022											
		Jan-22				Feb-22				Mar-22				Apr-22				May-22				Jun-22			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C	15.0																							
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2
Home Construction - SF-2	C	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9
Home Construction - SF-3	C	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5
Home Construction - MF	C	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9
Home Construction - MU	C	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6
Home Construction - SF-1	N	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8
Home Construction - SF-2	N	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0
Home Construction - SF-1	S																								
Totals		1,048	293	54	202	1,053	296	44	210	1,053	296	44	210	1,053	296	46	210	1,053	296	46	211	1,057	298	58	211
Monthly Totals		1,597				1,602				1,602				1,604				1,605				1,623			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q3-2022												Q4-2022											
		Jul-22				Aug-22				Sep-22				Oct-22				Nov-22				Dec-22			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C	2.5																							
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C	38.4	19.7	6.3	7.7				7.7																
Fire Station - C	C	4.8	2.5	5.0	1.0	4.8	2.5	5.0	1.0	4.8	2.5	5.0	1.0	4.8	2.5	5.0		4.8	2.5	5.0					
Commercial - C2	C	3.2	1.6	6.3		3.2	1.6	6.3		3.2	1.6	6.3		3.2	1.6	6.3	0.6	3.2	1.6	6.3	0.6			0.6	
Swim Club - N	N	1.0	0.5	5.0		1.0	0.5	5.0	0.2	1.0	0.5	5.0	0.2												
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2
Home Construction - SF-2	C	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9
Home Construction - SF-3	C	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5
Home Construction - MF	C	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9
Home Construction - MU	C	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6
Home Construction - SF-1	N	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8
Home Construction - SF-2	N	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0
Home Construction - SF-1	S					180.0	53.5	5.0		180.0	53.5	5.0		180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0
Totals		1,057	298	58	211	1,198	331	54	211	1,198	331	54	203	1,197	331	49	239	1,197	331	49	239	1,189	327	38	239
Monthly Totals		1,623				1,794				1,787				1,816				1,816				1,792			

380 1,436

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q1-2023												Q2-2023											
		Jan-23				Feb-23				Mar-23				Apr-23				May-23				Jun-23			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C																								
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																					3.2	1.6	6.3	
Swim Club - S	S																								
Home Construction - SF-1	C	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2	326.2	96.9	5.0	65.2				65.2
Home Construction - SF-2	C	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9	99.4	29.5	5.0	19.9				19.9
Home Construction - SF-3	C	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5	137.5	40.8	5.0	27.5				27.5
Home Construction - MF	C	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9	99.4	14.8	5.0	19.9				19.9
Home Construction - MU	C	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6	77.8	11.5	5.0	15.6				15.6
Home Construction - SF-1	N	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8
Home Construction - SF-2	N	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0
Home Construction - SF-1	S	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0
Totals		1,189	327	38	238	1,189	327	38	238	1,189	327	38	238	1,189	327	38	238	1,189	327	38	238	452	135	19	238
Monthly Totals		1,792				1,792				1,792				1,792				1,792				844			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q3-2023												Q4-2023											
		Jul-23				Aug-23				Sep-23				Oct-23				Nov-23				Dec-23			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C																								
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C	3.2	1.6	6.3		3.2	1.6	6.3		3.2	1.6	6.3		3.2	1.6	6.3	0.6	3.2	1.6	6.3	0.6				0.6
Swim Club - S	S																								
Home Construction - SF-1	C				65.2																				
Home Construction - SF-2	C				19.9																				
Home Construction - SF-3	C				27.5																				
Home Construction - MF	C				19.9																				
Home Construction - MU	C				15.6																				
Home Construction - SF-1	N	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8
Home Construction - SF-2	N	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0
Home Construction - SF-1	S	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0
Totals		452	135	19	238	452	135	19	90	452	135	19	90	452	135	19	90	452	135	19	90	449	133	13	90
Monthly Totals		844				696				696				697				697				686			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q1-2024												Q2-2024											
		Jan-24				Feb-24				Mar-24				Apr-24				May-24				Jun-24			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C																								
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C																								
Home Construction - SF-2	C																								
Home Construction - SF-3	C																								
Home Construction - MF	C																								
Home Construction - MU	C																								
Home Construction - SF-1	N	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8	164.2	48.7	3.8	32.8				32.8				32.8
Home Construction - SF-2	N	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0	105.1	31.2	3.8	21.0				21.0				21.0
Home Construction - SF-1	S	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0
Totals		449	133	13	90	449	133	13	90	449	133	13	90	449	133	13	90	180	53	5	90	180	53	5	90
Monthly Totals		685				685				685				685				328				328			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q3-2024												Q4-2024											
		Jul-24				Aug-24				Sep-24				Oct-24				Nov-24				Dec-24			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C																								
Site Preparation	N																								
Site Preparation	S																								
Mass Grading	C																								
Mass Grading	N																								
Mass Grading	S																								
Slope Landscaping	C																								
Slope Landscaping	N																								
Slope Landscaping	S																								
Community Center - C	C																								
Senior Center - C	C																								
Swim Club - C	C																								
Commercial - C1	C																								
Elementary School - C	C																								
Fire Station - C	C																								
Commercial - C2	C																								
Swim Club - N	N																								
Commercial - C3	C																								
Swim Club - S	S																								
Home Construction - SF-1	C																								
Home Construction - SF-2	C																								
Home Construction - SF-3	C																								
Home Construction - MF	C																								
Home Construction - MU	C																								
Home Construction - SF-1	N				32.8																				
Home Construction - SF-2	N				21.0																				
Home Construction - SF-1	S	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0	180.0	53.5	5.0	36.0
Totals		180	53	5	90	180	53	5	36	180	53	5	36	180	53	5	36	180	53	5	36	180	53	5	36
Monthly Totals		328				274				274				274				274				274			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Building Construction Worker, Vendor, Painter, Off-road Operator - Trips per Day

Phases	Area	Q1-2025												Q2-2025							
		Jan-25				Feb-25				Mar-25				Apr-25				May-25			
		W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P	W	V	C	P
Site Preparation	C																				
Site Preparation	N																				
Site Preparation	S																				
Mass Grading	C																				
Mass Grading	N																				
Mass Grading	S																				
Slope Landscaping	C																				
Slope Landscaping	N																				
Slope Landscaping	S																				
Community Center - C	C																				
Senior Center - C	C																				
Swim Club - C	C																				
Commercial - C1	C																				
Elementary School - C	C																				
Fire Station - C	C																				
Commercial - C2	C																				
Swim Club - N	N																				
Commercial - C3	C																				
Swim Club - S	S	1.0	0.5	5.0		1.0	0.5	5.0		1.0	0.5	5.0		1.0	0.5	5.0	0.2	1.0	0.5	5.0	0.2
Home Construction - SF-1	C																				
Home Construction - SF-2	C																				
Home Construction - SF-3	C																				
Home Construction - MF	C																				
Home Construction - MU	C																				
Home Construction - SF-1	N																				
Home Construction - SF-2	N																				
Home Construction - SF-1	S				36.0				36.0				36.0				36.0				
Totals		1	0	5	36	1	0	5	36	1	0	5	36	1	0	5	36	1	0	5	0
Monthly Totals		42				42				42				43				7			

W = Workers C = Off-road Operators
V = Vendors P = Painters

Appendix F

Analysis Worksheets –

Existing Plus Project Buildout Conditions

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

11/14/2016

Intersection

Int Delay, s/veh 22.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	4	3	5	1	307	8	664	9	129	166	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	78	78	78	83	83	83	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	5	4	6	1	394	10	800	11	159	205	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1352	1357	209	1357	1356	805	212	0	0	811	0	0
Stage 1	527	527	-	825	825	-	-	-	-	-	-	-
Stage 2	825	830	-	532	531	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	127	149	831	126	149	~ 382	1358	-	-	815	-	-
Stage 1	535	528	-	367	387	-	-	-	-	-	-	-
Stage 2	367	385	-	531	526	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	119	831	102	119	~ 382	1358	-	-	815	-	-
Mov Cap-2 Maneuver	-	119	-	102	119	-	-	-	-	-	-	-
Stage 1	531	425	-	364	384	-	-	-	-	-	-	-
Stage 2	-	382	-	420	423	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		86.8	0.1	4.5
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1358	-	-	- 104 382 815	-	-	-
HCM Lane V/C Ratio	0.007	-	-	- 0.074 1.03 0.195	-	-	-
HCM Control Delay (s)	7.7	-	-	- 42.4 87.7 10.5	-	-	-
HCM Lane LOS	A	-	-	- E F B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	- 0.2 12.9 0.7	-	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	113	35	4	461	59	111	38	2	26	28	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	16	143	31	5	530	45	126	43	1	32	35	37
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	657	142	10	731	62	363	85	2	189	136	108
Arrive On Green	0.02	0.44	0.44	0.01	0.43	0.43	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1774	1484	322	1774	1694	144	1056	474	9	331	756	600
Grp Volume(v), veh/h	16	0	174	5	0	575	170	0	0	104	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1806	1774	0	1837	1539	0	0	1687	0	0
Q Serve(g_s), s	0.3	0.0	2.2	0.1	0.0	9.4	1.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	0.0	2.2	0.1	0.0	9.4	3.4	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.08	0.74		0.01	0.31		0.36
Lane Grp Cap(c), veh/h	29	0	799	10	0	793	449	0	0	433	0	0
V/C Ratio(X)	0.55	0.00	0.22	0.52	0.00	0.73	0.38	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	201	0	1520	201	0	1546	859	0	0	887	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	0.0	6.2	18.0	0.0	8.5	13.5	0.0	0.0	13.0	0.0	0.0
Incr Delay (d2), s/veh	15.1	0.0	0.1	37.4	0.0	1.3	0.5	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.1	0.1	0.0	4.9	1.6	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	32.8	0.0	6.4	55.4	0.0	9.8	14.0	0.0	0.0	13.2	0.0	0.0
LnGrp LOS	C		A	E		A	B			B		
Approach Vol, veh/h		190			580			170			104	
Approach Delay, s/veh		8.6			10.2			14.0			13.2	
Approach LOS		A			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	4.7	20.5		11.0	5.1	20.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.9	4.1	30.5		16.9	4.1	30.5				
Max Q Clear Time (g_c+l1), s		5.4	2.1	4.2		3.9	2.3	11.4				
Green Ext Time (p_c), s		1.1	0.0	4.7		1.1	0.0	4.3				
Intersection Summary												
HCM 2010 Ctrl Delay			10.8									
HCM 2010 LOS			B									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

11/14/2016

Intersection

Int Delay, s/veh 2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	43	3	0	111	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	85	85	67	67
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	4	0	131	12	0

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	131	0	65
Stage 1	-	-	0
Stage 2	-	-	65
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1454	-	941
Stage 1	-	-	-
Stage 2	-	-	958
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1454	-	902
Mov Cap-2 Maneuver	-	-	902
Stage 1	-	-	-
Stage 2	-	-	958

Approach	WB	NB	SB
HCM Control Delay, s	7.1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1454	-	902
HCM Lane V/C Ratio	-	-	0.042	-	0.013
HCM Control Delay (s)	-	-	7.6	-	9
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.1	-	0

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

11/14/2016

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	70	24	9	7	2	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	50	50	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	91	31	18	14	2	45

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	45	0	31
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.52	4.12
Critical Hdwy Stg 1	-	5.52	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	4.018	2.218
Pot Cap-1 Maneuver	-	643	1582
Stage 1	-	726	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	0	1582
Mov Cap-2 Maneuver	-	0	-
Stage 1	-	0	-
Stage 2	-	0	-

Approach	EB	WB	SB
HCM Control Delay, s		8.6	0.4
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	-	1043	1582
HCM Lane V/C Ratio	-	-	0.031	0.002
HCM Control Delay (s)	-	-	8.6	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 2010 TWSC
5: SR-94 & Melody Road

11/14/2016

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	0	13	1	0	6	4	471	0	6	109	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	58	58	58	93	93	93	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	0	16	2	0	10	4	506	0	7	120	10
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	658	653	125	661	658	506	130	0	0	506	0	0
Stage 1	138	138	-	515	515	-	-	-	-	-	-	-
Stage 2	520	515	-	146	143	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	378	387	926	376	384	566	1455	-	-	1059	-	-
Stage 1	865	782	-	543	535	-	-	-	-	-	-	-
Stage 2	539	535	-	857	779	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	368	383	926	366	380	566	1455	-	-	1059	-	-
Mov Cap-2 Maneuver	368	383	-	366	380	-	-	-	-	-	-	-
Stage 1	862	777	-	541	533	-	-	-	-	-	-	-
Stage 2	527	533	-	836	774	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	12.7			12			0.1			0.4		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1455	-	-	504	525	1059	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.073	0.023	0.006	-	-				
HCM Control Delay (s)	7.5	0	-	12.7	12	8.4	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-				

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	0	345	334	0	59	9		
Future Volume (veh/h)	0	345	334	0	59	9		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	426	393	0	83	6		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.81	0.81	0.85	0.85	0.71	0.71		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1850	1850	0	127	113		
Arrive On Green	0.00	0.52	0.52	0.00	0.07	0.07		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	426	393	0	83	6		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	1.8	1.7	0.0	1.3	0.1		
Cycle Q Clear(g_c), s	0.0	1.8	1.7	0.0	1.3	0.1		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1850	1850	0	127	113		
V/C Ratio(X)	0.00	0.23	0.21	0.00	0.65	0.05		
Avail Cap(c_a), veh/h	0	4602	4602	0	1115	995		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	3.6	3.6	0.0	12.6	12.0		
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	6.1	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.8	0.0	0.8	0.0		
LnGrp Delay(d),s/veh	0.0	3.7	3.7	0.0	18.7	12.3		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		426	393		89			
Approach Delay, s/veh		3.7	3.7		18.2			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		20.3		7.5		20.3		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		36.2		17.5		36.2		
Max Q Clear Time (g_c+I1), s		3.8		3.3		3.7		
Green Ext Time (p_c), s		10.7		0.2		10.8		
Intersection Summary								
HCM 2010 Ctrl Delay			5.1					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	39	365	338	244	0	0			
Future Volume (veh/h)	39	365	338	244	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	45	420	371	235					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.87	0.87	0.91	0.91					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	51	2840	1335	833					
Arrive On Green	0.03	0.80	0.64	0.64					
Sat Flow, veh/h	1774	3632	2188	1307					
Grp Volume(v), veh/h	45	420	313	293					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1632					
Q Serve(g_s), s	0.7	0.8	2.3	2.3					
Cycle Q Clear(g_c), s	0.7	0.8	2.3	2.3					
Prop In Lane	1.00			0.80					
Lane Grp Cap(c), veh/h	51	2840	1128	1040					
V/C Ratio(X)	0.88	0.15	0.28	0.28					
Avail Cap(c_a), veh/h	846	7134	2483	2290					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	14.2	0.6	2.3	2.4					
Incr Delay (d2), s/veh	15.6	0.1	0.3	0.3					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	0.6	0.4	1.1	1.1					
LnGrp Delay(d),s/veh	29.9	0.7	2.6	2.7					
LnGrp LOS	C	A	A	A					
Approach Vol, veh/h		465	606						
Approach Delay, s/veh		3.5	2.6						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		29.4			4.8	24.5			
Change Period (Y+Rc), s		5.8			4.0	5.8			
Max Green Setting (Gmax), s		59.2			14.0	41.2			
Max Q Clear Time (g_c+l1), s		2.8			2.7	4.3			
Green Ext Time (p_c), s		16.4			0.0	14.4			
Intersection Summary									
HCM 2010 Ctrl Delay			3.0						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

11/14/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↵	↑↑		↵↵		
Volume (veh/h)	925	293	486	1112	0	946		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1051	219	600	1373	0	807		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.88	0.88	0.81	0.81	0.80	0.80		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	1726	359	688	3180	0	0		
Arrive On Green	0.41	0.41	0.39	0.90	0.00	0.00		
Sat Flow, veh/h	4387	878	1774	3632	0			
Grp Volume(v), veh/h	844	426	600	1373	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1708	1774	1770				
Q Serve(g_s), s	8.7	8.7	13.9	2.9				
Cycle Q Clear(g_c), s	8.7	8.7	13.9	2.9				
Prop In Lane		0.51	1.00					
Lane Grp Cap(c), veh/h	1386	698	688	3180				
V/C Ratio(X)	0.61	0.61	0.87	0.43				
Avail Cap(c_a), veh/h	1454	732	953	3778				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	10.3	10.3	12.5	0.4				
Incr Delay (d2), s/veh	0.7	1.4	6.7	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	4.1	4.3	7.9	1.2				
LnGrp Delay(d),s/veh	11.0	11.7	19.2	0.5				
LnGrp LOS	B	B	B	A				
Approach Vol, veh/h	1270			1973				
Approach Delay, s/veh	11.2			6.2				
Approach LOS	B			A				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			21.7	22.6				44.3
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			23.8	19.0				47.3
Max Q Clear Time (g_c+I1), s			15.9	10.7				4.9
Green Ext Time (p_c), s			1.3	7.4				28.5
Intersection Summary								
HCM 2010 Ctrl Delay			8.2					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

11/14/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘↘	↗		
Volume (veh/h)	1478	412	0	1231	366	442		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	1719	0	0	1296	552	280		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.86	0.86	0.95	0.95	0.82	0.82		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	2954	920	0	2056	880	393		
Arrive On Green	0.58	0.00	0.00	0.58	0.25	0.25		
Sat Flow, veh/h	5253	1583	0	3725	3548	1583		
Grp Volume(v), veh/h	1719	0	0	1296	552	280		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	11.3	0.0	0.0	12.7	7.3	8.5		
Cycle Q Clear(g_c), s	11.3	0.0	0.0	12.7	7.3	8.5		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	2954	920	0	2056	880	393		
V/C Ratio(X)	0.58	0.00	0.00	0.63	0.63	0.71		
Avail Cap(c_a), veh/h	3144	979	0	2188	1586	708		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	7.0	0.0	0.0	7.3	17.6	18.1		
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.7	2.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.2	0.0	0.0	6.3	3.6	3.9		
LnGrp Delay(d),s/veh	7.2	0.0	0.0	7.8	18.3	20.5		
LnGrp LOS	A			A	B	C		
Approach Vol, veh/h	1719			1296	832			
Approach Delay, s/veh	7.2			7.8	19.1			
Approach LOS	A			A	B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		17.5		35.0				35.0
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		23.5		32.5				32.5
Max Q Clear Time (g_c+I1), s		10.5		13.3				14.7
Green Ext Time (p_c), s		2.5		17.0				15.8
Intersection Summary								
HCM 2010 Ctrl Delay		10.0						
HCM 2010 LOS		A						
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	  			  			 		 			
Volume (veh/h)	74	1699	9	6	2094	42	55	3	17	43	1	174
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	92	2124	7	6	2252	34	65	4	16	54	1	181
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.80	0.80	0.80	0.93	0.93	0.93	0.85	0.85	0.85	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	3027	10	11	2679	40	275	53	211	341	5	256
Arrive On Green	0.07	0.58	0.58	0.01	0.52	0.52	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	5233	17	1774	5161	78	1197	326	1306	1280	32	1583
Grp Volume(v), veh/h	92	1376	755	6	1478	808	65	0	20	55	0	181
Grp Sat Flow(s),veh/h/ln	1774	1695	1860	1774	1695	1849	1197	0	1632	1311	0	1583
Q Serve(g_s), s	2.7	15.3	15.3	0.2	19.8	19.9	2.7	0.0	0.6	1.8	0.0	5.8
Cycle Q Clear(g_c), s	2.7	15.3	15.3	0.2	19.8	19.9	5.1	0.0	0.6	2.4	0.0	5.8
Prop In Lane	1.00		0.01	1.00		0.04	1.00		0.80	0.98		1.00
Lane Grp Cap(c), veh/h	117	1961	1076	11	1760	960	275	0	264	346	0	256
V/C Ratio(X)	0.79	0.70	0.70	0.53	0.84	0.84	0.24	0.00	0.08	0.16	0.00	0.71
Avail Cap(c_a), veh/h	157	1961	1076	137	1840	1004	485	0	549	589	0	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	8.0	8.0	26.4	10.9	10.9	21.9	0.0	18.9	19.9	0.0	21.1
Incr Delay (d2), s/veh	17.0	1.1	2.1	33.5	3.5	6.4	0.4	0.0	0.1	0.2	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.4	8.4	0.2	9.9	11.6	0.9	0.0	0.3	0.7	0.0	2.8
LnGrp Delay(d),s/veh	41.5	9.1	10.0	59.8	14.5	17.3	22.4	0.0	19.1	20.1	0.0	24.7
LnGrp LOS	D	A	B	E	B	B	C		B	C		C
Approach Vol, veh/h	2223			2292			85			236		
Approach Delay, s/veh	10.8			15.6			21.6			23.7		
Approach LOS	B			B			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.1	4.8	35.3		13.1	8.0	32.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.9	4.1	29.5		17.9	4.7	28.9				
Max Q Clear Time (g_c+l1), s		7.1	2.2	17.3		7.8	4.7	21.9				
Green Ext Time (p_c), s		0.9	0.0	12.0		0.8	0.0	5.8				
Intersection Summary												
HCM 2010 Ctrl Delay	13.9											
HCM 2010 LOS	B											

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

11/14/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰↱	↑↑↑↑	↑↑↑↱		↰	↱		
Volume (veh/h)	142	1573	1875	44	30	269		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	189	2097	2083	38	33	205		
Adj No. of Lanes	2	3	3	0	1	1		
Peak Hour Factor	0.75	0.75	0.90	0.90	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	291	3440	2641	48	295	263		
Arrive On Green	0.08	0.68	0.51	0.51	0.17	0.17		
Sat Flow, veh/h	3442	5253	5310	94	1774	1583		
Grp Volume(v), veh/h	189	2097	1372	749	33	205		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1846	1774	1583		
Q Serve(g_s), s	3.0	13.0	18.9	19.0	0.9	7.1		
Cycle Q Clear(g_c), s	3.0	13.0	18.9	19.0	0.9	7.1		
Prop In Lane	1.00			0.05	1.00	1.00		
Lane Grp Cap(c), veh/h	291	3440	1741	948	295	263		
V/C Ratio(X)	0.65	0.61	0.79	0.79	0.11	0.78		
Avail Cap(c_a), veh/h	343	3520	1742	949	509	454		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	25.4	5.1	11.4	11.4	20.3	22.8		
Incr Delay (d2), s/veh	3.3	0.3	2.5	4.6	0.2	5.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.6	5.9	9.4	10.8	0.5	6.3		
LnGrp Delay(d),s/veh	28.7	5.4	13.9	15.9	20.4	27.8		
LnGrp LOS	C	A	B	B	C	C		
Approach Vol, veh/h		2286	2121		238			
Approach Delay, s/veh		7.3	14.6		26.8			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				43.2		14.0	9.3	33.9
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				39.6		16.4	5.7	29.4
Max Q Clear Time (g_c+11), s				15.0		9.1	5.0	21.0
Green Ext Time (p_c), s				23.7		0.4	0.0	8.3
Intersection Summary								
HCM 2010 Ctrl Delay			11.6					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Volume (veh/h)	113	1388	90	165	1600	63	212	57	291	36	28	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	151	1851	80	181	1758	47	244	66	219	40	31	85
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.75	0.75	0.75	0.91	0.91	0.91	0.87	0.87	0.87	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	2296	715	268	2345	730	337	628	281	107	392	175
Arrive On Green	0.07	0.45	0.45	0.08	0.46	0.46	0.10	0.18	0.18	0.03	0.11	0.11
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	151	1851	80	181	1758	47	244	66	219	40	31	85
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	2.9	21.6	2.0	3.5	19.6	1.1	4.7	1.1	9.1	0.8	0.5	3.5
Cycle Q Clear(g_c), s	2.9	21.6	2.0	3.5	19.6	1.1	4.7	1.1	9.1	0.8	0.5	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	2296	715	268	2345	730	337	628	281	107	392	175
V/C Ratio(X)	0.64	0.81	0.11	0.68	0.75	0.06	0.72	0.11	0.78	0.37	0.08	0.49
Avail Cap(c_a), veh/h	281	2332	726	276	2345	730	376	1082	484	200	902	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	16.2	10.9	30.8	15.2	10.3	30.1	23.7	27.0	32.6	27.4	28.7
Incr Delay (d2), s/veh	3.7	2.2	0.1	6.2	1.4	0.0	6.0	0.1	4.7	2.2	0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	10.4	0.9	1.9	9.4	0.5	2.5	0.5	4.3	0.4	0.3	1.6
LnGrp Delay(d),s/veh	34.9	18.4	10.9	37.1	16.6	10.3	36.1	23.7	31.6	34.8	27.5	30.8
LnGrp LOS	C	B	B	D	B	B	D	C	C	C	C	C
Approach Vol, veh/h	2082				1986				529		156	
Approach Delay, s/veh	19.3				18.3				32.7		31.2	
Approach LOS	B				B				C		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	16.7	9.8	35.5	11.2	12.1	9.2	36.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	1.0	21.0	5.5	31.5	7.5	17.5	5.6	31.4				
Max Q Clear Time (g_c+I), s	12.8	11.1	5.5	23.6	6.7	5.5	4.9	21.6				
Green Ext Time (p_c), s	0.0	1.1	0.0	7.5	0.1	1.2	0.0	9.5				
Intersection Summary												
HCM 2010 Ctrl Delay			20.8									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	👤👤	👤👤👤		👤👤	👤👤👤		👤	👤👤		👤	👤👤	
Volume (veh/h)	172	1254	134	177	1288	106	424	287	307	154	192	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	210	1529	72	213	1552	50	551	373	243	183	229	126
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.77	0.77	0.77	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	1819	86	270	1806	58	534	635	408	211	280	148
Arrive On Green	0.09	0.37	0.37	0.08	0.36	0.36	0.30	0.31	0.31	0.12	0.13	0.13
Sat Flow, veh/h	3442	4977	234	3442	5061	163	1774	2069	1329	1774	2237	1186
Grp Volume(v), veh/h	210	1041	560	213	1040	562	551	318	298	183	179	176
Grp Sat Flow(s),veh/h/ln	1721	1695	1821	1721	1695	1834	1774	1770	1628	1774	1770	1653
Q Serve(g_s), s	7.3	34.6	34.6	7.5	35.0	35.0	37.0	18.7	19.1	12.5	12.1	12.8
Cycle Q Clear(g_c), s	7.3	34.6	34.6	7.5	35.0	35.0	37.0	18.7	19.1	12.5	12.1	12.8
Prop In Lane	1.00		0.13	1.00		0.09	1.00		0.82	1.00		0.72
Lane Grp Cap(c), veh/h	300	1239	666	270	1209	654	534	543	500	211	221	207
V/C Ratio(X)	0.70	0.84	0.84	0.79	0.86	0.86	1.03	0.59	0.60	0.87	0.81	0.85
Avail Cap(c_a), veh/h	308	1296	696	336	1323	716	534	543	500	289	259	242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	35.7	35.7	55.7	36.7	36.7	43.0	36.0	36.1	53.2	52.4	52.6
Incr Delay (d2), s/veh	6.7	5.0	8.8	9.7	5.6	9.7	47.5	1.6	1.9	18.0	15.2	21.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	17.1	19.0	3.9	17.2	19.4	25.1	9.3	8.9	7.2	6.9	7.1
LnGrp Delay(d),s/veh	61.3	40.7	44.5	65.4	42.2	46.4	90.5	37.6	38.1	71.2	67.6	73.8
LnGrp LOS	E	D	D	E	D	D	F	D	D	E	E	E
Approach Vol, veh/h	1811					1815		1167		538		
Approach Delay, s/veh	44.3					46.2		62.7		70.9		
Approach LOS	D					D		E		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	48.9	41.0	19.4	14.7	47.9	18.7	41.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	47.0	37.0	18.0	11.0	48.0	20.0	35.0				
Max Q Clear Time (g_c+I), s	19.5	36.6	39.0	14.8	9.3	37.0	14.5	21.1				
Green Ext Time (p_c), s	0.2	7.1	0.0	0.6	1.4	6.9	0.2	4.8				
Intersection Summary												
HCM 2010 Ctrl Delay			51.7									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	253	519	342	154	918	222	313	657	55	278	587	238
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	347	711	331	177	1055	186	333	699	0	356	753	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.73	0.73	0.73	0.87	0.87	0.87	0.94	0.94	0.94	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	1354	606	204	1038	464	395	936	292	395	936	292
Arrive On Green	0.20	0.38	0.38	0.11	0.29	0.29	0.11	0.18	0.00	0.11	0.18	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	347	711	331	177	1055	186	333	699	0	356	753	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	15.2	12.2	12.8	7.7	23.0	7.4	7.4	10.2	0.0	8.0	11.1	0.0
Cycle Q Clear(g_c), s	15.2	12.2	12.8	7.7	23.0	7.4	7.4	10.2	0.0	8.0	11.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	1354	606	204	1038	464	395	936	292	395	936	292
V/C Ratio(X)	0.96	0.53	0.55	0.87	1.02	0.40	0.84	0.75	0.00	0.90	0.80	0.00
Avail Cap(c_a), veh/h	362	1354	606	204	1038	464	395	1037	323	395	1037	323
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	18.7	18.9	34.1	27.7	22.2	34.0	30.3	0.0	34.3	30.6	0.0
Incr Delay (d2), s/veh	36.5	1.5	3.5	30.8	32.2	2.6	15.2	2.7	0.0	23.2	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	6.2	6.2	5.5	15.7	3.6	4.3	5.0	0.0	5.1	5.5	0.0
LnGrp Delay(d),s/veh	67.4	20.2	22.4	64.9	59.9	24.8	49.3	33.0	0.0	57.5	34.9	0.0
LnGrp LOS	E	C	C	E	F	C	D	C		E	C	
Approach Vol, veh/h	1389			1418			1032			1109		
Approach Delay, s/veh	32.5			55.9			38.2			42.2		
Approach LOS	C			E			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	34.0	13.0	18.4	20.0	27.0	13.0	18.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	9.0	16.0	16.0	23.0	9.0	16.0				
Max Q Clear Time (g_c+I), s	14.8	14.8	9.4	13.1	17.2	25.0	10.0	12.2				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.3	0.0	0.0	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay	42.6											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	729	96	0	929	176	0	0	0	187	0	85
Future Volume (veh/h)	0	729	96	0	929	176	0	0	0	187	0	85
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	767	0	0	1119	164				260	0	90
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83				0.72	0.72	0.72
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3398	1058	0	2365	1251				419	0	193
Arrive On Green	0.00	0.67	0.00	0.00	0.67	0.67				0.12	0.00	0.12
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	767	0	0	1119	164				260	0	90
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	3.2	0.0	0.0	8.2	1.3				3.9	0.0	2.8
Cycle Q Clear(g_c), s	0.0	3.2	0.0	0.0	8.2	1.3				3.9	0.0	2.8
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3398	1058	0	2365	1251				419	0	193
V/C Ratio(X)	0.00	0.23	0.00	0.00	0.47	0.13				0.62	0.00	0.47
Avail Cap(c_a), veh/h	0	3897	1214	0	2713	1406				800	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.5	0.0	0.0	4.3	1.3				22.4	0.0	22.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.3	0.1				1.6	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.4	0.0	0.0	4.0	0.9				1.9	0.0	1.4
LnGrp Delay(d),s/veh	0.0	3.6	0.0	0.0	4.6	1.4				24.1	0.0	23.9
LnGrp LOS		A			A	A				C		C
Approach Vol, veh/h		767			1283						350	
Approach Delay, s/veh		3.6			4.2						24.0	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		41.7		12.0		41.7						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		41.2		12.5		41.2						
Max Q Clear Time (g_c+l1), s		5.2		5.9		10.2						
Green Ext Time (p_c), s		29.1		0.7		25.7						
Intersection Summary												
HCM 2010 Ctrl Delay			6.9									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑↑	↑	↑		↑↑			
Traffic Volume (veh/h)	0	730	182	0	1080	486	31	0	49	0	0	0
Future Volume (veh/h)	0	730	182	0	1080	486	31	0	49	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	777	130	0	1241	0	34	0	43			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.94	0.94	0.94	0.87	0.87	0.87	0.90	0.90	0.90			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3633	1215	0	3633	1131	94	0	148			
Arrive On Green	0.00	0.71	0.71	0.00	0.71	0.00	0.05	0.00	0.05			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	777	130	0	1241	0	34	0	43			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	2.5	1.0	0.0	4.5	0.0	0.9	0.0	0.7			
Cycle Q Clear(g_c), s	0.0	2.5	1.0	0.0	4.5	0.0	0.9	0.0	0.7			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3633	1215	0	3633	1131	94	0	148			
V/C Ratio(X)	0.00	0.21	0.11	0.00	0.34	0.00	0.36	0.00	0.29			
Avail Cap(c_a), veh/h	0	4204	1393	0	4204	1309	493	0	774			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	2.3	1.4	0.0	2.6	0.0	22.2	0.0	22.1			
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.1	0.0	2.5	0.0	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.2	0.6	0.0	2.1	0.0	0.5	0.0	0.3			
LnGrp Delay(d),s/veh	0.0	2.4	1.5	0.0	2.7	0.0	24.7	0.0	23.3			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h		907			1241			77				
Approach Delay, s/veh		2.3			2.7			23.9				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		40.5				40.5		8.1				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		40.2				40.2		13.5				
Max Q Clear Time (g_c+I1), s		4.5				6.5		2.9				
Green Ext Time (p_c), s		29.7				28.3		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			3.3									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	 
Volume (veh/h)	165	523	95	50	1041	367	199	105	61	310	129	327
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	190	601	75	52	1073	275	246	130	63	388	161	272
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.81	0.81	0.81	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	280	1642	778	128	1125	288	299	286	132	438	709	785
Arrive On Green	0.08	0.32	0.32	0.04	0.28	0.28	0.17	0.12	0.12	0.25	0.20	0.20
Sat Flow, veh/h	3442	5085	1583	3442	4036	1034	1774	2356	1085	1774	3539	2787
Grp Volume(v), veh/h	190	601	75	52	901	447	246	96	97	388	161	272
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1680	1774	1770	1671	1774	1770	1393
Q Serve(g_s), s	3.6	6.0	1.7	1.0	17.3	17.3	8.9	3.3	3.6	14.0	2.5	5.2
Cycle Q Clear(g_c), s	3.6	6.0	1.7	1.0	17.3	17.3	8.9	3.3	3.6	14.0	2.5	5.2
Prop In Lane	1.00		1.00	1.00		0.62	1.00		0.65	1.00		1.00
Lane Grp Cap(c), veh/h	280	1642	778	128	945	468	299	215	203	438	709	785
V/C Ratio(X)	0.68	0.37	0.10	0.41	0.95	0.95	0.82	0.45	0.48	0.88	0.23	0.35
Avail Cap(c_a), veh/h	296	1642	778	207	945	468	508	488	461	521	1002	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	17.3	9.0	31.2	23.5	23.5	26.6	27.1	27.2	24.1	22.2	19.0
Incr Delay (d2), s/veh	5.7	0.1	0.1	2.1	19.0	30.2	5.7	1.4	1.7	14.7	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.8	0.7	0.5	10.5	11.9	4.8	1.7	1.7	8.6	1.2	2.0
LnGrp Delay(d),s/veh	35.4	17.4	9.1	33.3	42.6	53.7	32.3	28.5	28.9	38.8	22.4	19.2
LnGrp LOS	D	B	A	C	D	D	C	C	C	D	C	B
Approach Vol, veh/h	866				1400		439				821	
Approach Delay, s/veh	20.6				45.8		30.7				29.1	
Approach LOS	C				D		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.9	12.6	7.0	25.9	15.7	17.8	9.9	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.5	18.3	4.0	20.2	19.0	18.8	5.7	18.5				
Max Q Clear Time (g_c+10.0), s	19.5	5.6	3.0	8.0	10.9	7.2	5.6	19.3				
Green Ext Time (p_c), s	0.4	2.5	0.0	8.8	0.4	2.4	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			33.8									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	676	221	160	1150	36	156	11	114	37	38	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	26	867	206	176	1264	29	168	12	101	50	51	74
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.78	0.78	0.78	0.91	0.91	0.91	0.93	0.93	0.93	0.74	0.74	0.74
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	1187	281	144	1769	41	252	265	225	216	84	121
Arrive On Green	0.02	0.29	0.29	0.08	0.35	0.35	0.14	0.14	0.14	0.12	0.12	0.12
Sat Flow, veh/h	1774	4110	971	1774	5115	117	1774	1863	1583	1774	688	998
Grp Volume(v), veh/h	26	714	359	176	838	455	168	12	101	50	0	125
Grp Sat Flow(s),veh/h/ln	1774	1695	1691	1774	1695	1842	1774	1863	1583	1774	0	1687
Q Serve(g_s), s	0.7	9.3	9.4	4.0	10.6	10.6	4.4	0.3	2.9	1.3	0.0	3.5
Cycle Q Clear(g_c), s	0.7	9.3	9.4	4.0	10.6	10.6	4.4	0.3	2.9	1.3	0.0	3.5
Prop In Lane	1.00		0.57	1.00		0.06	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	43	979	489	144	1173	637	252	265	225	216	0	205
V/C Ratio(X)	0.60	0.73	0.73	1.22	0.71	0.71	0.67	0.05	0.45	0.23	0.00	0.61
Avail Cap(c_a), veh/h	144	1103	550	144	1173	637	577	606	515	577	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	15.8	15.8	22.6	14.0	14.0	20.0	18.2	19.3	19.5	0.0	20.5
Incr Delay (d2), s/veh	12.8	2.2	4.5	146.0	2.1	3.8	3.0	0.1	1.4	0.5	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.7	5.0	7.8	5.2	6.0	2.4	0.1	1.3	0.6	0.0	1.8
LnGrp Delay(d),s/veh	36.5	17.9	20.2	168.6	16.1	17.8	23.0	18.3	20.7	20.1	0.0	23.4
LnGrp LOS	D	B	C	F	B	B	C	B	C	C		C
Approach Vol, veh/h	1099				1469				281		175	
Approach Delay, s/veh	19.1				34.9				22.0		22.4	
Approach LOS	B				C				C		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.5	8.5	18.7		10.5	5.7	21.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.0	4.0	16.0		16.0	4.0	16.0				
Max Q Clear Time (g_c+I1), s		6.4	6.0	11.4		5.5	2.7	12.6				
Green Ext Time (p_c), s		0.6	0.0	2.8		0.5	0.0	3.1				
Intersection Summary												
HCM 2010 Ctrl Delay			27.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	663	281	284	1027	11	351	15	164	9	10	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	51	921	307	379	1369	15	433	19	177	13	15	94
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.72	0.72	0.72	0.75	0.75	0.75	0.81	0.81	0.81	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	1432	446	310	1720	19	560	503	427	23	27	168
Arrive On Green	0.04	0.28	0.28	0.09	0.33	0.33	0.16	0.27	0.27	0.01	0.12	0.12
Sat Flow, veh/h	1774	5085	1583	3442	5186	57	3442	1863	1583	1774	222	1394
Grp Volume(v), veh/h	51	921	307	379	895	489	433	19	177	13	0	109
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1853	1721	1863	1583	1774	0	1617
Q Serve(g_s), s	1.5	8.3	9.0	4.7	12.5	12.5	6.3	0.4	4.8	0.4	0.0	3.3
Cycle Q Clear(g_c), s	1.5	8.3	9.0	4.7	12.5	12.5	6.3	0.4	4.8	0.4	0.0	3.3
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	71	1432	446	310	1124	614	560	503	427	23	0	195
V/C Ratio(X)	0.72	0.64	0.69	1.22	0.80	0.80	0.77	0.04	0.41	0.56	0.00	0.56
Avail Cap(c_a), veh/h	139	1560	486	310	1124	614	627	797	677	136	0	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	16.4	16.7	23.7	15.8	15.8	20.9	14.0	15.6	25.6	0.0	21.6
Incr Delay (d2), s/veh	12.6	0.8	3.7	125.3	4.1	7.2	5.4	0.0	0.6	19.1	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.9	4.3	7.6	6.5	7.6	3.4	0.2	2.1	0.3	0.0	1.6
LnGrp Delay(d),s/veh	37.4	17.2	20.4	149.0	19.9	23.0	26.3	14.1	16.3	44.7	0.0	24.1
LnGrp LOS	D	B	C	F	B	C	C	B	B	D		C
Approach Vol, veh/h	1279					1763		629		122		
Approach Delay, s/veh	18.8					48.5		23.1		26.3		
Approach LOS	B					D		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	18.6	9.2	19.2	13.0	10.8	6.6	21.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	22.3	4.7	16.0	9.5	16.8	4.1	16.6				
Max Q Clear Time (g_c+I), s	12.4	6.8	6.7	11.0	8.3	5.3	3.5	14.5				
Green Ext Time (p_c), s	0.0	1.1	0.0	3.7	0.2	1.0	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			33.6									
HCM 2010 LOS			C									

Intersection												
Intersection Delay, s/veh	55.4											
Intersection LOS	F											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	50	284	37	0	43	601	1	0	59	32	21
Peak Hour Factor	0.95	0.71	0.71	0.71	0.95	0.56	0.56	0.56	0.95	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	400	52	0	77	1073	2	0	73	40	26
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	47.5	70.9	15.2
HCM LOS	E	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	13%	0%	4%	0%
Vol Thru, %	0%	60%	0%	100%	0%	87%	100%	96%	0%
Vol Right, %	0%	40%	0%	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	53	50	284	37	344	302	51	106
LT Vol	59	0	50	0	0	43	0	2	0
Through Vol	0	32	0	284	0	301	301	49	0
RT Vol	0	21	0	0	37	0	1	0	106
Lane Flow Rate	73	65	70	400	52	613	538	67	139
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.211	0.176	0.174	0.934	0.112	1	1	0.181	0.348
Departure Headway (Hd)	10.444	9.67	9.032	8.532	7.832	8.045	7.978	9.699	8.982
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	345	373	399	428	461	454	458	372	402
Service Time	8.159	7.384	6.732	6.232	5.532	5.771	5.704	7.411	6.694
HCM Lane V/C Ratio	0.212	0.174	0.175	0.935	0.113	1.35	1.175	0.18	0.346
HCM Control Delay	15.9	14.4	13.6	58.1	11.5	71	70.7	14.5	16.4
HCM Lane LOS	C	B	B	F	B	F	F	B	C
HCM 95th-tile Q	0.8	0.6	0.6	10.5	0.4	12.9	13	0.7	1.5

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	2	49	106
Peak Hour Factor	0.95	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	3	64	139
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	15.8
HCM LOS	C

Lane

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	101	29	184	94	37	91	409	227	74	266	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	62	115	22	200	102	29	107	481	196	80	289	66
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	164	218	455	185	52	223	696	282	100	788	177
Arrive On Green	0.14	0.14	0.14	0.13	0.13	0.13	0.06	0.28	0.28	0.06	0.27	0.27
Sat Flow, veh/h	641	1189	1583	3442	1396	397	3442	2460	996	1774	2872	646
Grp Volume(v), veh/h	177	0	22	200	0	131	107	345	332	80	176	179
Grp Sat Flow(s),veh/h/ln	1831	0	1583	1721	0	1793	1721	1770	1687	1774	1770	1749
Q Serve(g_s), s	4.3	0.0	0.6	2.5	0.0	3.2	1.4	8.0	8.1	2.1	3.7	3.8
Cycle Q Clear(g_c), s	4.3	0.0	0.6	2.5	0.0	3.2	1.4	8.0	8.1	2.1	3.7	3.8
Prop In Lane	0.35		1.00	1.00		0.22	1.00		0.59	1.00		0.37
Lane Grp Cap(c), veh/h	252	0	218	455	0	237	223	500	477	100	486	480
V/C Ratio(X)	0.70	0.00	0.10	0.44	0.00	0.55	0.48	0.69	0.70	0.80	0.36	0.37
Avail Cap(c_a), veh/h	636	0	550	1196	0	623	299	615	586	154	615	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	17.4	18.4	0.0	18.7	20.8	14.7	14.7	21.5	13.5	13.5
Incr Delay (d2), s/veh	3.5	0.0	0.2	0.7	0.0	2.0	1.6	2.5	2.7	15.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.3	1.2	0.0	1.7	0.7	4.2	4.0	1.4	1.9	1.9
LnGrp Delay(d),s/veh	22.5	0.0	17.6	19.1	0.0	20.7	22.4	17.2	17.5	36.6	13.9	14.0
LnGrp LOS	C		B	B		C	C	B	B	D	B	B
Approach Vol, veh/h	199				331		784				435	
Approach Delay, s/veh	21.9				19.7		18.0				18.1	
Approach LOS	C				B		B				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			4	5	6	8				
Phs Duration (G+Y+Rc), s	7.1	17.5			10.8	7.5	17.1	10.6				
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.0	16.0			16.0	4.0	16.0	16.0				
Max Q Clear Time (g_c+I), s	10.1	10.1			6.3	3.4	5.8	5.2				
Green Ext Time (p_c), s	0.0	2.9			0.6	0.0	4.3	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			18.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	84	103	32	57	77	59	39	239	212	156	204	131
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	102	126	27	81	110	70	53	327	208	171	224	111
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.70	0.70	0.70	0.73	0.73	0.73	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	267	227	102	237	202	77	546	340	220	791	379
Arrive On Green	0.07	0.14	0.14	0.06	0.13	0.13	0.04	0.26	0.26	0.12	0.34	0.34
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2097	1305	1774	2324	1112
Grp Volume(v), veh/h	102	126	27	81	110	70	53	275	260	171	169	166
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1632	1774	1770	1667
Q Serve(g_s), s	2.5	2.7	0.6	2.0	2.4	1.7	1.3	5.9	6.1	4.1	3.0	3.2
Cycle Q Clear(g_c), s	2.5	2.7	0.6	2.0	2.4	1.7	1.3	5.9	6.1	4.1	3.0	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.80	1.00		0.67
Lane Grp Cap(c), veh/h	130	267	227	102	237	202	77	461	425	220	603	567
V/C Ratio(X)	0.79	0.47	0.12	0.79	0.46	0.35	0.69	0.60	0.61	0.78	0.28	0.29
Avail Cap(c_a), veh/h	250	726	617	213	688	585	254	670	618	348	764	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	17.1	16.2	20.2	17.5	17.3	20.4	14.0	14.1	18.4	10.4	10.5
Incr Delay (d2), s/veh	10.0	1.3	0.2	12.9	1.4	1.0	10.3	1.2	1.4	5.9	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.5	0.3	1.3	1.3	0.8	0.8	3.0	2.8	2.3	1.5	1.5
LnGrp Delay(d),s/veh	29.7	18.4	16.4	33.1	18.9	18.3	30.7	15.3	15.5	24.3	10.7	10.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h	255				261				588		506	
Approach Delay, s/veh	22.7				23.2				16.8		15.3	
Approach LOS	C				C				B		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	15.8	7.0	10.7	6.4	19.3	7.7	10.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	16.5	16.4	5.2	16.9	6.2	18.7	6.1	16.0				
Max Q Clear Time (g_c+10), s	10.1	8.1	4.0	4.7	3.3	5.2	4.5	4.4				
Green Ext Time (p_c), s	0.1	3.2	0.0	1.2	0.0	4.2	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			18.3									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	202	1241	249	77	1212	236	491	759	173	204	577	233
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	220	1349	206	84	1317	192	571	883	149	237	671	201
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	1964	611	133	1532	223	600	1238	554	295	702	210
Arrive On Green	0.08	0.39	0.39	0.04	0.34	0.34	0.17	0.35	0.35	0.09	0.26	0.26
Sat Flow, veh/h	3442	5085	1583	3442	4484	654	3442	3539	1583	3442	2686	804
Grp Volume(v), veh/h	220	1349	206	84	996	513	571	883	149	237	442	430
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1747	1721	1770	1583	1721	1770	1721
Q Serve(g_s), s	7.2	25.4	10.5	2.8	31.4	31.4	18.8	24.8	7.8	7.8	28.2	28.2
Cycle Q Clear(g_c), s	7.2	25.4	10.5	2.8	31.4	31.4	18.8	24.8	7.8	7.8	28.2	28.2
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	286	1964	611	133	1158	597	600	1238	554	295	463	450
V/C Ratio(X)	0.77	0.69	0.34	0.63	0.86	0.86	0.95	0.71	0.27	0.80	0.96	0.96
Avail Cap(c_a), veh/h	480	2171	676	150	1158	597	600	1238	554	330	463	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	29.4	24.9	54.4	35.2	35.2	46.9	32.3	26.8	51.5	41.7	41.7
Incr Delay (d2), s/veh	4.3	0.8	0.3	6.9	6.7	12.1	25.3	2.0	0.3	12.1	30.6	31.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	12.0	4.7	1.4	15.7	17.1	11.1	12.5	3.4	4.2	17.7	17.3
LnGrp Delay(d),s/veh	55.8	30.2	25.2	61.3	41.9	47.3	72.2	34.3	27.0	63.6	72.3	73.1
LnGrp LOS	E	C	C	E	D	D	E	C	C	E	E	E
Approach Vol, veh/h	1775					1593		1603		1109		
Approach Delay, s/veh	32.8					44.7		47.1		70.8		
Approach LOS	C					D		D		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	48.3	24.0	34.0	13.6	43.2	13.9	44.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	49.0	20.0	30.0	16.0	38.0	11.0	39.0				
Max Q Clear Time (g_c+14.8)	14.8	27.4	20.8	30.2	9.2	33.4	9.8	26.8				
Green Ext Time (p_c), s	0.0	16.9	0.0	0.0	0.4	4.3	0.1	8.3				
Intersection Summary												
HCM 2010 Ctrl Delay			46.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	373	888	333	199	900	250	447	788	375	131	382	124
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	444	1057	277	207	938	166	491	866	280	142	415	102
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.84	0.84	0.84	0.96	0.96	0.96	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	1464	456	330	1301	405	758	1049	1093	220	713	222
Arrive On Green	0.13	0.29	0.29	0.10	0.26	0.26	0.22	0.30	0.30	0.06	0.14	0.14
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	444	1057	277	207	938	166	491	866	280	142	415	102
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	8.0	11.7	9.4	3.6	10.5	4.0	8.1	14.3	0.9	2.5	4.8	3.7
Cycle Q Clear(g_c), s	8.0	11.7	9.4	3.6	10.5	4.0	8.1	14.3	0.9	2.5	4.8	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	440	1464	456	330	1301	405	758	1049	1093	220	713	222
V/C Ratio(X)	1.01	0.72	0.61	0.63	0.72	0.41	0.65	0.83	0.26	0.65	0.58	0.46
Avail Cap(c_a), veh/h	440	1464	456	330	1301	405	758	1189	1203	220	1301	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	20.0	19.2	27.2	21.2	10.7	22.2	20.5	4.9	28.6	25.2	24.7
Incr Delay (d2), s/veh	45.0	3.1	5.9	3.7	3.5	3.0	1.9	4.4	0.1	6.3	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	5.9	4.9	1.9	5.3	2.5	4.0	7.5	0.9	1.4	2.3	1.7
LnGrp Delay(d),s/veh	72.3	23.1	25.1	30.9	24.7	13.7	24.1	24.9	5.0	34.9	25.9	26.2
LnGrp LOS	F	C	C	C	C	B	C	C	A	C	C	C
Approach Vol, veh/h	1778				1311				1637			
Approach Delay, s/veh	35.7				24.3				21.3			
Approach LOS	D				C				C			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	22.0	17.8	12.8	12.0	20.0	8.0	22.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	18.0	9.0	16.0	8.0	16.0	4.0	21.0				
Max Q Clear Time (g_c+I), s	13.7	13.7	10.1	6.8	10.0	12.5	4.5	16.3				
Green Ext Time (p_c), s	0.1	2.7	0.0	2.0	0.0	2.0	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			27.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	1447	42	0	1178	112	0	0	0	232	0	42
Future Volume (veh/h)	0	1447	42	0	1178	112	0	0	0	232	0	42
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1743	39	0	1253	87				267	0	37
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94				0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3604	1122	0	3604	1304				395	0	182
Arrive On Green	0.00	0.71	0.71	0.00	0.23	0.23				0.11	0.00	0.11
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	1743	39	0	1253	87				267	0	37
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	9.7	0.5	0.0	13.2	1.7				4.8	0.0	1.4
Cycle Q Clear(g_c), s	0.0	9.7	0.5	0.0	13.2	1.7				4.8	0.0	1.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3604	1122	0	3604	1304				395	0	182
V/C Ratio(X)	0.00	0.48	0.03	0.00	0.35	0.07				0.68	0.00	0.20
Avail Cap(c_a), veh/h	0	3604	1122	0	3604	1304				726	0	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.93	0.93				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.1	2.8	0.0	12.2	3.0				27.2	0.0	25.7
Incr Delay (d2), s/veh	0.0	0.5	0.1	0.0	0.2	0.1				2.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.2	0.0	6.3	1.2				2.4	0.0	0.6
LnGrp Delay(d),s/veh	0.0	4.6	2.8	0.0	12.4	3.1				29.4	0.0	26.3
LnGrp LOS		A	A		B	A				C		C
Approach Vol, veh/h		1782			1340						304	
Approach Delay, s/veh		4.6			11.8						29.0	
Approach LOS		A			B						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		51.2		12.8		51.2						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		39.2		13.5		39.2						
Max Q Clear Time (g_c+l1), s		11.7		6.8		15.2						
Green Ext Time (p_c), s		26.7		0.6		23.5						
Intersection Summary												
HCM 2010 Ctrl Delay			9.6									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↖↖			
Traffic Volume (veh/h)	0	1497	188	0	1279	456	11	0	78	0	0	0
Future Volume (veh/h)	0	1497	188	0	1279	456	11	0	78	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1761	150	0	1375	361	12	0	66			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3949	1304	0	3949	1230	83	0	131			
Arrive On Green	0.00	0.78	0.78	0.00	0.78	0.78	0.05	0.00	0.05			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1761	150	0	1375	361	12	0	66			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	7.6	1.2	0.0	5.3	4.2	0.4	0.0	1.5			
Cycle Q Clear(g_c), s	0.0	7.6	1.2	0.0	5.3	4.2	0.4	0.0	1.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3949	1304	0	3949	1230	83	0	131			
V/C Ratio(X)	0.00	0.45	0.12	0.00	0.35	0.29	0.14	0.00	0.51			
Avail Cap(c_a), veh/h	0	3949	1304	0	3949	1230	236	0	370			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.85	0.85	0.00	0.47	0.47	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	2.4	1.1	0.0	2.2	2.1	29.3	0.0	29.8			
Incr Delay (d2), s/veh	0.0	0.3	0.2	0.0	0.1	0.3	0.9	0.0	3.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.7	0.0	2.5	1.9	0.2	0.0	0.6			
LnGrp Delay(d),s/veh	0.0	2.8	1.3	0.0	2.3	2.4	30.1	0.0	33.0			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h		1911			1736			78				
Approach Delay, s/veh		2.6			2.3			32.6				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		55.5				55.5		8.5				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		44.2				44.2		8.5				
Max Q Clear Time (g_c+I1), s		9.6				7.3		3.5				
Green Ext Time (p_c), s		34.1				36.3		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			3.1									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	331	803	281	210	801	70	535	331	203	48	239	191
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	348	845	170	236	900	68	608	376	163	53	263	144
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	432	1257	689	321	1036	78	693	1397	772	123	811	562
Arrive On Green	0.13	0.25	0.25	0.09	0.21	0.21	0.20	0.39	0.39	0.04	0.23	0.23
Sat Flow, veh/h	3442	5085	2787	3442	4825	364	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	348	845	170	236	632	336	608	376	163	53	263	144
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1799	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	7.3	11.1	3.6	5.0	13.3	13.4	12.7	5.3	4.4	1.1	4.6	4.8
Cycle Q Clear(g_c), s	7.3	11.1	3.6	5.0	13.3	13.4	12.7	5.3	4.4	1.1	4.6	4.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	432	1257	689	321	728	386	693	1397	772	123	811	562
V/C Ratio(X)	0.80	0.67	0.25	0.74	0.87	0.87	0.88	0.27	0.21	0.43	0.32	0.26
Avail Cap(c_a), veh/h	441	1261	691	329	731	388	719	1397	772	186	811	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	25.2	22.4	32.7	28.1	28.1	28.7	15.2	10.8	35.0	23.8	17.0
Incr Delay (d2), s/veh	10.3	1.4	0.2	8.1	10.8	18.8	11.6	0.5	0.6	2.4	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	5.3	1.4	2.7	7.3	8.7	7.1	2.7	2.0	0.6	2.3	2.2
LnGrp Delay(d),s/veh	41.9	26.6	22.6	40.9	38.9	47.0	40.4	15.7	11.5	37.4	24.9	18.1
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	B
Approach Vol, veh/h	1363					1204		1147		460		
Approach Delay, s/veh	30.0					41.6		28.2		24.2		
Approach LOS	C					D		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	33.3	11.4	22.3	19.4	21.0	13.8	19.9				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	4.0	28.5	7.1	18.4	15.5	17.0	9.5	16.0				
Max Q Clear Time (g_c+I1), s	13.1	7.3	7.0	13.1	14.7	6.8	9.3	15.4				
Green Ext Time (p_c), s	0.0	5.0	0.0	4.2	0.2	3.6	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			32.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

11/14/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	🚗🚗	🚗🚗🚗	🚗🚗🚗		🚗🚗🚗	🚗		
Volume (veh/h)	486	541	892	93	38	178		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	572	636	959	89	51	187		
Adj No. of Lanes	2	3	3	0	1	2		
Peak Hour Factor	0.85	0.85	0.93	0.93	0.74	0.74		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	792	3439	1622	150	207	369		
Arrive On Green	0.23	0.68	0.34	0.34	0.12	0.12		
Sat Flow, veh/h	3442	5253	4905	439	1774	3167		
Grp Volume(v), veh/h	572	636	686	362	51	187		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1785	1774	1583		
Q Serve(g_s), s	6.7	2.0	7.2	7.3	1.1	2.4		
Cycle Q Clear(g_c), s	6.7	2.0	7.2	7.3	1.1	2.4		
Prop In Lane	1.00			0.25	1.00	1.00		
Lane Grp Cap(c), veh/h	792	3439	1161	611	207	369		
V/C Ratio(X)	0.72	0.18	0.59	0.59	0.25	0.51		
Avail Cap(c_a), veh/h	1308	4510	1367	720	715	1277		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	15.4	2.6	11.8	11.8	17.4	18.0		
Incr Delay (d2), s/veh	1.3	0.0	0.5	0.9	0.6	1.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.2	0.9	3.4	3.7	0.6	2.2		
LnGrp Delay(d),s/veh	16.7	2.6	12.3	12.7	18.1	19.1		
LnGrp LOS	B	A	B	B	B	B		
Approach Vol, veh/h		1208	1048		238			
Approach Delay, s/veh		9.3	12.4		18.9			
Approach LOS		A	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		33.9		9.6	14.5	19.4		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		38.5		17.5	16.5	17.5		
Max Q Clear Time (g_c+l1), s		4.0		4.4	8.7	9.3		
Green Ext Time (p_c), s		13.2		0.6	1.3	5.6		
Intersection Summary								
HCM 2010 Ctrl Delay			11.5					
HCM 2010 LOS			B					

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

11/14/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	  			 		
Volume (veh/h)	127	398	833	179	51	23		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	169	531	969	208	81	37		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.75	0.75	0.86	0.86	0.63	0.63		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	264	3374	1670	358	184	164		
Arrive On Green	0.15	0.66	0.40	0.40	0.10	0.10		
Sat Flow, veh/h	1774	5253	4364	898	1774	1583		
Grp Volume(v), veh/h	169	531	782	395	81	37		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1704	1774	1583		
Q Serve(g_s), s	3.5	1.5	7.0	7.0	1.7	0.8		
Cycle Q Clear(g_c), s	3.5	1.5	7.0	7.0	1.7	0.8		
Prop In Lane	1.00			0.53	1.00	1.00		
Lane Grp Cap(c), veh/h	264	3374	1349	678	184	164		
V/C Ratio(X)	0.64	0.16	0.58	0.58	0.44	0.23		
Avail Cap(c_a), veh/h	740	5149	1624	816	776	693		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	15.5	2.4	9.1	9.1	16.3	15.9		
Incr Delay (d2), s/veh	2.6	0.0	0.4	0.8	1.7	0.7		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.9	0.7	3.2	3.4	0.9	0.8		
LnGrp Delay(d),s/veh	18.0	2.5	9.5	9.9	17.9	16.6		
LnGrp LOS	B	A	A	A	B	B		
Approach Vol, veh/h		700	1177		118			
Approach Delay, s/veh		6.2	9.6		17.5			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				30.1		8.5	10.2	19.9
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				39.1		16.9	16.1	18.5
Max Q Clear Time (g_c+l1), s				3.5		3.7	5.5	9.0
Green Ext Time (p_c), s				13.8		0.2	0.3	6.4
Intersection Summary								
HCM 2010 Ctrl Delay			8.9					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

11/14/2016

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	248	114	180	137	441	89	365	495	77	44	386	323	
Number	5	2	12	1	6	16	3	8	18	7	4	14	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863	
Adj Flow Rate, veh/h	285	131	138	176	565	114	456	619	96	56	495	324	
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1	
Peak Hour Factor	0.87	0.87	0.87	0.78	0.78	0.78	0.80	0.80	0.80	0.78	0.78	0.78	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	266	474	221	438	1015	316	623	1248	558	147	792	354	
Arrive On Green	0.08	0.14	0.14	0.13	0.20	0.20	0.18	0.35	0.35	0.04	0.22	0.22	
Sat Flow, veh/h	3442	3390	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583	
Grp Volume(v), veh/h	285	131	138	176	565	114	456	619	96	56	495	324	
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583	
Q Serve(g_s), s	4.0	1.8	4.3	2.4	5.2	3.2	6.5	7.1	1.2	0.8	6.5	7.3	
Cycle Q Clear(g_c), s	4.0	1.8	4.3	2.4	5.2	3.2	6.5	7.1	1.2	0.8	6.5	7.3	
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	266	474	221	438	1015	316	623	1248	558	147	792	354	
V/C Ratio(X)	1.07	0.28	0.62	0.40	0.56	0.36	0.73	0.50	0.17	0.38	0.62	0.91	
Avail Cap(c_a), veh/h	266	1086	507	438	1815	565	664	1468	657	266	1093	489	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	23.9	19.9	21.0	20.8	18.7	17.9	20.0	13.2	3.5	24.1	18.1	9.7	
Incr Delay (d2), s/veh	75.9	0.3	2.9	0.6	0.5	0.7	3.9	0.3	0.1	1.6	0.8	17.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.6	0.9	2.0	1.2	2.5	1.5	3.4	3.5	0.9	0.4	3.3	5.2	
LnGrp Delay(d),s/veh	99.8	20.3	23.9	21.4	19.2	18.6	23.9	13.5	3.6	25.8	19.0	27.2	
LnGrp LOS	F	C	C	C	B	B	C	B	A	C	B	C	
Approach Vol, veh/h	554				855				1171				875
Approach Delay, s/veh	62.1				19.5				16.7				22.4
Approach LOS	E				B				B				C
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc), s	11.1	11.7	13.4	15.6	8.0	14.8	6.7	22.3					
Change Period (Y+Rc), s	4.5	4.5	4.0	4.0	4.0	4.5	4.5	4.0					
Max Green Setting (Gmax), s	5.4	16.6	10.0	16.0	4.0	18.5	4.0	21.5					
Max Q Clear Time (g_c+I), s	14.4	6.3	8.5	9.3	6.0	7.2	2.8	9.1					
Green Ext Time (p_c), s	0.5	1.0	0.9	2.3	0.0	3.2	0.0	4.7					
Intersection Summary													
HCM 2010 Ctrl Delay			26.1										
HCM 2010 LOS			C										
Notes													
User approved pedestrian interval to be less than phase max green.													

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	202	432	226	83	930	76	275	229	39	60	168	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	273	584	224	105	1177	71	309	257	33	65	181	133
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.74	0.74	0.74	0.79	0.79	0.79	0.89	0.89	0.89	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	1967	613	261	1771	551	454	919	406	162	487	586
Arrive On Green	0.11	0.39	0.39	0.08	0.35	0.35	0.13	0.18	0.18	0.05	0.10	0.10
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	273	584	224	105	1177	71	309	257	33	65	181	133
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	3.9	4.1	5.2	1.5	10.1	1.6	4.4	2.3	0.1	0.9	1.7	1.1
Cycle Q Clear(g_c), s	3.9	4.1	5.2	1.5	10.1	1.6	4.4	2.3	0.1	0.9	1.7	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	1967	613	261	1771	551	454	919	406	162	487	586
V/C Ratio(X)	0.69	0.30	0.37	0.40	0.66	0.13	0.68	0.28	0.08	0.40	0.37	0.23
Avail Cap(c_a), veh/h	466	1967	613	333	1771	551	533	1967	733	266	1574	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	11.0	11.3	22.8	14.3	11.5	21.4	18.3	6.1	23.9	21.9	6.1
Incr Delay (d2), s/veh	3.5	0.4	1.7	1.0	2.0	0.5	2.8	0.2	0.1	1.6	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.0	2.6	0.8	5.0	0.8	2.3	1.1	0.2	0.5	0.8	0.6
LnGrp Delay(d),s/veh	25.5	11.4	13.0	23.8	16.3	12.0	24.2	18.4	6.2	25.5	22.4	6.3
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	C	A
Approach Vol, veh/h	1081				1353				599		379	
Approach Delay, s/veh	15.3				16.6				20.7		17.3	
Approach LOS	B				B				C		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	24.0	10.8	8.9	9.9	22.0	6.4	13.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	20.0	8.0	16.0	7.0	18.0	4.0	20.0				
Max Q Clear Time (g_c+I), s	13.5	7.2	6.4	3.7	5.9	12.1	2.9	4.3				
Green Ext Time (p_c), s	1.1	3.6	0.5	1.2	0.1	3.7	0.0	2.4				
Intersection Summary												
HCM 2010 Ctrl Delay			17.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

11/14/2016

	            											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Volume (veh/h)	281	144	20	26	310	83	40	187	29	37	205	415
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	351	180	19	35	419	98	44	208	21	39	218	313
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.80	0.80	0.80	0.74	0.74	0.74	0.90	0.90	0.90	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	501	2203	227	76	1228	549	124	817	81	113	604	501
Arrive On Green	0.15	0.47	0.47	0.02	0.35	0.35	0.04	0.17	0.17	0.03	0.17	0.17
Sat Flow, veh/h	3442	4685	482	3442	3539	1583	3442	4707	464	3442	3539	1583
Grp Volume(v), veh/h	351	129	70	35	419	98	44	148	81	39	218	313
Grp Sat Flow(s),veh/h/ln	1721	1695	1778	1721	1770	1583	1721	1695	1781	1721	1770	1583
Q Serve(g_s), s	5.2	1.1	1.2	0.5	4.7	2.3	0.7	2.0	2.1	0.6	2.9	5.5
Cycle Q Clear(g_c), s	5.2	1.1	1.2	0.5	4.7	2.3	0.7	2.0	2.1	0.6	2.9	5.5
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	501	1594	836	76	1228	549	124	589	309	113	604	501
V/C Ratio(X)	0.70	0.08	0.08	0.46	0.34	0.18	0.36	0.25	0.26	0.34	0.36	0.63
Avail Cap(c_a), veh/h	842	1594	836	259	1228	549	259	1020	536	259	1065	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	7.8	7.8	25.7	12.9	12.1	25.0	19.0	19.0	25.1	19.5	6.3
Incr Delay (d2), s/veh	1.8	0.1	0.2	4.2	0.8	0.7	1.7	0.2	0.4	1.8	0.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.5	0.6	0.3	2.4	1.1	0.3	0.9	1.1	0.3	1.4	2.7
LnGrp Delay(d),s/veh	23.4	7.9	8.0	29.9	13.6	12.8	26.7	19.2	19.5	26.9	19.8	7.6
LnGrp LOS	C	A	A	C	B	B	C	B	B	C	B	A
Approach Vol, veh/h	550				552		273				570	
Approach Delay, s/veh	17.8				14.5		20.5				13.6	
Approach LOS	B				B		C				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	29.0	5.9	13.1	11.7	22.4	5.8	13.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	25.0	4.0	16.0	13.0	16.0	4.0	16.0				
Max Q Clear Time (g_c+I2), s	12.5	3.2	2.7	7.5	7.2	6.7	2.6	4.1				
Green Ext Time (p_c), s	0.0	1.0	0.2	1.5	0.6	2.0	0.0	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			16.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3230	4772	0	5	5	4	3	5	0	5	8	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3442	5253	0	3442	3539	2787	1774	3632	0	3442	5253	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1721	1770	1393	1774	1770	0	1721	1695	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	3230	4772	0	5	5	4	3	5	0	5	8	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	3230	4772	0	318	1035	815	164	980	0	318	1408	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS												
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	65.0	0.0	0.0	65.0	0.0	0.0	0.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	0.0	19.0	6.0	18.0	6.0	19.0	6.0	18.0				
Max Q Clear Time (g_c+I), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			0.0									
HCM 2010 LOS			A									

Intersection

Intersection Delay, s/veh 8.6

Intersection LOS A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	201	334	483
Demand Flow Rate, veh/h	205	340	493
Vehicles Circulating, veh/h	276	6	198
Vehicles Exiting, veh/h	70	685	283
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.8	6.2	11.0
Approach LOS	A	A	B

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	205	340	493
Cap Entry Lane, veh/h	857	1123	927
Entry HV Adj Factor	0.980	0.981	0.981
Flow Entry, veh/h	201	334	483
Cap Entry, veh/h	841	1102	909
V/C Ratio	0.239	0.303	0.532
Control Delay, s/veh	6.8	6.2	11.0
LOS	A	A	B
95th %tile Queue, veh	1	1	3

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	7	244	20	0	459
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	257	21	0	483

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	750	267	0
Stage 1	267	-	-
Stage 2	483	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	379	772	1285
Stage 1	778	-	-
Stage 2	620	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	379	772	1285
Mov Cap-2 Maneuver	379	-	-
Stage 1	778	-	-
Stage 2	620	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	772	1285
HCM Lane V/C Ratio	-	-	0.01	-
HCM Control Delay (s)	-	-	9.7	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection				
Intersection Delay, s/veh	6.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	13	163	264	336
Demand Flow Rate, veh/h	13	166	269	343
Vehicles Circulating, veh/h	493	200	13	162
Vehicles Exiting, veh/h	12	82	493	204
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	5.7	5.5	7.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	13	166	269	343
Cap Entry Lane, veh/h	690	925	1115	961
Entry HV Adj Factor	0.992	0.981	0.982	0.981
Flow Entry, veh/h	13	163	264	336
Cap Entry, veh/h	685	908	1096	943
V/C Ratio	0.019	0.179	0.241	0.357
Control Delay, s/veh	5.5	5.7	5.5	7.7
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	2

Intersection

Intersection Delay, s/veh 5.2

Intersection LOS A

Approach	WB	NB	SB
Entry Lanes	0	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	192	169
Demand Flow Rate, veh/h	0	196	172
Vehicles Circulating, veh/h	102	7	168
Vehicles Exiting, veh/h	101	333	115
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	4.8	5.6
Approach LOS	-	A	A

Lane	Left	Left
Designated Moves	TR	LT
Assumed Moves	TR	LT
RT Channelized		
Lane Util	1.000	1.000
Critical Headway, s	5.193	5.193
Entry Flow, veh/h	196	172
Cap Entry Lane, veh/h	1122	955
Entry HV Adj Factor	0.980	0.981
Flow Entry, veh/h	192	169
Cap Entry, veh/h	1099	937
V/C Ratio	0.175	0.180
Control Delay, s/veh	4.8	5.6
LOS	A	A
95th %tile Queue, veh	1	1

Intersection

Intersection Delay, s/veh 4.3

Intersection LOS A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	38	15	118	143
Demand Flow Rate, veh/h	39	15	120	146
Vehicles Circulating, veh/h	150	117	10	24
Vehicles Exiting, veh/h	20	13	179	108
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	3.7	4.2	4.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	39	15	120	146
Cap Entry Lane, veh/h	973	1005	1119	1103
Entry HV Adj Factor	0.972	0.993	0.983	0.981
Flow Entry, veh/h	38	15	118	143
Cap Entry, veh/h	945	999	1100	1082
V/C Ratio	0.040	0.015	0.107	0.132
Control Delay, s/veh	4.2	3.7	4.2	4.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	2	29	13	89	106	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	31	14	94	112	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	233	112	113	0	-	0
Stage 1	112	-	-	-	-	-
Stage 2	121	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	755	941	1476	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	747	941	1476	-	-	-
Mov Cap-2 Maneuver	747	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	895	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1476	-	941	-	-
HCM Lane V/C Ratio	0.009	-	0.032	-	-
HCM Control Delay (s)	7.5	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection

Int Delay, s/veh 2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	38	1	74	17	5	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	1	78	18	5	73

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	170	87	0 0 96 0
Stage 1	87	-	- - - -
Stage 2	83	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	820	971	- - 1498 -
Stage 1	936	-	- - - -
Stage 2	940	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	818	971	- - 1498 -
Mov Cap-2 Maneuver	818	-	- - - -
Stage 1	936	-	- - - -
Stage 2	937	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 821	1498	-
HCM Lane V/C Ratio	-	- 0.05	0.004	-
HCM Control Delay (s)	-	- 9.6	7.4	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.2	0	-

Intersection				
Intersection Delay, s/veh	3.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	14	42	79	39
Demand Flow Rate, veh/h	14	43	80	40
Vehicles Circulating, veh/h	69	66	8	43
Vehicles Exiting, veh/h	14	22	75	66
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.6	3.8	3.9	3.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	14	43	80	40
Cap Entry Lane, veh/h	1055	1058	1121	1082
Entry HV Adj Factor	0.993	0.974	0.985	0.984
Flow Entry, veh/h	14	42	79	39
Cap Entry, veh/h	1047	1031	1104	1065
V/C Ratio	0.013	0.041	0.071	0.037
Control Delay, s/veh	3.6	3.8	3.9	3.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

11/14/2016

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	8	2	3	11	3	151	2	274	13	283	610	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	41	41	41	87	87	87	88	88	88	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	5	7	13	3	174	2	311	15	292	629	15
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1545	1551	637	1549	1551	319	644	0	0	326	0	0
Stage 1	1220	1220	-	323	323	-	-	-	-	-	-	-
Stage 2	325	331	-	1226	1228	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	93	114	477	93	114	722	941	-	-	1234	-	-
Stage 1	220	253	-	689	650	-	-	-	-	-	-	-
Stage 2	687	645	-	218	250	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	56	87	477	72	87	722	941	-	-	1234	-	-
Mov Cap-2 Maneuver	56	87	-	72	87	-	-	-	-	-	-	-
Stage 1	220	193	-	688	649	-	-	-	-	-	-	-
Stage 2	518	644	-	160	191	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	82.8			16.2			0.1			2.7		
HCM LOS	F			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	941	-	-	76 75 722	1234	-	-					
HCM Lane V/C Ratio	0.002	-	-	0.417 0.215 0.24	0.236	-	-					
HCM Control Delay (s)	8.8	-	-	82.8 65.7 11.6	8.8	-	-					
HCM Lane LOS	A	-	-	F F B	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	1.7 0.7 0.9	0.9	-	-					

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	417	106	5	184	33	58	50	24	54	35	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	19	434	100	6	230	29	69	60	23	64	41	18
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.80	0.80	0.80	0.84	0.84	0.84	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	629	145	11	676	85	255	135	42	275	124	41
Arrive On Green	0.02	0.43	0.43	0.01	0.42	0.42	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1774	1465	338	1774	1622	205	602	792	249	675	728	240
Grp Volume(v), veh/h	19	0	534	6	0	259	152	0	0	123	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1803	1774	0	1827	1642	0	0	1643	0	0
Q Serve(g_s), s	0.4	0.0	8.2	0.1	0.0	3.3	0.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	8.2	0.1	0.0	3.3	2.7	0.0	0.0	2.1	0.0	0.0
Prop In Lane	1.00		0.19	1.00		0.11	0.45		0.15	0.52		0.15
Lane Grp Cap(c), veh/h	34	0	774	11	0	761	433	0	0	440	0	0
V/C Ratio(X)	0.55	0.00	0.69	0.52	0.00	0.34	0.35	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	212	0	1551	212	0	1571	976	0	0	965	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.7	0.0	7.9	17.0	0.0	6.8	12.9	0.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	13.3	0.0	1.1	32.1	0.0	0.3	0.5	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	4.2	0.2	0.0	1.7	1.4	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d),s/veh	29.9	0.0	9.0	49.1	0.0	7.1	13.4	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	C		A	D		A	B			B		
Approach Vol, veh/h		553			265			152			123	
Approach Delay, s/veh		9.8			8.0			13.4			13.0	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.3	4.7	19.2		10.3	5.2	18.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.9	4.1	29.5		17.9	4.1	29.5				
Max Q Clear Time (g_c+l1), s		4.7	2.1	10.2		4.1	2.4	5.3				
Green Ext Time (p_c), s		1.1	0.0	4.5		1.2	0.0	4.8				
Intersection Summary												
HCM 2010 Ctrl Delay			10.2									
HCM 2010 LOS			B									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

11/14/2016

Intersection

Int Delay, s/veh 4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	106	8	0	60	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	68	68	25	25
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	139	11	0	88	4	0

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	88	0	44
Stage 1	-	-	0
Stage 2	-	-	44
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1508	-	967
Stage 1	-	-	-
Stage 2	-	-	978
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1508	-	878
Mov Cap-2 Maneuver	-	-	878
Stage 1	-	-	-
Stage 2	-	-	978

Approach	WB	NB	SB
HCM Control Delay, s	7.1	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1508	-	878
HCM Lane V/C Ratio	-	-	0.092	-	0.005
HCM Control Delay (s)	-	-	7.6	-	9.1
HCM Lane LOS	-	-	A	-	A
HCM 95th %tile Q(veh)	-	-	0.3	-	0

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

11/14/2016

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	43	9	22	3	5	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	69	69	67	67	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	13	33	4	6	97

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	97	0	246 13
Stage 1	-	-	138 -
Stage 2	-	-	108 -
Critical Hdwy	-	-	6.52 6.22
Critical Hdwy Stg 1	-	-	5.52 -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	-	4.018 3.318
Pot Cap-1 Maneuver	-	-	656 1067
Stage 1	-	-	782 -
Stage 2	-	-	- -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	0 1067
Mov Cap-2 Maneuver	-	-	0 -
Stage 1	-	-	0 -
Stage 2	-	-	0 -

Approach	EB	WB	SB
HCM Control Delay, s		8.5	0.4
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	-	1067	1606
HCM Lane V/C Ratio	-	-	0.035	0.004
HCM Control Delay (s)	-	-	8.5	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	0	5	0	0	4	14	154	1	1	484	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	50	50	50	85	85	85	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	0	8	0	0	8	16	181	1	1	621	18
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	851	847	629	851	856	182	638	0	0	182	0	0
Stage 1	632	632	-	215	215	-	-	-	-	-	-	-
Stage 2	219	215	-	636	641	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	299	482	280	295	861	946	-	-	1393	-	-
Stage 1	468	474	-	787	725	-	-	-	-	-	-	-
Stage 2	783	725	-	466	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	273	293	482	271	289	861	946	-	-	1393	-	-
Mov Cap-2 Maneuver	273	293	-	271	289	-	-	-	-	-	-	-
Stage 1	459	474	-	772	711	-	-	-	-	-	-	-
Stage 2	761	711	-	458	469	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	17.5			9.2			0.7			0		
HCM LOS	C			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	946	-	-	313	861	1393	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.084	0.009	0.001	-	-				
HCM Control Delay (s)	8.9	0	-	17.5	9.2	7.6	0	-				
HCM Lane LOS	A	A	-	C	A	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0	0	-	-				

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↱	↱		
Traffic Volume (veh/h)	0	562	321	0	174	28		
Future Volume (veh/h)	0	562	321	0	174	28		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	598	365	0	207	21		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.94	0.94	0.88	0.88	0.84	0.84		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1713	1713	0	282	252		
Arrive On Green	0.00	0.48	0.48	0.00	0.16	0.16		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	598	365	0	207	21		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	3.3	1.9	0.0	3.5	0.4		
Cycle Q Clear(g_c), s	0.0	3.3	1.9	0.0	3.5	0.4		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1713	1713	0	282	252		
V/C Ratio(X)	0.00	0.35	0.21	0.00	0.73	0.08		
Avail Cap(c_a), veh/h	0	2796	2796	0	589	525		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	5.1	4.7	0.0	12.7	11.3		
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.0	4.0	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	1.6	0.9	0.0	2.0	0.2		
LnGrp Delay(d),s/veh	0.0	5.3	4.8	0.0	16.7	11.5		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		598	365		228			
Approach Delay, s/veh		5.3	4.8		16.2			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		21.1		10.5		21.1		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		25.0		10.5		25.0		
Max Q Clear Time (g_c+I1), s		5.3		5.5		3.9		
Green Ext Time (p_c), s		10.0		0.3		10.4		
Intersection Summary								
HCM 2010 Ctrl Delay			7.3					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	12	710	329	80	0	0			
Future Volume (veh/h)	12	710	329	80	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	14	807	401	86					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.88	0.88	0.82	0.82					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	15	2932	2039	433					
Arrive On Green	0.01	0.83	0.70	0.70					
Sat Flow, veh/h	1774	3632	2999	618					
Grp Volume(v), veh/h	14	807	243	244					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1754					
Q Serve(g_s), s	0.3	1.7	1.6	1.6					
Cycle Q Clear(g_c), s	0.3	1.7	1.6	1.6					
Prop In Lane	1.00			0.35					
Lane Grp Cap(c), veh/h	15	2932	1242	1231					
V/C Ratio(X)	0.95	0.28	0.20	0.20					
Avail Cap(c_a), veh/h	577	6198	2314	2293					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	16.8	0.6	1.7	1.7					
Incr Delay (d2), s/veh	55.5	0.1	0.2	0.2					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	0.4	0.8	0.8	0.8					
LnGrp Delay(d),s/veh	72.3	0.8	1.9	1.9					
LnGrp LOS	E	A	A	A					
Approach Vol, veh/h		821	487						
Approach Delay, s/veh		2.0	1.9						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		33.8			4.3	29.5			
Change Period (Y+Rc), s		5.8			4.0	5.8			
Max Green Setting (Gmax), s		59.2			11.0	44.2			
Max Q Clear Time (g_c+l1), s		3.7			2.3	3.6			
Green Ext Time (p_c), s		23.0			0.0	20.1			
Intersection Summary									
HCM 2010 Ctrl Delay			1.9						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

11/14/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑		↗↗		
Volume (veh/h)	1399	268	479	918	0	1690		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1488	211	499	956	0	1463		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.94	0.94	0.96	0.96	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	2422	343	566	3286	0	0		
Arrive On Green	0.54	0.54	0.32	0.93	0.00	0.00		
Sat Flow, veh/h	4670	638	1774	3632	0			
Grp Volume(v), veh/h	1120	579	499	956	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1750	1774	1770				
Q Serve(g_s), s	14.3	14.4	16.8	1.7				
Cycle Q Clear(g_c), s	14.3	14.4	16.8	1.7				
Prop In Lane		0.36	1.00					
Lane Grp Cap(c), veh/h	1824	942	566	3286				
V/C Ratio(X)	0.61	0.62	0.88	0.29				
Avail Cap(c_a), veh/h	2074	1071	888	4189				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(l)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	10.0	10.0	20.3	0.2				
Incr Delay (d2), s/veh	0.4	0.9	6.6	0.0				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	6.6	7.0	9.2	0.7				
LnGrp Delay(d),s/veh	10.5	10.9	26.9	0.3				
LnGrp LOS	B	B	C	A				
Approach Vol, veh/h	1699			1455				
Approach Delay, s/veh	10.6			9.4				
Approach LOS	B			A				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			24.6	38.4				62.9
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			31.5	38.5				74.5
Max Q Clear Time (g_c+11), s			18.8	16.4				3.7
Green Ext Time (p_c), s			1.3	17.5				38.0
Intersection Summary								
HCM 2010 Ctrl Delay			10.1					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

11/14/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	2645	507	0	1041	326	530		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	2755	0	0	1073	506	258		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.96	0.96	0.97	0.97	0.91	0.91		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	3234	1007	0	2251	758	338		
Arrive On Green	0.64	0.00	0.00	0.64	0.21	0.21		
Sat Flow, veh/h	5253	1583	0	3725	3548	1583		
Grp Volume(v), veh/h	2755	0	0	1073	506	258		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	25.8	0.0	0.0	9.5	7.8	9.2		
Cycle Q Clear(g_c), s	25.8	0.0	0.0	9.5	7.8	9.2		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	3234	1007	0	2251	758	338		
V/C Ratio(X)	0.85	0.00	0.00	0.48	0.67	0.76		
Avail Cap(c_a), veh/h	3252	1013	0	2264	1049	468		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.7	0.0	0.0	5.7	21.6	22.1		
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.2	1.0	4.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	12.4	0.0	0.0	4.5	3.9	4.5		
LnGrp Delay(d),s/veh	11.0	0.0	0.0	5.9	22.6	27.0		
LnGrp LOS	B			A	C	C		
Approach Vol, veh/h	2755			1073	764			
Approach Delay, s/veh	11.0			5.9	24.1			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		17.3		42.6				42.6
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		17.7		38.3				38.3
Max Q Clear Time (g_c+I1), s		11.2		27.8				11.5
Green Ext Time (p_c), s		1.6		10.3				25.6
Intersection Summary								
HCM 2010 Ctrl Delay			12.0					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	129	2543	39	21	1688	49	38	2	11	44	2	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	136	2677	30	23	1855	43	57	3	9	49	2	61
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.67	0.67	0.67	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	3343	37	37	2904	67	222	48	145	264	9	186
Arrive On Green	0.10	0.64	0.64	0.02	0.57	0.57	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1774	5185	58	1774	5114	118	1334	411	1234	1282	73	1583
Grp Volume(v), veh/h	136	1748	959	23	1229	669	57	0	12	51	0	61
Grp Sat Flow(s),veh/h/ln	1774	1695	1853	1774	1695	1842	1334	0	1645	1355	0	1583
Q Serve(g_s), s	4.7	23.6	23.8	0.8	15.3	15.4	2.6	0.0	0.4	2.0	0.0	2.2
Cycle Q Clear(g_c), s	4.7	23.6	23.8	0.8	15.3	15.4	4.9	0.0	0.4	2.4	0.0	2.2
Prop In Lane	1.00		0.03	1.00		0.06	1.00		0.75	0.96		1.00
Lane Grp Cap(c), veh/h	174	2186	1195	37	1926	1046	222	0	194	273	0	186
V/C Ratio(X)	0.78	0.80	0.80	0.61	0.64	0.64	0.26	0.00	0.06	0.19	0.00	0.33
Avail Cap(c_a), veh/h	264	2201	1203	117	1926	1046	426	0	446	489	0	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.5	8.1	8.2	30.3	9.1	9.1	27.6	0.0	24.5	25.4	0.0	25.3
Incr Delay (d2), s/veh	8.2	2.2	4.0	15.3	0.7	1.3	0.6	0.0	0.1	0.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	11.3	13.1	0.5	7.2	8.0	1.0	0.0	0.2	0.8	0.0	1.0
LnGrp Delay(d),s/veh	35.7	10.3	12.2	45.5	9.8	10.5	28.2	0.0	24.6	25.8	0.0	26.3
LnGrp LOS	D	B	B	D	A	B	C		C	C		C
Approach Vol, veh/h	2843				1921		69				112	
Approach Delay, s/veh	12.1				10.5		27.6				26.0	
Approach LOS	B				B		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	11.8		5.8	44.7	11.8		10.6	39.9				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	16.9		4.1	40.5	16.9		9.3	35.3				
Max Q Clear Time (g_c+I1), s	6.9		2.8	25.8	4.4		6.7	17.4				
Green Ext Time (p_c), s	0.4		0.0	14.4	0.5		0.1	17.7				
Intersection Summary												
HCM 2010 Ctrl Delay			12.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

11/14/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Volume (veh/h)	196	2388	1615	65	38	118
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	206	2514	1835	63	49	125
Adj No. of Lanes	2	3	3	0	1	1
Peak Hour Factor	0.95	0.95	0.88	0.88	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	319	3610	2687	92	213	190
Arrive On Green	0.09	0.71	0.53	0.53	0.12	0.12
Sat Flow, veh/h	3442	5253	5217	173	1774	1583
Grp Volume(v), veh/h	206	2514	1231	667	49	125
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1832	1774	1583
Q Serve(g_s), s	3.1	15.0	14.1	14.1	1.3	4.0
Cycle Q Clear(g_c), s	3.1	15.0	14.1	14.1	1.3	4.0
Prop In Lane	1.00			0.09	1.00	1.00
Lane Grp Cap(c), veh/h	319	3610	1804	975	213	190
V/C Ratio(X)	0.65	0.70	0.68	0.68	0.23	0.66
Avail Cap(c_a), veh/h	423	3702	1804	975	587	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	4.4	9.1	9.1	21.1	22.2
Incr Delay (d2), s/veh	2.2	0.6	1.1	2.0	0.5	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.9	6.8	7.6	0.7	3.6
LnGrp Delay(d),s/veh	25.4	5.0	10.2	11.1	21.6	26.1
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		2720	1898		174	
Approach Delay, s/veh		6.5	10.5		24.8	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				42.0		10.8	9.4	32.6
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				38.5		17.5	6.5	27.5
Max Q Clear Time (g_c+I1), s				17.0		6.0	5.1	16.1
Green Ext Time (p_c), s				20.5		0.3	0.1	11.2

Intersection Summary								
HCM 2010 Ctrl Delay			8.7					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	1978	268	245	1303	113	127	121	233	114	99	186
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	234	2104	221	310	1649	105	161	153	219	127	110	140
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.79	0.79	0.79	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	315	2267	706	385	2370	738	233	611	273	196	572	256
Arrive On Green	0.09	0.45	0.45	0.11	0.47	0.47	0.07	0.17	0.17	0.06	0.16	0.16
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	234	2104	221	310	1649	105	161	153	219	127	110	140
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	5.6	33.1	7.6	7.4	21.7	3.2	3.9	3.2	11.2	3.1	2.3	6.9
Cycle Q Clear(g_c), s	5.6	33.1	7.6	7.4	21.7	3.2	3.9	3.2	11.2	3.1	2.3	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	315	2267	706	385	2370	738	233	611	273	196	572	256
V/C Ratio(X)	0.74	0.93	0.31	0.81	0.70	0.14	0.69	0.25	0.80	0.65	0.19	0.55
Avail Cap(c_a), veh/h	403	2317	721	395	2370	738	236	771	345	220	754	337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	22.1	15.1	36.6	17.8	12.9	38.5	30.2	33.6	39.0	30.7	32.6
Incr Delay (d2), s/veh	5.4	7.2	0.3	11.3	0.9	0.1	8.1	0.2	10.2	5.5	0.2	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	16.9	3.4	4.1	10.3	1.4	2.1	1.6	5.7	1.6	1.1	3.1
LnGrp Delay(d),s/veh	42.8	29.3	15.3	48.0	18.7	13.0	46.6	30.5	43.8	44.6	30.8	34.4
LnGrp LOS	D	C	B	D	B	B	D	C	D	D	C	C
Approach Vol, veh/h	2559			2064			533			377		
Approach Delay, s/veh	29.4			22.8			40.8			36.8		
Approach LOS	C			C			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	19.1	14.0	42.2	10.2	18.2	12.2	43.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.4	18.4	9.7	38.5	5.8	18.0	9.9	38.3				
Max Q Clear Time (g_c+I), s	15.1	13.2	9.4	35.1	5.9	8.9	7.6	23.7				
Green Ext Time (p_c), s	0.0	1.4	0.0	2.6	0.0	2.0	0.2	14.2				
Intersection Summary												
HCM 2010 Ctrl Delay	28.5											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	👉👉	👉👉👉		👉👉	👉👉👉		👉	👉👉		👉	👉👉	
Volume (veh/h)	303	1605	443	197	1069	87	260	174	179	95	204	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	319	1689	340	219	1125	60	310	207	153	100	215	157
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.90	0.95	0.95	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	535	1702	339	229	1538	82	315	563	397	128	355	247
Arrive On Green	0.16	0.40	0.40	0.07	0.31	0.31	0.18	0.28	0.28	0.07	0.18	0.18
Sat Flow, veh/h	3442	4255	848	3442	4943	263	1774	1986	1399	1774	1995	1392
Grp Volume(v), veh/h	319	1342	687	219	771	414	310	183	177	100	190	182
Grp Sat Flow(s),veh/h/ln	1721	1695	1713	1721	1695	1816	1774	1770	1616	1774	1770	1617
Q Serve(g_s), s	7.8	35.4	36.0	5.7	18.3	18.3	15.7	7.5	7.9	5.0	8.9	9.4
Cycle Q Clear(g_c), s	7.8	35.4	36.0	5.7	18.3	18.3	15.7	7.5	7.9	5.0	8.9	9.4
Prop In Lane	1.00		0.50	1.00		0.15	1.00		0.87	1.00		0.86
Lane Grp Cap(c), veh/h	535	1356	685	229	1055	565	315	502	458	128	315	287
V/C Ratio(X)	0.60	0.99	1.00	0.95	0.73	0.73	0.98	0.37	0.39	0.78	0.60	0.63
Avail Cap(c_a), veh/h	535	1356	685	229	1055	565	315	502	458	217	315	287
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	26.8	27.0	41.9	27.6	27.7	36.9	25.8	25.9	41.1	34.1	34.3
Incr Delay (d2), s/veh	1.8	22.1	34.9	46.6	4.5	8.1	45.9	2.0	2.4	10.0	8.3	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	20.6	23.6	4.2	9.1	10.4	11.7	3.9	3.8	2.8	5.0	5.0
LnGrp Delay(d),s/veh	37.2	49.0	61.9	88.5	32.1	35.8	82.7	27.8	28.4	51.0	42.4	44.5
LnGrp LOS	D	D	F	F	C	D	F	C	C	D	D	D
Approach Vol, veh/h	2348				1404		670				472	
Approach Delay, s/veh	51.1				42.0		53.4				45.0	
Approach LOS	D				D		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	40.0	20.0	20.0	18.0	32.0	10.5	29.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	36.0	36.0	16.0	16.0	14.0	28.0	11.0	21.0				
Max Q Clear Time (g_c+I), s	38.0	38.0	17.7	11.4	9.8	20.3	7.0	9.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	3.8	4.1	0.1	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay			48.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	162	878	398	123	649	201	362	557	115	459	774	170
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	180	976	309	137	721	156	389	599	0	488	823	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	1029	460	143	915	409	523	1060	330	556	1109	345
Arrive On Green	0.11	0.29	0.29	0.08	0.26	0.26	0.15	0.21	0.00	0.16	0.22	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	180	976	309	137	721	156	389	599	0	488	823	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	6.2	16.7	10.6	4.8	11.7	5.0	6.7	6.5	0.0	8.6	9.3	0.0
Cycle Q Clear(g_c), s	6.2	16.7	10.6	4.8	11.7	5.0	6.7	6.5	0.0	8.6	9.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	1029	460	143	915	409	523	1060	330	556	1109	345
V/C Ratio(X)	0.90	0.95	0.67	0.96	0.79	0.38	0.74	0.57	0.00	0.88	0.74	0.00
Avail Cap(c_a), veh/h	201	1029	460	143	915	409	556	1314	409	556	1314	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.1	21.5	19.3	28.3	21.4	18.9	25.1	22.0	0.0	25.4	22.6	0.0
Incr Delay (d2), s/veh	36.7	18.1	7.6	61.7	6.8	2.7	5.1	0.5	0.0	14.8	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	10.7	5.6	4.7	6.6	2.5	3.6	3.1	0.0	5.2	4.5	0.0
LnGrp Delay(d),s/veh	63.8	39.6	26.9	90.1	28.2	21.6	30.2	22.5	0.0	40.2	24.5	0.0
LnGrp LOS	E	D	C	F	C	C	C	C		D	C	
Approach Vol, veh/h	1465			1014			988			1311		
Approach Delay, s/veh	39.9			35.5			25.5			30.3		
Approach LOS	D			D			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	22.0	13.4	17.5	11.0	20.0	14.0	16.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	18.0	10.0	16.0	7.0	16.0	10.0	16.0				
Max Q Clear Time (g_c+10), s	10.8	18.7	8.7	11.3	8.2	13.7	10.6	8.5				
Green Ext Time (p_c), s	0.0	0.0	0.7	2.2	0.0	1.2	0.0	3.1				
Intersection Summary												
HCM 2010 Ctrl Delay	33.4											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑↑		↑
Traffic Volume (veh/h)	0	959	36	0	740	80	0	0	0	356	0	201
Future Volume (veh/h)	0	959	36	0	740	80	0	0	0	356	0	201
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1102	0	0	771	73				409	0	162
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96				0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3078	958	0	2142	1241				613	0	282
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61				0.18	0.00	0.18
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	1102	0	0	771	73				409	0	162
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	5.7	0.0	0.0	5.7	0.5				5.8	0.0	4.9
Cycle Q Clear(g_c), s	0.0	5.7	0.0	0.0	5.7	0.5				5.8	0.0	4.9
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3078	958	0	2142	1241				613	0	282
V/C Ratio(X)	0.00	0.36	0.00	0.00	0.36	0.06				0.67	0.00	0.57
Avail Cap(c_a), veh/h	0	3625	1129	0	2523	1411				1088	0	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.2	0.0	0.0	5.2	1.3				20.0	0.0	19.6
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0				1.4	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	0.0	0.0	2.8	0.4				2.8	0.0	2.3
LnGrp Delay(d),s/veh	0.0	5.3	0.0	0.0	5.4	1.3				21.4	0.0	21.6
LnGrp LOS		A			A	A				C		C
Approach Vol, veh/h		1102			844						571	
Approach Delay, s/veh		5.3			5.1						21.4	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		37.4		14.8		37.4						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		37.2		16.5		37.2						
Max Q Clear Time (g_c+l1), s		7.7		7.8		7.7						
Green Ext Time (p_c), s		23.9		1.5		23.9						
Intersection Summary												
HCM 2010 Ctrl Delay			8.9									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↗↗			
Traffic Volume (veh/h)	0	1277	82	0	727	185	71	0	128	0	0	0
Future Volume (veh/h)	0	1277	82	0	727	185	71	0	128	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1316	75	0	836	0	85	0	116			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.97	0.97	0.97	0.87	0.87	0.87	0.84	0.84	0.84			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3566	1246	0	3566	1110	152	0	239			
Arrive On Green	0.00	0.70	0.70	0.00	0.70	0.00	0.09	0.00	0.09			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1316	75	0	836	0	85	0	116			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	5.5	0.6	0.0	3.1	0.0	2.4	0.0	2.1			
Cycle Q Clear(g_c), s	0.0	5.5	0.6	0.0	3.1	0.0	2.4	0.0	2.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3566	1246	0	3566	1110	152	0	239			
V/C Ratio(X)	0.00	0.37	0.06	0.00	0.23	0.00	0.56	0.00	0.48			
Avail Cap(c_a), veh/h	0	4041	1394	0	4041	1258	384	0	603			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	3.2	1.3	0.0	2.8	0.0	23.3	0.0	23.2			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.1	0.0	3.4	0.0	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.6	0.3	0.0	1.4	0.0	1.3	0.0	0.9			
LnGrp Delay(d),s/veh	0.0	3.3	1.3	0.0	2.9	0.0	26.7	0.0	24.8			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h	1391			836			201					
Approach Delay, s/veh	3.2			2.9			25.6					
Approach LOS	A			A			C					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2				6		8					
Phs Duration (G+Y+Rc), s	43.0				43.0		10.1					
Change Period (Y+Rc), s	5.8				5.8		5.5					
Max Green Setting (Gmax), s	42.2				42.2		11.5					
Max Q Clear Time (g_c+I1), s	7.5				5.1		4.4					
Green Ext Time (p_c), s	29.7				31.5		0.4					
Intersection Summary												
HCM 2010 Ctrl Delay	5.0											
HCM 2010 LOS	A											

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	 
Volume (veh/h)	190	991	218	33	611	312	127	82	59	414	163	168
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	204	1066	169	40	745	307	131	85	56	455	179	130
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	1517	623	110	864	353	169	214	131	500	1019	1044
Arrive On Green	0.09	0.30	0.30	0.03	0.24	0.24	0.10	0.10	0.10	0.28	0.29	0.29
Sat Flow, veh/h	3442	5085	1583	3442	3550	1448	1774	2115	1289	1774	3539	2787
Grp Volume(v), veh/h	204	1066	169	40	711	341	131	70	71	455	179	130
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1607	1774	1770	1635	1774	1770	1393
Q Serve(g_s), s	3.6	11.7	4.6	0.7	12.6	12.8	4.5	2.3	2.6	15.6	2.4	1.9
Cycle Q Clear(g_c), s	3.6	11.7	4.6	0.7	12.6	12.8	4.5	2.3	2.6	15.6	2.4	1.9
Prop In Lane	1.00		1.00	1.00		0.90	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	299	1517	623	110	826	391	169	179	166	500	1019	1044
V/C Ratio(X)	0.68	0.70	0.27	0.36	0.86	0.87	0.78	0.39	0.43	0.91	0.18	0.12
Avail Cap(c_a), veh/h	301	1517	623	219	863	409	342	479	442	522	1318	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	19.6	12.9	29.8	22.8	22.8	27.8	26.4	26.5	21.8	16.8	12.9
Incr Delay (d2), s/veh	6.1	1.5	0.2	2.0	8.6	17.6	7.4	1.4	1.8	19.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.6	2.0	0.4	6.8	7.6	2.6	1.2	1.2	10.3	1.2	0.7
LnGrp Delay(d),s/veh	34.0	21.1	13.2	31.8	31.4	40.4	35.2	27.8	28.3	41.3	16.9	12.9
LnGrp LOS	C	C	B	C	C	D	D	C	C	D	B	B
Approach Vol, veh/h	1439				1092		272				764	
Approach Delay, s/veh	22.0				34.2		31.5				30.7	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.2	10.9	6.5	23.3	10.5	22.6	10.0	19.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	17.0	4.0	17.5	12.1	23.4	5.5	16.0				
Max Q Clear Time (g_c+1.6), s	17.6	4.6	2.7	13.7	6.5	4.4	5.6	14.8				
Green Ext Time (p_c), s	0.2	1.8	0.0	3.3	0.1	2.1	0.0	0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			28.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	58	1029	276	136	582	16	319	75	201	18	53	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	71	1255	264	146	626	12	380	89	203	23	67	25
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.82	0.82	0.82	0.93	0.93	0.93	0.84	0.84	0.84	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	1304	274	127	1696	32	437	459	390	154	112	42
Arrive On Green	0.05	0.31	0.31	0.07	0.33	0.33	0.25	0.25	0.25	0.09	0.09	0.09
Sat Flow, veh/h	1774	4211	886	1774	5137	98	1774	1863	1583	1774	1294	483
Grp Volume(v), veh/h	71	1010	509	146	413	225	380	89	203	23	0	92
Grp Sat Flow(s),veh/h/ln	1774	1695	1706	1774	1695	1845	1774	1863	1583	1774	0	1778
Q Serve(g_s), s	2.5	18.5	18.5	4.5	5.8	5.9	12.9	2.4	7.0	0.8	0.0	3.1
Cycle Q Clear(g_c), s	2.5	18.5	18.5	4.5	5.8	5.9	12.9	2.4	7.0	0.8	0.0	3.1
Prop In Lane	1.00		0.52	1.00		0.05	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	91	1050	528	127	1119	609	437	459	390	154	0	154
V/C Ratio(X)	0.78	0.96	0.96	1.15	0.37	0.37	0.87	0.19	0.52	0.15	0.00	0.60
Avail Cap(c_a), veh/h	203	1050	528	127	1119	609	479	503	427	451	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.5	21.4	21.4	29.2	16.1	16.1	22.8	18.8	20.5	26.6	0.0	27.7
Incr Delay (d2), s/veh	13.7	19.3	29.8	126.4	0.2	0.4	14.8	0.2	1.1	0.4	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	11.4	13.0	6.6	2.7	3.0	8.1	1.2	3.1	0.4	0.0	1.7
LnGrp Delay(d),s/veh	43.2	40.7	51.2	155.7	16.3	16.5	37.5	19.0	21.6	27.1	0.0	31.4
LnGrp LOS	D	D	D	F	B	B	D	B	C	C		C
Approach Vol, veh/h	1590					784		672		115		
Approach Delay, s/veh	44.1					42.3		30.2		30.5		
Approach LOS	D					D		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	20.0		9.0	24.0	9.9		7.7	25.3				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	17.0		4.5	19.5	16.0		7.2	16.8				
Max Q Clear Time (g_c+I1), s	14.9		6.5	20.5	5.1		4.5	7.9				
Green Ext Time (p_c), s	0.6		0.0	0.0	0.3		0.0	7.1				
Intersection Summary												
HCM 2010 Ctrl Delay			40.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	925	212	129	505	7	120	25	241	11	42	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	62	964	159	154	601	8	133	28	257	15	59	48
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.84	0.84	0.84	0.90	0.90	0.90	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	1608	501	256	1778	24	238	407	346	27	156	127
Arrive On Green	0.05	0.32	0.32	0.07	0.34	0.34	0.07	0.22	0.22	0.02	0.16	0.16
Sat Flow, veh/h	1774	5085	1583	3442	5172	69	3442	1863	1583	1774	952	774
Grp Volume(v), veh/h	62	964	159	154	394	215	133	28	257	15	0	107
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1851	1721	1863	1583	1774	0	1726
Q Serve(g_s), s	1.7	7.7	3.7	2.1	4.1	4.1	1.8	0.6	7.3	0.4	0.0	2.6
Cycle Q Clear(g_c), s	1.7	7.7	3.7	2.1	4.1	4.1	1.8	0.6	7.3	0.4	0.0	2.6
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	83	1608	501	256	1165	636	238	407	346	27	0	284
V/C Ratio(X)	0.74	0.60	0.32	0.60	0.34	0.34	0.56	0.07	0.74	0.56	0.00	0.38
Avail Cap(c_a), veh/h	241	1911	595	323	1165	636	424	797	678	148	0	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.5	13.8	12.4	21.5	11.7	11.7	21.6	14.9	17.5	23.4	0.0	17.8
Incr Delay (d2), s/veh	12.3	0.4	0.4	2.3	0.2	0.3	2.0	0.1	3.2	17.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.6	1.6	1.1	1.9	2.1	0.9	0.3	3.5	0.3	0.0	1.3
LnGrp Delay(d),s/veh	34.9	14.2	12.8	23.7	11.8	12.0	23.6	14.9	20.6	40.4	0.0	18.7
LnGrp LOS	C	B	B	C	B	B	C	B	C	D		B
Approach Vol, veh/h	1185					763		418		122		
Approach Delay, s/veh	15.1					14.3		21.2		21.3		
Approach LOS	B					B		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	15.0	8.1	19.6	7.8	12.4	6.7	21.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	20.5	4.5	18.0	5.9	18.6	6.5	16.0				
Max Q Clear Time (g_c+I), s	12.4	9.3	4.1	9.7	3.8	4.6	3.7	6.1				
Green Ext Time (p_c), s	0.0	1.2	0.0	5.5	0.1	1.3	0.0	6.5				
Intersection Summary												
HCM 2010 Ctrl Delay			16.2									
HCM 2010 LOS			B									

Intersection												
Intersection Delay, s/veh	40.2											
Intersection LOS	E											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	94	787	35	0	24	370	2	0	27	25	52
Peak Hour Factor	0.95	0.92	0.92	0.92	0.95	0.75	0.75	0.75	0.95	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	102	855	38	0	32	493	3	0	36	34	70
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	58.5	18.3	13.1
HCM LOS	F	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	11%	0%	0%	0%
Vol Thru, %	0%	32%	0%	100%	0%	89%	99%	100%	0%
Vol Right, %	0%	68%	0%	0%	100%	0%	1%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	77	94	787	35	209	187	16	65
LT Vol	27	0	94	0	0	24	0	0	0
Through Vol	0	25	0	787	0	185	185	16	0
RT Vol	0	52	0	0	35	0	2	0	65
Lane Flow Rate	36	104	102	855	38	279	249	20	80
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.091	0.232	0.214	1	0.067	0.567	0.503	0.048	0.178
Departure Headway (Hd)	8.997	8.031	7.523	7.015	6.304	7.331	7.266	8.675	7.979
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	398	446	476	522	566	493	496	412	449
Service Time	6.753	5.787	5.287	4.779	4.068	5.074	5.009	6.433	5.737
HCM Lane V/C Ratio	0.09	0.233	0.214	1.638	0.067	0.566	0.502	0.049	0.178
HCM Control Delay	12.7	13.2	12.3	66.2	9.5	19.3	17.2	11.9	12.5
HCM Lane LOS	B	B	B	F	A	C	C	B	B
HCM 95th-tile Q	0.3	0.9	0.8	13.8	0.2	3.5	2.8	0.2	0.6

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	16	65
Peak Hour Factor	0.95	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	20	80
Number of Lanes	0	0	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	12.4
HCM LOS	B

Lane

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	123	188	80	347	142	84	139	599	175	109	643	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	131	200	74	408	167	87	145	624	135	118	699	104
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	229	329	625	210	109	221	814	176	150	931	138
Arrive On Green	0.21	0.21	0.21	0.18	0.18	0.18	0.06	0.28	0.28	0.08	0.30	0.30
Sat Flow, veh/h	723	1104	1583	3442	1155	602	3442	2896	626	1774	3092	460
Grp Volume(v), veh/h	331	0	74	408	0	254	145	381	378	118	400	403
Grp Sat Flow(s),veh/h/ln	1827	0	1583	1721	0	1757	1721	1770	1752	1774	1770	1782
Q Serve(g_s), s	12.9	0.0	2.8	8.1	0.0	10.1	3.0	14.5	14.5	4.8	15.0	15.0
Cycle Q Clear(g_c), s	12.9	0.0	2.8	8.1	0.0	10.1	3.0	14.5	14.5	4.8	15.0	15.0
Prop In Lane	0.40		1.00	1.00		0.34	1.00		0.36	1.00		0.26
Lane Grp Cap(c), veh/h	379	0	329	625	0	319	221	497	492	150	533	537
V/C Ratio(X)	0.87	0.00	0.23	0.65	0.00	0.80	0.66	0.77	0.77	0.79	0.75	0.75
Avail Cap(c_a), veh/h	411	0	356	751	0	383	221	531	526	181	599	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	24.1	27.9	0.0	28.7	33.5	24.2	24.2	32.9	23.1	23.1
Incr Delay (d2), s/veh	17.3	0.0	0.3	1.5	0.0	9.4	6.9	6.2	6.4	17.1	4.7	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	1.3	4.0	0.0	5.8	1.6	7.9	7.9	3.0	7.9	8.1
LnGrp Delay(d),s/veh	45.5	0.0	24.5	29.4	0.0	38.1	40.4	30.4	30.6	50.1	27.8	27.8
LnGrp LOS	D		C	C		D	D	C	C	D	C	C
Approach Vol, veh/h		405			662			904			921	
Approach Delay, s/veh		41.6			32.7			32.1			30.7	
Approach LOS		D			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	25.1		19.7	9.2	26.6		17.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	22.0		16.5	4.7	24.8		16.0				
Max Q Clear Time (g_c+I), s	10.8	16.5		14.9	5.0	17.0		12.1				
Green Ext Time (p_c), s	0.0	3.8		0.4	0.0	5.1		1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			33.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	153	66	189	200	186	46	366	113	129	389	146
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	238	191	70	252	267	188	55	436	99	148	447	134
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.80	0.80	0.80	0.75	0.75	0.75	0.84	0.84	0.84	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	358	304	301	374	318	71	673	152	186	806	240
Arrive On Green	0.16	0.19	0.19	0.17	0.20	0.20	0.04	0.23	0.23	0.11	0.30	0.30
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2871	647	1774	2691	800
Grp Volume(v), veh/h	238	191	70	252	267	188	55	267	268	148	293	288
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1749	1774	1770	1722
Q Serve(g_s), s	7.8	5.6	2.3	8.3	8.1	6.5	1.9	8.2	8.3	4.9	8.4	8.5
Cycle Q Clear(g_c), s	7.8	5.6	2.3	8.3	8.1	6.5	1.9	8.2	8.3	4.9	8.4	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.46
Lane Grp Cap(c), veh/h	286	358	304	301	374	318	71	415	410	186	530	515
V/C Ratio(X)	0.83	0.53	0.23	0.84	0.71	0.59	0.78	0.64	0.65	0.79	0.55	0.56
Avail Cap(c_a), veh/h	309	495	420	339	526	447	132	529	522	191	587	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	21.9	20.6	24.2	22.5	21.8	28.7	20.8	20.9	26.3	17.7	17.8
Incr Delay (d2), s/veh	16.5	1.2	0.4	15.2	2.7	1.7	16.4	1.8	1.9	19.8	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	3.0	1.0	5.3	4.4	3.0	1.2	4.2	4.2	3.4	4.2	4.1
LnGrp Delay(d),s/veh	41.0	23.1	20.9	39.4	25.1	23.6	45.0	22.6	22.8	46.1	18.6	18.7
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h	499				707		590				729	
Approach Delay, s/veh	31.4				29.8		24.8				24.3	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	18.6	14.7	16.1	6.9	22.5	14.2	16.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.0	18.0	11.5	16.0	4.5	20.0	10.5	17.0				
Max Q Clear Time (g_c+I), s	10.3	10.3	10.3	7.6	3.9	10.5	9.8	10.1				
Green Ext Time (p_c), s	0.0	3.8	0.1	2.3	0.0	4.4	0.0	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			27.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	154	1368	455	134	1218	121	265	307	148	117	377	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	159	1410	345	143	1296	97	301	349	134	143	460	65
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.97	0.97	0.97	0.94	0.94	0.94	0.88	0.88	0.88	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	2205	687	222	2041	153	362	804	360	222	582	82
Arrive On Green	0.08	0.43	0.43	0.06	0.42	0.42	0.11	0.23	0.23	0.06	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	4828	361	3442	3539	1583	3442	3117	438
Grp Volume(v), veh/h	159	1410	345	143	910	483	301	349	134	143	260	265
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1799	1721	1770	1583	1721	1770	1785
Q Serve(g_s), s	3.4	16.5	12.0	3.1	16.1	16.1	6.5	6.4	5.4	3.1	10.7	10.8
Cycle Q Clear(g_c), s	3.4	16.5	12.0	3.1	16.1	16.1	6.5	6.4	5.4	3.1	10.7	10.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	259	2205	687	222	1433	761	362	804	360	222	330	333
V/C Ratio(X)	0.61	0.64	0.50	0.64	0.63	0.63	0.83	0.43	0.37	0.64	0.79	0.79
Avail Cap(c_a), veh/h	724	2205	687	317	1433	761	362	804	360	317	372	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	16.9	15.6	34.7	17.3	17.3	33.4	25.2	24.8	34.7	29.5	29.6
Incr Delay (d2), s/veh	2.4	1.4	2.6	3.1	2.2	4.0	15.1	0.4	0.6	3.1	9.7	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	8.0	5.7	1.6	7.9	8.8	3.9	3.2	2.4	1.6	6.1	6.2
LnGrp Delay(d),s/veh	36.5	18.3	18.2	37.9	19.5	21.3	48.5	25.6	25.5	37.9	39.2	39.7
LnGrp LOS	D	B	B	D	B	C	D	C	C	D	D	D
Approach Vol, veh/h		1914			1536			784			668	
Approach Delay, s/veh		19.8			21.8			34.4			39.1	
Approach LOS		B			C			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	37.0	12.0	18.2	9.7	36.2	8.9	21.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	33.0	33.0	8.0	16.0	16.0	24.0	7.0	17.0				
Max Q Clear Time (g_c+I1), s	18.5	18.5	8.5	12.8	5.4	18.1	5.1	8.4				
Green Ext Time (p_c), s	0.1	12.8	0.0	1.4	0.3	5.5	0.1	3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			25.4									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 	 	 	  	
Volume (veh/h)	287	1082	228	348	994	319	143	468	303	380	588	212
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	299	1127	176	405	1156	255	157	514	223	427	661	171
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.96	0.96	0.96	0.86	0.86	0.86	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	394	1329	414	450	1412	440	481	706	920	506	1051	327
Arrive On Green	0.11	0.26	0.26	0.13	0.28	0.28	0.14	0.20	0.20	0.15	0.21	0.21
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	299	1127	176	405	1156	255	157	514	223	427	661	171
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	5.2	12.9	5.7	7.1	13.0	5.2	2.5	8.3	1.1	7.4	7.3	5.9
Cycle Q Clear(g_c), s	5.2	12.9	5.7	7.1	13.0	5.2	2.5	8.3	1.1	7.4	7.3	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	394	1329	414	450	1412	440	481	706	920	506	1051	327
V/C Ratio(X)	0.76	0.85	0.43	0.90	0.82	0.58	0.33	0.73	0.24	0.84	0.63	0.52
Avail Cap(c_a), veh/h	394	1329	414	450	1412	440	481	925	1093	506	1579	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	21.4	18.8	26.2	20.7	7.2	23.7	22.9	5.1	25.4	22.1	21.6
Incr Delay (d2), s/veh	8.4	6.9	3.2	20.8	5.4	5.5	0.4	2.0	0.1	12.3	0.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.8	2.8	4.7	6.8	3.7	1.2	4.3	0.6	4.4	3.4	2.7
LnGrp Delay(d),s/veh	34.6	28.3	22.0	47.0	26.0	12.7	24.1	25.0	5.2	37.8	22.8	22.9
LnGrp LOS	C	C	C	D	C	B	C	C	A	D	C	C
Approach Vol, veh/h	1602				1816				894		1259	
Approach Delay, s/veh	28.8				28.9				19.9		27.9	
Approach LOS	C				C				B		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	20.0	12.6	16.6	11.0	21.0	13.0	16.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	16.0	16.0	6.0	19.0	7.0	17.0	9.0	16.0				
Max Q Clear Time (g_c+1.1p), s	14.9	14.9	4.5	9.3	7.2	15.0	9.4	10.3				
Green Ext Time (p_c), s	0.0	0.8	0.7	3.4	0.0	1.4	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			27.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	1717	23	0	1597	59	0	0	0	446	0	96
Future Volume (veh/h)	0	1717	23	0	1597	59	0	0	0	446	0	96
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1887	14	0	1755	54				469	0	69
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3286	1023	0	3286	1304				610	0	281
Arrive On Green	0.00	0.65	0.65	0.00	0.86	0.86				0.18	0.00	0.18
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	1887	14	0	1755	54				469	0	69
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	13.4	0.2	0.0	5.7	0.2				8.3	0.0	2.4
Cycle Q Clear(g_c), s	0.0	13.4	0.2	0.0	5.7	0.2				8.3	0.0	2.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3286	1023	0	3286	1304				610	0	281
V/C Ratio(X)	0.00	0.57	0.01	0.00	0.53	0.04				0.77	0.00	0.25
Avail Cap(c_a), veh/h	0	3286	1023	0	3286	1304				834	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.90	0.90				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.4	4.0	0.0	2.0	0.4				25.1	0.0	22.6
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.6	0.1				3.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.3	0.1	0.0	2.6	0.2				4.2	0.0	1.1
LnGrp Delay(d),s/veh	0.0	7.1	4.1	0.0	2.6	0.5				28.2	0.0	23.1
LnGrp LOS		A	A		A	A				C		C
Approach Vol, veh/h		1901			1809						538	
Approach Delay, s/veh		7.1			2.5						27.6	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		47.2		16.8		47.2						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		37.2		15.5		37.2						
Max Q Clear Time (g_c+l1), s		15.4		10.3		7.7						
Green Ext Time (p_c), s		21.7		1.0		29.2						
Intersection Summary												
HCM 2010 Ctrl Delay				7.7								
HCM 2010 LOS				A								

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↘		↗↗			
Traffic Volume (veh/h)	0	2101	55	0	1625	288	23	0	116	0	0	0
Future Volume (veh/h)	0	2101	55	0	1625	288	23	0	116	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2284	49	0	1729	200	26	0	96			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3888	1304	0	3888	1210	105	0	164			
Arrive On Green	0.00	1.00	1.00	0.00	0.76	0.76	0.06	0.00	0.06			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	2284	49	0	1729	200	26	0	96			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	7.8	2.2	0.9	0.0	2.1			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	7.8	2.2	0.9	0.0	2.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3888	1304	0	3888	1210	105	0	164			
V/C Ratio(X)	0.00	0.59	0.04	0.00	0.44	0.17	0.25	0.00	0.58			
Avail Cap(c_a), veh/h	0	3888	1304	0	3888	1210	208	0	327			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.75	0.75	0.00	0.61	0.61	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	2.7	2.0	28.8	0.0	29.4			
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.2	0.2	1.3	0.0	3.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	3.6	1.0	0.5	0.0	0.9			
LnGrp Delay(d),s/veh	0.0	0.5	0.0	0.0	2.9	2.2	30.1	0.0	32.9			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h		2333			1929			122				
Approach Delay, s/veh		0.5			2.8			32.3				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		54.7				54.7		9.3				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		45.2				45.2		7.5				
Max Q Clear Time (g_c+I1), s		2.0				9.8		4.1				
Green Ext Time (p_c), s		43.0				35.3		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			2.4									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  	 	 	  		 	 		 	 	
Volume (veh/h)	369	830	702	375	711	71	482	439	234	130	545	200
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	380	856	518	417	790	68	513	467	185	144	606	155
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.90	0.90	0.90	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	1151	631	449	1108	95	567	1180	735	228	832	569
Arrive On Green	0.12	0.23	0.23	0.13	0.23	0.23	0.16	0.33	0.33	0.07	0.23	0.23
Sat Flow, veh/h	3442	5085	2787	3442	4772	409	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	380	856	518	417	560	298	513	467	185	144	606	155
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1791	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	7.6	10.9	12.3	8.4	10.6	10.7	10.2	7.1	5.0	2.8	11.0	4.9
Cycle Q Clear(g_c), s	7.6	10.9	12.3	8.4	10.6	10.7	10.2	7.1	5.0	2.8	11.0	4.9
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	1151	631	449	787	416	567	1180	735	228	832	569
V/C Ratio(X)	0.89	0.74	0.82	0.93	0.71	0.72	0.90	0.40	0.25	0.63	0.73	0.27
Avail Cap(c_a), veh/h	429	1166	639	449	797	421	567	1180	735	335	832	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	25.1	25.7	30.0	24.7	24.7	28.6	17.9	11.4	31.8	24.6	15.9
Incr Delay (d2), s/veh	19.4	2.6	8.3	25.9	3.0	5.7	18.0	1.0	0.8	2.9	5.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	5.3	5.5	5.6	5.3	6.0	6.3	3.6	2.3	1.5	6.0	2.3
LnGrp Delay(d),s/veh	49.5	27.7	34.0	55.9	27.6	30.4	46.7	18.9	12.2	34.7	30.2	17.0
LnGrp LOS	D	C	C	E	C	C	D	B	B	C	C	B
Approach Vol, veh/h	1754					1275		1165		905		
Approach Delay, s/veh	34.3					37.5		30.0		28.7		
Approach LOS	C					D		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	27.3	13.6	19.8	16.0	20.4	13.2	20.2				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	6.8	21.1	9.1	16.0	11.5	16.4	8.7	16.4				
Max Q Clear Time (g_c+14.8)	14.8	9.1	10.4	14.3	12.2	13.0	9.6	12.7				
Green Ext Time (p_c), s	0.1	6.2	0.0	1.5	0.0	2.3	0.0	3.1				
Intersection Summary												
HCM 2010 Ctrl Delay			33.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

11/14/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LT	TH	TH	TH	LT	TH
Volume (veh/h)	376	798	630	57	128	472
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1148	950
Adj Flow Rate, veh/h	404	858	677	56	171	562
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	100
Cap, veh/h	554	2736	1407	116	323	477
Arrive On Green	0.16	0.54	0.29	0.29	0.30	0.30
Sat Flow, veh/h	3442	5253	4958	394	1093	1615
Grp Volume(v), veh/h	404	858	478	255	171	562
Grp Sat Flow(s), veh/h/ln	1721	1695	1695	1793	1093	807
Q Serve(g_s), s	6.0	5.1	6.3	6.3	7.1	16.0
Cycle Q Clear(g_c), s	6.0	5.1	6.3	6.3	7.1	16.0
Prop In Lane	1.00			0.22	1.00	1.00
Lane Grp Cap(c), veh/h	554	2736	996	527	323	477
V/C Ratio(X)	0.73	0.31	0.48	0.48	0.53	1.18
Avail Cap(c_a), veh/h	859	3242	1347	712	323	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	6.9	15.7	15.7	15.9	19.1
Incr Delay (d2), s/veh	1.9	0.1	0.4	0.7	1.6	99.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	8.0	2.3	3.0	3.2	2.3	12.7
LnGrp Delay(d), s/veh	23.4	7.0	16.1	16.4	17.5	118.8
LnGrp LOS	C	A	B	B	B	F
Approach Vol, veh/h		1262	733		733	
Approach Delay, s/veh		12.3	16.2		95.1	
Approach LOS		B	B		F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		33.6		20.5	13.2	20.4		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		34.5		16.0	13.5	21.5		
Max Q Clear Time (g_c+l1), s		7.1		18.0	8.0	8.3		
Green Ext Time (p_c), s		11.3		0.0	0.7	7.6		

Intersection Summary								
HCM 2010 Ctrl Delay			35.6					
HCM 2010 LOS			D					

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

11/14/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	  					
Volume (veh/h)	136	711	515	154	152	118		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	145	756	599	179	185	144		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.94	0.94	0.86	0.86	0.82	0.82		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	183	2791	1208	354	316	282		
Arrive On Green	0.10	0.55	0.31	0.31	0.18	0.18		
Sat Flow, veh/h	1774	5253	4075	1144	1774	1583		
Grp Volume(v), veh/h	145	756	518	260	185	144		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1661	1774	1583		
Q Serve(g_s), s	2.6	2.6	4.1	4.2	3.2	2.7		
Cycle Q Clear(g_c), s	2.6	2.6	4.1	4.2	3.2	2.7		
Prop In Lane	1.00			0.69	1.00	1.00		
Lane Grp Cap(c), veh/h	183	2791	1048	513	316	282		
V/C Ratio(X)	0.79	0.27	0.49	0.51	0.58	0.51		
Avail Cap(c_a), veh/h	215	2791	1644	806	861	768		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	14.4	3.9	9.3	9.3	12.4	12.2		
Incr Delay (d2), s/veh	15.6	0.1	0.4	0.8	1.7	1.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.1	1.2	1.9	2.0	1.7	2.5		
LnGrp Delay(d),s/veh	30.1	4.0	9.7	10.1	14.1	13.7		
LnGrp LOS	C	A	A	B	B	B		
Approach Vol, veh/h		901	778		329			
Approach Delay, s/veh		8.2	9.8		13.9			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				22.6		10.4	7.9	14.7
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				16.0		16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s				4.6		5.2	4.6	6.2
Green Ext Time (p_c), s				6.7		0.7	0.0	4.0
Intersection Summary								
HCM 2010 Ctrl Delay			9.8					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otay Lakes Road

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	254	353	461	45	249	36	258	259	45	53	270	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	262	364	351	53	293	30	269	270	37	60	303	157
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.85	0.85	0.85	0.96	0.96	0.96	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	1269	593	186	1619	504	430	806	361	152	520	233
Arrive On Green	0.11	0.37	0.37	0.05	0.32	0.32	0.12	0.23	0.23	0.04	0.15	0.15
Sat Flow, veh/h	3442	3390	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	262	364	351	53	293	30	269	270	37	60	303	157
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	3.9	4.0	9.5	0.8	2.2	0.7	4.0	3.4	0.7	0.9	4.3	3.5
Cycle Q Clear(g_c), s	3.9	4.0	9.5	0.8	2.2	0.7	4.0	3.4	0.7	0.9	4.3	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	1269	593	186	1619	504	430	806	361	152	520	233
V/C Ratio(X)	0.69	0.29	0.59	0.28	0.18	0.06	0.63	0.34	0.10	0.39	0.58	0.67
Avail Cap(c_a), veh/h	451	1269	593	258	1619	504	580	1392	623	258	1060	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	11.7	13.4	24.3	13.2	12.7	22.2	17.2	8.8	24.8	21.2	10.4
Incr Delay (d2), s/veh	3.5	0.6	4.3	0.8	0.2	0.2	1.5	0.2	0.1	1.7	1.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.0	4.8	0.4	1.1	0.3	2.0	1.7	0.4	0.5	2.1	2.1
LnGrp Delay(d),s/veh	26.4	12.3	17.7	25.1	13.4	12.9	23.7	17.5	9.0	26.5	22.3	13.8
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	C	B
Approach Vol, veh/h		977			376			576			520	
Approach Delay, s/veh		18.0			15.0			19.8			20.2	
Approach LOS		B			B			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.9	24.0	10.7	11.9	9.9	21.0	6.4	16.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	1.0	20.0	9.0	16.0	7.0	17.0	4.0	21.0				
Max Q Clear Time (g_c+I), s	12.8	11.5	6.0	6.3	5.9	4.2	2.9	5.4				
Green Ext Time (p_c), s	0.2	2.7	0.8	1.6	0.1	1.5	0.0	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay	18.5											
HCM 2010 LOS	B											

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	
Volume (veh/h)	275	811	272	132	514	116	262	365	110	172	487	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	299	882	231	143	559	93	291	406	89	195	553	170
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	1682	524	293	1505	469	428	1105	479	304	921	839
Arrive On Green	0.12	0.33	0.33	0.09	0.30	0.30	0.12	0.22	0.22	0.09	0.18	0.18
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	299	882	231	143	559	93	291	406	89	195	553	170
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	4.8	8.1	6.6	2.3	5.0	2.5	4.6	3.9	0.5	3.1	5.7	1.4
Cycle Q Clear(g_c), s	4.8	8.1	6.6	2.3	5.0	2.5	4.6	3.9	0.5	3.1	5.7	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	412	1682	524	293	1505	469	428	1105	479	304	921	839
V/C Ratio(X)	0.72	0.52	0.44	0.49	0.37	0.20	0.68	0.37	0.19	0.64	0.60	0.20
Avail Cap(c_a), veh/h	479	1682	524	360	1505	469	479	1417	576	479	1417	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	15.6	15.1	25.1	16.0	15.1	24.0	19.1	5.6	25.3	21.6	5.2
Incr Delay (d2), s/veh	4.6	1.2	2.7	1.3	0.7	0.9	3.3	0.2	0.2	2.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.9	3.2	1.1	2.4	1.2	2.4	1.8	0.6	1.6	2.7	0.7
LnGrp Delay(d),s/veh	28.9	16.7	17.7	26.3	16.7	16.1	27.4	19.3	5.8	27.6	22.2	5.4
LnGrp LOS	C	B	B	C	B	B	C	B	A	C	C	A
Approach Vol, veh/h	1412				795		786				918	
Approach Delay, s/veh	19.5				18.4		20.8				20.2	
Approach LOS	B				B		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	23.0	11.1	14.4	10.9	21.0	9.1	16.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	8.0	16.0	8.0	17.0	8.0	16.0				
Max Q Clear Time (g_c+I), s	14.3	10.1	6.6	7.7	6.8	7.0	5.1	5.9				
Green Ext Time (p_c), s	0.8	4.2	0.6	2.7	0.1	3.1	0.2	2.7				
Intersection Summary												
HCM 2010 Ctrl Delay			19.7									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Volume (veh/h)	373	362	40	17	275	53	14	150	34	70	125	283
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	405	393	32	19	306	48	15	163	26	76	136	243
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	564	2432	195	41	1255	562	52	466	72	181	503	484
Arrive On Green	0.16	0.51	0.51	0.01	0.35	0.35	0.02	0.10	0.10	0.05	0.14	0.14
Sat Flow, veh/h	3442	4799	386	3442	3539	1583	3442	4449	683	3442	3539	1583
Grp Volume(v), veh/h	405	276	149	19	306	48	15	123	66	76	136	243
Grp Sat Flow(s),veh/h/ln	1721	1695	1795	1721	1770	1583	1721	1695	1742	1721	1770	1583
Q Serve(g_s), s	5.5	2.2	2.2	0.3	3.0	1.0	0.2	1.7	1.7	1.1	1.7	3.9
Cycle Q Clear(g_c), s	5.5	2.2	2.2	0.3	3.0	1.0	0.2	1.7	1.7	1.1	1.7	3.9
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	564	1718	909	41	1255	562	52	355	182	181	503	484
V/C Ratio(X)	0.72	0.16	0.16	0.46	0.24	0.09	0.29	0.35	0.36	0.42	0.27	0.50
Avail Cap(c_a), veh/h	837	1718	909	279	1255	562	279	1099	565	279	1148	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	6.5	6.5	24.2	11.2	10.6	24.0	20.5	20.6	22.7	18.9	5.8
Incr Delay (d2), s/veh	1.7	0.2	0.4	7.9	0.5	0.3	3.0	0.6	1.2	1.6	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.0	1.2	0.2	1.5	0.5	0.1	0.8	0.9	0.5	0.9	2.0
LnGrp Delay(d),s/veh	21.3	6.7	6.9	32.2	11.7	10.9	27.1	21.1	21.8	24.2	19.2	6.6
LnGrp LOS	C	A	A	C	B	B	C	C	C	C	B	A
Approach Vol, veh/h		830			373			204			455	
Approach Delay, s/veh		13.9			12.6			21.8			13.3	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	29.0	4.7	11.0	12.1	21.5	6.6	9.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	25.0	4.0	16.0	12.0	17.0	4.0	16.0				
Max Q Clear Time (g_c+I), s	12.3	4.2	2.2	5.9	7.5	5.0	3.1	3.7				
Green Ext Time (p_c), s	0.0	2.3	0.2	1.1	0.6	1.5	0.0	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			14.3									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

11/14/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲	↰ ↱ ↲		↰ ↱ ↲	↰ ↱ ↲	↰ ↱ ↲	↰ ↱ ↲	↰ ↱ ↲		↰ ↱ ↲	↰ ↱ ↲	
Volume (veh/h)	0	17	0	8	8	0	0	0	17	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	0	18	0	8	8	0	0	0	18	0	0	0
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1719	3938	0	29	1003	790	3	31	27	6	88	0
Arrive On Green	0.00	0.77	0.00	0.01	0.28	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Sat Flow, veh/h	3442	5253	0	3442	3539	2787	1774	1770	1583	3442	5253	0
Grp Volume(v), veh/h	0	18	0	8	8	0	0	0	18	0	0	0
Grp Sat Flow(s),veh/h/ln	1721	1695	0	1721	1770	1393	1774	1770	1583	1721	1695	0
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.7	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1719	3938	0	29	1003	790	3	31	27	6	88	0
V/C Ratio(X)	0.00	0.00	0.00	0.28	0.01	0.00	0.00	0.00	0.66	0.00	0.00	0.00
Avail Cap(c_a), veh/h	1719	3938	0	287	1003	790	148	501	449	287	1441	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.5	0.0	29.6	15.4	0.0	0.0	0.0	29.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	23.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	1.5	0.0	34.8	15.5	0.0	0.0	0.0	53.0	0.0	0.0	0.0
LnGrp LOS		A		C	B				D			
Approach Vol, veh/h		18			16			18			0	
Approach Delay, s/veh		1.5			25.1			53.0			0.0	
Approach LOS		A			C			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	50.5	0.0	5.0	34.0	21.0	0.0	5.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	5.0	17.0	5.0	17.0	5.0	17.0	5.0	17.0				
Max Q Clear Time (g_c+I), s	12.1	2.0	0.0	0.0	0.0	2.1	0.0	2.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			26.6									
HCM 2010 LOS			C									

Intersection

Intersection Delay, s/veh 16.7

Intersection LOS C

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	109	904	366
Demand Flow Rate, veh/h	111	922	373
Vehicles Circulating, veh/h	736	18	107
Vehicles Exiting, veh/h	204	462	740
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.5	21.2	7.5
Approach LOS	A	C	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	111	922	373
Cap Entry Lane, veh/h	541	1110	1015
Entry HV Adj Factor	0.982	0.980	0.981
Flow Entry, veh/h	109	904	366
Cap Entry, veh/h	532	1088	996
V/C Ratio	0.205	0.831	0.367
Control Delay, s/veh	9.5	21.2	7.5
LOS	A	C	A
95th %tile Queue, veh	1	10	2

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	4	632	58	0	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	665	61	0	367

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1063	696	0
Stage 1	696	-	-
Stage 2	367	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	247	442	877
Stage 1	495	-	-
Stage 2	701	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	247	442	877
Mov Cap-2 Maneuver	247	-	-
Stage 1	495	-	-
Stage 2	701	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	442	877
HCM Lane V/C Ratio	-	-	0.01	-
HCM Control Delay (s)	-	-	13.2	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection				
Intersection Delay, s/veh	9.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	12	112	670	275
Demand Flow Rate, veh/h	12	114	683	280
Vehicles Circulating, veh/h	380	478	18	114
Vehicles Exiting, veh/h	14	223	374	478
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	7.1	11.5	6.4
Approach LOS	A	A	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	12	114	683	280
Cap Entry Lane, veh/h	773	701	1110	1008
Entry HV Adj Factor	0.992	0.982	0.981	0.981
Flow Entry, veh/h	12	112	670	275
Cap Entry, veh/h	766	688	1088	989
V/C Ratio	0.016	0.163	0.615	0.278
Control Delay, s/veh	4.8	7.1	11.5	6.4
LOS	A	A	B	A
95th %tile Queue, veh	0	1	4	1

Intersection

Intersection Delay, s/veh 7.2

Intersection LOS A

Approach	WB	NB	SB
Entry Lanes	0	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	463	137
Demand Flow Rate, veh/h	0	472	139
Vehicles Circulating, veh/h	212	19	155
Vehicles Exiting, veh/h	279	275	224
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	7.9	5.1
Approach LOS	-	A	A

Lane	Left	Left
Designated Moves	TR	LT
Assumed Moves	TR	LT
RT Channelized		
Lane Util	1.000	1.000
Critical Headway, s	5.193	5.193
Entry Flow, veh/h	472	139
Cap Entry Lane, veh/h	1109	968
Entry HV Adj Factor	0.981	0.983
Flow Entry, veh/h	463	137
Cap Entry, veh/h	1087	951
V/C Ratio	0.426	0.144
Control Delay, s/veh	7.9	5.1
LOS	A	A
95th %tile Queue, veh	2	1

Intersection				
Intersection Delay, s/veh	4.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	23	14	226	130
Demand Flow Rate, veh/h	23	14	231	132
Vehicles Circulating, veh/h	134	227	13	50
Vehicles Exiting, veh/h	48	17	144	191
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.9	4.2	5.2	4.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	23	14	231	132
Cap Entry Lane, veh/h	988	900	1115	1075
Entry HV Adj Factor	0.996	0.993	0.980	0.982
Flow Entry, veh/h	23	14	226	130
Cap Entry, veh/h	984	894	1093	1055
V/C Ratio	0.023	0.016	0.207	0.123
Control Delay, s/veh	3.9	4.2	5.2	4.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	0

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	16	37	141	108	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	17	39	148	114	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	341	115	117	0	-	0
Stage 1	115	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	655	937	1471	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	636	937	1471	-	-	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	788	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1471	-	912	-	-
HCM Lane V/C Ratio	0.026	-	0.02	-	-
HCM Control Delay (s)	7.5	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	21	1	94	48	1	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	1	99	51	1	95

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	221	124	0 0 149 0
Stage 1	124	-	- - - -
Stage 2	97	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	767	927	- - 1432 -
Stage 1	902	-	- - - -
Stage 2	927	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	766	927	- - 1432 -
Mov Cap-2 Maneuver	766	-	- - - -
Stage 1	902	-	- - - -
Stage 2	926	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 772	1432	-
HCM Lane V/C Ratio	-	- 0.03	0.001	-
HCM Control Delay (s)	-	- 9.8	7.5	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Intersection				
Intersection Delay, s/veh	4.0			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	15	25	99	79
Demand Flow Rate, veh/h	15	25	101	80
Vehicles Circulating, veh/h	97	64	15	34
Vehicles Exiting, veh/h	17	52	97	55
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.7	3.6	4.1	4.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	15	25	101	80
Cap Entry Lane, veh/h	1025	1060	1113	1092
Entry HV Adj Factor	0.993	0.996	0.981	0.982
Flow Entry, veh/h	15	25	99	79
Cap Entry, veh/h	1019	1056	1092	1072
V/C Ratio	0.015	0.024	0.091	0.073
Control Delay, s/veh	3.7	3.6	4.1	4.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

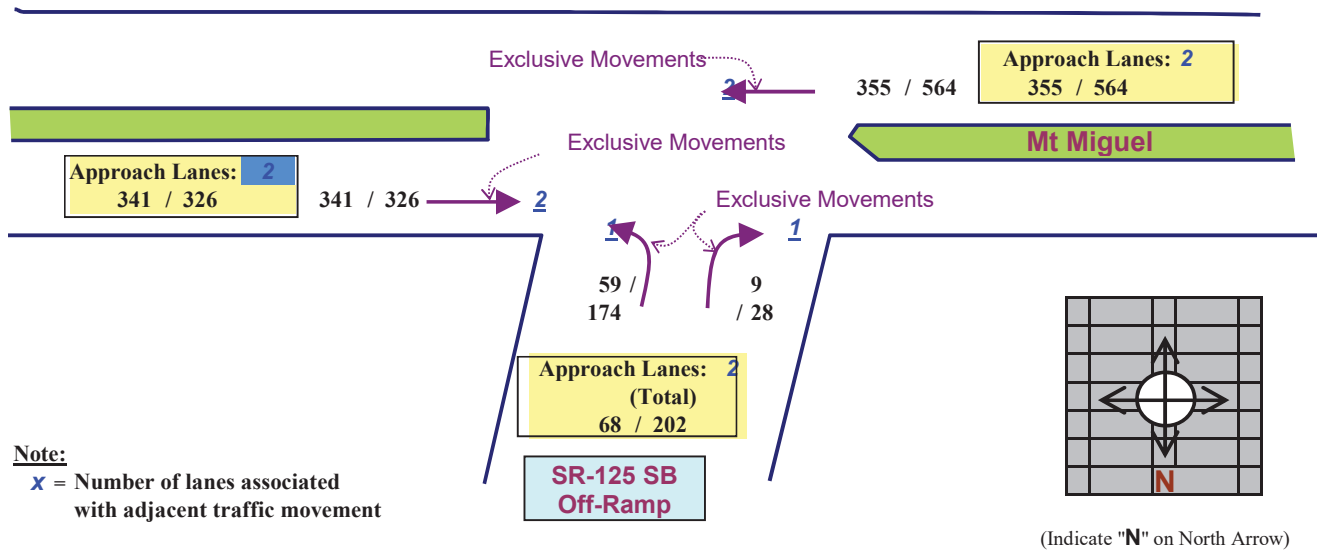
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: SR-125 SB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)

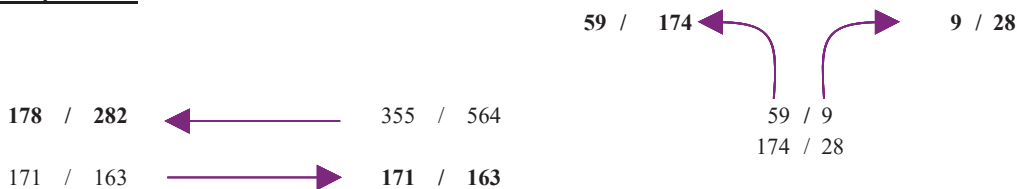


Note:

x = Number of lanes associated with adjacent traffic movement

(Indicate "N" on North Arrow)

ILV per Lane:



PHASE 1:

178	/	282	→	178	/	282
171	/	163				

PHASE 2:

59	/	174	⇒	59	/	174
9	/	28				

PHASE 3:

0	/	0	⇒	0	/	0
0	/	0				

TOTAL = 237 / 456 ILV/HR. in the AM / PM peak hours

OPERATING LEVEL:

ILV/HR. = **237** in AM ==> ILV: <1,200M
and **456** in PM ==> ILV <1,200

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

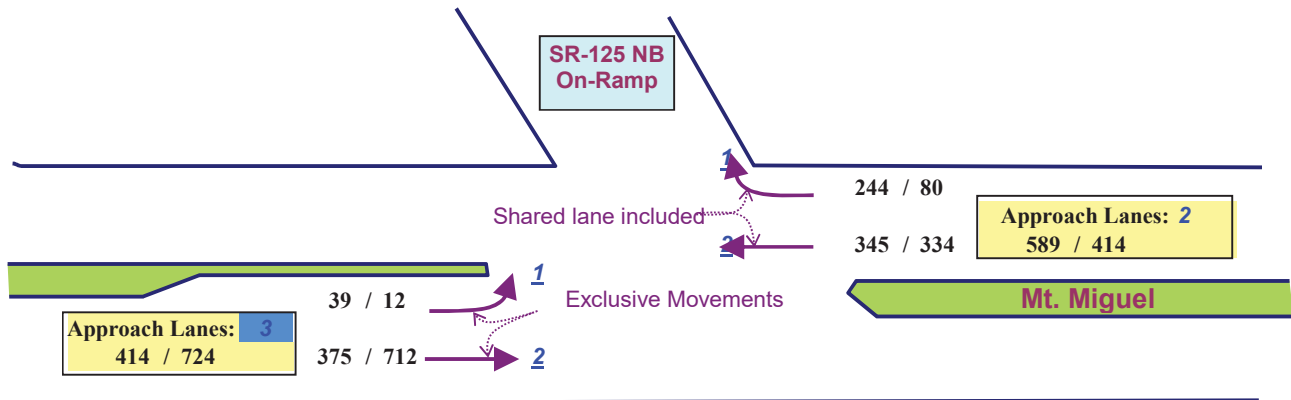
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

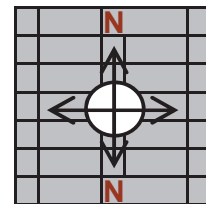
LOCATION: SR-125 NB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



Note:

X = Number of lanes associated with adjacent traffic movement



(Indicate "N" on North Arrow)

ILV per Lane:

Shared with Thru => 295 / 207

295 / 207 589 / 414 39 / 12

188 / 356 188 / 207 (Remainder in Phase II) 345 / 334 0 / 149

PHASE 1: 295 / 207 188 / 207 => 295 / 207

PHASE 2: 39 / 0 12 / 149 => 39 / 149

OPERATING LEVEL:

ILV/HR. = 334 in AM => ILV: <1,200M
and 356 in PM => ILV <1,200

TOTAL = 334 / 356 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

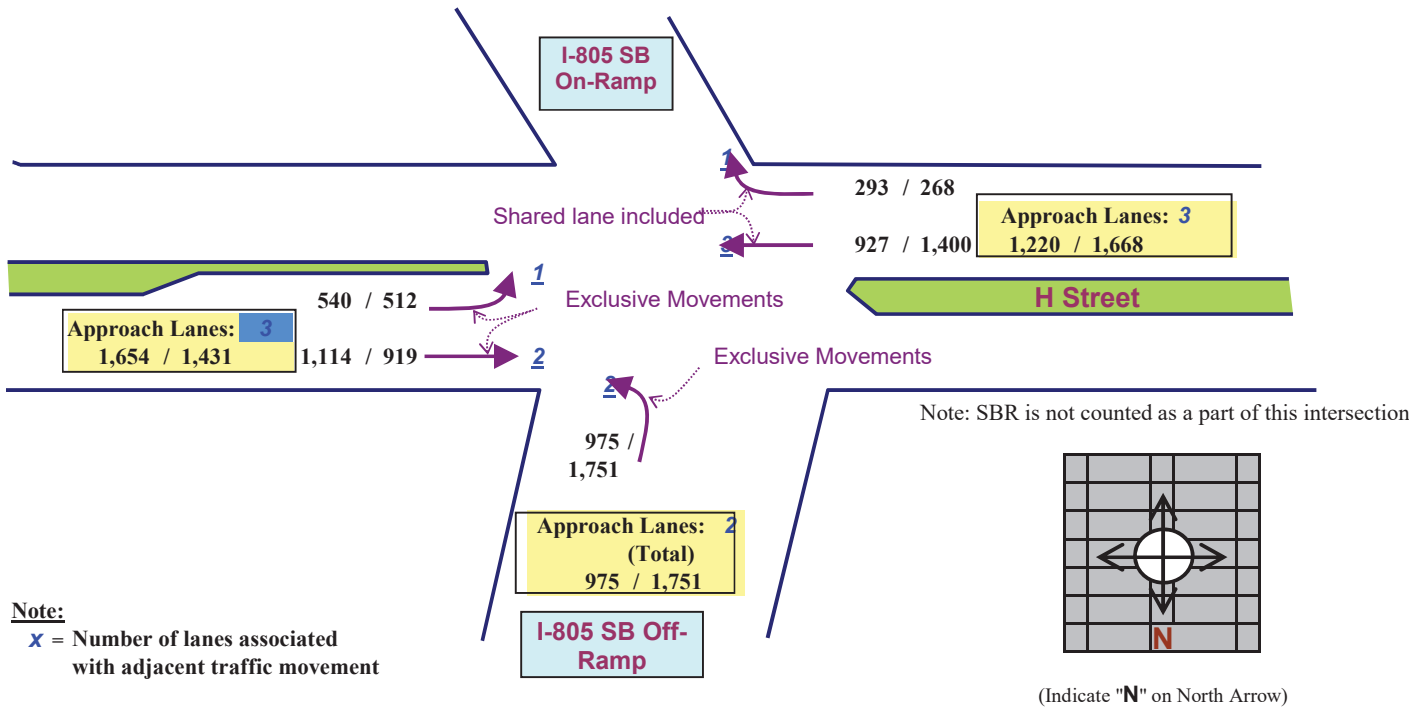
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

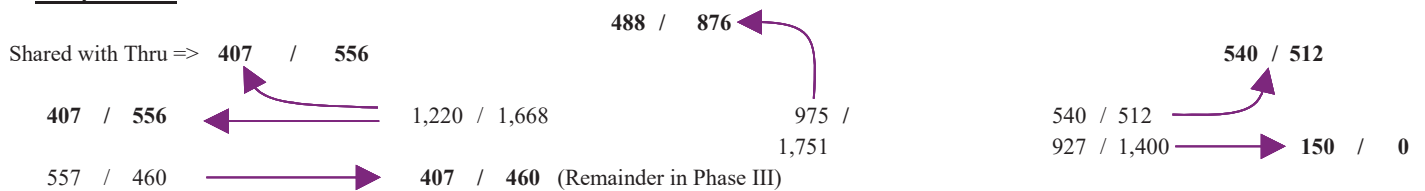
PROJECT: OVL

LOCATION: I-805 SB / H Street

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 407 / 556 / 407 / 460 => 407 / 556

PHASE 2: 488 / 876 / 0 / 0 => 488 / 876

PHASE 3: 540 / 512 / 150 / 0 => 540 / 512

TOTAL = 1,434 / 1,944 ILV/HR. in the AM / PM peak hours

OPERATING LEVEL:

ILV/HR. = 1,434 in AM => ILV: BETWEEN 1,200 & 1,500
and 1,944 in PM => ILV > 1,500

THEREFORE, INTERSECTION OPERATES : AT CAPACITY (in AM)
& OVER CAPACITY (in PM)

INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

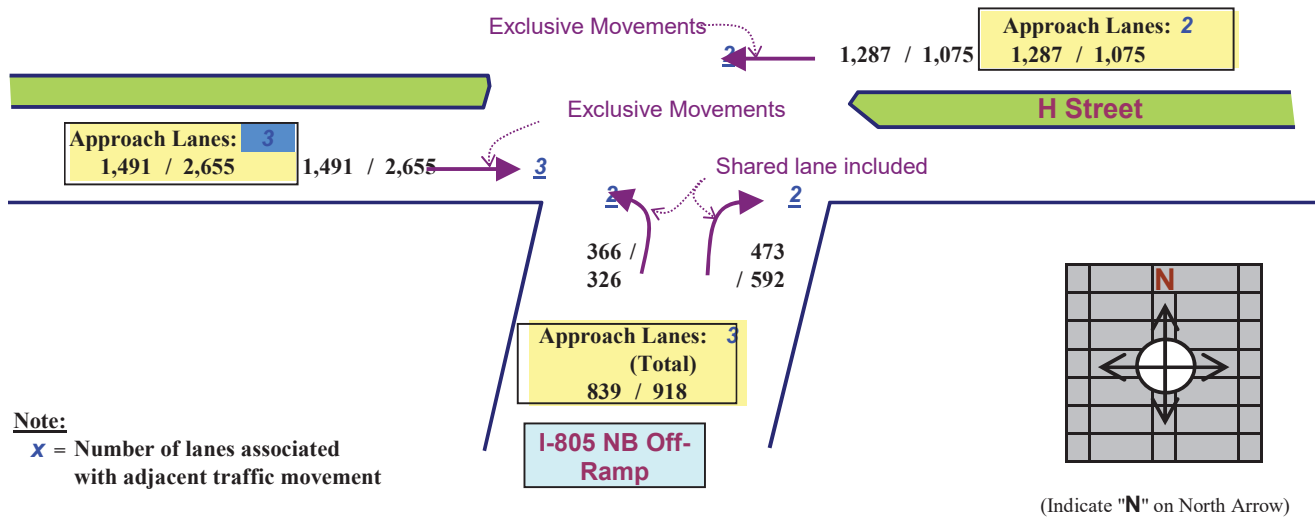
(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

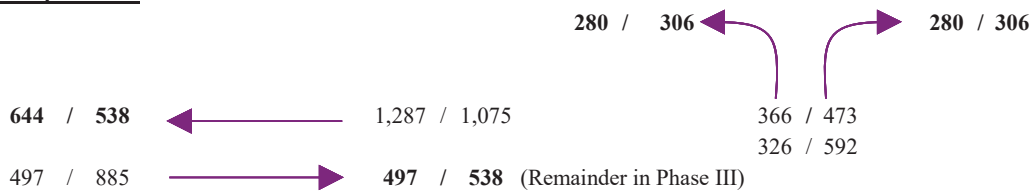
LOCATION: I-805 NB / H Street

Scenario: Existing
(AM/PM Peak)

Note: NBR turn before this intersection



ILV per Lane:



PHASE 1:

644	/	538	→	644	/	538
497	/	538				

PHASE 2:

280	/	306	⇒	280	/	306
280	/	306				

OPERATING LEVEL:

ILV/HR. =	923 in AM ==>	ILV:	<1,200M
and	844 in PM ==>	ILV	<1,200

TOTAL = 923 / 844 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

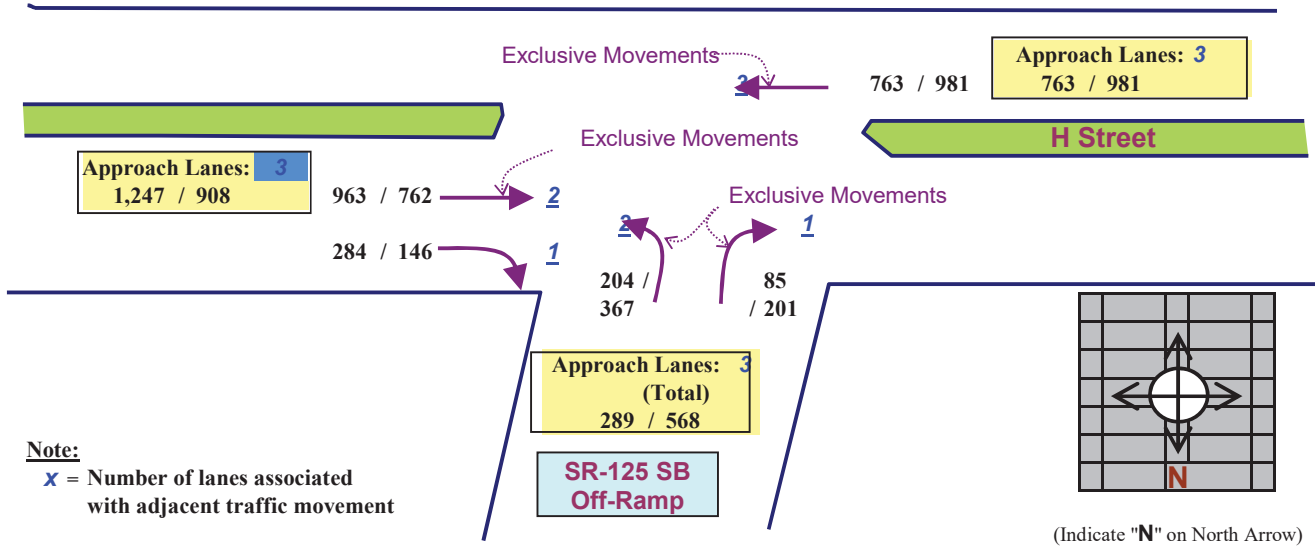
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

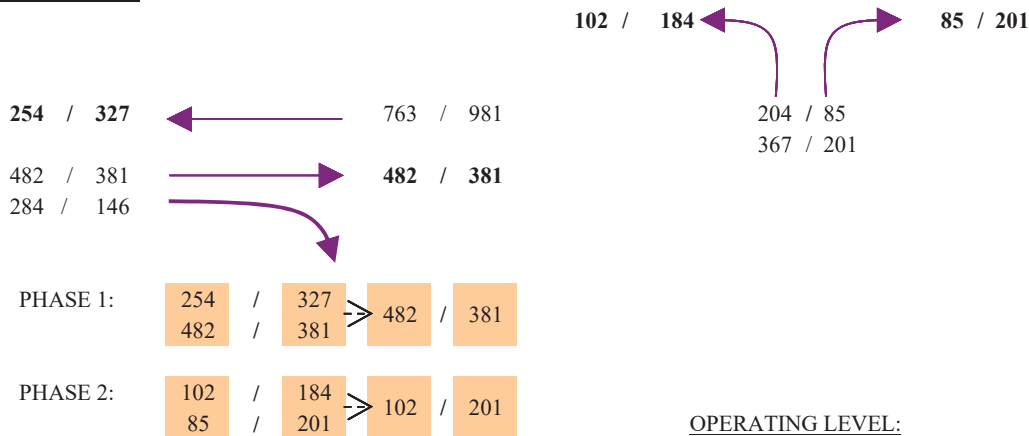
PROJECT: OVL

LOCATION: SR-125 SB / H STREET

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 584 in AM ==> ILV: <1,200M
and 582 in PM ==> ILV <1,200

TOTAL = 584 / 582 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

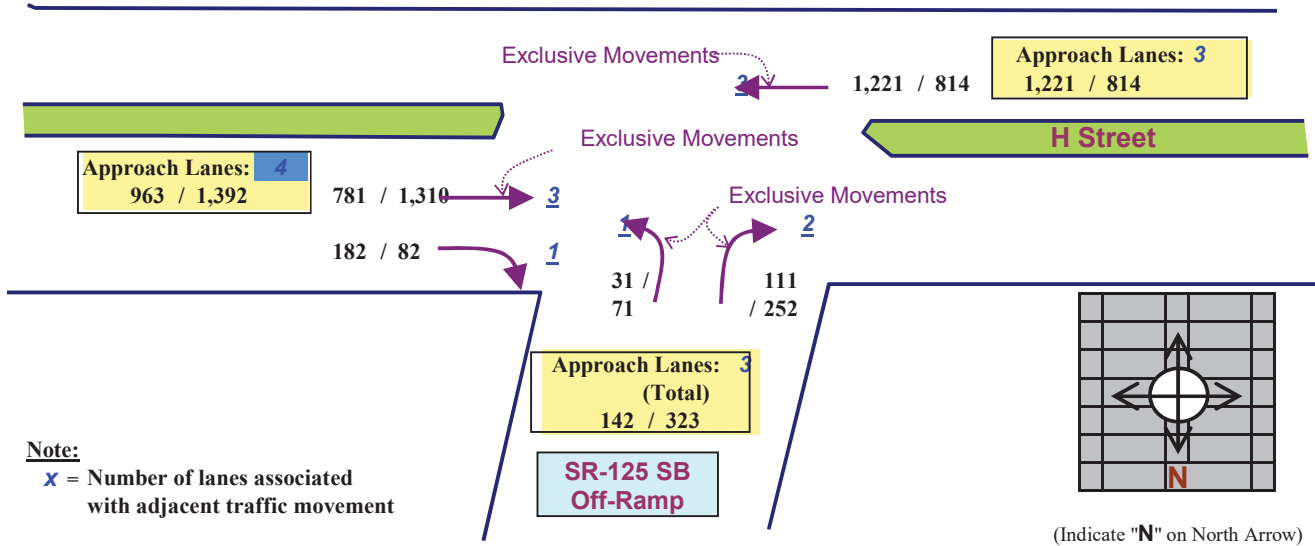
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

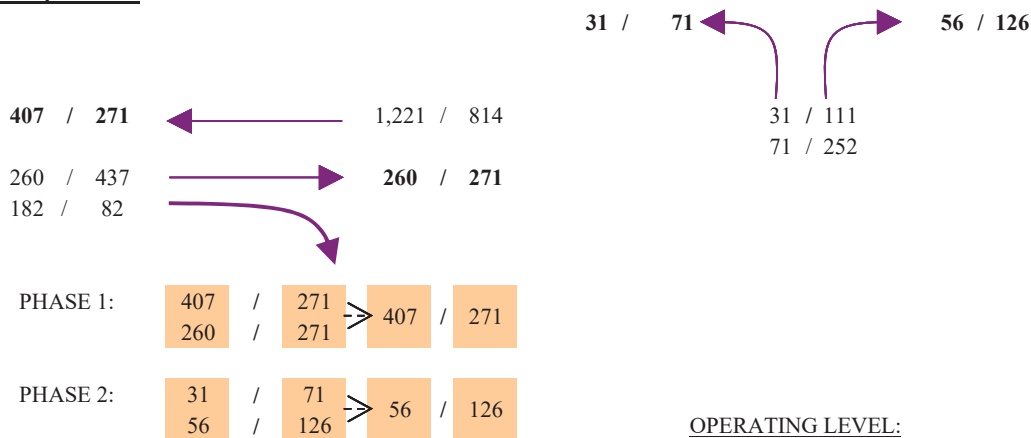
PROJECT: OVL

LOCATION: SR-125 NB / H STREET

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 463 in AM ==> ILV: <1,200M
and 397 in PM ==> ILV <1,200

TOTAL = 463 / 397 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

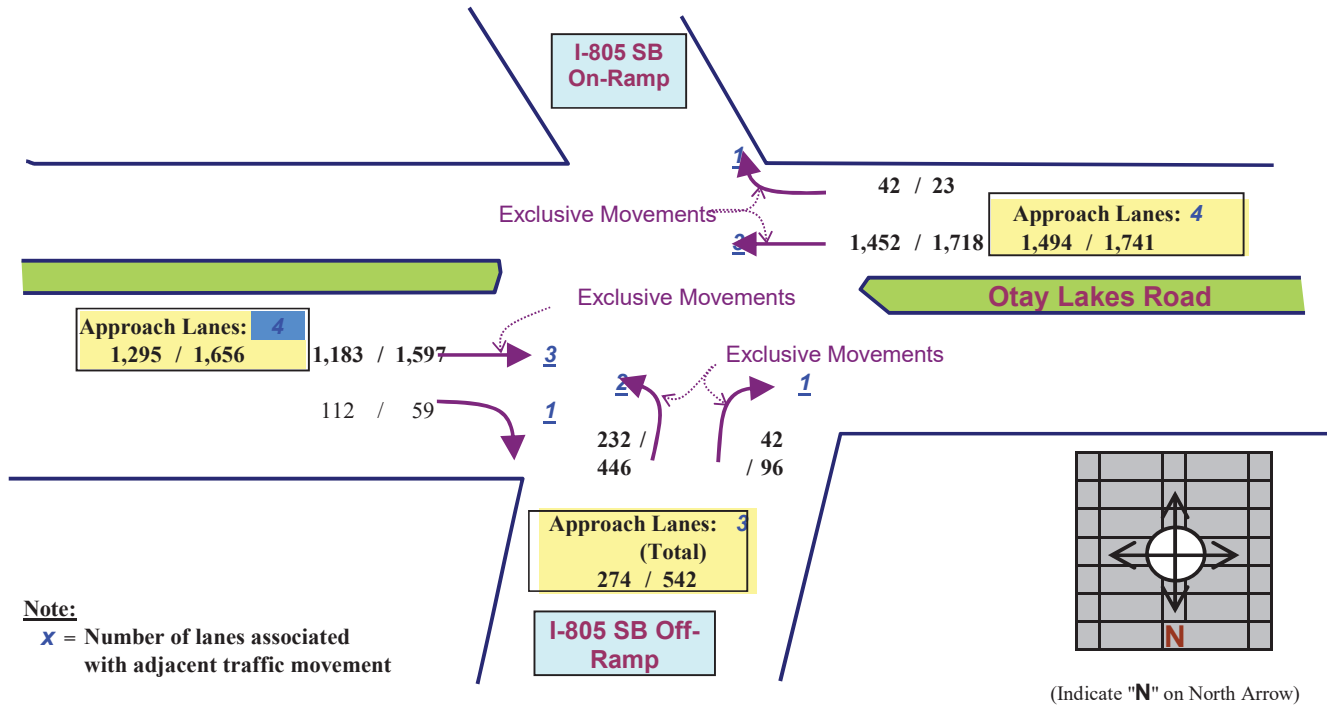
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

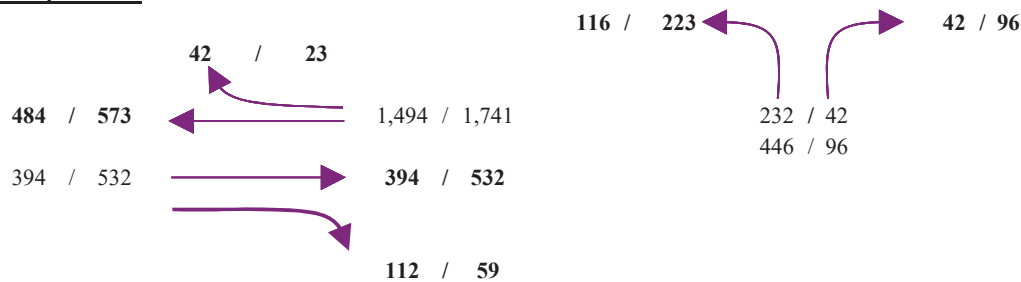
PROJECT: OVL

LOCATION: SR-125 SB / Otay Lakes Road

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 484 / 394 / 573 / 532 ⇒ 484 / 573

PHASE 2: 116 / 42 / 223 / 96 ⇒ 116 / 223

OPERATING LEVEL:

ILV/HR. = 600 in AM ⇒ ILV: <1,200M
and 796 in PM ⇒ ILV <1,200

TOTAL = 600 / 796 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

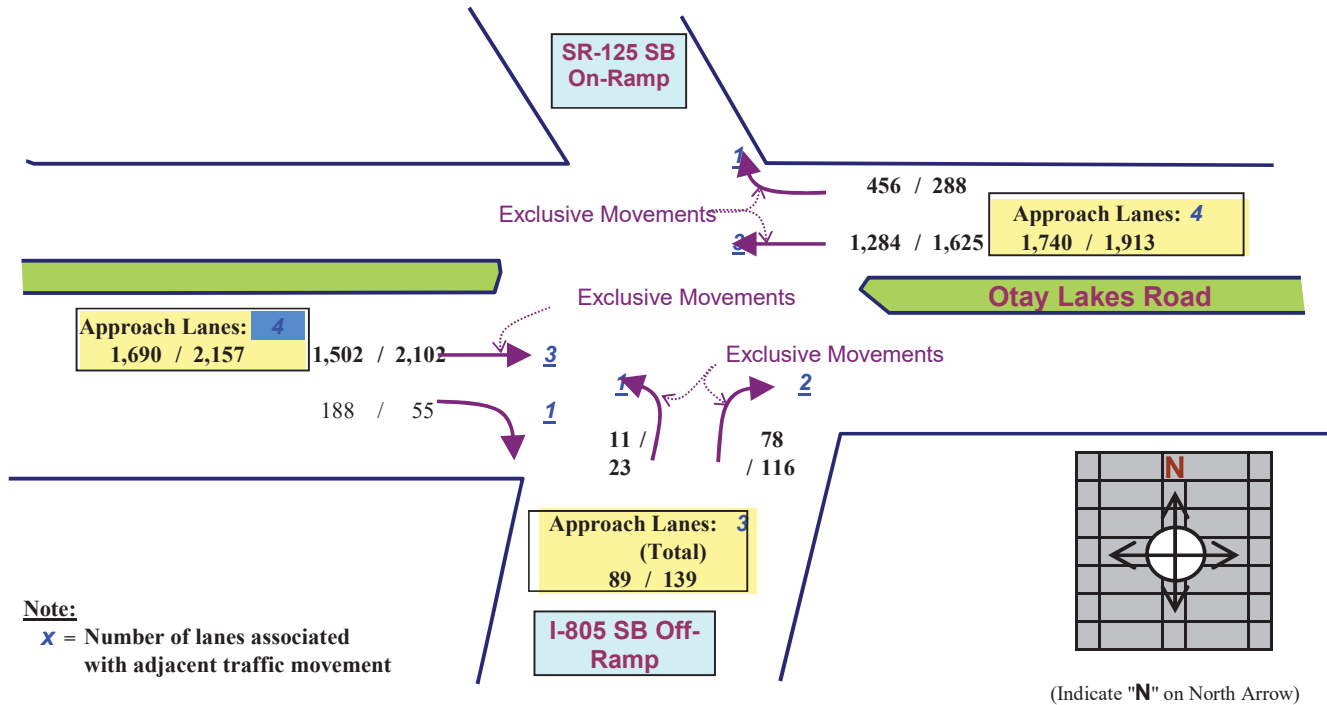
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

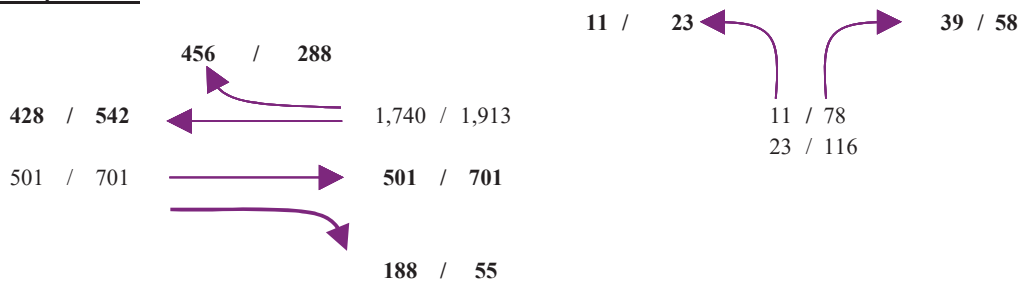
PROJECT: OVL

LOCATION: SR-125 NB / OTAY LAKES ROAD

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 456 / 501 / 542 / 701

PHASE 2: 11 / 39 / 23 / 58

OPERATING LEVEL:

ILV/HR. = 540 in AM ==> ILV: <1,200M
and 759 in PM ==> ILV <1,200

TOTAL = 540 / 759 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

Appendix G

Analysis Worksheets –

Existing Plus Project Buildout Conditions - Mitigation

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

11/16/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	4	3	5	1	307	8	664	9	129	166	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	19	5	4	6	1	394	10	800	11	159	205	7
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.75	0.75	0.75	0.78	0.78	0.78	0.83	0.83	0.83	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	63	38	365	54	353	18	886	12	196	1046	36
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.01	0.48	0.48	0.11	0.58	0.58
Sat Flow, veh/h	731	282	169	1229	243	1583	1774	1833	25	1774	1791	61
Grp Volume(v), veh/h	28	0	0	7	0	394	10	0	811	159	0	212
Grp Sat Flow(s),veh/h/ln	1182	0	0	1472	0	1583	1774	0	1858	1774	0	1852
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	16.5	0.4	0.0	29.6	6.5	0.0	4.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.2	0.0	16.5	0.4	0.0	29.6	6.5	0.0	4.0
Prop In Lane	0.68		0.14	0.86		1.00	1.00		0.01	1.00		0.03
Lane Grp Cap(c), veh/h	345	0	0	419	0	353	18	0	899	196	0	1082
V/C Ratio(X)	0.08	0.00	0.00	0.02	0.00	1.12	0.56	0.00	0.90	0.81	0.00	0.20
Avail Cap(c_a), veh/h	345	0	0	419	0	353	98	0	1018	228	0	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	0.0	22.4	0.0	28.7	36.4	0.0	17.5	32.1	0.0	7.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	82.8	24.8	0.0	10.2	17.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.1	0.0	15.3	0.3	0.0	17.6	4.1	0.0	2.0
LnGrp Delay(d),s/veh	22.8	0.0	0.0	22.4	0.0	111.5	61.2	0.0	27.7	49.2	0.0	7.3
LnGrp LOS	C			C		F	E		C	D		A
Approach Vol, veh/h		28			401			821			371	
Approach Delay, s/veh		22.8			110.0			28.1			25.3	
Approach LOS		C			F			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	40.3		21.0	5.2	47.7		21.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	40.5		16.5	4.1	45.9		16.5				
Max Q Clear Time (g_c+I1), s	8.5	31.6		2.9	2.4	6.0		18.5				
Green Ext Time (p_c), s	0.0	4.2		1.3	0.0	7.9		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			47.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

11/16/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	284	37	43	601	1	59	32	21	2	49	106
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	70	400	52	77	1073	2	73	40	26	3	64	139
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.71	0.71	0.71	0.56	0.56	0.56	0.81	0.81	0.81	0.76	0.76	0.76
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	89	1024	132	99	1197	2	93	347	226	6	147	318
Arrive On Green	0.05	0.32	0.32	0.06	0.33	0.33	0.05	0.33	0.33	0.00	0.28	0.28
Sat Flow, veh/h	1774	3153	407	1774	3624	7	1774	1056	686	1774	524	1138
Grp Volume(v), veh/h	70	223	229	77	524	551	73	0	66	3	0	203
Grp Sat Flow(s),veh/h/ln	1774	1770	1791	1774	1770	1862	1774	0	1742	1774	0	1662
Q Serve(g_s), s	2.4	6.1	6.2	2.7	17.6	17.6	2.5	0.0	1.7	0.1	0.0	6.3
Cycle Q Clear(g_c), s	2.4	6.1	6.2	2.7	17.6	17.6	2.5	0.0	1.7	0.1	0.0	6.3
Prop In Lane	1.00		0.23	1.00		0.00	1.00		0.39	1.00		0.68
Lane Grp Cap(c), veh/h	89	575	582	99	584	615	93	0	573	6	0	465
V/C Ratio(X)	0.79	0.39	0.39	0.78	0.90	0.90	0.79	0.00	0.12	0.52	0.00	0.44
Avail Cap(c_a), veh/h	113	575	582	201	608	640	113	0	573	113	0	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	16.3	16.3	29.2	19.9	19.9	29.3	0.0	14.6	31.1	0.0	18.5
Incr Delay (d2), s/veh	24.3	0.4	0.4	12.5	15.6	15.0	25.2	0.0	0.4	57.8	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.0	3.1	1.6	11.1	11.6	1.9	0.0	0.9	0.1	0.0	3.3
LnGrp Delay(d),s/veh	53.7	16.8	16.8	41.7	35.5	34.9	54.5	0.0	15.1	88.9	0.0	21.4
LnGrp LOS	D	B	B	D	D	C	D		B	F		C
Approach Vol, veh/h		522			1152			139			206	
Approach Delay, s/veh		21.7			35.7			35.8			22.4	
Approach LOS		C			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	25.1	8.0	24.8	7.8	22.0	7.6	25.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	17.5	7.1	18.4	4.0	17.5	4.0	21.5				
Max Q Clear Time (g_c+l1), s	2.1	3.7	4.7	8.2	4.5	8.3	4.4	19.6				
Green Ext Time (p_c), s	0.0	1.3	0.0	6.2	0.0	1.0	0.0	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			30.7									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

11/16/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	2	3	11	3	151	2	274	13	283	610	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	20	5	7	13	3	174	2	311	15	292	629	15
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.41	0.41	0.41	0.87	0.87	0.87	0.88	0.88	0.88	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	65	48	329	60	242	4	533	26	383	936	22
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.30	0.30	0.22	0.52	0.52
Sat Flow, veh/h	689	428	313	1111	393	1583	1774	1763	85	1774	1812	43
Grp Volume(v), veh/h	32	0	0	16	0	174	2	0	326	292	0	644
Grp Sat Flow(s),veh/h/ln	1429	0	0	1503	0	1583	1774	0	1848	1774	0	1855
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	6.1	6.3	0.0	10.6
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.3	0.0	4.3	0.0	0.0	6.1	6.3	0.0	10.6
Prop In Lane	0.62		0.22	0.81		1.00	1.00		0.05	1.00		0.02
Lane Grp Cap(c), veh/h	361	0	0	389	0	242	4	0	559	383	0	958
V/C Ratio(X)	0.09	0.00	0.00	0.04	0.00	0.72	0.46	0.00	0.58	0.76	0.00	0.67
Avail Cap(c_a), veh/h	680	0	0	736	0	617	173	0	855	713	0	1423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	14.9	0.0	16.6	20.5	0.0	12.1	15.1	0.0	7.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	4.0	61.8	0.0	1.0	3.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.2	0.0	2.1	0.1	0.0	3.2	3.4	0.0	5.4
LnGrp Delay(d),s/veh	15.1	0.0	0.0	14.9	0.0	20.6	82.3	0.0	13.1	18.3	0.0	8.2
LnGrp LOS	B			B		C	F		B	B		A
Approach Vol, veh/h		32			190			328			936	
Approach Delay, s/veh		15.1			20.1			13.5			11.3	
Approach LOS		B			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.4	16.9		10.8	4.6	25.7		10.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.5	19.0		16.0	4.0	31.5		16.0				
Max Q Clear Time (g_c+l1), s	8.3	8.1		2.6	2.0	12.6		6.3				
Green Ext Time (p_c), s	0.5	4.3		0.6	0.0	5.7		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			13.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

11/16/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	94	787	35	24	370	2	27	25	52	0	16	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	102	855	38	32	493	3	36	34	70	0	20	80
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.75	0.75	0.75	0.74	0.74	0.74	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1218	54	53	1120	7	59	150	309	4	42	168
Arrive On Green	0.07	0.35	0.35	0.03	0.31	0.31	0.03	0.28	0.28	0.00	0.13	0.13
Sat Flow, veh/h	1774	3452	153	1774	3607	22	1774	544	1121	1774	326	1306
Grp Volume(v), veh/h	102	438	455	32	242	254	36	0	104	0	0	100
Grp Sat Flow(s),veh/h/ln	1774	1770	1836	1774	1770	1859	1774	0	1665	1774	0	1632
Q Serve(g_s), s	2.2	8.4	8.4	0.7	4.3	4.3	0.8	0.0	1.9	0.0	0.0	2.2
Cycle Q Clear(g_c), s	2.2	8.4	8.4	0.7	4.3	4.3	0.8	0.0	1.9	0.0	0.0	2.2
Prop In Lane	1.00		0.08	1.00		0.01	1.00		0.67	1.00		0.80
Lane Grp Cap(c), veh/h	128	624	647	53	549	577	59	0	459	4	0	211
V/C Ratio(X)	0.80	0.70	0.70	0.60	0.44	0.44	0.61	0.00	0.23	0.00	0.00	0.47
Avail Cap(c_a), veh/h	179	716	743	179	716	752	179	0	674	179	0	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	11.0	11.0	18.9	10.9	10.9	18.9	0.0	11.1	0.0	0.0	16.0
Incr Delay (d2), s/veh	15.2	2.6	2.5	10.4	0.6	0.5	10.0	0.0	0.2	0.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.5	4.6	0.5	2.2	2.3	0.5	0.0	0.9	0.0	0.0	1.1
LnGrp Delay(d),s/veh	33.3	13.6	13.5	29.4	11.4	11.4	28.9	0.0	11.3	0.0	0.0	17.6
LnGrp LOS	C	B	B	C	B	B	C		B			B
Approach Vol, veh/h		995			528			140			100	
Approach Delay, s/veh		15.6			12.5			15.8			17.6	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	15.4	5.7	18.4	5.8	9.6	7.4	16.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	16.0	4.0	16.0	4.0	16.0	4.0	16.0				
Max Q Clear Time (g_c+l1), s	0.0	3.9	2.7	10.4	2.8	4.2	4.2	6.3				
Green Ext Time (p_c), s	0.0	0.9	0.0	3.5	0.0	0.9	0.0	5.4				
Intersection Summary												
HCM 2010 Ctrl Delay			14.8									
HCM 2010 LOS			B									

**Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)**

Major St:	SR-94	COUNT DATE	Existing + Project
Minor St:	Lyons Valley Road	# of Lanes:	2 or more
		# of Lanes:	2 or more

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)

In built up area of isolated community of < 10,000 population.....

or

}

RURAL (R)

URBAN (U)

Major St ADT (Total):	17200	Roadway Type:	Rural
Minor Street ADT (Highest Direction):	6300		

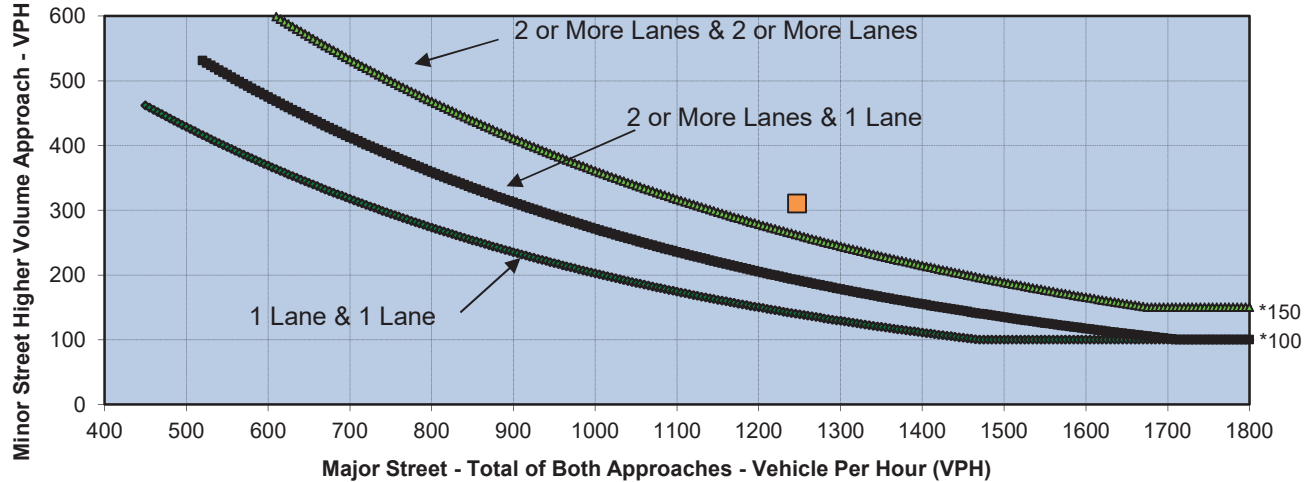
(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume			Minimum Requirements EADT			
Satisfied	X	Not Satisfied	Vehichles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume	
Number of lanes for moving traffic on each approach					Minor Street Approach (One Direction Only)	
Major Street		Minor Street	Urban	Rural	Urban	Rural
1		1	8000	5,600	2,400	1,680
2 or more		1	9,600	6,720	2,400	1,680
2 or more		2 or more	9,600	6,720	3,200	2,240
1		2 or more	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic			Vehichles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume	
Staisfied	X	Not Satisfied			Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach						
Major Street		Minor Street	Urban	Rural	Urban	Rural
1		1	12,000	8,400	1,200	850
2 or more		1	14,400	10,080	1,200	850
2 or more		2 or more	14,400	10,080	1,600	1,120
1		2 or more	12,000	8,400	1,600	1,120
Combination of CONDITIONS A+B			2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	X	Not Satisfied				
<u>No one condition satisfied</u> , but following conditions fulfilled 80% or More						
		<u>256%</u> A			<u>171%</u> B	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3
Warrant 3, Peak Hour



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street SR-94
Minor Street Lyons Valley Road

Project Village 14
Scenario Existing + Project
Peak Hour AM

Turn Movement Volumes

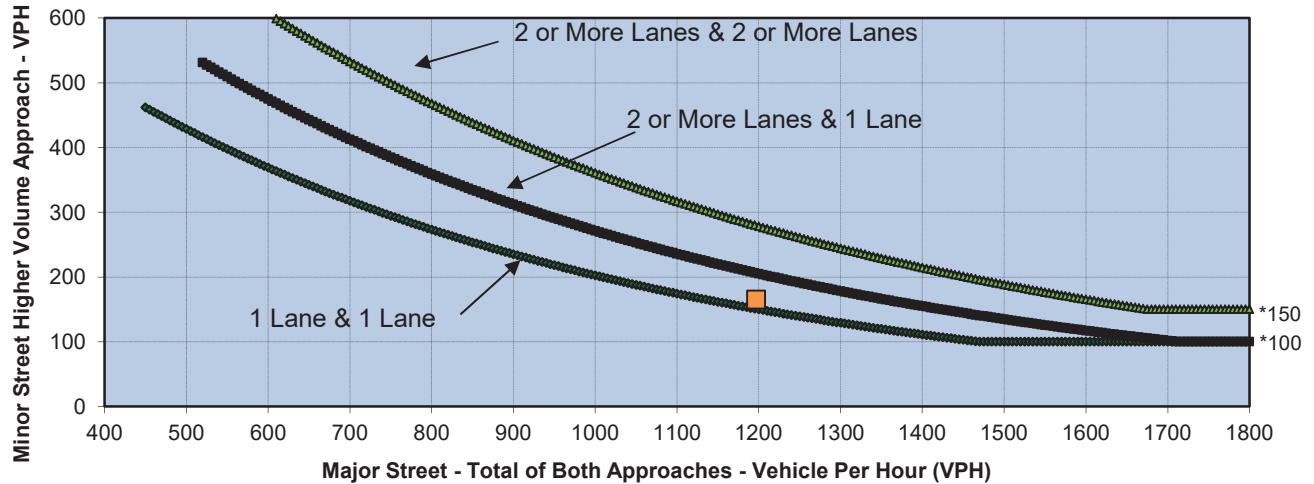
	NB	SB	EB	WB
Left	8	129	14	5
Through	664	166	4	1
Right	274	6	3	304
Total	946	301	21	310

Major Street Direction

X	North/South
	East/West

	Major Street	Minor Street	Warrant Met
	SR-94	Lyons Valley Road	
Number of Approach Lanes	1	1	<u>YES</u>
Traffic Volume (VPH) *	1,247	310	

Figure 4C-3
Warrant 3, Peak Hour



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2006

Major Street SR-94
Minor Street Lyons Valley Road

Project Village 14
Scenario Existing + Project
Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	2	283	8	11
Through	274	610	2	3
Right	13	15	3	151
Total	289	908	13	165

Major Street Direction

X	North/South
	East/West

	Major Street	Minor Street	Warrant Met
	SR-94	Lyons Valley Road	
Number of Approach Lanes	1	1	YES
Traffic Volume (VPH) *	1,197	165	

**Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)**

Major St:	Proctor Valley Road	COUNT DATE	Existing + Project
Minor St:	Northwood Drive	# of Lanes:	2 or more
		# of Lanes:	1

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)

In built up area of isolated community of < 10,000 population.....

or

}

RURAL (R)

URBAN (U)

Major St ADT (Total):	17500	Roadway Type:	Urban
Minor Street ADT (Highest Direction):	2200		

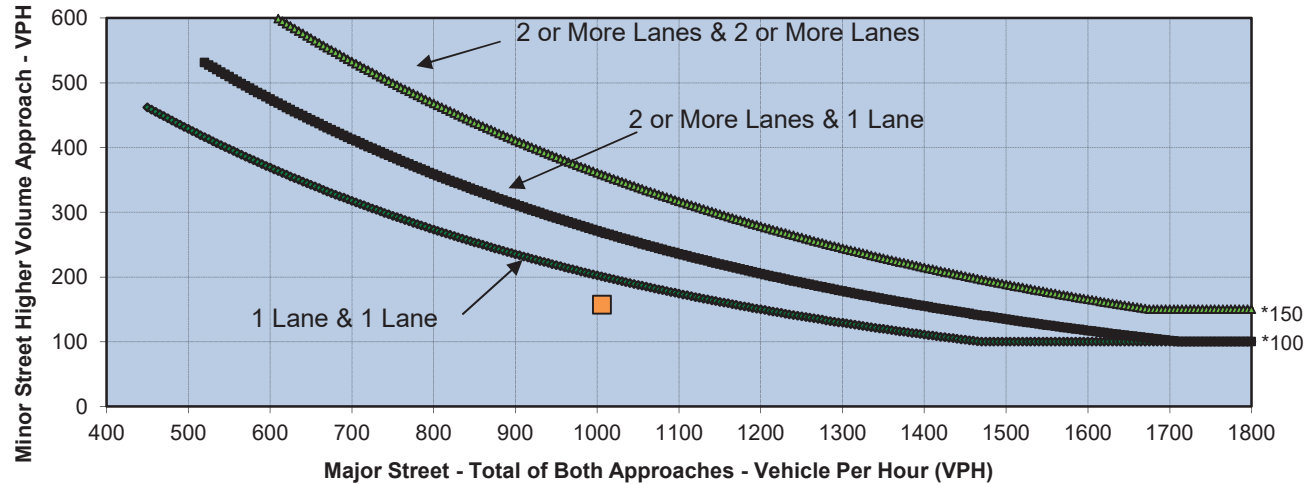
(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume			Minimum Requirements EADT			
Satisfied	Not Satisfied	X	Vehichles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach						
Major Street	Minor Street		Urban	Rural	Urban	Rural
1	1		8000	5,600	2,400	1,680
2 or more	1		9,600	6,720	2,400	1,680
2 or more	2 or more		9,600	6,720	3,200	2,240
1	2 or more		8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic			Vehichles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Staisfied	X	Not Satisfied				
Number of lanes for moving traffic on each approach						
Major Street	Minor Street		Urban	Rural	Urban	Rural
1	1		12,000	8,400	1,200	850
2 or more	1		14,400	10,080	1,200	850
2 or more	2 or more		14,400	10,080	1,600	1,120
1	2 or more		12,000	8,400	1,600	1,120
Combination of CONDITIONS A+B			2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	X	Not Satisfied				
<u>No one condition satisfied</u> , but following conditions fulfilled 80% or More						
	<u>92%</u> A	<u>122%</u> B				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3
Warrant 3, Peak Hour



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street Proctor Valley Road
Minor Street Northwood Drive

Project Village 14
Scenario Existing + Project
Peak Hour AM

Turn Movement Volumes

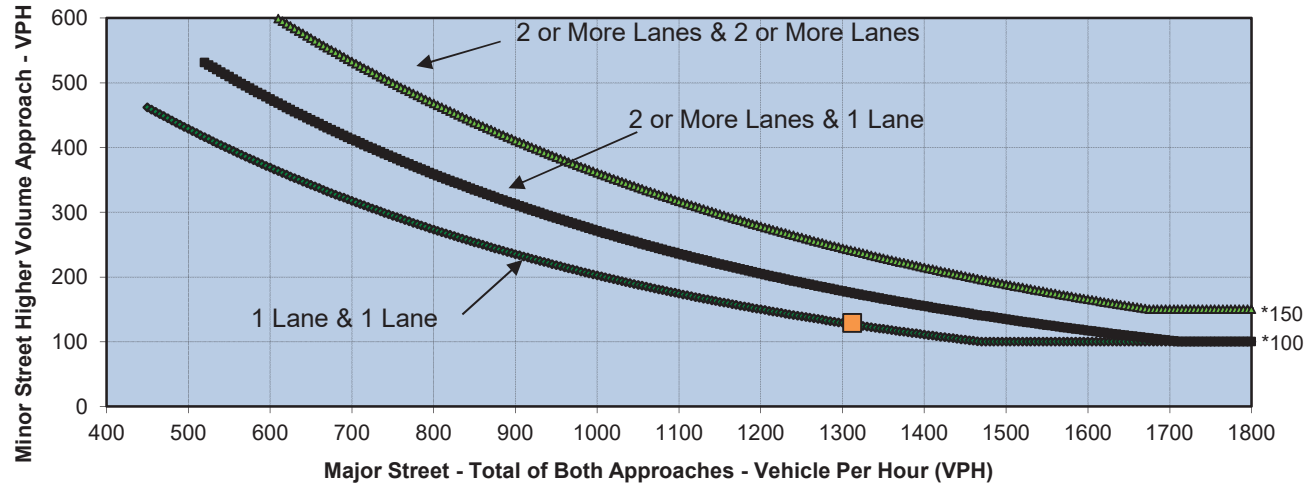
	NB	SB	EB	WB
Left	59	2	50	43
Through	32	49	274	601
Right	21	106	37	1
Total	112	157	361	645

Major Street Direction

	North/South
X	East/West

	Major Street	Minor Street	Warrant Met
	Proctor Valley Road	Northwood Drive	
Number of Approach Lanes	1	1	<u>NO</u>
Traffic Volume (VPH) *	1,006	157	

Figure 4C-3
Warrant 3, Peak Hour



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street Proctor Valley Road
Minor Street Northwood Drive

Project Village 14
Scenario Existing + Project
Peak Hour PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	27	0	94	24
Through	50	16	787	370
Right	52	65	35	2
Total	129	81	916	396

Major Street Direction

	North/South
X	East/West

	Major Street	Minor Street	Warrant Met
	Proctor Valley Road	Northwood Drive	
Number of Approach Lanes	1	1	YES
Traffic Volume (VPH) *	1,312	129	

Appendix H

Year 2025, and 2030 Roadway Network Improvements

Project ID	Project Name	Project Phase	Estimated Completion Date
STL396	Jefferson Avenue Improvements 1000 to 1050 Block	Infrastructure Design Phase	Summer 2016
STL399	South Bay BRT (Town Center Drive to Birch Road).	Infrastructure Design Phase	Fall 2016
STL400	Third Avenue Streetscape Improvement Project - Phase II	Infrastructure Design Phase	Spring 2016
STL401	Pavement Minor Rehabilitation FY2014/2015	Infrastructure Design Phase	Winter 2015
STL402	Replacement of Curb & Gutter Citywide - FY 2014/2015	Construction Phase	Fall 2015
STL403	Cross Gutter Rehabilitation Citywide FY 2014/2015	Infrastructure Design Phase	Fall 2015
STL405	ADA Curb Ramps FY2014/2015	Infrastructure Design Phase	Fall 2015
STL406	Third Avenue Streetscape Improvement Project - Phase III FY 2015/2016	Infrastructure Design Phase	Spring 2017
STM355	Otay Lakes Road Widening, East "H" St. to Telegraph Canyon Rd.	Construction Closeout Phase	Fall 2015
STM364	Heritage Road Bridge Replacement	Infrastructure Design Phase	Spring 2018 (Design)
STM367	South Broadway Improvements Main Street to Southern City Limits-Phase I Drainage	Construction Phase	Summer 2015
STM373	Pavement Major Rehabilitation FY 12-13	Construction Phase	Fall 2015
STM379	Pavement Major Rehabilitation FY2013/2014	Construction Phase	Fall 2015
STM381	South Broadway Improvements Main Street to Southern Limits, Phase II	Construction Phase	Summer 2015
STM382	Bike Lane along East H Street	Infrastructure Design Phase	Summer 2016
SW265	Industrial Blvd Sewer Improvements between Moss St. and K St.	Infrastructure Design Phase	Fall 2016
SW266	Oxford Street Sewer Improvements	Infrastructure Design Phase	Fall 2015
SW271	Sewer Rehabilitation FY 2011-12	Construction Closeout Phase	Summer 2015

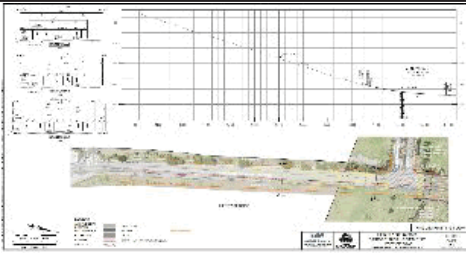


City of Chula Vista

2015/16-2019/20 Capital Improvement Program

Project Description Report

Project Name:	Heritage Road Widening FY2015/16
Project No:	STM389

Project Location:	Heritage Road from Entertainment Circle North to the southerly City Boundary			
Department Responsible:	Engineering			
Project Intents:	Capacity			
Project Description:	Heritage Road from Entertainment Circle North to the southerly City Boundary; widen to 6-lane prime arterial.			
Project Information:	Project is funded through TDEF Program.			
Justification:	Linked to STM386 Non-participating Highway Bridge Program improvements that are beyond 200 feet of bridge approach touchdown. This segment is identified for funding in TDIF #58A. This project supports Strong and Secure Neighborhoods by ensuring sustainable and well maintained infrastructure to provide safe and appealing communities to live, work, and play.			
Total Estimated Cost:	\$3,980,820			
Estimated Operation and Maintenance Cost:	\$0	Project Type:	Major Streets	

Source Of Funding								
Fund No	Fund Name	Previous	2015/16	2016/17	2017/18	2018/19	2019/20	Future
59110	Transportation Development	\$0	\$400,000	\$1,790,410	\$1,790,410	\$0	\$0	\$0

Appendix I

Year 2025 Land Use Assumptions

CVSB(Chula Vista Southbay)- University Villages 2025
trip generation and land use by zone

page 1

Zone	Code	Name	Type	Amount	-----Trips-----	
					Person	Vehicle
468	101	SINGLE FAMILY	du	1.0	16.	11.
468	4112	RIGHT-OF-WAY	acre	4.2	0.	0.
468	5007	STREETFRONT COMMERCIAL	acre	1.3	1944.	1411.
468	6002	LOW RISE OFFICE	acre	4.1	1464.	1122.
468	6003	GOV'T OFFICE OR CENTER	acre	0.6	635.	477.
468	6803	JUNIOR COLLEGE	acre	12.6	3241.	2563.
468		TOTAL			7300.	5584.
3823	9101	INACTIVE USE	acre	184.0	0.	0.
3823		TOTAL			0.	0.
4044	4113	COMMUNICATION OR UTILITY	acre	28.3	113.	87.
4044	7204	GOLF COURSE	acre	259.4	0.	0.
4044	7205	GOLF CLUB HOUSE	acre	1.0	709.	484.
4044		TOTAL			822.	570.
4045	101	SINGLE FAMILY	du	494.5	7715.	5384.
4045	9101	INACTIVE USE	acre	434.0	0.	0.
4045		TOTAL			7715.	5384.
4051	109	RETIREMENT COMMUNITY	du	298.0	1699.	1193.
4051	110	MULTI-FAMILY	du	305.0	3477.	2441.
4051	111	SINGLE FAMILY	du	955.0	13657.	9530.
4051	5022	SPECIALTY COMMERCIAL	acre	10.0	566.	400.
4051	6813	ELEMENTARY SCHOOL	acre	8.0	1288.	720.
4051	7212	COMMUNITY FACILITY	acre	7.6	334.	228.
4051	7611	NEIGHBORHOOD PARK	acre	11.1	87.	57.
4051		TOTAL			21107.	14569.
4052	9101	INACTIVE USE	acre	15.0	0.	0.
4052		TOTAL			0.	0.
4089	101	SINGLE FAMILY	du	65.4	1020.	712.
4089		TOTAL			1020.	712.
4099	101	SINGLE FAMILY	du	7.0	109.	76.
4099	9101	INACTIVE USE	acre	31.3	0.	0.
4099		TOTAL			109.	76.
4115	101	SINGLE FAMILY	du	236.0	3682.	2569.
4115	1409	OTHER GROUP QUARTERS	acre	3.9	19.	13.
4115	6109	OTHER PUBLIC SERVICE	acre	0.8	309.	223.
4115	7601	ACTIVE PARK	acre	14.7	980.	645.
4115	9101	INACTIVE USE	acre	132.3	0.	0.
4115		TOTAL			4990.	3451.
4120	101	SINGLE FAMILY	du	360.0	5616.	3919.
4120	102	MULTI-FAMILY	du	305.0	3263.	2291.
4120	4113	COMMUNICATION OR UTILITY	acre	6.3	25.	19.
4120	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4120	7601	ACTIVE PARK	acre	3.5	232.	153.
4120	9101	INACTIVE USE	acre	15.9	0.	0.
4120		TOTAL			11255.	7567.

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CVSB(Chula Vista Southbay)- University Villages 2025
trip generation and land use by zone

page 2

Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4123	101	SINGLE FAMILY			du	175.4	2736.	1909.
4123	9101	INACTIVE USE			acre	92.7	0.	0.
4123		TOTAL					2736.	1909.
4131	101	SINGLE FAMILY			du	49.0	764.	533.
4131	102	MULTI-FAMILY			du	188.0	2012.	1412.
4131	5004	NEIGHBORHOOD COMMERCIAL			acre	11.4	17353.	12278.
4131	5007	STREETFRONT COMMERCIAL			acre	4.2	6251.	4538.
4131	6002	LOW RISE OFFICE			acre	0.9	339.	260.
4131	6103	LIBRARY			acre	2.7	1180.	800.
4131	6109	OTHER PUBLIC SERVICE			acre	2.0	799.	578.
4131	6509	OTHER HEALTH CARE			acre	7.0	3433.	2547.
4131	7204	GOLF COURSE			acre	130.2	0.	0.
4131	7205	GOLF CLUB HOUSE			acre	1.0	709.	484.
4131	7601	ACTIVE PARK			acre	59.9	3987.	2624.
4131		TOTAL					36828.	26054.
4138	101	SINGLE FAMILY			du	511.0	7972.	5563.
4138	9101	INACTIVE USE			acre	11.4	0.	0.
4138		TOTAL					7972.	5563.
4141	101	SINGLE FAMILY			du	215.0	3354.	2340.
4141	9101	INACTIVE USE			acre	25.8	0.	0.
4141		TOTAL					3354.	2340.
4142	101	SINGLE FAMILY			du	460.0	7176.	5008.
4142	6102	CHURCH			acre	5.3	284.	218.
4142	6809	OTHER SCHOOL			acre	0.9	180.	148.
4142	9101	INACTIVE USE			acre	149.4	0.	0.
4142		TOTAL					7640.	5374.
4146	101	SINGLE FAMILY			du	6.0	94.	65.
4146	102	MULTI-FAMILY			du	106.0	1134.	796.
4146	5004	NEIGHBORHOOD COMMERCIAL			acre	12.3	18711.	13239.
4146	6002	LOW RISE OFFICE			acre	2.0	721.	553.
4146		TOTAL					20660.	14653.
4152	101	SINGLE FAMILY			du	166.0	2590.	1807.
4152	102	MULTI-FAMILY			du	357.0	3820.	2682.
4152	9101	INACTIVE USE			acre	27.5	0.	0.
4152		TOTAL					6409.	4489.
4157	102	MULTI-FAMILY			du	120.0	1284.	901.
4157	5003	COMMUNITY COMMERCIAL			acre	11.3	9473.	6703.
4157		TOTAL					10757.	7604.
4158	101	SINGLE FAMILY			du	380.0	5928.	4137.
4158	102	MULTI-FAMILY			du	284.0	3039.	2133.
4158	6105	FIRE OR POLICE STATION			acre	1.4	426.	314.
4158	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4158	7601	ACTIVE PARK			acre	6.8	454.	298.
4158	9101	INACTIVE USE			acre	10.4	0.	0.
4158		TOTAL					11965.	8068.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4159	101	SINGLE FAMILY			du	584.0	9110.	6357.
4159	6109	OTHER PUBLIC SERVICE			acre	2.5	982.	710.
4159	7601	ACTIVE PARK			acre	27.4	1822.	1199.
4159	9101	INACTIVE USE			acre	23.9	0.	0.
4159		TOTAL					11915.	8267.
4160	101	SINGLE FAMILY			du	233.0	3635.	2536.
4160	4113	COMMUNICATION OR UTILITY			acre	0.7	3.	2.
4160	9101	INACTIVE USE			acre	43.0	0.	0.
4160		TOTAL					3637.	2538.
4161	101	SINGLE FAMILY			du	454.0	7082.	4942.
4161	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4161	7607	RESIDENTIAL RECREATION			acre	2.5	0.	0.
4161	9101	INACTIVE USE			acre	120.2	0.	0.
4161		TOTAL					9201.	6127.
4162	4113	COMMUNICATION OR UTILITY			acre	5.4	22.	16.
4162	5004	NEIGHBORHOOD COMMERCIAL			acre	5.8	8776.	6209.
4162	9101	INACTIVE USE			acre	5.9	0.	0.
4162		TOTAL					8797.	6226.
4165	101	SINGLE FAMILY			du	411.0	6412.	4474.
4165	6105	FIRE OR POLICE STATION			acre	1.0	321.	236.
4165	6805	JUNIOR HIGH OR MIDDLE SCHOOL			acre	1.0	4206.	2586.
4165	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4165	9101	INACTIVE USE			acre	59.8	0.	0.
4165		TOTAL					13056.	8481.
4169	101	SINGLE FAMILY			du	240.0	3744.	2613.
4169	4113	COMMUNICATION OR UTILITY			acre	3.9	16.	12.
4169	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4169	9101	INACTIVE USE			acre	87.9	0.	0.
4169		TOTAL					5878.	3809.
4171	101	SINGLE FAMILY			du	237.4	3703.	2584.
4171	102	MULTI-FAMILY			du	110.0	1177.	826.
4171	6809	OTHER SCHOOL			acre	1.0	196.	162.
4171	7210	OTHER RECREATION			acre	6.4	43.	29.
4171	7601	ACTIVE PARK			acre	33.3	2220.	1461.
4171	9101	INACTIVE USE			acre	3.4	0.	0.
4171		TOTAL					7339.	5062.
4172	101	SINGLE FAMILY			du	601.0	9376.	6542.
4172	102	MULTI-FAMILY			du	766.0	8196.	5754.
4172	7602	PASSIVE PARK			acre	4.0	0.	0.
4172	9101	INACTIVE USE			acre	63.9	0.	0.
4172		TOTAL					17572.	12297.
4173	101	SINGLE FAMILY			du	249.3	3889.	2714.
4173	102	MULTI-FAMILY			du	421.8	4513.	3169.
4173	6102	CHURCH			acre	3.3	175.	134.

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CVSB(Chula Vista Southbay)- University Villages 2025
trip generation and land use by zone

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4173	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4173	7601	ACTIVE PARK			acre	15.6	1038.	683.
4173	9101	INACTIVE USE			acre	7.8	0.	0.
4173		TOTAL					11733.	7884.
4174	101	SINGLE FAMILY			du	10.1	157.	109.
4174	103	MOBILE HOME PARK			du	166.0	1096.	727.
4174	2103	LIGHT INDUSTRY			acre	25.0	2508.	2027.
4174	2104	WAREHOUSING OR STORAGE			acre	0.6	19.	16.
4174	5001	WHOLESALE TRADE			acre	1.5	71.	50.
4174	5009	OTHER COMMERCIAL			acre	0.2	24.	17.
4174	6002	LOW RISE OFFICE			acre	2.7	971.	744.
4174	9101	INACTIVE USE			acre	0.5	0.	0.
4174		TOTAL					4846.	3691.
4176	101	SINGLE FAMILY			du	99.4	1550.	1082.
4176	6110	CONVENTION CENTER			acre	14.4	1131.	772.
4176	9101	INACTIVE USE			acre	28.9	0.	0.
4176		TOTAL					2682.	1854.
4177	101	SINGLE FAMILY			du	202.0	3151.	2199.
4177	7601	ACTIVE PARK			acre	12.0	797.	524.
4177	9101	INACTIVE USE			acre	57.0	0.	0.
4177		TOTAL					3948.	2723.
4178	101	SINGLE FAMILY			du	223.1	3480.	2429.
4178	102	MULTI-FAMILY			du	386.3	4134.	2902.
4178	1409	OTHER GROUP QUARTERS			acre	1.2	6.	4.
4178	2103	LIGHT INDUSTRY			acre	1.1	111.	90.
4178	9101	INACTIVE USE			acre	0.3	0.	0.
4178		TOTAL					7731.	5425.
4181	101	SINGLE FAMILY			du	175.1	2731.	1906.
4181	6102	CHURCH			acre	4.2	224.	172.
4181	9101	INACTIVE USE			acre	55.6	0.	0.
4181		TOTAL					2956.	2078.
4182	2101	INDUSTRIAL PARK			acre	32.8	6306.	5169.
4182	2103	LIGHT INDUSTRY			acre	42.9	4301.	3476.
4182	2104	WAREHOUSING OR STORAGE			acre	9.4	310.	254.
4182	6104	POST OFFICE			acre	3.2	3529.	2453.
4182	7601	ACTIVE PARK			acre	7.3	487.	320.
4182	9101	INACTIVE USE			acre	1.7	0.	0.
4182		TOTAL					14933.	11672.
4183	2101	INDUSTRIAL PARK			acre	68.7	13205.	10825.
4183	2103	LIGHT INDUSTRY			acre	6.5	654.	529.
4183	5007	STREETFRONT COMMERCIAL			acre	16.8	25154.	18261.
4183	6002	LOW RISE OFFICE			acre	4.3	1531.	1173.
4183	6003	GOV'T OFFICE OR CENTER			acre	1.0	1074.	806.
4183	6509	OTHER HEALTH CARE			acre	1.0	508.	377.
4183	9101	INACTIVE USE			acre	22.4	0.	0.
4183		TOTAL					42127.	31972.

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CVSB(Chula Vista Southbay)- University Villages 2025
trip generation and land use by zone

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Zone	Code	Name	Type	Amount	-----Trips-----	
					Person	Vehicle
4184	2103	LIGHT INDUSTRY	acre	6.9	688.	556.
4184	2104	WAREHOUSING OR STORAGE	acre	3.0	99.	81.
4184	5003	COMMUNITY COMMERCIAL	acre	10.0	8391.	5937.
4184	5007	STREETFRONT COMMERCIAL	acre	0.9	1376.	999.
4184		TOTAL			10555.	7573.
4185	101	SINGLE FAMILY	du	254.0	3962.	2765.
4185	9101	INACTIVE USE	acre	19.5	0.	0.
4185		TOTAL			3962.	2765.
4189	101	SINGLE FAMILY	du	250.0	3900.	2721.
4189	9101	INACTIVE USE	acre	132.0	0.	0.
4189		TOTAL			3900.	2721.
4190	2103	LIGHT INDUSTRY	acre	5.1	514.	415.
4190	5003	COMMUNITY COMMERCIAL	acre	20.5	17202.	12171.
4190	5007	STREETFRONT COMMERCIAL	acre	7.9	11764.	8540.
4190	6002	LOW RISE OFFICE	acre	1.4	497.	381.
4190	9101	INACTIVE USE	acre	14.8	0.	0.
4190		TOTAL			29976.	21507.
4193	101	SINGLE FAMILY	du	342.0	5335.	3723.
4193	9101	INACTIVE USE	acre	40.7	0.	0.
4193		TOTAL			5335.	3723.
4194	5004	NEIGHBORHOOD COMMERCIAL	acre	2.6	4029.	2851.
4194	5007	STREETFRONT COMMERCIAL	acre	3.7	5503.	3995.
4194	6002	LOW RISE OFFICE	acre	4.1	1450.	1111.
4194	6003	GOV'T OFFICE OR CENTER	acre	3.6	3802.	2854.
4194		TOTAL			14785.	10812.
4195	5003	COMMUNITY COMMERCIAL	acre	48.9	41024.	29025.
4195	6509	OTHER HEALTH CARE	acre	3.1	1509.	1119.
4195	9101	INACTIVE USE	acre	2.4	0.	0.
4195		TOTAL			42532.	30145.
4197	5003	COMMUNITY COMMERCIAL	acre	9.4	7929.	5610.
4197	6002	LOW RISE OFFICE	acre	8.4	3006.	2304.
4197	6102	CHURCH	acre	8.2	436.	335.
4197	6809	OTHER SCHOOL	acre	0.4	78.	64.
4197	9101	INACTIVE USE	acre	0.3	0.	0.
4197		TOTAL			11449.	8314.
4198	101	SINGLE FAMILY	du	285.0	4446.	3102.
4198	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0	4206.	2586.
4198	9101	INACTIVE USE	acre	25.5	0.	0.
4198		TOTAL			8652.	5689.
4199	1501	LOW-RISE HOTEL OR MOTEL	acre	2.1	720.	444.
4199	5007	STREETFRONT COMMERCIAL	acre	8.5	12650.	9184.
4199	6002	LOW RISE OFFICE	acre	0.3	105.	80.
4199	7602	PASSIVE PARK	acre	0.7	0.	0.

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Zone	Code	Name	Land Use		Type	Amount	Trips-----	
							Person	Vehicle
4199	9101	INACTIVE USE			acre	18.4	0.	0.
4199		TOTAL					13475.	9708.
4201	101	SINGLE FAMILY			du	29.0	452.	316.
4201	102	MULTI-FAMILY			du	334.0	3574.	2509.
4201	6102	CHURCH			acre	1.5	81.	62.
4201	7601	ACTIVE PARK			acre	17.8	1187.	782.
4201		TOTAL					5294.	3668.
4202	102	MULTI-FAMILY			du	772.7	8268.	5805.
4202	1504	RESORT			acre	190.1	12375.	7629.
4202	1505	HIGH-RISE HOTEL			acre	1390.9	18082.	11147.
4202	4113	COMMUNICATION OR UTILITY			acre	8.1	32.	25.
4202	5012	BAYFRONT NEIGHBORHOOD COM			acre	115.9	19647.	13901.
4202	6005	BAYFRONT HIGH RISE OF			acre	46.4	992.	786.
4202	6109	OTHER PUBLIC SERVICE			acre	3.0	1199.	867.
4202	7601	ACTIVE PARK			acre	17.9	1194.	786.
4202	9101	INACTIVE USE			acre	250.9	0.	0.
4202		TOTAL					61789.	40945.
4204	101	SINGLE FAMILY			du	263.5	4111.	2868.
4204	102	MULTI-FAMILY			du	189.5	2028.	1424.
4204	1409	OTHER GROUP QUARTERS			acre	6.5	31.	22.
4204	5007	STREETFRONT COMMERCIAL			acre	2.9	4292.	3116.
4204	6002	LOW RISE OFFICE			acre	0.4	143.	109.
4204		TOTAL					10604.	7539.
4206	101	SINGLE FAMILY			du	79.0	1232.	860.
4206	102	MULTI-FAMILY			du	231.0	2472.	1735.
4206	7601	ACTIVE PARK			acre	1.9	127.	84.
4206		TOTAL					3831.	2679.
4207	101	SINGLE FAMILY			du	329.0	5132.	3581.
4207	102	MULTI-FAMILY			du	507.0	5425.	3809.
4207	4113	COMMUNICATION OR UTILITY			acre	2.3	9.	7.
4207	7204	GOLF COURSE			acre	37.2	0.	0.
4207	7601	ACTIVE PARK			acre	3.2	213.	140.
4207	9101	INACTIVE USE			acre	14.2	0.	0.
4207		TOTAL					10780.	7537.
4208	1501	LOW-RISE HOTEL OR MOTEL			acre	4.0	1365.	842.
4208	5007	STREETFRONT COMMERCIAL			acre	10.1	15069.	10939.
4208	9101	INACTIVE USE			acre	3.5	0.	0.
4208		TOTAL					16434.	11781.
4209	101	SINGLE FAMILY			du	599.0	9344.	6521.
4209	6102	CHURCH			acre	5.0	266.	205.
4209	6809	OTHER SCHOOL			acre	1.2	242.	200.
4209	7601	ACTIVE PARK			acre	5.0	334.	220.
4209	9101	INACTIVE USE			acre	77.3	0.	0.
4209		TOTAL					10186.	7144.

Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4210	101	SINGLE FAMILY			du	543.5	8478.	5916.
4210	102	MULTI-FAMILY			du	330.0	3531.	2479.
4210	4113	COMMUNICATION OR UTILITY			acre	3.2	13.	10.
4210	6102	CHURCH			acre	1.5	80.	62.
4210	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4210	7601	ACTIVE PARK			acre	15.0	1002.	659.
4210	9101	INACTIVE USE			acre	134.9	0.	0.
4210		TOTAL					15222.	10310.
4211	101	SINGLE FAMILY			du	4.3	67.	47.
4211	102	MULTI-FAMILY			du	482.8	5166.	3627.
4211	1501	LOW-RISE HOTEL OR MOTEL			acre	0.2	54.	33.
4211	4119	OTHER TRANSPORTATION			acre	0.9	104.	80.
4211	5007	STREETFRONT COMMERCIAL			acre	6.0	9022.	6550.
4211		TOTAL					14414.	10337.
4212	101	SINGLE FAMILY			du	438.9	6846.	4777.
4212	102	MULTI-FAMILY			du	297.0	3178.	2231.
4212	9101	INACTIVE USE			acre	0.9	0.	0.
4212		TOTAL					10024.	7009.
4213	101	SINGLE FAMILY			du	224.0	3494.	2438.
4213	103	MOBILE HOME PARK			du	196.0	1294.	858.
4213	9101	INACTIVE USE			acre	1.8	0.	0.
4213		TOTAL					4788.	3296.
4214	5004	NEIGHBORHOOD COMMERCIAL			acre	13.6	20680.	14632.
4214	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4214		TOTAL					26049.	17054.
4215	101	SINGLE FAMILY			du	345.0	5382.	3756.
4215	4113	COMMUNICATION OR UTILITY			acre	3.6	15.	11.
4215	9101	INACTIVE USE			acre	35.9	0.	0.
4215		TOTAL					5397.	3767.
4216	101	SINGLE FAMILY			du	8.6	135.	94.
4216	102	MULTI-FAMILY			du	700.4	7494.	5261.
4216	103	MOBILE HOME PARK			du	17.0	112.	75.
4216	9101	INACTIVE USE			acre	1.5	0.	0.
4216		TOTAL					7741.	5430.
4218	102	MULTI-FAMILY			du	84.0	899.	631.
4218	6002	LOW RISE OFFICE			acre	3.0	1061.	813.
4218	9101	INACTIVE USE			acre	4.5	0.	0.
4218		TOTAL					1959.	1444.
4219	101	SINGLE FAMILY			du	93.0	1451.	1012.
4219	102	MULTI-FAMILY			du	406.0	4344.	3050.
4219	1409	OTHER GROUP QUARTERS			acre	1.1	5.	4.
4219	5007	STREETFRONT COMMERCIAL			acre	2.2	3236.	2349.
4219	6002	LOW RISE OFFICE			acre	0.1	41.	32.
4219	6102	CHURCH			acre	1.4	73.	56.
4219		TOTAL					9150.	6503.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4220	101	SINGLE FAMILY			du	512.0	7987.	5574.
4220	102	MULTI-FAMILY			du	200.0	2140.	1502.
4220	5004	NEIGHBORHOOD COMMERCIAL			acre	6.3	9676.	6846.
4220	6102	CHURCH			acre	4.6	248.	190.
4220	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4220	7601	ACTIVE PARK			acre	7.5	499.	328.
4220	9101	INACTIVE USE			acre	2.0	0.	0.
4220		TOTAL					22669.	15626.
4221	5003	COMMUNITY COMMERCIAL			acre	19.2	16086.	11381.
4221	7601	ACTIVE PARK			acre	14.9	991.	652.
4221	9101	INACTIVE USE			acre	22.2	0.	0.
4221		TOTAL					17077.	12033.
4222	101	SINGLE FAMILY			du	10.0	156.	109.
4222	102	MULTI-FAMILY			du	322.6	3452.	2423.
4222	103	MOBILE HOME PARK			du	28.9	191.	126.
4222	1501	LOW-RISE HOTEL OR MOTEL			acre	4.0	1365.	842.
4222	4112	RIGHT-OF-WAY			acre	3.1	0.	0.
4222	5007	STREETFRONT COMMERCIAL			acre	3.8	5683.	4126.
4222	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4222		TOTAL					12965.	8811.
4223	102	MULTI-FAMILY			du	94.0	1006.	706.
4223	6509	OTHER HEALTH CARE			acre	1.6	796.	590.
4223	9101	INACTIVE USE			acre	8.6	0.	0.
4223		TOTAL					1802.	1297.
4224	101	SINGLE FAMILY			du	77.0	1201.	838.
4224	102	MULTI-FAMILY			du	56.0	599.	421.
4224	7210	OTHER RECREATION			acre	0.1	1.	0.
4224	7601	ACTIVE PARK			acre	20.4	1357.	893.
4224	9101	INACTIVE USE			acre	4.9	0.	0.
4224		TOTAL					3158.	2152.
4225	101	SINGLE FAMILY			du	561.0	8752.	6107.
4225	102	MULTI-FAMILY			du	93.0	995.	699.
4225	7601	ACTIVE PARK			acre	18.3	1221.	804.
4225	9101	INACTIVE USE			acre	15.2	0.	0.
4225		TOTAL					10968.	7609.
4226	101	SINGLE FAMILY			du	777.0	12121.	8458.
4226	7601	ACTIVE PARK			acre	12.9	856.	564.
4226	9101	INACTIVE USE			acre	36.7	0.	0.
4226		TOTAL					12978.	9022.
4227	101	SINGLE FAMILY			du	80.4	1254.	875.
4227	102	MULTI-FAMILY			du	416.0	4451.	3125.
4227	6102	CHURCH			acre	1.2	64.	49.
4227	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4227		TOTAL					7888.	5235.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4228	101	SINGLE FAMILY			du	132.3	2063.	1440.
4228	102	MULTI-FAMILY			du	387.3	4144.	2910.
4228	6002	LOW RISE OFFICE			acre	1.8	632.	484.
4228		TOTAL					6840.	4834.
4232	101	SINGLE FAMILY			du	6.4	99.	69.
4232	102	MULTI-FAMILY			du	464.5	4970.	3489.
4232	103	MOBILE HOME PARK			du	10.7	71.	47.
4232	1501	LOW-RISE HOTEL OR MOTEL			acre	1.5	517.	319.
4232	5004	NEIGHBORHOOD COMMERCIAL			acre	3.1	4753.	3363.
4232	5007	STREETFRONT COMMERCIAL			acre	5.0	7534.	5470.
4232	6806	ELEMENTARY SCHOOL			acre	0.9	1941.	1085.
4232	9101	INACTIVE USE			acre	0.1	0.	0.
4232		TOTAL					19884.	13841.
4233	101	SINGLE FAMILY			du	8.2	128.	89.
4233	102	MULTI-FAMILY			du	637.6	6823.	4790.
4233	4114	PARKING			acre	0.7	0.	0.
4233	5007	STREETFRONT COMMERCIAL			acre	6.6	9857.	7156.
4233	6002	LOW RISE OFFICE			acre	3.0	1068.	819.
4233	6509	OTHER HEALTH CARE			acre	0.7	355.	263.
4233	7210	OTHER RECREATION			acre	0.0	0.	0.
4233	9101	INACTIVE USE			acre	0.1	0.	0.
4233		TOTAL					18231.	13117.
4234	101	SINGLE FAMILY			du	191.0	2980.	2079.
4234	102	MULTI-FAMILY			du	97.0	1038.	729.
4234	7204	GOLF COURSE			acre	53.4	0.	0.
4234	7205	GOLF CLUB HOUSE			acre	1.0	709.	484.
4234		TOTAL					4726.	3292.
4235	6002	LOW RISE OFFICE			acre	10.7	3825.	2931.
4235	9101	INACTIVE USE			acre	10.9	0.	0.
4235		TOTAL					3825.	2931.
4236	101	SINGLE FAMILY			du	518.0	8081.	5639.
4236	102	MULTI-FAMILY			du	119.0	1273.	894.
4236	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4236	7601	ACTIVE PARK			acre	5.6	373.	245.
4236	9101	INACTIVE USE			acre	185.6	0.	0.
4236		TOTAL					11846.	7963.
4237	6803	JUNIOR COLLEGE			acre	149.0	38313.	30299.
4237		TOTAL					38313.	30299.
4238	101	SINGLE FAMILY			du	44.3	691.	482.
4238	102	MULTI-FAMILY			du	203.6	2178.	1529.
4238	5007	STREETFRONT COMMERCIAL			acre	1.7	2533.	1839.
4238	6002	LOW RISE OFFICE			acre	0.7	265.	203.
4238	6003	GOV'T OFFICE OR CENTER			acre	7.1	7514.	5641.
4238	6103	LIBRARY			acre	4.0	1753.	1189.
4238	6105	FIRE OR POLICE STATION			acre	0.8	251.	185.

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Zone	Code	Name	Land Use		Type	Amount	Trips-----	
							Person	Vehicle
4238	7602	PASSIVE PARK			acre	4.0	0.	0.
4238		TOTAL					15185.	11068.
4239	102	MULTI-FAMILY			du	707.0	7565.	5311.
4239	6002	LOW RISE OFFICE			acre	1.8	625.	479.
4239	6102	CHURCH			acre	8.4	451.	346.
4239	6103	LIBRARY			acre	2.3	1013.	687.
4239	6105	FIRE OR POLICE STATION			acre	1.5	467.	344.
4239	7210	OTHER RECREATION			acre	4.8	31.	21.
4239	9101	INACTIVE USE			acre	21.0	0.	0.
4239		TOTAL					10152.	7189.
4240	101	SINGLE FAMILY			du	504.8	7875.	5495.
4240		TOTAL					7875.	5495.
4241	101	SINGLE FAMILY			du	944.0	14726.	10276.
4241	102	MULTI-FAMILY			du	382.0	4087.	2870.
4241	4113	COMMUNICATION OR UTILITY			acre	55.3	221.	169.
4241	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4241	7602	PASSIVE PARK			acre	4.9	0.	0.
4241	9101	INACTIVE USE			acre	31.2	0.	0.
4241		TOTAL					24404.	15737.
4242	102	MULTI-FAMILY			du	252.0	2696.	1893.
4242	4113	COMMUNICATION OR UTILITY			acre	11.2	45.	34.
4242	6103	LIBRARY			acre	0.2	101.	68.
4242	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4242	9101	INACTIVE USE			acre	10.5	0.	0.
4242		TOTAL					8211.	4418.
4243	101	SINGLE FAMILY			du	595.0	9282.	6477.
4243	102	MULTI-FAMILY			du	38.0	407.	285.
4243	6102	CHURCH			acre	4.1	221.	170.
4243	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4243	7601	ACTIVE PARK			acre	21.3	1419.	934.
4243	9101	INACTIVE USE			acre	5.8	0.	0.
4243		TOTAL					13448.	9051.
4244	101	SINGLE FAMILY			du	121.5	1895.	1323.
4244	102	MULTI-FAMILY			du	238.0	2547.	1788.
4244	4114	PARKING			acre	1.0	0.	0.
4244	6102	CHURCH			acre	0.8	45.	34.
4244		TOTAL					4487.	3145.
4245	101	SINGLE FAMILY			du	22.3	347.	242.
4245	102	MULTI-FAMILY			du	442.3	4733.	3323.
4245	103	MOBILE HOME PARK			du	38.4	253.	168.
4245	1409	OTHER GROUP QUARTERS			acre	1.6	8.	5.
4245	1501	LOW-RISE HOTEL OR MOTEL			acre	3.2	1104.	681.
4245	5007	STREETFRONT COMMERCIAL			acre	9.1	13564.	9847.
4245		TOTAL					20010.	14267.

Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4246	101	SINGLE FAMILY			du	7.3	113.	79.
4246	102	MULTI-FAMILY			du	731.9	7831.	5498.
4246	1409	OTHER GROUP QUARTERS			acre	0.2	1.	1.
4246	4114	PARKING			acre	0.9	0.	0.
4246	5007	STREETFRONT COMMERCIAL			acre	5.3	7970.	5786.
4246	6002	LOW RISE OFFICE			acre	1.8	653.	501.
4246	6102	CHURCH			acre	0.4	23.	18.
4246	6509	OTHER HEALTH CARE			acre	0.1	23.	17.
4246	7601	ACTIVE PARK			acre	7.8	517.	341.
4246	7602	PASSIVE PARK			acre	1.5	0.	0.
4246		TOTAL					17132.	12240.
4248	5003	COMMUNITY COMMERCIAL			acre	29.0	24359.	17235.
4248	6002	LOW RISE OFFICE			acre	1.5	546.	419.
4248		TOTAL					24905.	17654.
4249	101	SINGLE FAMILY			du	231.0	3603.	2514.
4249	102	MULTI-FAMILY			du	458.8	4909.	3447.
4249	6102	CHURCH			acre	2.6	141.	108.
4249		TOTAL					8653.	6069.
4250	101	SINGLE FAMILY			du	0.7	11.	7.
4250	102	MULTI-FAMILY			du	935.0	10004.	7024.
4250	1501	LOW-RISE HOTEL OR MOTEL			acre	4.3	1473.	908.
4250	4111	TRANSIT STATION			acre	1.3	373.	285.
4250	4112	RIGHT-OF-WAY			acre	1.4	0.	0.
4250	4119	OTHER TRANSPORTATION			acre	1.4	151.	115.
4250	5007	STREETFRONT COMMERCIAL			acre	7.0	10410.	7557.
4250	6001	HIGH RISE OFFICE			acre	1.8	4933.	3909.
4250	9101	INACTIVE USE			acre	0.1	0.	0.
4250		TOTAL					27355.	19806.
4251	101	SINGLE FAMILY			du	58.0	905.	631.
4251	102	MULTI-FAMILY			du	274.0	2932.	2058.
4251	9101	INACTIVE USE			acre	26.1	0.	0.
4251		TOTAL					3837.	2690.
4252	101	SINGLE FAMILY			du	12.9	202.	141.
4252	102	MULTI-FAMILY			du	294.9	3156.	2215.
4252	4113	COMMUNICATION OR UTILITY			acre	0.1	0.	0.
4252	6002	LOW RISE OFFICE			acre	0.5	181.	139.
4252	6003	GOV'T OFFICE OR CENTER			acre	4.2	4452.	3343.
4252	6105	FIRE OR POLICE STATION			acre	3.5	1080.	796.
4252	6509	OTHER HEALTH CARE			acre	0.7	331.	245.
4252	7601	ACTIVE PARK			acre	0.9	62.	41.
4252		TOTAL					9464.	6920.
4253	101	SINGLE FAMILY			du	311.0	4852.	3386.
4253	102	MULTI-FAMILY			du	117.0	1252.	879.
4253	6102	CHURCH			acre	4.6	247.	189.
4253	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4253	7601	ACTIVE PARK			acre	5.0	333.	219.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4253	9101	INACTIVE USE			acre	19.5	0.	0.
4253		TOTAL					8802.	5858.
4254	101	SINGLE FAMILY			du	136.0	2122.	1480.
4254	102	MULTI-FAMILY			du	56.0	599.	421.
4254	6109	OTHER PUBLIC SERVICE			acre	6.0	2384.	1724.
4254	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4254	9101	INACTIVE USE			acre	1.8	0.	0.
4254		TOTAL					10474.	6047.
4255	101	SINGLE FAMILY			du	1155.0	18018.	12573.
4255	102	MULTI-FAMILY			du	78.0	835.	586.
4255	4113	COMMUNICATION OR UTILITY			acre	14.3	57.	44.
4255	6102	CHURCH			acre	12.2	653.	501.
4255	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4255	7204	GOLF COURSE			acre	58.0	0.	0.
4255	7601	ACTIVE PARK			acre	11.8	784.	516.
4255	7602	PASSIVE PARK			acre	3.2	0.	0.
4255		TOTAL					22465.	15405.
4256	101	SINGLE FAMILY			du	22.7	355.	247.
4256	102	MULTI-FAMILY			du	537.9	5755.	4040.
4256	6102	CHURCH			acre	1.2	64.	49.
4256	6109	OTHER PUBLIC SERVICE			acre	0.0	14.	10.
4256		TOTAL					6187.	4347.
4257	101	SINGLE FAMILY			du	395.0	6162.	4300.
4257	102	MULTI-FAMILY			du	96.0	1027.	721.
4257	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4257	7607	RESIDENTIAL RECREATION			acre	6.1	0.	0.
4257	9101	INACTIVE USE			acre	29.3	0.	0.
4257		TOTAL					9308.	6206.
4258	102	MULTI-FAMILY			du	409.0	4376.	3072.
4258	9101	INACTIVE USE			acre	31.2	0.	0.
4258		TOTAL					4376.	3072.
4259	2103	LIGHT INDUSTRY			acre	6.0	599.	484.
4259	5003	COMMUNITY COMMERCIAL			acre	11.4	9574.	6774.
4259	6002	LOW RISE OFFICE			acre	5.3	1910.	1464.
4259	7210	OTHER RECREATION			acre	5.1	34.	23.
4259		TOTAL					12118.	8746.
4260	101	SINGLE FAMILY			du	2.7	43.	30.
4260	102	MULTI-FAMILY			du	696.1	7448.	5229.
4260	103	MOBILE HOME PARK			du	52.7	348.	231.
4260	1501	LOW-RISE HOTEL OR MOTEL			acre	2.8	939.	579.
4260	5007	STREETFRONT COMMERCIAL			acre	4.3	6420.	4661.
4260	6109	OTHER PUBLIC SERVICE			acre	0.1	41.	29.
4260	9101	INACTIVE USE			acre	0.2	0.	0.
4260		TOTAL					15238.	10758.

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Zone	Code	Name	Type	Amount	Trips-----	
					Person	Vehicle
4261	101	SINGLE FAMILY	du	5.9	92.	64.
4261	102	MULTI-FAMILY	du	1036.7	11092.	7788.
4261	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	17.	10.
4261	5007	STREETFRONT COMMERCIAL	acre	2.2	3371.	2447.
4261	6001	HIGH RISE OFFICE	acre	4.0	10925.	8656.
4261	6002	LOW RISE OFFICE	acre	1.4	484.	371.
4261	6102	CHURCH	acre	0.6	29.	22.
4261	6806	ELEMENTARY SCHOOL	acre	0.2	481.	269.
4261	9101	INACTIVE USE	acre	0.9	0.	0.
4261		TOTAL			26491.	19628.
4262	101	SINGLE FAMILY	du	224.0	3494.	2438.
4262	7602	PASSIVE PARK	acre	0.9	0.	0.
4262	9101	INACTIVE USE	acre	13.2	0.	0.
4262		TOTAL			3494.	2438.
4263	5003	COMMUNITY COMMERCIAL	acre	42.7	35821.	25345.
4263	9101	INACTIVE USE	acre	2.0	0.	0.
4263		TOTAL			35821.	25345.
4264	5003	COMMUNITY COMMERCIAL	acre	17.8	14953.	10580.
4264	9101	INACTIVE USE	acre	1.6	0.	0.
4264		TOTAL			14953.	10580.
4265	101	SINGLE FAMILY	du	403.0	6287.	4387.
4265	4113	COMMUNICATION OR UTILITY	acre	0.9	4.	3.
4265	9101	INACTIVE USE	acre	79.2	0.	0.
4265		TOTAL			6290.	4390.
4266	101	SINGLE FAMILY	du	413.0	6443.	4496.
4266	4113	COMMUNICATION OR UTILITY	acre	1.8	7.	5.
4266	6102	CHURCH	acre	2.3	121.	93.
4266	9101	INACTIVE USE	acre	5.2	0.	0.
4266		TOTAL			6571.	4594.
4267	101	SINGLE FAMILY	du	680.0	10608.	7402.
4267	4113	COMMUNICATION OR UTILITY	acre	1.4	6.	4.
4267	5007	STREETFRONT COMMERCIAL	acre	0.1	200.	145.
4267	6002	LOW RISE OFFICE	acre	0.7	254.	195.
4267	6509	OTHER HEALTH CARE	acre	0.1	37.	27.
4267	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4267	7602	PASSIVE PARK	acre	5.3	0.	0.
4267	9101	INACTIVE USE	acre	54.7	0.	0.
4267		TOTAL			13223.	8959.
4268	101	SINGLE FAMILY	du	0.2	4.	2.
4268	102	MULTI-FAMILY	du	1132.4	12117.	8507.
4268	103	MOBILE HOME PARK	du	73.4	484.	321.
4268	4112	RIGHT-OF-WAY	acre	2.3	0.	0.
4268	4119	OTHER TRANSPORTATION	acre	0.7	82.	62.
4268	5007	STREETFRONT COMMERCIAL	acre	1.7	2489.	1807.
4268	7601	ACTIVE PARK	acre	3.1	206.	135.
4268		TOTAL			15381.	10835.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4269	101	SINGLE FAMILY			du	15.4	241.	168.
4269	102	MULTI-FAMILY			du	706.1	7555.	5304.
4269	4114	PARKING			acre	0.3	0.	0.
4269	5007	STREETFRONT COMMERCIAL			acre	3.1	4651.	3376.
4269	6001	HIGH RISE OFFICE			acre	1.9	5114.	4052.
4269	6002	LOW RISE OFFICE			acre	1.5	540.	414.
4269	6102	CHURCH			acre	0.2	13.	10.
4269	6502	HOSPITAL			acre	13.3	4489.	3302.
4269	6509	OTHER HEALTH CARE			acre	4.1	2022.	1500.
4269	6805	JUNIOR HIGH OR MIDDLE SCHOOL			acre	1.0	4206.	2586.
4269	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4269		TOTAL					30949.	21898.
4270	101	SINGLE FAMILY			du	874.0	13634.	9514.
4270	102	MULTI-FAMILY			du	328.0	3510.	2464.
4270	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4270	7601	ACTIVE PARK			acre	11.6	771.	507.
4270	7602	PASSIVE PARK			acre	3.0	0.	0.
4270	9101	INACTIVE USE			acre	51.1	0.	0.
4270		TOTAL					20033.	13670.
4271	101	SINGLE FAMILY			du	437.0	6817.	4757.
4271	102	MULTI-FAMILY			du	9.0	96.	68.
4271	4113	COMMUNICATION OR UTILITY			acre	0.2	1.	1.
4271	6102	CHURCH			acre	7.6	405.	311.
4271	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4271	7601	ACTIVE PARK			acre	6.0	398.	262.
4271		TOTAL					9835.	6583.
4272	2001	HEAVY INDUSTRY			acre	9.5	739.	611.
4272	2103	LIGHT INDUSTRY			acre	8.7	874.	706.
4272	4113	COMMUNICATION OR UTILITY			acre	3.7	15.	11.
4272	6002	LOW RISE OFFICE			acre	11.4	4078.	3126.
4272	9101	INACTIVE USE			acre	18.2	0.	0.
4272		TOTAL					5706.	4455.
4273	101	SINGLE FAMILY			du	515.0	8034.	5606.
4273	4113	COMMUNICATION OR UTILITY			acre	4.3	17.	13.
4273	6102	CHURCH			acre	2.5	131.	100.
4273	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4273	6809	OTHER SCHOOL			acre	1.8	352.	290.
4273	7601	ACTIVE PARK			acre	5.9	393.	259.
4273	9101	INACTIVE USE			acre	22.0	0.	0.
4273		TOTAL					11045.	7454.
4274	102	MULTI-FAMILY			du	499.5	5344.	3752.
4274	5007	STREETFRONT COMMERCIAL			acre	0.2	266.	193.
4274	9101	INACTIVE USE			acre	5.5	0.	0.
4274		TOTAL					5610.	3945.
4275	101	SINGLE FAMILY			du	278.0	4337.	3026.
4275	102	MULTI-FAMILY			du	280.0	2996.	2103.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4275	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre		1.0		4206.	2586.
4275	7601	ACTIVE PARK	acre		11.2		749.	493.
4275	9101	INACTIVE USE	acre		26.1		0.	0.
4275		TOTAL					12287.	8208.
4276	101	SINGLE FAMILY	du		9.1		142.	99.
4276	102	MULTI-FAMILY	du		862.7		9231.	6481.
4276	103	MOBILE HOME PARK	du		13.9		92.	61.
4276	1501	LOW-RISE HOTEL OR MOTEL	acre		1.8		622.	383.
4276	5007	STREETFRONT COMMERCIAL	acre		13.1		19621.	14244.
4276	6001	HIGH RISE OFFICE	acre		0.2		427.	338.
4276	6002	LOW RISE OFFICE	acre		0.5		189.	145.
4276	6102	CHURCH	acre		0.1		7.	6.
4276		TOTAL					30330.	21757.
4277	101	SINGLE FAMILY	du		54.5		849.	593.
4277	102	MULTI-FAMILY	du		152.2		1628.	1143.
4277	1401	JAIL	acre		2.4		44.	32.
4277	4113	COMMUNICATION OR UTILITY	acre		0.7		3.	2.
4277	5007	STREETFRONT COMMERCIAL	acre		0.2		313.	227.
4277	6001	HIGH RISE OFFICE	acre		0.5		1452.	1151.
4277	6002	LOW RISE OFFICE	acre		2.1		753.	577.
4277	6003	GOV'T OFFICE OR CENTER	acre		12.4		13143.	9867.
4277	6509	OTHER HEALTH CARE	acre		0.3		132.	98.
4277	7210	OTHER RECREATION	acre		0.1		1.	0.
4277		TOTAL					18317.	13690.
4278	1501	LOW-RISE HOTEL OR MOTEL	acre		2.6		895.	552.
4278	2103	LIGHT INDUSTRY	acre		4.1		412.	333.
4278	4114	PARKING	acre		1.0		0.	0.
4278	5003	COMMUNITY COMMERCIAL	acre		14.9		12520.	8858.
4278	9101	INACTIVE USE	acre		9.6		0.	0.
4278		TOTAL					13827.	9743.
4279	101	SINGLE FAMILY	du		543.0		8471.	5911.
4279	102	MULTI-FAMILY	du		90.0		963.	676.
4279	5004	NEIGHBORHOOD COMMERCIAL	acre		1.8		2738.	1937.
4279	5007	STREETFRONT COMMERCIAL	acre		0.1		129.	93.
4279	9101	INACTIVE USE	acre		7.0		0.	0.
4279		TOTAL					12300.	8618.
4280	101	SINGLE FAMILY	du		298.0		4650.	3244.
4280		TOTAL					4650.	3244.
4281	5007	STREETFRONT COMMERCIAL	acre		0.3		510.	370.
4281	7207	MARINA	acre		9.7		540.	369.
4281	7601	ACTIVE PARK	acre		14.2		943.	621.
4281	9101	INACTIVE USE	acre		1.3		0.	0.
4281		TOTAL					1993.	1359.
4282	101	SINGLE FAMILY	du		67.7		1056.	737.
4282	102	MULTI-FAMILY	du		277.1		2965.	2082.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4282	5007	STREETFRONT COMMERCIAL	acre	0.3		505.	367.	
4282	6002	LOW RISE OFFICE	acre	4.1		1449.	1111.	
4282	6509	OTHER HEALTH CARE	acre	0.1		60.	45.	
4282	6809	OTHER SCHOOL	acre	0.1		9.	7.	
4282		TOTAL				6045.	4348.	
4283	102	MULTI-FAMILY	du	681.2		7289.	5117.	
4283	1502	HIGH-RISE HOTEL	acre	0.4		621.	383.	
4283	4111	TRANSIT STATION	acre	1.1		308.	235.	
4283	4112	RIGHT-OF-WAY	acre	2.5		0.	0.	
4283	5007	STREETFRONT COMMERCIAL	acre	1.4		2053.	1491.	
4283	6001	HIGH RISE OFFICE	acre	0.8		2114.	1675.	
4283		TOTAL				12385.	8901.	
4284	5003	COMMUNITY COMMERCIAL	acre	42.0		35284.	24965.	
4284		TOTAL				35284.	24965.	
4285	102	MULTI-FAMILY	du	704.8		7541.	5294.	
4285		TOTAL				7541.	5294.	
4286	2001	HEAVY INDUSTRY	acre	44.9		3495.	2889.	
4286	2103	LIGHT INDUSTRY	acre	3.4		337.	272.	
4286	9101	INACTIVE USE	acre	1.0		0.	0.	
4286		TOTAL				3832.	3162.	
4287	102	MULTI-FAMILY	du	410.3		4390.	3082.	
4287	5002	REGIONAL COMMERCIAL	acre	38.2		28722.	20280.	
4287	6002	LOW RISE OFFICE	acre	8.6		3054.	2341.	
4287		TOTAL				36167.	25704.	
4288	101	SINGLE FAMILY	du	175.0		2730.	1905.	
4288	102	MULTI-FAMILY	du	76.0		813.	571.	
4288	7210	OTHER RECREATION	acre	0.3		2.	1.	
4288		TOTAL				3545.	2477.	
4289	7601	ACTIVE PARK	acre	25.7		1709.	1124.	
4289	9101	INACTIVE USE	acre	1418.0		0.	0.	
4289		TOTAL				1709.	1124.	
4290	102	MULTI-FAMILY	du	269.0		2878.	2021.	
4290	6102	CHURCH	acre	8.9		476.	365.	
4290	7607	RESIDENTIAL RECREATION	acre	4.0		0.	0.	
4290	9101	INACTIVE USE	acre	4.1		0.	0.	
4290		TOTAL				3354.	2386.	
4291	102	MULTI-FAMILY	du	330.0		3530.	2479.	
4291	9101	INACTIVE USE	acre	15.4		0.	0.	
4291		TOTAL				3530.	2479.	
4292	7208	OTC	acre	149.6		1002.	684.	
4292		TOTAL				1002.	684.	

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4293	101	SINGLE FAMILY			du	319.0	4976.	3473.
4293	4113	COMMUNICATION OR UTILITY			acre	3.8	15.	12.
4293	7601	ACTIVE PARK			acre	4.5	297.	195.
4293	9101	INACTIVE USE			acre	31.6	0.	0.
4293		TOTAL					5289.	3680.
4294	5007	STREETFRONT COMMERCIAL			acre	0.9	1331.	966.
4294	6105	FIRE OR POLICE STATION			acre	0.6	187.	138.
4294	6805	JUNIOR HIGH OR MIDDLE SCHOOL			acre	1.0	4206.	2586.
4294	6807	SCHOOL DISTRICT OFFICE			acre	11.0	2772.	2125.
4294		TOTAL					8495.	5815.
4295	101	SINGLE FAMILY			du	164.0	2558.	1785.
4295	102	MULTI-FAMILY			du	710.0	7597.	5334.
4295	5007	STREETFRONT COMMERCIAL			acre	1.1	1675.	1216.
4295	7601	ACTIVE PARK			acre	5.6	372.	245.
4295	9101	INACTIVE USE			acre	22.2	0.	0.
4295		TOTAL					12202.	8579.
4296	101	SINGLE FAMILY			du	937.4	14623.	10204.
4296	102	MULTI-FAMILY			du	1346.5	14408.	10115.
4296	5007	STREETFRONT COMMERCIAL			acre	5.2	7742.	5621.
4296	6102	CHURCH			acre	13.6	724.	556.
4296	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4296	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4296	6809	OTHER SCHOOL			acre	0.1	14.	12.
4296	7601	ACTIVE PARK			acre	7.6	505.	332.
4296	7607	RESIDENTIAL RECREATION			acre	2.9	0.	0.
4296	9101	INACTIVE USE			acre	20.7	0.	0.
4296		TOTAL					45503.	30447.
4297	101	SINGLE FAMILY			du	68.0	1061.	740.
4297	102	MULTI-FAMILY			du	190.0	2033.	1427.
4297	5007	STREETFRONT COMMERCIAL			acre	2.4	3616.	2625.
4297	6002	LOW RISE OFFICE			acre	10.3	3679.	2820.
4297		TOTAL					10389.	7612.
4298	102	MULTI-FAMILY			du	394.1	4217.	2960.
4298	5011	EASTLAKE REGIONAL COM			acre	1092.6	77359.	54622.
4298		TOTAL					81575.	57583.
4299	101	SINGLE FAMILY			du	659.0	10280.	7174.
4299	4113	COMMUNICATION OR UTILITY			acre	18.4	74.	56.
4299	7601	ACTIVE PARK			acre	3.2	216.	142.
4299	9101	INACTIVE USE			acre	14.3	0.	0.
4299		TOTAL					10570.	7372.
4300	101	SINGLE FAMILY			du	4.3	67.	47.
4300	102	MULTI-FAMILY			du	93.0	995.	698.
4300	1501	LOW-RISE HOTEL OR MOTEL			acre	2.2	737.	455.
4300	5004	NEIGHBORHOOD COMMERCIAL			acre	1.7	2573.	1821.
4300	5007	STREETFRONT COMMERCIAL			acre	10.6	15807.	11476.

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Zone	Code	Name	Type	Amount	Trips	
					Person	Vehicle
4300	6001	HIGH RISE OFFICE	acre	1.1	2915.	2310.
4300		TOTAL			23095.	16806.
4301	1501	LOW-RISE HOTEL OR MOTEL	acre	5.0	1703.	1050.
4301	2103	LIGHT INDUSTRY	acre	4.8	482.	390.
4301	7601	ACTIVE PARK	acre	3.9	260.	171.
4301	9101	INACTIVE USE	acre	2.9	0.	0.
4301		TOTAL			2445.	1611.
4302	101	SINGLE FAMILY	du	372.0	5803.	4050.
4302	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4302	6809	OTHER SCHOOL	acre	1.8	358.	295.
4302	9101	INACTIVE USE	acre	56.6	0.	0.
4302		TOTAL			8280.	5530.
4303	101	SINGLE FAMILY	du	4.8	74.	52.
4303	102	MULTI-FAMILY	du	189.2	2025.	1421.
4303	103	MOBILE HOME PARK	du	17.5	115.	77.
4303	1501	LOW-RISE HOTEL OR MOTEL	acre	0.1	33.	21.
4303	5007	STREETFRONT COMMERCIAL	acre	6.8	10129.	7353.
4303	6001	HIGH RISE OFFICE	acre	2.1	5836.	4624.
4303	6002	LOW RISE OFFICE	acre	0.1	29.	22.
4303		TOTAL			18241.	13570.
4304	101	SINGLE FAMILY	du	296.0	4618.	3222.
4304	102	MULTI-FAMILY	du	21.0	225.	158.
4304		TOTAL			4842.	3380.
4305	101	SINGLE FAMILY	du	691.0	10780.	7522.
4305	102	MULTI-FAMILY	du	897.0	9598.	6738.
4305	5007	STREETFRONT COMMERCIAL	acre	3.8	5683.	4126.
4305	6102	CHURCH	acre	3.6	190.	146.
4305	6509	OTHER HEALTH CARE	acre	4.7	2280.	1692.
4305	7601	ACTIVE PARK	acre	6.7	448.	295.
4305	7602	PASSIVE PARK	acre	0.9	0.	0.
4305	9101	INACTIVE USE	acre	1.0	0.	0.
4305		TOTAL			28978.	20518.
4306	5003	COMMUNITY COMMERCIAL	acre	17.8	14961.	10585.
4306		TOTAL			14961.	10585.
4307	2001	HEAVY INDUSTRY	acre	7.7	601.	497.
4307	4113	COMMUNICATION OR UTILITY	acre	2.5	10.	8.
4307	5003	COMMUNITY COMMERCIAL	acre	8.2	6892.	4877.
4307	5007	STREETFRONT COMMERCIAL	acre	12.6	18779.	13633.
4307	6002	LOW RISE OFFICE	acre	3.3	1176.	901.
4307	7601	ACTIVE PARK	acre	1.8	118.	78.
4307	9101	INACTIVE USE	acre	9.9	0.	0.
4307		TOTAL			27576.	19993.
4308	102	MULTI-FAMILY	du	183.0	1958.	1375.
4308	6102	CHURCH	acre	3.5	190.	146.

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Zone	Code	Name	Land Use		Type	Amount	-----Trips-----	
							Person	Vehicle
4308	6809	OTHER SCHOOL			acre	1.1	220.	181.
4308	9101	INACTIVE USE			acre	2.3	0.	0.
4308		TOTAL					2368.	1702.
4309	101	SINGLE FAMILY			du	328.0	5117.	3571.
4309	102	MULTI-FAMILY			du	56.0	599.	421.
4309		TOTAL					5716.	3991.
4310	1501	LOW-RISE HOTEL OR MOTEL			acre	3.3	1110.	684.
4310	2103	LIGHT INDUSTRY			acre	1.3	128.	103.
4310	4114	PARKING			acre	1.1	0.	0.
4310	7210	OTHER RECREATION			acre	13.3	88.	60.
4310	7601	ACTIVE PARK			acre	5.6	373.	245.
4310		TOTAL					1698.	1093.
4311	101	SINGLE FAMILY			du	112.0	1747.	1219.
4311	102	MULTI-FAMILY			du	142.0	1519.	1067.
4311	6002	LOW RISE OFFICE			acre	0.3	96.	74.
4311	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4311	6809	OTHER SCHOOL			acre	0.1	16.	13.
4311		TOTAL					5498.	3558.
4312	101	SINGLE FAMILY			du	726.0	11326.	7903.
4312	5007	STREETFRONT COMMERCIAL			acre	0.4	598.	434.
4312	6102	CHURCH			acre	2.1	113.	87.
4312	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4312		TOTAL					14155.	9609.
4313	101	SINGLE FAMILY			du	10.8	169.	118.
4313	102	MULTI-FAMILY			du	152.0	1626.	1142.
4313	1501	LOW-RISE HOTEL OR MOTEL			acre	0.4	153.	94.
4313	5007	STREETFRONT COMMERCIAL			acre	0.8	1237.	898.
4313	6002	LOW RISE OFFICE			acre	0.1	43.	33.
4313	6509	OTHER HEALTH CARE			acre	0.1	60.	45.
4313	7210	OTHER RECREATION			acre	2.1	14.	9.
4313	9101	INACTIVE USE			acre	6.4	0.	0.
4313		TOTAL					3301.	2338.
4315	101	SINGLE FAMILY			du	406.3	6339.	4423.
4315	6102	CHURCH			acre	1.8	96.	74.
4315	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4315	7601	ACTIVE PARK			acre	3.3	220.	145.
4315	9101	INACTIVE USE			acre	2.2	0.	0.
4315		TOTAL					8773.	5827.
4316	101	SINGLE FAMILY			du	137.1	2139.	1493.
4316	102	MULTI-FAMILY			du	230.4	2465.	1730.
4316	103	MOBILE HOME PARK			du	14.3	94.	63.
4316	4112	RIGHT-OF-WAY			acre	5.6	0.	0.
4316	5007	STREETFRONT COMMERCIAL			acre	2.6	3938.	2859.
4316	6001	HIGH RISE OFFICE			acre	0.9	2401.	1902.
4316	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4316		TOTAL					13156.	9232.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4317	101	SINGLE FAMILY			du	162.1	2529.	1765.
4317	102	MULTI-FAMILY			du	107.9	1154.	810.
4317	5007	STREETFRONT COMMERCIAL			acre	4.6	6818.	4950.
4317	6002	LOW RISE OFFICE			acre	0.6	197.	151.
4317		TOTAL					10699.	7676.
4318	101	SINGLE FAMILY			du	70.0	1092.	762.
4318	102	MULTI-FAMILY			du	127.0	1359.	954.
4318	5004	NEIGHBORHOOD COMMERCIAL			acre	6.1	9246.	6542.
4318	5007	STREETFRONT COMMERCIAL			acre	2.5	3763.	2732.
4318	6002	LOW RISE OFFICE			acre	4.5	1615.	1238.
4318	6104	POST OFFICE			acre	4.7	5211.	3622.
4318	6109	OTHER PUBLIC SERVICE			acre	0.6	240.	173.
4318		TOTAL					22525.	16023.
4319	101	SINGLE FAMILY			du	295.0	4602.	3211.
4319	6102	CHURCH			acre	1.8	97.	75.
4319	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4319		TOTAL					6818.	4471.
4320	101	SINGLE FAMILY			du	203.0	3167.	2210.
4320	102	MULTI-FAMILY			du	611.8	6546.	4596.
4320	5004	NEIGHBORHOOD COMMERCIAL			acre	10.0	15262.	10798.
4320	6102	CHURCH			acre	7.3	388.	298.
4320	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4320	7601	ACTIVE PARK			acre	10.0	666.	438.
4320	7602	PASSIVE PARK			acre	0.8	0.	0.
4320	9101	INACTIVE USE			acre	11.2	0.	0.
4320		TOTAL					28147.	19525.
4321	101	SINGLE FAMILY			du	300.2	4683.	3268.
4321	102	MULTI-FAMILY			du	103.0	1102.	774.
4321	6002	LOW RISE OFFICE			acre	0.5	193.	148.
4321	9101	INACTIVE USE			acre	0.1	0.	0.
4321		TOTAL					5978.	4189.
4322	101	SINGLE FAMILY			du	495.5	7731.	5394.
4322	102	MULTI-FAMILY			du	4.0	43.	30.
4322	6102	CHURCH			acre	3.9	208.	160.
4322	9101	INACTIVE USE			acre	0.1	0.	0.
4322		TOTAL					7982.	5584.
4323	2103	LIGHT INDUSTRY			acre	1.0	98.	79.
4323	4113	COMMUNICATION OR UTILITY			acre	2.5	10.	8.
4323	5007	STREETFRONT COMMERCIAL			acre	1.4	2092.	1519.
4323	6002	LOW RISE OFFICE			acre	4.8	1701.	1304.
4323	7601	ACTIVE PARK			acre	1.5	98.	65.
4323	9101	INACTIVE USE			acre	0.9	0.	0.
4323		TOTAL					3999.	2974.
4324	101	SINGLE FAMILY			du	174.1	2716.	1895.
4324	7210	OTHER RECREATION			acre	2.5	16.	11.

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Zone	Code	Name	Land Use	Type	Amount	-----Trips-----	
						Person	Vehicle
4324	9101	INACTIVE USE		acre	0.6	0.	0.
4324		TOTAL				2732.	1906.
4325	101	SINGLE FAMILY		du	563.0	8783.	6129.
4325	6105	FIRE OR POLICE STATION		acre	1.5	476.	351.
4325	7601	ACTIVE PARK		acre	3.7	248.	163.
4325	9101	INACTIVE USE		acre	23.1	0.	0.
4325		TOTAL				9507.	6643.
4326	5003	COMMUNITY COMMERCIAL		acre	25.0	20982.	14845.
4326	9101	INACTIVE USE		acre	7.4	0.	0.
4326		TOTAL				20982.	14845.
4327	101	SINGLE FAMILY		du	400.0	6240.	4354.
4327	9101	INACTIVE USE		acre	35.0	0.	0.
4327		TOTAL				6240.	4354.
4328	101	SINGLE FAMILY		du	92.0	1435.	1002.
4328	102	MULTI-FAMILY		du	366.7	3924.	2755.
4328	1501	LOW-RISE HOTEL OR MOTEL		acre	0.2	54.	33.
4328	5007	STREETFRONT COMMERCIAL		acre	5.6	8313.	6035.
4328	6002	LOW RISE OFFICE		acre	0.8	275.	211.
4328		TOTAL				14002.	10036.
4329	102	MULTI-FAMILY		du	201.0	2151.	1510.
4329	9101	INACTIVE USE		acre	4.2	0.	0.
4329		TOTAL				2151.	1510.
4330	101	SINGLE FAMILY		du	297.0	4633.	3233.
4330	6102	CHURCH		acre	1.6	87.	66.
4330	6806	ELEMENTARY SCHOOL		acre	1.0	2119.	1185.
4330		TOTAL				6838.	4485.
4331	101	SINGLE FAMILY		du	940.7	14674.	10240.
4331	102	MULTI-FAMILY		du	2946.0	31522.	22130.
4331	2103	LIGHT INDUSTRY		acre	36.5	3657.	2956.
4331	5021	MIXED USE COMMERCIAL		acre	130.0	19669.	14279.
4331	6105	FIRE OR POLICE STATION		acre	1.7	526.	388.
4331	6109	OTHER PUBLIC SERVICE		acre	17.5	6995.	5057.
4331	6804	SENIOR HIGH SCHOOL		acre	1.0	5369.	2423.
4331	6806	ELEMENTARY SCHOOL		acre	1.0	2119.	1185.
4331	7601	ACTIVE PARK		acre	19.8	1319.	868.
4331	9101	INACTIVE USE		acre	138.7	0.	0.
4331		TOTAL				85850.	59525.
4332	101	SINGLE FAMILY		du	15.9	247.	173.
4332	102	MULTI-FAMILY		du	261.0	2793.	1961.
4332	5004	NEIGHBORHOOD COMMERCIAL		acre	5.3	8058.	5702.
4332	5007	STREETFRONT COMMERCIAL		acre	2.8	4196.	3046.
4332	6002	LOW RISE OFFICE		acre	8.7	3115.	2388.
4332	6509	OTHER HEALTH CARE		acre	0.8	410.	304.
4332	9101	INACTIVE USE		acre	0.1	0.	0.
4332		TOTAL				18820.	13573.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4333	102	MULTI-FAMILY			du	108.0	1156.	811.
4333	9101	INACTIVE USE			acre	9.4	0.	0.
4333		TOTAL					1156.	811.
4334	101	SINGLE FAMILY			du	161.0	2512.	1753.
4334	102	MULTI-FAMILY			du	14.0	150.	105.
4334	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4334		TOTAL					8030.	4280.
4335	101	SINGLE FAMILY			du	21.0	328.	229.
4335	102	MULTI-FAMILY			du	85.0	909.	639.
4335	5007	STREETFRONT COMMERCIAL			acre	1.9	2886.	2095.
4335	7204	GOLF COURSE			acre	148.6	0.	0.
4335	7205	GOLF CLUB HOUSE			acre	1.0	709.	484.
4335	9101	INACTIVE USE			acre	1.3	0.	0.
4335		TOTAL					4832.	3446.
4336	101	SINGLE FAMILY			du	1.0	16.	11.
4336	4113	COMMUNICATION OR UTILITY			acre	0.0	0.	0.
4336	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4336	7601	ACTIVE PARK			acre	6.7	447.	294.
4336		TOTAL					2581.	1490.
4337	101	SINGLE FAMILY			du	237.0	3697.	2580.
4337	9101	INACTIVE USE			acre	16.2	0.	0.
4337		TOTAL					3697.	2580.
4338	101	SINGLE FAMILY			du	282.5	4407.	3075.
4338	102	MULTI-FAMILY			du	448.5	4799.	3369.
4338	6805	JUNIOR HIGH OR MIDDLE SCHOOL			acre	1.0	4206.	2586.
4338	9101	INACTIVE USE			acre	8.8	0.	0.
4338		TOTAL					13412.	9030.
4339	102	MULTI-FAMILY			du	132.0	1412.	992.
4339	1409	OTHER GROUP QUARTERS			acre	30.6	147.	103.
4339	6502	HOSPITAL			acre	26.5	8948.	6582.
4339	6509	OTHER HEALTH CARE			acre	13.7	6709.	4978.
4339		TOTAL					17217.	12654.
4340	101	SINGLE FAMILY			du	359.0	5600.	3908.
4340	4113	COMMUNICATION OR UTILITY			acre	7.2	29.	22.
4340	7210	OTHER RECREATION			acre	9.1	60.	41.
4340	7601	ACTIVE PARK			acre	20.0	1332.	877.
4340		TOTAL					7021.	4848.
4341	4114	PARKING			acre	0.1	0.	0.
4341	5007	STREETFRONT COMMERCIAL			acre	9.2	13751.	9983.
4341	6002	LOW RISE OFFICE			acre	1.6	559.	429.
4341	7601	ACTIVE PARK			acre	2.4	159.	105.
4341	9101	INACTIVE USE			acre	1.7	0.	0.
4341		TOTAL					14469.	10516.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4342	101	SINGLE FAMILY			du	90.0	1404.	980.
4342	102	MULTI-FAMILY			du	286.0	3060.	2148.
4342	2103	LIGHT INDUSTRY			acre	19.0	1900.	1535.
4342	2104	WAREHOUSING OR STORAGE			acre	3.6	119.	97.
4342	4112	RIGHT-OF-WAY			acre	4.2	0.	0.
4342	7210	OTHER RECREATION			acre	1.9	12.	8.
4342	9101	INACTIVE USE			acre	0.5	0.	0.
4342		TOTAL					6495.	4769.
4343	5007	STREETFRONT COMMERCIAL			acre	14.2	21275.	15445.
4343	7601	ACTIVE PARK			acre	2.7	180.	119.
4343	9101	INACTIVE USE			acre	4.2	0.	0.
4343		TOTAL					21455.	15564.
4344	101	SINGLE FAMILY			du	66.0	1030.	718.
4344	102	MULTI-FAMILY			du	275.8	2951.	2072.
4344	1501	LOW-RISE HOTEL OR MOTEL			acre	0.1	47.	29.
4344	5007	STREETFRONT COMMERCIAL			acre	4.6	6808.	4942.
4344	5009	OTHER COMMERCIAL			acre	4.1	520.	378.
4344	6002	LOW RISE OFFICE			acre	0.7	253.	194.
4344	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4344		TOTAL					13727.	9518.
4345	102	MULTI-FAMILY			du	2883.8	30857.	21663.
4345	1502	HIGH-RISE HOTEL			acre	8.5	13686.	8437.
4345	5002	REGIONAL COMMERCIAL			acre	22.7	17066.	12050.
4345	6001	HIGH RISE OFFICE			acre	8.9	24300.	19254.
4345	6002	LOW RISE OFFICE			acre	8.1	2875.	2204.
4345	6007	OFFICE			acre	370.9	5786.	4435.
4345	6105	FIRE OR POLICE STATION			acre	1.2	361.	266.
4345	6109	OTHER PUBLIC SERVICE			acre	13.1	5220.	3773.
4345	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4345	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4345	7601	ACTIVE PARK			acre	22.3	1487.	979.
4345		TOTAL					109125.	76669.
4346	101	SINGLE FAMILY			du	509.0	7940.	5541.
4346	7601	ACTIVE PARK			acre	5.6	373.	245.
4346	9101	INACTIVE USE			acre	29.5	0.	0.
4346		TOTAL					8313.	5786.
4347	101	SINGLE FAMILY			du	1.6	25.	17.
4347	102	MULTI-FAMILY			du	384.2	4111.	2886.
4347	4113	COMMUNICATION OR UTILITY			acre	0.1	0.	0.
4347	5007	STREETFRONT COMMERCIAL			acre	2.2	3371.	2447.
4347	6102	CHURCH			acre	3.2	170.	130.
4347	6509	OTHER HEALTH CARE			acre	4.5	2188.	1623.
4347	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4347	9101	INACTIVE USE			acre	4.2	0.	0.
4347		TOTAL					11983.	8289.
4348	101	SINGLE FAMILY			du	283.0	4415.	3081.

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Zone	Code	Name	Type	Amount	Trips	
					Person	Vehicle
4348	4113	COMMUNICATION OR UTILITY	acre	2.5	10.	8.
4348	6102	CHURCH	acre	1.0	51.	39.
4348	7601	ACTIVE PARK	acre	2.7	180.	119.
4348	9101	INACTIVE USE	acre	0.3	0.	0.
4348		TOTAL			4657.	3247.
4350	6811	ELEMENTARY SCHOOL	acre	60.0	6468.	3618.
4350		TOTAL			6468.	3618.
4351	101	SINGLE FAMILY	du	861.0	13431.	9372.
4351	102	MULTI-FAMILY	du	355.3	3801.	2669.
4351	5007	STREETFRONT COMMERCIAL	acre	5.6	8321.	6041.
4351	6109	OTHER PUBLIC SERVICE	acre	4.9	1946.	1407.
4351	6804	SENIOR HIGH SCHOOL	acre	1.0	5369.	2423.
4351	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4351	7601	ACTIVE PARK	acre	7.2	479.	315.
4351	9101	INACTIVE USE	acre	45.3	0.	0.
4351		TOTAL			35465.	23411.
4352	101	SINGLE FAMILY	du	211.0	3292.	2297.
4352	102	MULTI-FAMILY	du	205.5	2198.	1543.
4352	6102	CHURCH	acre	1.9	101.	78.
4352	6806	ELEMENTARY SCHOOL	acre	2.0	4237.	2370.
4352	9101	INACTIVE USE	acre	0.6	0.	0.
4352		TOTAL			9828.	6288.
4353	2101	INDUSTRIAL PARK	acre	65.7	12618.	10344.
4353	6810	UCCV	acre	200.9	36204.	28919.
4353		TOTAL			48821.	39262.
4354	2001	HEAVY INDUSTRY	acre	25.6	1994.	1648.
4354	2103	LIGHT INDUSTRY	acre	47.6	4771.	3856.
4354	2201	EXTRACTIVE INDUSTRY	acre	52.6	79.	65.
4354	4113	COMMUNICATION OR UTILITY	acre	86.9	348.	265.
4354		TOTAL			7191.	5835.
4355	101	SINGLE FAMILY	du	459.0	7160.	4997.
4355	4113	COMMUNICATION OR UTILITY	acre	0.7	3.	2.
4355	6102	CHURCH	acre	5.4	288.	221.
4355	6109	OTHER PUBLIC SERVICE	acre	2.3	931.	673.
4355	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4355		TOTAL			10502.	7079.
4356	102	MULTI-FAMILY	du	609.0	6516.	4575.
4356	5003	COMMUNITY COMMERCIAL	acre	12.4	10405.	7362.
4356	7601	ACTIVE PARK	acre	10.0	668.	440.
4356		TOTAL			17589.	12376.
4357	101	SINGLE FAMILY	du	12.7	199.	139.
4357	102	MULTI-FAMILY	du	645.6	6908.	4850.
4357	1501	LOW-RISE HOTEL OR MOTEL	acre	0.2	58.	36.
4357	2103	LIGHT INDUSTRY	acre	11.5	1149.	929.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4357	2104	WAREHOUSING OR STORAGE	acre	0.3	acre	0.3	10.	8.
4357	5007	STREETFRONT COMMERCIAL	acre	5.9	acre	5.9	8906.	6465.
4357	6002	LOW RISE OFFICE	acre	0.9	acre	0.9	341.	261.
4357	7210	OTHER RECREATION	acre	1.2	acre	1.2	8.	6.
4357	9101	INACTIVE USE	acre	0.1	acre	0.1	0.	0.
4357		TOTAL					17578.	12693.
4358	101	SINGLE FAMILY	du	557.0	du	557.0	8689.	6063.
4358	6806	ELEMENTARY SCHOOL	acre	1.0	acre	1.0	2119.	1185.
4358	9101	INACTIVE USE	acre	79.6	acre	79.6	0.	0.
4358		TOTAL					10808.	7248.
4359	101	SINGLE FAMILY	du	3.2	du	3.2	50.	35.
4359	102	MULTI-FAMILY	du	312.5	du	312.5	3344.	2348.
4359	5003	COMMUNITY COMMERCIAL	acre	17.6	acre	17.6	14810.	10479.
4359	5007	STREETFRONT COMMERCIAL	acre	4.1	acre	4.1	6149.	4464.
4359		TOTAL					24353.	17325.
4360	101	SINGLE FAMILY	du	290.0	du	290.0	4524.	3157.
4360	102	MULTI-FAMILY	du	105.9	du	105.9	1133.	795.
4360	6809	OTHER SCHOOL	acre	0.2	acre	0.2	47.	39.
4360	9101	INACTIVE USE	acre	0.1	acre	0.1	0.	0.
4360		TOTAL					5704.	3991.
4361	101	SINGLE FAMILY	du	455.3	du	455.3	7103.	4957.
4361	102	MULTI-FAMILY	du	93.0	du	93.0	995.	699.
4361	4113	COMMUNICATION OR UTILITY	acre	2.5	acre	2.5	10.	8.
4361	6102	CHURCH	acre	3.4	acre	3.4	181.	139.
4361	6806	ELEMENTARY SCHOOL	acre	1.0	acre	1.0	2119.	1185.
4361	9101	INACTIVE USE	acre	0.2	acre	0.2	0.	0.
4361		TOTAL					10408.	6987.
4362	101	SINGLE FAMILY	du	63.3	du	63.3	987.	689.
4362	102	MULTI-FAMILY	du	507.7	du	507.7	5433.	3814.
4362	6804	SENIOR HIGH SCHOOL	acre	1.0	acre	1.0	5369.	2423.
4362		TOTAL					11789.	6925.
4363	101	SINGLE FAMILY	du	47.9	du	47.9	747.	522.
4363	102	MULTI-FAMILY	du	381.0	du	381.0	4077.	2862.
4363	2103	LIGHT INDUSTRY	acre	53.7	acre	53.7	5382.	4350.
4363	7601	ACTIVE PARK	acre	3.2	acre	3.2	213.	140.
4363	9101	INACTIVE USE	acre	57.4	acre	57.4	0.	0.
4363		TOTAL					10419.	7874.
4364	101	SINGLE FAMILY	du	95.0	du	95.0	1482.	1034.
4364	102	MULTI-FAMILY	du	310.0	du	310.0	3317.	2329.
4364		TOTAL					4799.	3363.
4365	101	SINGLE FAMILY	du	95.0	du	95.0	1482.	1034.
4365	103	MOBILE HOME PARK	du	133.0	du	133.0	878.	582.
4365	2103	LIGHT INDUSTRY	acre	9.8	acre	9.8	986.	797.
4365	2104	WAREHOUSING OR STORAGE	acre	0.2	acre	0.2	8.	6.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4365	4112	RIGHT-OF-WAY			acre	2.8	0.	0.
4365	5004	NEIGHBORHOOD COMMERCIAL			acre	7.7	11675.	8261.
4365		TOTAL					15029.	10680.
4366	101	SINGLE FAMILY			du	428.0	6677.	4659.
4366	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4366	9101	INACTIVE USE			acre	10.6	0.	0.
4366		TOTAL					8795.	5844.
4367	101	SINGLE FAMILY			du	342.0	5335.	3723.
4367	102	MULTI-FAMILY			du	154.0	1648.	1157.
4367	4113	COMMUNICATION OR UTILITY			acre	18.4	73.	56.
4367	5007	STREETFRONT COMMERCIAL			acre	1.2	1795.	1303.
4367		TOTAL					8851.	6239.
4368	101	SINGLE FAMILY			du	104.1	1624.	1133.
4368	102	MULTI-FAMILY			du	543.8	5818.	4085.
4368	1501	LOW-RISE HOTEL OR MOTEL			acre	0.1	39.	24.
4368	5007	STREETFRONT COMMERCIAL			acre	4.1	6052.	4394.
4368	6002	LOW RISE OFFICE			acre	0.7	237.	182.
4368	9101	INACTIVE USE			acre	0.5	0.	0.
4368		TOTAL					13771.	9818.
4369	101	SINGLE FAMILY			du	30.9	481.	336.
4369	102	MULTI-FAMILY			du	538.7	5764.	4047.
4369	103	MOBILE HOME PARK			du	29.3	193.	128.
4369	2104	WAREHOUSING OR STORAGE			acre	0.5	17.	14.
4369	5007	STREETFRONT COMMERCIAL			acre	9.5	14209.	10315.
4369	5009	OTHER COMMERCIAL			acre	0.1	18.	13.
4369	6002	LOW RISE OFFICE			acre	0.6	205.	157.
4369	6104	POST OFFICE			acre	0.2	219.	152.
4369		TOTAL					21106.	15162.
4370	101	SINGLE FAMILY			du	482.0	7519.	5247.
4370	102	MULTI-FAMILY			du	14.0	150.	105.
4370	6102	CHURCH			acre	0.7	35.	27.
4370	9101	INACTIVE USE			acre	0.0	0.	0.
4370		TOTAL					7704.	5379.
4372	101	SINGLE FAMILY			du	73.3	1143.	798.
4372	102	MULTI-FAMILY			du	447.1	4784.	3359.
4372	2104	WAREHOUSING OR STORAGE			acre	0.7	22.	18.
4372		TOTAL					5949.	4174.
4373	101	SINGLE FAMILY			du	96.6	1507.	1051.
4373	102	MULTI-FAMILY			du	2423.3	25929.	18204.
4373	5018	COMMERCIAL/RETAIL			acre	231.8	13098.	9267.
4373	6007	OFFICE			acre	556.4	8679.	6653.
4373	6109	OTHER PUBLIC SERVICE			acre	3.1	1235.	893.
4373	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4373	7601	ACTIVE PARK			acre	18.8	1251.	823.
4373		TOTAL					53817.	38076.

Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4374	101	SINGLE FAMILY			du	382.0	5959.	4158.
4374	4113	COMMUNICATION OR UTILITY			acre	10.8	43.	33.
4374	7601	ACTIVE PARK			acre	2.4	160.	105.
4374	9101	INACTIVE USE			acre	0.1	0.	0.
4374		TOTAL					6162.	4297.
4375	102	MULTI-FAMILY			du	425.0	4547.	3193.
4375	7601	ACTIVE PARK			acre	44.6	2970.	1955.
4375		TOTAL					7518.	5147.
4376	101	SINGLE FAMILY			du	73.1	1141.	796.
4376	102	MULTI-FAMILY			du	156.1	1671.	1173.
4376	6807	SCHOOL DISTRICT OFFICE			acre	6.4	1607.	1232.
4376	9101	INACTIVE USE			acre	0.0	0.	0.
4376		TOTAL					4419.	3201.
4377	101	SINGLE FAMILY			du	2.0	32.	22.
4377	102	MULTI-FAMILY			du	617.0	6602.	4635.
4377	5007	STREETFRONT COMMERCIAL			acre	9.7	14490.	10519.
4377	6002	LOW RISE OFFICE			acre	0.1	32.	24.
4377	6102	CHURCH			acre	0.5	26.	20.
4377	7601	ACTIVE PARK			acre	3.9	260.	171.
4377		TOTAL					21441.	15392.
4378	101	SINGLE FAMILY			du	0.2	4.	2.
4378	102	MULTI-FAMILY			du	202.0	2161.	1517.
4378	5004	NEIGHBORHOOD COMMERCIAL			acre	3.2	4826.	3414.
4378	5007	STREETFRONT COMMERCIAL			acre	2.4	3526.	2560.
4378	6002	LOW RISE OFFICE			acre	2.1	736.	564.
4378		TOTAL					11253.	8058.
4379	2101	INDUSTRIAL PARK			acre	35.5	6828.	5598.
4379	9101	INACTIVE USE			acre	100.6	0.	0.
4379		TOTAL					6828.	5598.
4380	5003	COMMUNITY COMMERCIAL			acre	31.4	26331.	18630.
4380		TOTAL					26331.	18630.
4381	101	SINGLE FAMILY			du	71.0	1108.	773.
4381	102	MULTI-FAMILY			du	13.0	139.	98.
4381	5007	STREETFRONT COMMERCIAL			acre	1.5	2213.	1607.
4381	6804	SENIOR HIGH SCHOOL			acre	1.0	5369.	2423.
4381	7601	ACTIVE PARK			acre	8.6	573.	377.
4381		TOTAL					9402.	5277.
4382	2301	JUNKYARD/DUMP/LANDFILL			acre	486.7	7690.	6338.
4382	4113	COMMUNICATION OR UTILITY			acre	5.5	22.	17.
4382	7601	ACTIVE PARK			acre	23.2	1544.	1016.
4382		TOTAL					9256.	7371.
4383	101	SINGLE FAMILY			du	744.1	11609.	8101.
4383	102	MULTI-FAMILY			du	799.8	8558.	6008.

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----- Land Use -----						-----Trips-----	
Zone	Code	Name	Type	Amount		Person	Vehicle
4383	2103	LIGHT INDUSTRY	acre	17.9		1789.	1445.
4383	5021	MIXED USE COMMERCIAL	acre	15.4		2338.	1698.
4383	6002	LOW RISE OFFICE	acre	12.1		4332.	3321.
4383	6109	OTHER PUBLIC SERVICE	acre	1.5		618.	446.
4383	6806	ELEMENTARY SCHOOL	acre	1.0		2119.	1185.
4383	7601	ACTIVE PARK	acre	5.7		381.	251.
4383		TOTAL				31742.	22454.
4384	101	SINGLE FAMILY	du	56.6		884.	617.
4384	102	MULTI-FAMILY	du	850.5		9101.	6389.
4384	6805	JUNIOR HIGH OR MIDDLE SCHOOL	acre	1.0		4206.	2586.
4384		TOTAL				14190.	9592.
4386	101	SINGLE FAMILY	du	77.9		1215.	848.
4386	102	MULTI-FAMILY	du	54.4		582.	408.
4386	6102	CHURCH	acre	4.3		229.	176.
4386	6105	FIRE OR POLICE STATION	acre	0.4		137.	101.
4386	6806	ELEMENTARY SCHOOL	acre	1.0		2119.	1185.
4386	7601	ACTIVE PARK	acre	3.1		206.	135.
4386	9101	INACTIVE USE	acre	0.0		0.	0.
4386		TOTAL				4487.	2853.
4387	101	SINGLE FAMILY	du	2.5		39.	27.
4387	102	MULTI-FAMILY	du	242.8		2598.	1824.
4387	103	MOBILE HOME PARK	du	119.0		785.	521.
4387	1501	LOW-RISE HOTEL OR MOTEL	acre	0.2		66.	40.
4387	2103	LIGHT INDUSTRY	acre	0.3		26.	21.
4387	2104	WAREHOUSING OR STORAGE	acre	7.4		245.	200.
4387	4112	RIGHT-OF-WAY	acre	2.1		0.	0.
4387	5007	STREETFRONT COMMERCIAL	acre	1.5		2321.	1685.
4387	6002	LOW RISE OFFICE	acre	0.7		249.	191.
4387	6003	GOV'T OFFICE OR CENTER	acre	7.1		7488.	5621.
4387	6806	ELEMENTARY SCHOOL	acre	1.0		2119.	1185.
4387	7601	ACTIVE PARK	acre	5.2		347.	228.
4387		TOTAL				16282.	11544.
4389	101	SINGLE FAMILY	du	48.5		757.	528.
4389	102	MULTI-FAMILY	du	934.4		9998.	7019.
4389	5004	NEIGHBORHOOD COMMERCIAL	acre	2.2		3434.	2430.
4389	5007	STREETFRONT COMMERCIAL	acre	1.2		1735.	1259.
4389	6102	CHURCH	acre	0.7		36.	27.
4389	6804	SENIOR HIGH SCHOOL	acre	1.0		5369.	2423.
4389		TOTAL				21328.	13686.
4390	101	SINGLE FAMILY	du	655.6		10227.	7137.
4390	102	MULTI-FAMILY	du	279.7		2993.	2101.
4390	5007	STREETFRONT COMMERCIAL	acre	0.9		1271.	923.
4390	6806	ELEMENTARY SCHOOL	acre	1.0		2119.	1185.
4390	7601	ACTIVE PARK	acre	4.3		290.	191.
4390	7607	RESIDENTIAL RECREATION	acre	0.8		0.	0.
4390	9101	INACTIVE USE	acre	2.6		0.	0.
4390		TOTAL				16899.	11536.

Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4391	101	SINGLE FAMILY			du	253.5	3954.	2759.
4391	102	MULTI-FAMILY			du	1330.6	14238.	9996.
4391	4113	COMMUNICATION OR UTILITY			acre	19.6	78.	60.
4391	5017	COMMERCIAL/RETAIL			acre	193.2	21830.	15445.
4391	6006	OFFICE			acre	38.6	1005.	770.
4391	6109	OTHER PUBLIC SERVICE			acre	3.1	1235.	893.
4391	6805	JUNIOR HIGH OR MIDDLE SCHOOL			acre	1.0	4206.	2586.
4391	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4391	7601	ACTIVE PARK			acre	19.2	1276.	840.
4391		TOTAL					49940.	34534.
4392	101	SINGLE FAMILY			du	30.0	468.	327.
4392	102	MULTI-FAMILY			du	54.7	585.	411.
4392	5004	NEIGHBORHOOD COMMERCIAL			acre	20.3	30921.	21877.
4392	5007	STREETFRONT COMMERCIAL			acre	2.0	2969.	2155.
4392	9101	INACTIVE USE			acre	0.1	0.	0.
4392		TOTAL					34942.	24770.
4393	102	MULTI-FAMILY			du	365.5	3911.	2746.
4393	4112	RIGHT-OF-WAY			acre	0.7	0.	0.
4393	5003	COMMUNITY COMMERCIAL			acre	18.4	15456.	10936.
4393	5004	NEIGHBORHOOD COMMERCIAL			acre	3.2	4887.	3458.
4393	5007	STREETFRONT COMMERCIAL			acre	2.2	3257.	2365.
4393	6002	LOW RISE OFFICE			acre	1.1	389.	298.
4393	9101	INACTIVE USE			acre	0.9	0.	0.
4393		TOTAL					27900.	19802.
4394	101	SINGLE FAMILY			du	33.4	521.	364.
4394	102	MULTI-FAMILY			du	395.1	4228.	2968.
4394	103	MOBILE HOME PARK			du	296.0	1954.	1296.
4394	4113	COMMUNICATION OR UTILITY			acre	6.6	26.	20.
4394	7601	ACTIVE PARK			acre	9.2	611.	402.
4394		TOTAL					7340.	5049.
4396	101	SINGLE FAMILY			du	358.0	5585.	3897.
4396	2103	LIGHT INDUSTRY			acre	22.6	2269.	1834.
4396	9101	INACTIVE USE			acre	2.2	0.	0.
4396		TOTAL					7854.	5731.
4397	101	SINGLE FAMILY			du	192.0	2995.	2090.
4397	102	MULTI-FAMILY			du	54.0	578.	406.
4397	103	MOBILE HOME PARK			du	191.0	1261.	836.
4397	6102	CHURCH			acre	2.3	121.	93.
4397		TOTAL					4955.	3425.
4398	101	SINGLE FAMILY			du	107.5	1678.	1171.
4398	102	MULTI-FAMILY			du	201.0	2151.	1510.
4398	5004	NEIGHBORHOOD COMMERCIAL			acre	6.8	10454.	7397.
4398	7601	ACTIVE PARK			acre	19.1	1273.	838.
4398	9101	INACTIVE USE			acre	0.2	0.	0.
4398		TOTAL					15556.	10916.

Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4399	101	SINGLE FAMILY			du	399.0	6224.	4343.
4399	102	MULTI-FAMILY			du	118.0	1263.	886.
4399	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4399		TOTAL					9606.	6415.
4400	101	SINGLE FAMILY			du	6.1	96.	67.
4400	102	MULTI-FAMILY			du	3.4	36.	26.
4400	2103	LIGHT INDUSTRY			acre	1.2	118.	96.
4400	4113	COMMUNICATION OR UTILITY			acre	0.2	1.	1.
4400	5001	WHOLESALE TRADE			acre	0.5	22.	16.
4400	5007	STREETFRONT COMMERCIAL			acre	13.5	20240.	14694.
4400	6002	LOW RISE OFFICE			acre	31.7	11305.	8665.
4400	9101	INACTIVE USE			acre	1.5	0.	0.
4400		TOTAL					31819.	23563.
4401	102	MULTI-FAMILY			du	164.6	1761.	1236.
4401	103	MOBILE HOME PARK			du	4.1	27.	18.
4401	1501	LOW-RISE HOTEL OR MOTEL			acre	0.1	36.	22.
4401	5007	STREETFRONT COMMERCIAL			acre	1.0	1467.	1065.
4401	6002	LOW RISE OFFICE			acre	0.5	175.	134.
4401	9101	INACTIVE USE			acre	1.1	0.	0.
4401		TOTAL					3466.	2476.
4402	101	SINGLE FAMILY			du	23.9	373.	260.
4402	102	MULTI-FAMILY			du	610.1	6528.	4583.
4402	4113	COMMUNICATION OR UTILITY			acre	5.5	22.	17.
4402	5007	STREETFRONT COMMERCIAL			acre	7.0	10446.	7584.
4402	6002	LOW RISE OFFICE			acre	0.1	41.	32.
4402	6103	LIBRARY			acre	6.1	2644.	1793.
4402	9101	INACTIVE USE			acre	0.3	0.	0.
4402		TOTAL					20055.	14268.
4403	101	SINGLE FAMILY			du	21.8	340.	238.
4403	102	MULTI-FAMILY			du	969.0	10369.	7279.
4403	103	MOBILE HOME PARK			du	5.2	34.	23.
4403	2101	INDUSTRIAL PARK			acre	32.7	6281.	5149.
4403	2103	LIGHT INDUSTRY			acre	2.0	195.	158.
4403	5007	STREETFRONT COMMERCIAL			acre	2.4	3655.	2653.
4403	6002	LOW RISE OFFICE			acre	0.6	206.	158.
4403	6102	CHURCH			acre	0.3	18.	14.
4403	7601	ACTIVE PARK			acre	3.1	206.	135.
4403	9101	INACTIVE USE			acre	0.1	0.	0.
4403		TOTAL					21305.	15807.
4404	101	SINGLE FAMILY			du	0.5	7.	5.
4404	102	MULTI-FAMILY			du	82.7	885.	621.
4404	4111	TRANSIT STATION			acre	1.1	311.	237.
4404	5003	COMMUNITY COMMERCIAL			acre	15.5	12989.	9190.
4404	5007	STREETFRONT COMMERCIAL			acre	4.5	6665.	4839.
4404	5009	OTHER COMMERCIAL			acre	0.2	24.	18.
4404	6002	LOW RISE OFFICE			acre	0.2	66.	50.
4404		TOTAL					20947.	14960.

Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4405	101	SINGLE FAMILY			du	100.5	1567.	1094.
4405	102	MULTI-FAMILY			du	479.1	5126.	3599.
4405	2201	EXTRACTIVE INDUSTRY			acre	31.0	47.	38.
4405	7601	ACTIVE PARK			acre	4.8	320.	211.
4405		TOTAL					7060.	4942.
4406	101	SINGLE FAMILY			du	462.8	7220.	5038.
4406	102	MULTI-FAMILY			du	77.0	824.	578.
4406	5007	STREETFRONT COMMERCIAL			acre	1.0	1481.	1075.
4406	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4406	7602	PASSIVE PARK			acre	1.0	0.	0.
4406		TOTAL					11643.	7876.
4407	101	SINGLE FAMILY			du	325.1	5071.	3539.
4407	102	MULTI-FAMILY			du	90.0	963.	676.
4407	2103	LIGHT INDUSTRY			acre	0.2	19.	15.
4407	6102	CHURCH			acre	2.3	121.	93.
4407	7210	OTHER RECREATION			acre	0.5	3.	2.
4407	7601	ACTIVE PARK			acre	5.1	338.	222.
4407	7602	PASSIVE PARK			acre	1.2	0.	0.
4407	9101	INACTIVE USE			acre	1.6	0.	0.
4407		TOTAL					6515.	4548.
4408	102	MULTI-FAMILY			du	172.0	1840.	1292.
4408	103	MOBILE HOME PARK			du	7.1	46.	31.
4408	1501	LOW-RISE HOTEL OR MOTEL			acre	0.3	104.	64.
4408	2104	WAREHOUSING OR STORAGE			acre	3.0	101.	83.
4408	4113	COMMUNICATION OR UTILITY			acre	6.2	25.	19.
4408	5004	NEIGHBORHOOD COMMERCIAL			acre	11.1	16924.	11974.
4408	5007	STREETFRONT COMMERCIAL			acre	2.9	4374.	3176.
4408	5009	OTHER COMMERCIAL			acre	0.2	21.	15.
4408	6002	LOW RISE OFFICE			acre	1.5	544.	417.
4408		TOTAL					23980.	17071.
4409	101	SINGLE FAMILY			du	1.0	16.	11.
4409	102	MULTI-FAMILY			du	138.6	1483.	1041.
4409	103	MOBILE HOME PARK			du	90.0	594.	394.
4409	2101	INDUSTRIAL PARK			acre	22.2	4272.	3502.
4409	2103	LIGHT INDUSTRY			acre	23.9	2390.	1932.
4409	2104	WAREHOUSING OR STORAGE			acre	4.5	150.	123.
4409	4112	RIGHT-OF-WAY			acre	5.7	0.	0.
4409	4113	COMMUNICATION OR UTILITY			acre	7.6	31.	23.
4409	9101	INACTIVE USE			acre	0.2	0.	0.
4409		TOTAL					8936.	7026.
4410	101	SINGLE FAMILY			du	58.5	913.	637.
4410	102	MULTI-FAMILY			du	151.6	1622.	1139.
4410	103	MOBILE HOME PARK			du	502.0	3313.	2197.
4410	2103	LIGHT INDUSTRY			acre	12.6	1266.	1023.
4410	2104	WAREHOUSING OR STORAGE			acre	2.3	76.	62.
4410	4113	COMMUNICATION OR UTILITY			acre	11.4	46.	35.
4410	5007	STREETFRONT COMMERCIAL			acre	0.2	329.	239.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4410	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4410		TOTAL					9684.	6517.
4411	102	MULTI-FAMILY			du	45.0	481.	338.
4411	103	MOBILE HOME PARK			du	426.0	2812.	1865.
4411	9101	INACTIVE USE			acre	4.7	0.	0.
4411		TOTAL					3293.	2203.
4412	101	SINGLE FAMILY			du	198.5	3097.	2161.
4412	102	MULTI-FAMILY			du	38.0	407.	285.
4412	103	MOBILE HOME PARK			du	129.0	851.	565.
4412	2103	LIGHT INDUSTRY			acre	6.2	625.	505.
4412	5007	STREETFRONT COMMERCIAL			acre	0.1	194.	141.
4412	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4412	7601	ACTIVE PARK			acre	4.3	286.	188.
4412	9101	INACTIVE USE			acre	0.1	0.	0.
4412		TOTAL					7580.	5031.
4414	2103	LIGHT INDUSTRY			acre	44.1	4423.	3575.
4414	5006	AUTO COMMERCIAL			acre	1.5	720.	510.
4414	5009	OTHER COMMERCIAL			acre	1.6	199.	144.
4414	9101	INACTIVE USE			acre	5.0	0.	0.
4414		TOTAL					5342.	4229.
4415	102	MULTI-FAMILY			du	106.0	1134.	796.
4415	1501	LOW-RISE HOTEL OR MOTEL			acre	0.1	42.	26.
4415	5004	NEIGHBORHOOD COMMERCIAL			acre	10.9	16692.	11810.
4415	5007	STREETFRONT COMMERCIAL			acre	0.1	200.	145.
4415		TOTAL					18068.	12778.
4416	101	SINGLE FAMILY			du	117.7	1837.	1282.
4416	102	MULTI-FAMILY			du	95.8	1025.	720.
4416	2103	LIGHT INDUSTRY			acre	15.9	1596.	1290.
4416	5001	WHOLESALE TRADE			acre	0.2	12.	8.
4416	5007	STREETFRONT COMMERCIAL			acre	9.3	13955.	10131.
4416	6102	CHURCH			acre	2.5	132.	101.
4416	6509	OTHER HEALTH CARE			acre	0.4	195.	145.
4416	7210	OTHER RECREATION			acre	0.1	1.	0.
4416	9101	INACTIVE USE			acre	7.1	0.	0.
4416		TOTAL					18751.	13676.
4417	2103	LIGHT INDUSTRY			acre	159.7	16004.	12934.
4417	2301	JUNKYARD/DUMP/LANDFILL			acre	23.1	365.	301.
4417		TOTAL					16369.	13235.
4418	101	SINGLE FAMILY			du	0.2	4.	2.
4418	2101	INDUSTRIAL PARK			acre	3.9	744.	610.
4418	2103	LIGHT INDUSTRY			acre	1.8	184.	149.
4418	4112	RIGHT-OF-WAY			acre	1.8	0.	0.
4418	5003	COMMUNITY COMMERCIAL			acre	21.3	17883.	12653.
4418	5009	OTHER COMMERCIAL			acre	0.2	20.	15.
4418	9101	INACTIVE USE			acre	0.4	0.	0.
4418		TOTAL					18834.	13428.

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Zone	Code	Name	Type	Amount	Trips	
					Person	Vehicle
4419	2103	LIGHT INDUSTRY	acre	54.0	5415.	4377.
4419	2104	WAREHOUSING OR STORAGE	acre	2.8	94.	77.
4419	2301	JUNKYARD/DUMP/LANDFILL	acre	1.1	18.	14.
4419	4113	COMMUNICATION OR UTILITY	acre	5.6	22.	17.
4419	6002	LOW RISE OFFICE	acre	0.2	56.	43.
4419	7210	OTHER RECREATION	acre	1.4	9.	6.
4419	9101	INACTIVE USE	acre	43.9	0.	0.
4419		TOTAL			5614.	4534.
4420	101	SINGLE FAMILY	du	0.5	7.	5.
4420	102	MULTI-FAMILY	du	103.5	1107.	777.
4420	2103	LIGHT INDUSTRY	acre	39.1	3922.	3170.
4420	2104	WAREHOUSING OR STORAGE	acre	9.6	316.	259.
4420	9101	INACTIVE USE	acre	1.3	0.	0.
4420		TOTAL			5352.	4210.
4421	5007	STREETFRONT COMMERCIAL	acre	6.2	9245.	6712.
4421	6002	LOW RISE OFFICE	acre	5.4	1932.	1481.
4421	7601	ACTIVE PARK	acre	68.8	4580.	3014.
4421	9101	INACTIVE USE	acre	583.3	0.	0.
4421		TOTAL			15757.	11206.
4424	101	SINGLE FAMILY	du	4.6	71.	49.
4424	2103	LIGHT INDUSTRY	acre	47.5	4758.	3845.
4424	2104	WAREHOUSING OR STORAGE	acre	7.8	257.	210.
4424	4112	RIGHT-OF-WAY	acre	4.4	0.	0.
4424	5007	STREETFRONT COMMERCIAL	acre	0.2	326.	237.
4424	6002	LOW RISE OFFICE	acre	0.0	15.	12.
4424	9101	INACTIVE USE	acre	20.9	0.	0.
4424		TOTAL			5427.	4353.
4425	102	MULTI-FAMILY	du	11.1	119.	84.
4425	2103	LIGHT INDUSTRY	acre	22.8	2285.	1847.
4425	2104	WAREHOUSING OR STORAGE	acre	4.2	141.	115.
4425	2201	EXTRACTIVE INDUSTRY	acre	9.4	14.	12.
4425	5009	OTHER COMMERCIAL	acre	0.4	50.	36.
4425	7601	ACTIVE PARK	acre	19.3	1287.	847.
4425	8002	INTENSIVE AGRICULTURE	acre	2.1	1.	1.
4425	9101	INACTIVE USE	acre	19.4	0.	0.
4425		TOTAL			3897.	2941.
4426	2103	LIGHT INDUSTRY	acre	40.5	4056.	3278.
4426	5006	AUTO COMMERCIAL	acre	5.9	2799.	1981.
4426	9101	INACTIVE USE	acre	99.2	0.	0.
4426		TOTAL			6855.	5258.
4427	102	MULTI-FAMILY	du	656.0	7019.	4928.
4427	1501	LOW-RISE HOTEL OR MOTEL	acre	1.8	598.	368.
4427	5004	NEIGHBORHOOD COMMERCIAL	acre	2.5	3831.	2710.
4427	5007	STREETFRONT COMMERCIAL	acre	2.0	3054.	2217.
4427	7601	ACTIVE PARK	acre	7.7	515.	339.
4427	9101	INACTIVE USE	acre	2.5	0.	0.
4427		TOTAL			15016.	10562.

Zone	Code	Name	Land Use		Amount	Trips	
			Type			Person	Vehicle
4428	101	SINGLE FAMILY	du		234.0	3650.	2547.
4428	102	MULTI-FAMILY	du		69.0	738.	518.
4428	9101	INACTIVE USE	acre		20.1	0.	0.
4428		TOTAL				4389.	3066.
4430	7210	OTHER RECREATION	acre		103.8	685.	468.
4430	9101	INACTIVE USE	acre		159.5	0.	0.
4430		TOTAL				685.	468.
4431	2301	JUNKYARD/DUMP/LANDFILL	acre		5.3	84.	69.
4431	5003	COMMUNITY COMMERCIAL	acre		21.4	17916.	12676.
4431	6002	LOW RISE OFFICE	acre		1.1	407.	312.
4431	8002	INTENSIVE AGRICULTURE	acre		22.6	11.	9.
4431	9101	INACTIVE USE	acre		3.3	0.	0.
4431		TOTAL				18418.	13066.
4443	101	SINGLE FAMILY	du		928.0	14477.	10102.
4443	102	MULTI-FAMILY	du		2409.0	25776.	18096.
4443	4112	RIGHT-OF-WAY	acre		49.1	0.	0.
4443	7601	ACTIVE PARK	acre		9.3	619.	408.
4443	9101	INACTIVE USE	acre		271.0	0.	0.
4443		TOTAL				40872.	28606.
4450	2103	LIGHT INDUSTRY	acre		168.2	16854.	13621.
4450	9101	INACTIVE USE	acre		25.5	0.	0.
4450		TOTAL				16854.	13621.
4460	101	SINGLE FAMILY	du		535.0	8346.	5824.
4460	102	MULTI-FAMILY	du		264.0	2825.	1983.
4460	2103	LIGHT INDUSTRY	acre		24.0	2405.	1944.
4460	2301	JUNKYARD/DUMP/LANDFILL	acre		2.0	32.	26.
4460	4103	GENERAL AVIATION AIRPORT	acre		3.8	25.	19.
4460	4112	RIGHT-OF-WAY	acre		31.2	0.	0.
4460	5004	NEIGHBORHOOD COMMERCIAL	acre		6.3	9615.	6803.
4460	7601	ACTIVE PARK	acre		1.0	67.	44.
4460	9101	INACTIVE USE	acre		122.9	0.	0.
4460		TOTAL				23314.	16643.
4467	2103	LIGHT INDUSTRY	acre		30.9	3097.	2503.
4467	2104	WAREHOUSING OR STORAGE	acre		0.9	28.	23.
4467	9101	INACTIVE USE	acre		44.3	0.	0.
4467		TOTAL				3126.	2526.
4470	101	SINGLE FAMILY	du		15.0	234.	163.
4470	102	MULTI-FAMILY	du		958.0	10251.	7196.
4470	2104	WAREHOUSING OR STORAGE	acre		70.0	2317.	1894.
4470	4112	RIGHT-OF-WAY	acre		26.2	0.	0.
4470	5009	OTHER COMMERCIAL	acre		0.4	51.	37.
4470	6102	CHURCH	acre		0.6	32.	25.
4470	6806	ELEMENTARY SCHOOL	acre		1.0	2119.	1185.
4470		TOTAL				15003.	10500.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4479	2103	LIGHT INDUSTRY			acre	185.4	18577.	15014.
4479	2104	WAREHOUSING OR STORAGE			acre	3.1	103.	84.
4479	4112	RIGHT-OF-WAY			acre	23.1	0.	0.
4479	4119	OTHER TRANSPORTATION			acre	8.3	923.	705.
4479	9101	INACTIVE USE			acre	43.6	0.	0.
4479		TOTAL					19603.	15802.
4480	101	SINGLE FAMILY			du	1.0	16.	11.
4480	2101	INDUSTRIAL PARK			acre	68.5	13159.	10787.
4480	2103	LIGHT INDUSTRY			acre	44.9	4499.	3636.
4480	4112	RIGHT-OF-WAY			acre	4.7	0.	0.
4480	5003	COMMUNITY COMMERCIAL			acre	28.5	23914.	16920.
4480	8003	FIELD CROPS			acre	93.2	9.	7.
4480	9101	INACTIVE USE			acre	0.4	0.	0.
4480		TOTAL					41597.	31362.
4482	2101	INDUSTRIAL PARK			acre	289.5	55613.	45590.
4482	4112	RIGHT-OF-WAY			acre	1.7	0.	0.
4482		TOTAL					55613.	45590.
4497	101	SINGLE FAMILY			du	13.0	203.	142.
4497	102	MULTI-FAMILY			du	130.0	1391.	977.
4497	2103	LIGHT INDUSTRY			acre	86.7	8687.	7021.
4497	2104	WAREHOUSING OR STORAGE			acre	23.1	765.	625.
4497	4112	RIGHT-OF-WAY			acre	12.3	0.	0.
4497	4119	OTHER TRANSPORTATION			acre	37.1	4126.	3151.
4497	9101	INACTIVE USE			acre	103.9	0.	0.
4497		TOTAL					15171.	11915.
4500	2101	INDUSTRIAL PARK			acre	57.8	11103.	9102.
4500	2301	JUNKYARD/DUMP/LANDFILL			acre	161.0	2544.	2097.
4500	4112	RIGHT-OF-WAY			acre	5.5	0.	0.
4500	5003	COMMUNITY COMMERCIAL			acre	6.1	5119.	3622.
4500	8003	FIELD CROPS			acre	105.8	11.	8.
4500		TOTAL					18776.	14829.
4502	101	SINGLE FAMILY			du	174.0	2714.	1894.
4502	2301	JUNKYARD/DUMP/LANDFILL			acre	340.0	5372.	4428.
4502	9101	INACTIVE USE			acre	331.3	0.	0.
4502		TOTAL					8086.	6322.
4506	2101	INDUSTRIAL PARK			acre	240.6	46219.	37889.
4506	4112	RIGHT-OF-WAY			acre	1.9	0.	0.
4506	8003	FIELD CROPS			acre	81.1	8.	6.
4506	9101	INACTIVE USE			acre	49.6	0.	0.
4506		TOTAL					46227.	37896.
4534	2101	INDUSTRIAL PARK			acre	35.0	6724.	5512.
4534	4112	RIGHT-OF-WAY			acre	6.9	0.	0.
4534	8003	FIELD CROPS			acre	122.6	12.	10.
4534		TOTAL					6736.	5521.

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Zone	Code	Name	Land Use		Type	Amount	Trips	
							Person	Vehicle
4535	101	SINGLE FAMILY			du	19.0	296.	207.
4535	9101	INACTIVE USE			acre	81.6	0.	0.
4535		TOTAL					296.	207.
4537	4119	OTHER TRANSPORTATION			acre	119.3	13266.	10132.
4537	5004	NEIGHBORHOOD COMMERCIAL			acre	1.5	2289.	1620.
4537	8003	FIELD CROPS			acre	37.5	4.	3.
4537		TOTAL					15559.	11755.
4545	101	SINGLE FAMILY			du	4.0	62.	44.
4545	2103	LIGHT INDUSTRY			acre	4.0	401.	324.
4545	2104	WAREHOUSING OR STORAGE			acre	21.0	695.	568.
4545	4112	RIGHT-OF-WAY			acre	6.9	0.	0.
4545	4119	OTHER TRANSPORTATION			acre	1.8	200.	153.
4545	8003	FIELD CROPS			acre	11.0	1.	1.
4545	9101	INACTIVE USE			acre	100.7	0.	0.
4545		TOTAL					1360.	1089.
4549	2103	LIGHT INDUSTRY			acre	72.3	7244.	5855.
4549	4112	RIGHT-OF-WAY			acre	10.7	0.	0.
4549		TOTAL					7244.	5855.
4550	101	SINGLE FAMILY			du	1337.0	20857.	14554.
4550	9101	INACTIVE USE			acre	41.8	0.	0.
4550		TOTAL					20857.	14554.
4558	101	SINGLE FAMILY			du	321.0	5008.	3494.
4558	102	MULTI-FAMILY			du	1211.0	12958.	9097.
4558	2301	JUNKYARD/DUMP/LANDFILL			acre	0.9	14.	12.
4558	5004	NEIGHBORHOOD COMMERCIAL			acre	18.3	27929.	19761.
4558	9101	INACTIVE USE			acre	196.8	0.	0.
4558		TOTAL					45909.	32364.
4562	101	SINGLE FAMILY			du	5.0	78.	54.
4562	2101	INDUSTRIAL PARK			acre	50.0	9605.	7874.
4562	2103	LIGHT INDUSTRY			acre	10.0	1002.	810.
4562	4112	RIGHT-OF-WAY			acre	6.9	0.	0.
4562	5001	WHOLESALE TRADE			acre	19.3	938.	664.
4562	8003	FIELD CROPS			acre	44.0	4.	3.
4562	9101	INACTIVE USE			acre	5.6	0.	0.
4562		TOTAL					11627.	9406.
4571	2101	INDUSTRIAL PARK			acre	176.2	33840.	27741.
4571	2103	LIGHT INDUSTRY			acre	32.0	3206.	2591.
4571	2104	WAREHOUSING OR STORAGE			acre	23.1	765.	625.
4571	8003	FIELD CROPS			acre	157.1	16.	12.
4571	9101	INACTIVE USE			acre	7.4	0.	0.
4571		TOTAL					37827.	30970.
4588	2101	INDUSTRIAL PARK			acre	23.2	4457.	3654.
4588	2103	LIGHT INDUSTRY			acre	47.9	4800.	3879.
4588	4112	RIGHT-OF-WAY			acre	5.7	0.	0.

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Zone	Code	Name	Land Use		Type	Amount	-----Trips-----	
							Person	Vehicle
4588	5001	WHOLESALE TRADE			acre	8.2	399.	282.
4588	9101	INACTIVE USE			acre	55.4	0.	0.
4588		TOTAL					9655.	7815.
4614	101	SINGLE FAMILY			du	768.1	11982.	8361.
4614	102	MULTI-FAMILY			du	1462.0	15643.	10983.
4614	5021	MIXED USE COMMERCIAL			acre	15.4	2338.	1698.
4614	6109	OTHER PUBLIC SERVICE			acre	6.4	2564.	1853.
4614	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4614	7601	ACTIVE PARK			acre	37.2	2481.	1633.
4614	9101	INACTIVE USE			acre	22.6	0.	0.
4614		TOTAL					37127.	25712.
4615	2103	LIGHT INDUSTRY			acre	9.7	968.	782.
4615		TOTAL					968.	782.
4616	101	SINGLE FAMILY			du	562.5	8776.	6124.
4616	102	MULTI-FAMILY			du	918.0	9823.	6896.
4616	6109	OTHER PUBLIC SERVICE			acre	1.5	618.	446.
4616	6806	ELEMENTARY SCHOOL			acre	1.0	2119.	1185.
4616	7601	ACTIVE PARK			acre	5.6	371.	244.
4616		TOTAL					21705.	14895.

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Appendix J
Analysis Worksheets –
Year 2025 Cumulative conditions

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

1/12/2017

Intersection												
Int Delay, s/veh	25.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	5	25	15	10	320	35	955	35	145	675	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	5	26	16	11	337	37	1005	37	153	711	47
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2142	2155	734	2152	2160	1024	758	0	0	1042	0	0
Stage 1	1039	1039	-	1097	1097	-	-	-	-	-	-	-
Stage 2	1103	1116	-	1055	1063	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	35	48	420	35	47	~ 286	853	-	-	667	-	-
Stage 1	279	308	-	258	289	-	-	-	-	-	-	-
Stage 2	256	283	-	273	300	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	35	420	23	35	~ 286	853	-	-	667	-	-
Mov Cap-2 Maneuver	-	35	-	23	35	-	-	-	-	-	-	-
Stage 1	267	237	-	247	276	-	-	-	-	-	-	-
Stage 2	-	271	-	193	231	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s				164.9			0.3			2		
HCM LOS	-			F								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	853	-	-	-	27	286	667	-	-			
HCM Lane V/C Ratio	0.043	-	-	-	0.975	1.178	0.229	-	-			
HCM Control Delay (s)	9.4	-	-	-\$ 374.5	148.5	12	-	-				
HCM Lane LOS	A	-	-	-	F	F	B	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	-	3.1	14.9	0.9	-	-			
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	600	99	45	570	90	154	80	35	70	200	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	32	632	93	47	600	74	162	84	36	74	211	42
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	736	108	63	768	95	277	134	47	151	348	63
Arrive On Green	0.03	0.46	0.46	0.04	0.47	0.47	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1774	1588	234	1774	1627	201	650	464	163	281	1203	219
Grp Volume(v), veh/h	32	0	725	47	0	674	282	0	0	327	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1822	1774	0	1827	1277	0	0	1703	0	0
Q Serve(g_s), s	1.1	0.0	22.6	1.7	0.0	19.7	2.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	22.6	1.7	0.0	19.7	13.1	0.0	0.0	10.5	0.0	0.0
Prop In Lane	1.00		0.13	1.00		0.11	0.57		0.13	0.23		0.13
Lane Grp Cap(c), veh/h	48	0	844	63	0	862	458	0	0	562	0	0
V/C Ratio(X)	0.66	0.00	0.86	0.75	0.00	0.78	0.62	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	403	0	928	348	0	874	730	0	0	899	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.7	0.0	15.2	30.5	0.0	14.1	20.6	0.0	0.0	19.7	0.0	0.0
Incr Delay (d2), s/veh	14.6	0.0	7.6	16.1	0.0	4.6	1.3	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	13.1	1.1	0.0	10.8	4.7	0.0	0.0	5.1	0.0	0.0
LnGrp Delay(d),s/veh	45.4	0.0	22.8	46.5	0.0	18.7	21.9	0.0	0.0	20.7	0.0	0.0
LnGrp LOS	D		C	D		B	C			C		
Approach Vol, veh/h	757				721		282				327	
Approach Delay, s/veh	23.8				20.5		21.9				20.7	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	6.8	34.1		23.0	6.2	34.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		31.5	12.5	32.5		31.5	14.5	30.5				
Max Q Clear Time (g_c+I1), s		15.1	3.7	24.6		12.5	3.1	21.7				
Green Ext Time (p_c), s		3.3	0.0	5.0		3.5	0.0	5.4				
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

11/15/2016

Intersection

Int Delay, s/veh 5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	399	5	10	304	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	420	5	11	320	32	11

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	331	0	171 1174
Stage 1	-	-	0 843
Stage 2	-	-	171 331
Critical Hdwy	4.12	-	6.42 6.52
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	5.42 5.52
Follow-up Hdwy	2.218	-	3.518 4.018
Pot Cap-1 Maneuver	1228	-	819 192
Stage 1	-	-	- -
Stage 2	-	-	859 645
Platoon blocked, %	-	-	- -
Mov Cap-1 Maneuver	1228	-	539 0
Mov Cap-2 Maneuver	-	-	539 0
Stage 1	-	-	- 0
Stage 2	-	-	859 0

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1228	-	539
HCM Lane V/C Ratio	-	-	0.342	-	0.078
HCM Control Delay (s)	-	-	9.4	-	12.2
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	1.5	-	0.3

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

11/15/2016

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	314	43	34	15	25	406
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	331	45	36	16	26	427

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	427	0	1186 45 45 -
Stage 1	-	-	706 - - -
Stage 2	-	-	480 - - -
Critical Hdwy	-	-	6.52 6.22 4.12 -
Critical Hdwy Stg 1	-	-	5.52 - - -
Critical Hdwy Stg 2	-	-	- - - -
Follow-up Hdwy	-	-	4.018 3.318 2.218 -
Pot Cap-1 Maneuver	-	-	189 1025 1563 -
Stage 1	-	-	439 - - -
Stage 2	-	-	- - - -
Platoon blocked, %	-	-	- - - -
Mov Cap-1 Maneuver	-	-	0 1025 1563 -
Mov Cap-2 Maneuver	-	-	0 - - -
Stage 1	-	-	0 - - -
Stage 2	-	-	0 - - -

Approach	EB	WB	SB
HCM Control Delay, s		8.7	0.4
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	- 1025	1563	-
HCM Lane V/C Ratio	-	- 0.05	0.017	-
HCM Control Delay (s)	-	- 8.7	7.3	-
HCM Lane LOS	-	- A	A	-
HCM 95th %tile Q(veh)	-	- 0.2	0.1	-

HCM 2010 Signalized Intersection Summary

5: SR-94 & Melody Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	20	74	20	25	50	51	605	35	45	405	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	32	21	78	21	26	53	54	637	37	47	426	47
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	50	130	136	75	119	79	867	50	72	813	90
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.04	0.50	0.50	0.04	0.49	0.49
Sat Flow, veh/h	283	372	964	228	557	885	1774	1744	101	1774	1649	182
Grp Volume(v), veh/h	131	0	0	100	0	0	54	0	674	47	0	473
Grp Sat Flow(s),veh/h/ln	1619	0	0	1670	0	0	1774	0	1845	1774	0	1831
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	0.0	1.2	0.0	11.9	1.1	0.0	7.3
Cycle Q Clear(g_c), s	3.0	0.0	0.0	2.2	0.0	0.0	1.2	0.0	11.9	1.1	0.0	7.3
Prop In Lane	0.24		0.60	0.21		0.53	1.00		0.05	1.00		0.10
Lane Grp Cap(c), veh/h	327	0	0	330	0	0	79	0	918	72	0	903
V/C Ratio(X)	0.40	0.00	0.00	0.30	0.00	0.00	0.68	0.00	0.73	0.66	0.00	0.52
Avail Cap(c_a), veh/h	722	0	0	733	0	0	284	0	1383	194	0	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	0.0	16.4	0.0	0.0	19.4	0.0	8.2	19.5	0.0	7.1
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.5	0.0	0.0	9.8	0.0	1.2	9.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	1.1	0.0	0.0	0.8	0.0	6.3	0.7	0.0	3.7
LnGrp Delay(d),s/veh	17.5	0.0	0.0	16.9	0.0	0.0	29.1	0.0	9.4	29.2	0.0	7.6
LnGrp LOS	B			B			C		A	C		A
Approach Vol, veh/h		131			100			728			520	
Approach Delay, s/veh		17.5			16.9			10.8			9.6	
Approach LOS		B			B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	25.0		10.0	6.3	24.8		10.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.5	30.9		16.1	6.6	28.8		16.1				
Max Q Clear Time (g_c+I1), s	3.1	13.9		5.0	3.2	9.3		4.2				
Green Ext Time (p_c), s	0.0	6.6		1.0	0.0	7.0		1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			11.4									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	0	393	350	0	65	15		
Future Volume (veh/h)	0	393	350	0	65	15		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	485	412	0	92	14		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.81	0.81	0.85	0.85	0.71	0.71		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1897	1897	0	140	125		
Arrive On Green	0.00	0.54	0.54	0.00	0.08	0.08		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	485	412	0	92	14		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	2.2	1.8	0.0	1.5	0.2		
Cycle Q Clear(g_c), s	0.0	2.2	1.8	0.0	1.5	0.2		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1897	1897	0	140	125		
V/C Ratio(X)	0.00	0.26	0.22	0.00	0.66	0.11		
Avail Cap(c_a), veh/h	0	4125	4125	0	1179	1052		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	3.7	3.6	0.0	13.1	12.6		
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	5.6	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	1.1	0.9	0.0	0.9	0.1		
LnGrp Delay(d),s/veh	0.0	3.8	3.7	0.0	18.7	13.0		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		485	412		106			
Approach Delay, s/veh		3.8	3.7		18.0			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		21.5		7.8		21.5		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		34.2		19.5		34.2		
Max Q Clear Time (g_c+I1), s		4.2		3.5		3.8		
Green Ext Time (p_c), s		11.6		0.2		11.6		
Intersection Summary								
HCM 2010 Ctrl Delay			5.3					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	75	383	350	260	0	0		
Future Volume (veh/h)	75	383	350	260	0	0		
Number	5	2	6	16				
Initial Q (Qb), veh	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00			1.00				
Parking Bus, Adj	1.00	1.00	1.00	1.00				
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900				
Adj Flow Rate, veh/h	86	440	385	253				
Adj No. of Lanes	1	2	2	0				
Peak Hour Factor	0.87	0.87	0.91	0.91				
Percent Heavy Veh, %	2	2	2	2				
Cap, veh/h	106	2883	1291	837				
Arrive On Green	0.06	0.81	0.63	0.63				
Sat Flow, veh/h	1774	3632	2153	1336				
Grp Volume(v), veh/h	86	440	330	308				
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1627				
Q Serve(g_s), s	1.5	0.8	2.7	2.7				
Cycle Q Clear(g_c), s	1.5	0.8	2.7	2.7				
Prop In Lane	1.00			0.82				
Lane Grp Cap(c), veh/h	106	2883	1109	1019				
V/C Ratio(X)	0.81	0.15	0.30	0.30				
Avail Cap(c_a), veh/h	908	6703	2219	2040				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	14.5	0.6	2.7	2.7				
Incr Delay (d2), s/veh	5.4	0.1	0.3	0.4				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	0.9	0.4	1.4	1.3				
LnGrp Delay(d),s/veh	19.9	0.7	3.0	3.0				
LnGrp LOS	B	A	A	A				
Approach Vol, veh/h		526	638					
Approach Delay, s/veh		3.8	3.0					
Approach LOS		A	A					
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		
Phs Duration (G+Y+Rc), s		31.3			5.9	25.4		
Change Period (Y+Rc), s		5.8			4.0	5.8		
Max Green Setting (Gmax), s		59.2			16.0	39.2		
Max Q Clear Time (g_c+I1), s		2.8			3.5	4.7		
Green Ext Time (p_c), s		17.6			0.1	14.9		
Intersection Summary								
HCM 2010 Ctrl Delay			3.4					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

11/15/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↓		↓	↑↑		↑↑		
Volume (veh/h)	999	340	529	1364	0	1130		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1052	253	557	1436	0	873		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	1756	422	597	3124	0	0		
Arrive On Green	0.43	0.43	0.34	0.88	0.00	0.00		
Sat Flow, veh/h	4263	984	1774	3632	0			
Grp Volume(v), veh/h	871	434	557	1436	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1689	1774	1770				
Q Serve(g_s), s	7.6	7.6	11.6	3.1				
Cycle Q Clear(g_c), s	7.6	7.6	11.6	3.1				
Prop In Lane		0.58	1.00					
Lane Grp Cap(c), veh/h	1454	724	597	3124				
V/C Ratio(X)	0.60	0.60	0.93	0.46				
Avail Cap(c_a), veh/h	1512	753	597	3184				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	8.4	8.4	12.3	0.4				
Incr Delay (d2), s/veh	0.6	1.2	21.8	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	8.6	3.7	9.2	1.2				
LnGrp Delay(d),s/veh	9.0	9.7	34.2	0.6				
LnGrp LOS	A	A	C	A				
Approach Vol, veh/h	1305			1993				
Approach Delay, s/veh	9.2			9.9				
Approach LOS	A			A				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			17.4	20.9				38.3
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			12.9	17.1				34.5
Max Q Clear Time (g_c+I1), s			13.6	9.6				5.1
Green Ext Time (p_c), s			0.0	6.9				22.7
Intersection Summary								
HCM 2010 Ctrl Delay			9.7					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

11/15/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	1554	590	0	1503	390	476		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	1636	0	0	1582	516	262		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	3115	970	0	2168	804	359		
Arrive On Green	0.61	0.00	0.00	0.61	0.23	0.23		
Sat Flow, veh/h	5253	1583	0	3725	3548	1583		
Grp Volume(v), veh/h	1636	0	0	1582	516	262		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	10.3	0.0	0.0	17.5	7.4	8.6		
Cycle Q Clear(g_c), s	10.3	0.0	0.0	17.5	7.4	8.6		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	3115	970	0	2168	804	359		
V/C Ratio(X)	0.53	0.00	0.00	0.73	0.64	0.73		
Avail Cap(c_a), veh/h	3227	1005	0	2246	1300	580		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	6.2	0.0	0.0	7.6	19.6	20.0		
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.2	0.9	2.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.7	0.0	0.0	8.7	3.7	4.0		
LnGrp Delay(d),s/veh	6.3	0.0	0.0	8.8	20.4	22.9		
LnGrp LOS	A			A	C	C		
Approach Vol, veh/h	1636			1582	778			
Approach Delay, s/veh	6.3			8.8	21.3			
Approach LOS	A			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		17.2		38.8				38.8
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		20.5		35.5				35.5
Max Q Clear Time (g_c+I1), s		10.6		12.3				19.5
Green Ext Time (p_c), s		2.1		20.8				14.7
Intersection Summary								
HCM 2010 Ctrl Delay			10.2					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 			 			 				 	
Volume (veh/h)	75	2171	10	10	2250	40	80	5	20	40	5	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	79	2285	8	11	2368	31	84	5	18	42	5	168
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	3023	11	20	2753	36	281	55	199	311	30	246
Arrive On Green	0.06	0.58	0.58	0.01	0.53	0.53	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	5231	18	1774	5173	68	1207	356	1281	1172	194	1583
Grp Volume(v), veh/h	79	1480	813	11	1550	849	84	0	23	47	0	168
Grp Sat Flow(s),veh/h/ln	1774	1695	1860	1774	1695	1851	1207	0	1637	1365	0	1583
Q Serve(g_s), s	2.3	17.3	17.3	0.3	20.8	20.9	3.5	0.0	0.6	1.2	0.0	5.3
Cycle Q Clear(g_c), s	2.3	17.3	17.3	0.3	20.8	20.9	5.3	0.0	0.6	1.9	0.0	5.3
Prop In Lane	1.00		0.01	1.00		0.04	1.00		0.78	0.89		1.00
Lane Grp Cap(c), veh/h	101	1959	1074	20	1804	985	281	0	254	341	0	246
V/C Ratio(X)	0.78	0.76	0.76	0.55	0.86	0.86	0.30	0.00	0.09	0.14	0.00	0.68
Avail Cap(c_a), veh/h	319	1959	1074	286	1849	1010	510	0	564	610	0	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	8.4	8.4	26.0	10.6	10.7	22.0	0.0	19.1	19.7	0.0	21.1
Incr Delay (d2), s/veh	12.3	1.7	3.1	21.4	4.3	7.6	0.6	0.0	0.2	0.2	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	8.3	9.5	0.3	10.5	12.5	1.2	0.0	0.3	0.6	0.0	2.5
LnGrp Delay(d),s/veh	36.9	10.1	11.5	47.4	14.9	18.3	22.6	0.0	19.3	19.9	0.0	24.4
LnGrp LOS	D	B	B	D	B	B	C		B	B		C
Approach Vol, veh/h	2372			2410			107			215		
Approach Delay, s/veh	11.5			16.2			21.9			23.4		
Approach LOS	B			B			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.7	5.1	35.0		12.7	7.5	32.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.2	8.5	29.8		18.2	9.5	28.8				
Max Q Clear Time (g_c+I1), s		7.3	2.3	19.3		7.3	4.3	22.9				
Green Ext Time (p_c), s		0.9	0.0	10.4		0.9	0.1	5.2				
Intersection Summary												
HCM 2010 Ctrl Delay	14.4											
HCM 2010 LOS	B											

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

11/15/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Volume (veh/h)	145	1696	2135	45	30	290
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	153	1785	2247	36	32	221
Adj No. of Lanes	2	3	3	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	246	3384	2657	42	314	280
Arrive On Green	0.07	0.67	0.52	0.52	0.18	0.18
Sat Flow, veh/h	3442	5253	5324	82	1774	1583
Grp Volume(v), veh/h	153	1785	1476	807	32	221
Grp Sat Flow(s), veh/h/ln	1721	1695	1695	1848	1774	1583
Q Serve(g_s), s	2.5	10.3	21.3	21.4	0.9	7.6
Cycle Q Clear(g_c), s	2.5	10.3	21.3	21.4	0.9	7.6
Prop In Lane	1.00			0.04	1.00	1.00
Lane Grp Cap(c), veh/h	246	3384	1747	952	314	280
V/C Ratio(X)	0.62	0.53	0.85	0.85	0.10	0.79
Avail Cap(c_a), veh/h	271	3430	1752	955	544	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	4.9	11.9	11.9	19.7	22.5
Incr Delay (d2), s/veh	3.7	0.1	4.0	7.2	0.1	4.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	4.7	10.8	12.7	0.4	6.8
LnGrp Delay(d), s/veh	29.5	5.1	15.9	19.1	19.8	27.4
LnGrp LOS	C	A	B	B	B	C
Approach Vol, veh/h		1938	2283		253	
Approach Delay, s/veh		7.0	17.0		26.5	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				42.5		14.6	8.6	33.9
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				38.5		17.5	4.5	29.5
Max Q Clear Time (g_c+I1), s				12.3		9.6	4.5	23.4
Green Ext Time (p_c), s				24.9		0.5	0.0	6.0

Intersection Summary								
HCM 2010 Ctrl Delay			13.2					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	1506	200	224	1730	65	260	60	304	40	30	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	126	1585	179	236	1821	47	274	63	215	42	32	105
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	2099	654	338	2297	715	368	662	296	112	397	178
Arrive On Green	0.06	0.41	0.41	0.10	0.45	0.45	0.11	0.19	0.19	0.03	0.11	0.11
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	126	1585	179	236	1821	47	274	63	215	42	32	105
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	2.4	17.8	5.0	4.4	20.4	1.1	5.2	1.0	8.5	0.8	0.5	4.2
Cycle Q Clear(g_c), s	2.4	17.8	5.0	4.4	20.4	1.1	5.2	1.0	8.5	0.8	0.5	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	2099	654	338	2297	715	368	662	296	112	397	178
V/C Ratio(X)	0.62	0.76	0.27	0.70	0.79	0.07	0.74	0.10	0.73	0.38	0.08	0.59
Avail Cap(c_a), veh/h	232	2099	654	490	2399	747	387	1166	522	206	980	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	16.7	13.0	29.1	15.6	10.3	28.9	22.5	25.5	31.6	26.6	28.2
Incr Delay (d2), s/veh	3.9	1.6	0.2	2.6	1.8	0.0	7.2	0.1	3.4	2.1	0.1	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.5	2.2	2.2	9.8	0.5	2.8	0.5	4.0	0.4	0.3	2.0
LnGrp Delay(d),s/veh	34.6	18.3	13.2	31.7	17.5	10.4	36.2	22.5	28.9	33.7	26.6	31.3
LnGrp LOS	C	B	B	C	B	B	D	C	C	C	C	C
Approach Vol, veh/h	1890				2104				552		179	
Approach Delay, s/veh	18.9				18.9				31.8		31.0	
Approach LOS	B				B				C		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	17.0	11.1	32.1	11.6	12.0	8.5	34.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	1.0	22.0	9.5	26.5	7.5	18.5	4.5	31.5				
Max Q Clear Time (g_c+I), s	12.8	10.5	6.4	19.8	7.2	6.2	4.4	22.4				
Green Ext Time (p_c), s	0.0	1.2	0.2	6.5	0.0	1.3	0.0	7.7				
Intersection Summary												
HCM 2010 Ctrl Delay			20.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	👉👉	👉👉👉		👉👉	👉👉👉		👉	👉👉		👉	👉👉	
Volume (veh/h)	225	1405	205	249	1314	155	505	375	401	175	215	255
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	237	1479	153	262	1383	95	532	395	296	184	226	131
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	1585	164	288	1599	110	527	599	444	214	291	162
Arrive On Green	0.09	0.34	0.34	0.08	0.33	0.33	0.30	0.31	0.31	0.12	0.13	0.13
Sat Flow, veh/h	3442	4683	484	3442	4860	334	1774	1940	1439	1774	2193	1223
Grp Volume(v), veh/h	237	1070	562	262	965	513	532	360	331	184	181	176
Grp Sat Flow(s),veh/h/ln	1721	1695	1777	1721	1695	1804	1774	1770	1609	1774	1770	1647
Q Serve(g_s), s	7.2	32.9	32.9	8.1	28.8	28.8	32.0	19.0	19.3	11.0	10.6	11.2
Cycle Q Clear(g_c), s	7.2	32.9	32.9	8.1	28.8	28.8	32.0	19.0	19.3	11.0	10.6	11.2
Prop In Lane	1.00		0.27	1.00		0.19	1.00		0.89	1.00		0.74
Lane Grp Cap(c), veh/h	320	1147	601	288	1115	593	527	546	497	214	234	218
V/C Ratio(X)	0.74	0.93	0.93	0.91	0.87	0.87	1.01	0.66	0.67	0.86	0.77	0.81
Avail Cap(c_a), veh/h	320	1164	610	288	1196	636	527	546	497	247	263	245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	34.5	34.5	49.0	33.9	33.9	37.9	32.3	32.4	46.5	45.1	45.4
Incr Delay (d2), s/veh	8.8	13.3	21.4	31.1	6.5	11.4	41.6	2.9	3.4	22.7	11.8	16.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	17.4	19.6	5.1	14.4	16.1	21.6	9.7	9.0	6.7	6.0	6.1
LnGrp Delay(d),s/veh	56.4	47.7	55.9	80.1	40.4	45.3	79.5	35.2	35.8	69.1	57.0	61.8
LnGrp LOS	E	D	E	F	D	D	F	D	D	E	E	E
Approach Vol, veh/h	1869			1740			1223			541		
Approach Delay, s/veh	51.3			47.8			54.6			62.7		
Approach LOS	D			D			D			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.0	40.5	36.0	18.3	14.0	39.4	17.0	37.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	3.0	37.0	32.0	16.0	8.0	38.0	15.0	33.0				
Max Q Clear Time (g_c+10), s	10.1	34.9	34.0	13.2	9.2	30.8	13.0	21.3				
Green Ext Time (p_c), s	0.0	1.5	0.0	1.1	0.0	4.7	0.1	4.8				
Intersection Summary												
HCM 2010 Ctrl Delay	52.1											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	290	826	385	164	908	269	380	890	66	304	710	290
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	305	869	300	173	956	220	400	937	0	320	747	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	1200	537	245	1067	477	481	1062	331	389	925	288
Arrive On Green	0.18	0.34	0.34	0.14	0.30	0.30	0.14	0.21	0.00	0.11	0.18	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	305	869	300	173	956	220	400	937	0	320	747	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	13.6	17.1	12.3	7.4	20.6	9.0	9.0	14.2	0.0	7.2	11.2	0.0
Cycle Q Clear(g_c), s	13.6	17.1	12.3	7.4	20.6	9.0	9.0	14.2	0.0	7.2	11.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	1200	537	245	1067	477	481	1062	331	389	925	288
V/C Ratio(X)	0.98	0.72	0.56	0.71	0.90	0.46	0.83	0.88	0.00	0.82	0.81	0.00
Avail Cap(c_a), veh/h	312	1200	537	245	1067	477	481	1086	338	389	1022	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.7	23.0	21.5	32.8	26.6	22.6	33.3	30.6	0.0	34.5	31.2	0.0
Incr Delay (d2), s/veh	44.7	3.8	4.2	8.9	11.7	3.2	11.7	8.6	0.0	13.3	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	9.0	6.0	4.3	11.7	4.3	5.1	7.5	0.0	4.1	5.6	0.0
LnGrp Delay(d),s/veh	77.4	26.9	25.6	41.7	38.3	25.7	45.1	39.2	0.0	47.8	35.7	0.0
LnGrp LOS	E	C	C	D	D	C	D	D		D	D	
Approach Vol, veh/h	1474			1349			1337			1067		
Approach Delay, s/veh	37.1			36.7			40.9			39.3		
Approach LOS	D			D			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	31.0	15.1	18.5	18.0	28.0	13.0	20.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	27.0	10.0	16.0	14.0	24.0	9.0	17.0				
Max Q Clear Time (g_c+I), s	19.4	19.1	11.0	13.2	15.6	22.6	9.2	16.2				
Green Ext Time (p_c), s	1.1	3.8	0.0	1.3	0.0	1.0	0.0	0.4				
Intersection Summary												
HCM 2010 Ctrl Delay	38.4											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑↑		↑
Traffic Volume (veh/h)	0	776	125	0	935	222	0	0	0	251	0	185
Future Volume (veh/h)	0	776	125	0	935	222	0	0	0	251	0	185
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	817	0	0	1127	219				349	0	229
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83				0.72	0.72	0.72
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3047	949	0	2120	1262				681	0	313
Arrive On Green	0.00	0.60	0.00	0.00	0.60	0.60				0.20	0.00	0.20
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	817	0	0	1127	219				349	0	229
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	4.3	0.0	0.0	10.4	1.8				5.0	0.0	7.5
Cycle Q Clear(g_c), s	0.0	4.3	0.0	0.0	10.4	1.8				5.0	0.0	7.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3047	949	0	2120	1262				681	0	313
V/C Ratio(X)	0.00	0.27	0.00	0.00	0.53	0.17				0.51	0.00	0.73
Avail Cap(c_a), veh/h	0	3309	1030	0	2303	1343				1083	0	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.3	0.0	0.0	6.6	1.3				19.9	0.0	20.9
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.4	0.1				0.7	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	0.0	0.0	5.1	1.6				2.4	0.0	3.6
LnGrp Delay(d),s/veh	0.0	5.4	0.0	0.0	7.0	1.5				20.6	0.0	24.5
LnGrp LOS		A			A	A				C		C
Approach Vol, veh/h		817			1346						578	
Approach Delay, s/veh		5.4			6.1						22.1	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		39.1		16.5		39.1						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		36.2		17.5		36.2						
Max Q Clear Time (g_c+I1), s		6.3		9.5		12.4						
Green Ext Time (p_c), s		25.6		1.5		20.9						
Intersection Summary												
HCM 2010 Ctrl Delay			9.3									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑↑	↑	↑		↑↑			
Traffic Volume (veh/h)	0	762	265	0	1092	570	65	0	108	0	0	0
Future Volume (veh/h)	0	762	265	0	1092	570	65	0	108	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	811	218	0	1255	0	72	0	109			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.94	0.94	0.94	0.87	0.87	0.87	0.90	0.90	0.90			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3638	1252	0	3638	1133	134	0	211			
Arrive On Green	0.00	0.72	0.72	0.00	0.72	0.00	0.08	0.00	0.08			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	811	218	0	1255	0	72	0	109			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	2.9	1.8	0.0	5.0	0.0	2.1	0.0	2.0			
Cycle Q Clear(g_c), s	0.0	2.9	1.8	0.0	5.0	0.0	2.1	0.0	2.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3638	1252	0	3638	1133	134	0	211			
V/C Ratio(X)	0.00	0.22	0.17	0.00	0.34	0.00	0.54	0.00	0.52			
Avail Cap(c_a), veh/h	0	4156	1414	0	4156	1294	312	0	490			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	2.6	1.4	0.0	2.9	0.0	24.1	0.0	24.0			
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.1	0.0	3.6	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.4	1.1	0.0	2.4	0.0	1.2	0.0	0.8			
LnGrp Delay(d),s/veh	0.0	2.7	1.5	0.0	3.0	0.0	27.7	0.0	26.2			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h	1029			1255			181					
Approach Delay, s/veh	2.4			3.0			26.8					
Approach LOS	A			A			C					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		44.5				44.5		9.6				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		44.2				44.2		9.5				
Max Q Clear Time (g_c+I1), s		4.9				7.0		4.1				
Green Ext Time (p_c), s		33.2				31.6		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay	4.5											
HCM 2010 LOS	A											

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	 
Volume (veh/h)	180	544	145	378	1047	570	275	175	164	323	145	340
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	189	573	121	398	1102	495	289	184	162	340	153	242
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	1408	729	497	1213	544	326	277	230	376	635	690
Arrive On Green	0.07	0.28	0.28	0.14	0.35	0.35	0.18	0.15	0.15	0.21	0.18	0.18
Sat Flow, veh/h	3442	5085	1583	3442	3438	1542	1774	1838	1525	1774	3539	2787
Grp Volume(v), veh/h	189	573	121	398	1087	510	289	177	169	340	153	242
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1591	1774	1770	1594	1774	1770	1393
Q Serve(g_s), s	4.5	7.7	3.7	9.3	25.5	25.5	13.2	7.9	8.4	15.6	3.1	6.0
Cycle Q Clear(g_c), s	4.5	7.7	3.7	9.3	25.5	25.5	13.2	7.9	8.4	15.6	3.1	6.0
Prop In Lane	1.00		1.00	1.00		0.97	1.00		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	235	1408	729	497	1196	561	326	267	241	376	635	690
V/C Ratio(X)	0.80	0.41	0.17	0.80	0.91	0.91	0.89	0.66	0.70	0.90	0.24	0.35
Avail Cap(c_a), veh/h	235	1408	729	698	1240	582	345	367	331	394	832	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	24.6	13.1	34.5	25.7	25.7	33.2	33.4	33.6	32.0	29.4	25.8
Incr Delay (d2), s/veh	18.0	0.2	0.1	4.5	9.7	18.1	22.4	2.8	4.1	23.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.6	1.6	4.7	13.4	14.0	8.5	4.0	4.0	10.1	1.5	2.3
LnGrp Delay(d),s/veh	56.3	24.8	13.2	39.1	35.4	43.8	55.6	36.2	37.7	55.1	29.5	26.1
LnGrp LOS	E	C	B	D	D	D	E	D	D	E	C	C
Approach Vol, veh/h	883				1995		635				735	
Approach Delay, s/veh	29.9				38.3		45.4				40.2	
Approach LOS	C				D		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.2	17.1	16.5	27.6	19.8	19.5	10.2	33.9				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	17.3	16.9	19.3	16.2	19.6	5.7	30.5				
Max Q Clear Time (g_c+1.6), s	17.6	10.4	11.3	9.7	15.2	8.0	6.5	27.5				
Green Ext Time (p_c), s	0.1	2.2	0.7	7.9	0.1	3.0	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			38.0									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	796	365	283	1201	60	210	70	159	77	85	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	79	838	321	298	1264	52	221	74	146	81	89	111
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	997	380	339	2049	84	277	291	247	261	111	139
Arrive On Green	0.06	0.27	0.27	0.19	0.41	0.41	0.16	0.16	0.16	0.15	0.15	0.15
Sat Flow, veh/h	1774	3627	1382	1774	5010	206	1774	1863	1583	1774	755	942
Grp Volume(v), veh/h	79	783	376	298	855	461	221	74	146	81	0	200
Grp Sat Flow(s),veh/h/ln	1774	1695	1619	1774	1695	1826	1774	1863	1583	1774	0	1697
Q Serve(g_s), s	3.4	17.0	17.1	12.7	15.6	15.6	9.4	2.7	6.7	3.2	0.0	8.9
Cycle Q Clear(g_c), s	3.4	17.0	17.1	12.7	15.6	15.6	9.4	2.7	6.7	3.2	0.0	8.9
Prop In Lane	1.00		0.85	1.00		0.11	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	101	932	445	339	1387	747	277	291	247	261	0	250
V/C Ratio(X)	0.78	0.84	0.84	0.88	0.62	0.62	0.80	0.25	0.59	0.31	0.00	0.80
Avail Cap(c_a), veh/h	157	942	450	389	1387	747	391	410	349	364	0	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.3	26.7	26.7	30.7	18.2	18.2	31.8	28.9	30.6	29.7	0.0	32.2
Incr Delay (d2), s/veh	12.3	6.8	13.7	18.2	0.8	1.5	7.6	0.5	2.2	0.7	0.0	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	8.8	9.3	7.9	7.4	8.1	5.2	1.4	3.1	1.6	0.0	4.8
LnGrp Delay(d),s/veh	48.6	33.5	40.4	48.9	19.1	19.8	39.3	29.4	32.9	30.4	0.0	41.0
LnGrp LOS	D	C	D	D	B	B	D	C	C	C		D
Approach Vol, veh/h	1238				1614		441				281	
Approach Delay, s/veh	36.6				24.8		35.5				38.0	
Approach LOS	D				C		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.7	19.4	26.0		16.0	9.0	36.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.2	17.1	21.7		16.0	6.9	31.9				
Max Q Clear Time (g_c+I1), s		11.4	14.7	19.1		10.9	5.4	17.6				
Green Ext Time (p_c), s		0.8	0.2	2.3		0.6	0.0	11.5				
Intersection Summary												
HCM 2010 Ctrl Delay			31.2									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  		 				 	
Volume (veh/h)	75	628	365	245	953	65	450	190	327	50	145	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	79	661	321	258	1003	68	474	200	323	53	153	115
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	1266	394	360	1444	98	578	631	536	67	206	155
Arrive On Green	0.06	0.25	0.25	0.10	0.30	0.30	0.17	0.34	0.34	0.04	0.21	0.21
Sat Flow, veh/h	1774	5085	1583	3442	4865	329	3442	1863	1583	1774	989	743
Grp Volume(v), veh/h	79	661	321	258	698	373	474	200	323	53	0	268
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1805	1721	1863	1583	1774	0	1732
Q Serve(g_s), s	2.9	7.5	12.7	4.8	12.2	12.2	8.9	5.3	11.3	2.0	0.0	9.7
Cycle Q Clear(g_c), s	2.9	7.5	12.7	4.8	12.2	12.2	8.9	5.3	11.3	2.0	0.0	9.7
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	101	1266	394	360	1006	535	578	631	536	67	0	361
V/C Ratio(X)	0.78	0.52	0.81	0.72	0.69	0.70	0.82	0.32	0.60	0.80	0.00	0.74
Avail Cap(c_a), veh/h	147	1291	402	470	1044	556	646	685	583	173	0	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	21.6	23.6	28.9	20.7	20.8	26.7	16.3	18.3	31.8	0.0	24.7
Incr Delay (d2), s/veh	15.4	0.4	12.0	3.6	1.9	3.6	7.6	0.3	1.5	18.9	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.5	6.8	2.5	5.9	6.5	4.8	2.8	5.2	1.3	0.0	5.0
LnGrp Delay(d),s/veh	46.4	21.9	35.5	32.5	22.7	24.4	34.3	16.6	19.8	50.7	0.0	29.0
LnGrp LOS	D	C	D	C	C	C	C	B	B	D		C
Approach Vol, veh/h	1061				1329				997		321	
Approach Delay, s/veh	27.9				25.1				26.1		32.5	
Approach LOS	C				C				C		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	27.0	11.5	21.1	15.7	18.4	8.3	24.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	24.5	9.1	16.9	12.5	18.5	5.5	20.5				
Max Q Clear Time (g_c+14), s	14.0	13.3	6.8	14.7	10.9	11.7	4.9	14.2				
Green Ext Time (p_c), s	0.0	3.0	0.2	1.9	0.3	2.2	0.0	5.0				
Intersection Summary												
HCM 2010 Ctrl Delay			26.8									
HCM 2010 LOS			C									

Intersection																
Intersection Delay, s/veh57.2																
Intersection LOS F																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	455	40	0	47	753	50	0	75	35	58	0	10	50	125
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	63	479	42	0	49	793	53	0	79	37	61	0	11	53	132
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	62.8	70.6	15.9	15.9
HCM LOS	F	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	11%	0%	17%	0%
Vol Thru, %	0%	38%	0%	100%	0%	89%	88%	83%	0%
Vol Right, %	0%	62%	0%	0%	100%	0%	12%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	93	60	455	40	424	427	60	125
LT Vol	75	0	60	0	0	47	0	10	0
Through Vol	0	35	0	455	0	377	377	50	0
RT Vol	0	58	0	0	40	0	50	0	125
Lane Flow Rate	79	98	63	479	42	446	449	63	132
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.229	0.258	0.162	1	0.094	1	0.996	0.175	0.335
Departure Headway (Hd)	10.421	9.489	9.248	8.735	8.015	8.125	7.987	9.956	9.177
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	344	378	393	421	452	446	453	360	392
Service Time	8.186	7.254	6.871	6.371	5.671	5.868	5.73	7.72	6.94
HCM Lane V/C Ratio	0.23	0.259	0.16	1.138	0.093	1	0.991	0.175	0.337
HCM Control Delay	16.3	15.5	13.6	73.8	11.5	71.5	69.8	14.8	16.5
HCM Lane LOS	C	C	B	F	B	F	F	B	C
HCM 95th-tile Q	0.9	1	0.6	12.5	0.3	12.9	12.8	0.6	1.4

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	134	80	285	113	120	95	405	242	110	255	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	141	73	300	119	115	100	426	192	116	268	57
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	192	260	656	166	161	196	584	260	129	760	159
Arrive On Green	0.16	0.16	0.16	0.19	0.19	0.19	0.06	0.24	0.24	0.07	0.26	0.26
Sat Flow, veh/h	657	1173	1583	3442	872	842	3442	2382	1063	1774	2914	610
Grp Volume(v), veh/h	220	0	73	300	0	234	100	315	303	116	161	164
Grp Sat Flow(s),veh/h/ln	1830	0	1583	1721	0	1714	1721	1770	1675	1774	1770	1755
Q Serve(g_s), s	6.3	0.0	2.2	4.2	0.0	7.0	1.6	9.0	9.1	3.6	4.1	4.2
Cycle Q Clear(g_c), s	6.3	0.0	2.2	4.2	0.0	7.0	1.6	9.0	9.1	3.6	4.1	4.2
Prop In Lane	0.36		1.00	1.00		0.49	1.00		0.63	1.00		0.35
Lane Grp Cap(c), veh/h	300	0	260	656	0	327	196	434	410	129	461	458
V/C Ratio(X)	0.73	0.00	0.28	0.46	0.00	0.72	0.51	0.73	0.74	0.90	0.35	0.36
Avail Cap(c_a), veh/h	533	0	461	1002	0	499	250	515	488	129	515	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	20.1	19.7	0.0	20.8	25.2	19.1	19.1	25.3	16.5	16.6
Incr Delay (d2), s/veh	3.5	0.0	0.6	0.5	0.0	2.9	2.0	4.2	4.8	49.7	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	1.0	2.0	0.0	3.6	0.8	4.9	4.7	3.5	2.0	2.1
LnGrp Delay(d),s/veh	25.3	0.0	20.7	20.2	0.0	23.8	27.2	23.3	23.9	75.0	17.0	17.0
LnGrp LOS	C		C	C		C	C	C	C	E	B	B
Approach Vol, veh/h		293			534			718			441	
Approach Delay, s/veh		24.1			21.8			24.1			32.2	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	18.0		13.5	7.6	18.8		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.0	16.0		16.0	4.0	16.0		16.0				
Max Q Clear Time (g_c+1.6), s	11.1	11.1		8.3	3.6	6.2		9.0				
Green Ext Time (p_c), s	0.0	2.3		0.8	0.0	3.8		1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			25.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	156	185	155	240	255	250	115	327	320	321	275	213
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	164	195	152	253	268	252	121	344	274	338	289	192
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	290	246	297	389	331	155	422	330	385	728	470
Arrive On Green	0.11	0.16	0.16	0.17	0.21	0.21	0.09	0.22	0.22	0.22	0.35	0.35
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	1891	1480	1774	2064	1333
Grp Volume(v), veh/h	164	195	152	253	268	252	121	321	297	338	247	234
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1602	1774	1770	1627
Q Serve(g_s), s	6.9	7.5	6.8	10.5	10.1	11.4	5.1	13.1	13.4	14.0	8.0	8.3
Cycle Q Clear(g_c), s	6.9	7.5	6.8	10.5	10.1	11.4	5.1	13.1	13.4	14.0	8.0	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.92	1.00		0.82
Lane Grp Cap(c), veh/h	203	290	246	297	389	331	155	395	357	385	624	574
V/C Ratio(X)	0.81	0.67	0.62	0.85	0.69	0.76	0.78	0.81	0.83	0.88	0.40	0.41
Avail Cap(c_a), veh/h	275	392	333	385	507	431	296	419	379	502	624	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	30.3	30.0	30.7	27.8	28.3	34.0	28.0	28.2	28.8	18.5	18.6
Incr Delay (d2), s/veh	12.0	2.7	2.5	13.4	2.6	5.8	8.3	11.2	13.7	13.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.1	3.1	6.2	5.5	5.5	2.8	7.6	7.3	8.3	4.0	3.8
LnGrp Delay(d),s/veh	44.9	33.0	32.5	44.1	30.4	34.1	42.2	39.2	41.9	42.0	18.9	19.1
LnGrp LOS	D	C	C	D	C	C	D	D	D	D	B	B
Approach Vol, veh/h	511				773		739				819	
Approach Delay, s/veh	36.7				36.1		40.8				28.5	
Approach LOS	D				D		D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	21.5	17.2	16.3	11.1	31.3	13.2	20.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	21.5	18.0	16.5	16.0	12.7	26.8	11.8	20.7				
Max Q Clear Time (g_c+10.0), s	15.4	15.4	12.5	9.5	7.1	10.3	8.9	13.4				
Green Ext Time (p_c), s	0.5	1.5	0.3	2.3	0.1	6.1	0.1	2.5				
Intersection Summary												
HCM 2010 Ctrl Delay			35.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	226	1310	260	279	1260	360	510	780	194	250	640	264
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	238	1379	190	294	1326	232	537	821	141	263	674	194
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	1789	557	348	1596	279	547	1163	520	315	709	204
Arrive On Green	0.09	0.35	0.35	0.10	0.37	0.37	0.16	0.33	0.33	0.09	0.26	0.26
Sat Flow, veh/h	3442	5085	1583	3442	4356	762	3442	3539	1583	3442	2714	781
Grp Volume(v), veh/h	238	1379	190	294	1032	526	537	821	141	263	439	429
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1728	1721	1770	1583	1721	1770	1725
Q Serve(g_s), s	8.5	30.3	11.1	10.6	34.9	34.9	19.6	25.5	8.3	9.5	30.7	30.7
Cycle Q Clear(g_c), s	8.5	30.3	11.1	10.6	34.9	34.9	19.6	25.5	8.3	9.5	30.7	30.7
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	298	1789	557	348	1242	633	547	1163	520	315	462	450
V/C Ratio(X)	0.80	0.77	0.34	0.85	0.83	0.83	0.98	0.71	0.27	0.84	0.95	0.95
Avail Cap(c_a), veh/h	438	1900	591	383	1242	633	547	1163	520	328	464	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.4	36.3	30.0	55.6	36.3	36.3	52.7	36.9	31.1	56.2	45.7	45.7
Incr Delay (d2), s/veh	6.4	1.9	0.4	14.8	4.9	9.2	33.7	2.0	0.3	16.4	29.6	30.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	14.5	4.9	5.7	17.2	18.3	11.8	12.7	3.7	5.2	18.8	18.4
LnGrp Delay(d),s/veh	62.8	38.2	30.4	70.4	41.2	45.5	86.4	38.9	31.4	72.6	75.3	76.0
LnGrp LOS	E	D	C	E	D	D	F	D	C	E	E	E
Approach Vol, veh/h	1807					1852		1499		1131		
Approach Delay, s/veh	40.6					47.1		55.2		74.9		
Approach LOS	D					D		E		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	48.3	24.0	36.8	14.9	50.1	15.5	45.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	47.0	20.0	33.0	16.0	45.0	12.0	41.0				
Max Q Clear Time (g_c+1.0), s	12.6	32.3	21.6	32.7	10.5	36.9	11.5	27.5				
Green Ext Time (p_c), s	0.2	11.9	0.0	0.1	0.3	7.5	0.1	8.7				
Intersection Summary												
HCM 2010 Ctrl Delay			52.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 	  	  	  	
Volume (veh/h)	504	930	400	280	1120	500	470	1102	400	230	385	139
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	531	979	316	295	1179	431	495	1160	295	242	405	114
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	574	1356	422	497	1243	387	1001	1180	1331	268	611	190
Arrive On Green	0.17	0.27	0.27	0.14	0.24	0.24	0.29	0.33	0.33	0.08	0.12	0.12
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	531	979	316	295	1179	431	495	1160	295	242	405	114
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	13.7	15.7	16.5	7.2	20.5	17.1	10.7	29.3	1.3	6.3	6.9	6.1
Cycle Q Clear(g_c), s	13.7	15.7	16.5	7.2	20.5	17.1	10.7	29.3	1.3	6.3	6.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	574	1356	422	497	1243	387	1001	1180	1331	268	611	190
V/C Ratio(X)	0.93	0.72	0.75	0.59	0.95	1.11	0.49	0.98	0.22	0.90	0.66	0.60
Avail Cap(c_a), veh/h	574	1356	422	497	1243	387	1001	1180	1331	268	1017	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	30.0	30.2	36.0	33.4	20.7	26.4	29.8	5.6	41.2	37.9	37.5
Incr Delay (d2), s/veh	21.2	3.4	11.5	1.9	15.8	80.2	0.4	22.2	0.1	31.2	1.2	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	7.8	8.5	3.6	11.4	16.0	5.1	17.8	1.3	4.2	3.3	2.9
LnGrp Delay(d),s/veh	58.1	33.3	41.7	37.9	49.3	100.8	26.8	51.9	5.7	72.4	39.1	40.5
LnGrp LOS	E	C	D	D	D	F	C	D	A	E	D	D
Approach Vol, veh/h	1826				1905		1950				761	
Approach Delay, s/veh	42.0				59.2		38.5				49.9	
Approach LOS	D				E		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	28.0	30.2	14.8	19.0	26.0	11.0	34.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	24.0	19.0	18.0	15.0	22.0	7.0	30.0				
Max Q Clear Time (g_c+I), s	19.2	18.5	12.7	8.9	15.7	22.5	8.3	31.3				
Green Ext Time (p_c), s	1.2	3.2	4.7	2.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			47.0									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary 25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  					  		
Traffic Volume (veh/h)	0	1549	115	0	1354	125	0	0	0	250	0	60
Future Volume (veh/h)	0	1549	115	0	1354	125	0	0	0	250	0	60
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1866	127	0	1440	101				287	0	58
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94				0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3569	1111	0	3569	1304				419	0	193
Arrive On Green	0.00	0.70	0.70	0.00	0.23	0.23				0.12	0.00	0.12
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	1866	127	0	1440	101				287	0	58
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	11.1	1.7	0.0	15.4	1.9				5.1	0.0	2.1
Cycle Q Clear(g_c), s	0.0	11.1	1.7	0.0	15.4	1.9				5.1	0.0	2.1
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3569	1111	0	3569	1304				419	0	193
V/C Ratio(X)	0.00	0.52	0.11	0.00	0.40	0.08				0.69	0.00	0.30
Avail Cap(c_a), veh/h	0	3569	1111	0	3569	1304				726	0	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.91	0.91				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.5	3.1	0.0	13.2	3.0				26.9	0.0	25.6
Incr Delay (d2), s/veh	0.0	0.6	0.2	0.0	0.3	0.1				2.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.2	0.8	0.0	7.3	1.4				2.6	0.0	1.0
LnGrp Delay(d),s/veh	0.0	5.0	3.3	0.0	13.5	3.1				29.1	0.0	26.6
LnGrp LOS		A	A		B	A				C		C
Approach Vol, veh/h	1993				1541						345	
Approach Delay, s/veh	4.9				12.9						28.7	
Approach LOS	A				B						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	50.7		13.3		50.7							
Change Period (Y+Rc), s	5.8		5.5		5.8							
Max Green Setting (Gmax), s	39.2		13.5		39.2							
Max Q Clear Time (g_c+l1), s	13.1		7.1		17.4							
Green Ext Time (p_c), s	25.8		0.7		21.6							
Intersection Summary												
HCM 2010 Ctrl Delay			10.2									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↖↖			
Traffic Volume (veh/h)	0	1574	225	0	1404	620	75	0	110	0	0	0
Future Volume (veh/h)	0	1574	225	0	1404	620	75	0	110	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1852	194	0	1510	538	84	0	102			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.89	0.89	0.89			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3791	1304	0	3791	1180	138	0	217			
Arrive On Green	0.00	0.75	0.75	0.00	0.75	0.75	0.08	0.00	0.08			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1852	194	0	1510	538	84	0	102			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	9.3	1.6	0.0	6.9	8.4	2.9	0.0	2.2			
Cycle Q Clear(g_c), s	0.0	9.3	1.6	0.0	6.9	8.4	2.9	0.0	2.2			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3791	1304	0	3791	1180	138	0	217			
V/C Ratio(X)	0.00	0.49	0.15	0.00	0.40	0.46	0.61	0.00	0.47			
Avail Cap(c_a), veh/h	0	3791	1304	0	3791	1180	263	0	414			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.82	0.82	0.00	0.09	0.09	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	3.3	1.1	0.0	2.9	3.1	28.6	0.0	28.2			
Incr Delay (d2), s/veh	0.0	0.4	0.2	0.0	0.0	0.1	4.6	0.0	1.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	4.4	1.0	0.0	3.1	3.6	1.6	0.0	0.9			
LnGrp Delay(d),s/veh	0.0	3.6	1.3	0.0	3.0	3.3	33.2	0.0	29.9			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h		2046			2048			186				
Approach Delay, s/veh		3.4			3.0			31.4				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		53.5				53.5		10.5				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		43.2				43.2		9.5				
Max Q Clear Time (g_c+I1), s		11.3				10.4		4.9				
Green Ext Time (p_c), s		31.6				32.6		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			4.5									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  	 	 	  		 	 		 	 	
Volume (veh/h)	372	967	345	352	1185	190	610	410	273	90	280	225
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	392	1018	237	371	1247	189	642	432	224	95	295	174
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	448	1478	810	443	1289	195	705	1227	753	155	661	502
Arrive On Green	0.13	0.29	0.29	0.13	0.29	0.29	0.20	0.35	0.35	0.05	0.19	0.19
Sat Flow, veh/h	3442	5085	2787	3442	4458	676	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	392	1018	237	371	948	488	642	432	224	95	295	174
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1744	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	10.1	16.0	5.9	9.5	24.8	24.8	16.4	8.2	7.8	2.4	6.6	7.6
Cycle Q Clear(g_c), s	10.1	16.0	5.9	9.5	24.8	24.8	16.4	8.2	7.8	2.4	6.6	7.6
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	448	1478	810	443	980	504	705	1227	753	155	661	502
V/C Ratio(X)	0.88	0.69	0.29	0.84	0.97	0.97	0.91	0.35	0.30	0.61	0.45	0.35
Avail Cap(c_a), veh/h	448	1478	810	463	980	504	708	1227	753	222	661	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	28.3	24.7	38.3	31.5	31.5	34.9	21.9	14.4	42.2	32.4	23.6
Incr Delay (d2), s/veh	17.4	1.4	0.2	12.4	21.2	31.8	15.9	0.8	1.0	3.9	2.2	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	7.6	2.3	5.2	14.5	16.4	9.3	4.1	3.6	1.2	3.4	3.6
LnGrp Delay(d),s/veh	55.8	29.7	24.9	50.7	52.7	63.3	50.8	22.7	15.4	46.1	34.6	25.5
LnGrp LOS	E	C	C	D	D	E	D	C	B	D	C	C
Approach Vol, veh/h	1647					1807		1298		564		
Approach Delay, s/veh	35.2					55.2		35.3		33.7		
Approach LOS	D					E		D		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	35.2	16.1	30.1	22.9	20.8	16.2	30.0				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	5.8	29.5	12.1	25.6	18.5	16.8	11.7	26.0				
Max Q Clear Time (g_c+1.4), s	14.4	10.2	11.5	18.0	18.4	9.6	12.1	26.8				
Green Ext Time (p_c), s	0.0	5.8	0.1	6.7	0.0	3.4	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			41.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

11/15/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑
Volume (veh/h)	532	798	1452	180	135	280
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	560	840	1528	189	142	295
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	728	3376	1650	204	268	479
Arrive On Green	0.21	0.66	0.36	0.36	0.15	0.15
Sat Flow, veh/h	3442	5253	4754	567	1774	3167
Grp Volume(v), veh/h	560	840	1129	588	142	295
Grp Sat Flow(s), veh/h/ln	1721	1695	1695	1763	1774	1583
Q Serve(g_s), s	7.5	3.2	15.5	15.6	3.6	4.2
Cycle Q Clear(g_c), s	7.5	3.2	15.5	15.6	3.6	4.2
Prop In Lane	1.00			0.32	1.00	1.00
Lane Grp Cap(c), veh/h	728	3376	1220	634	268	479
V/C Ratio(X)	0.77	0.25	0.93	0.93	0.53	0.62
Avail Cap(c_a), veh/h	955	4548	1220	634	584	1042
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	3.3	14.9	15.0	19.0	19.3
Incr Delay (d2), s/veh	2.8	0.0	12.0	19.9	1.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	1.5	9.2	11.0	1.9	3.7
LnGrp Delay(d),s/veh	20.9	3.3	26.9	34.9	20.7	20.6
LnGrp LOS	C	A	C	C	C	C
Approach Vol, veh/h		1400	1717		437	
Approach Delay, s/veh		10.3	29.6		20.6	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		36.8		11.9	14.8	22.0		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		43.5		16.0	13.5	17.5		
Max Q Clear Time (g_c+l1), s		5.2		6.2	9.5	17.6		
Green Ext Time (p_c), s		24.6		1.1	0.8	0.0		

Intersection Summary								
HCM 2010 Ctrl Delay			20.9					
HCM 2010 LOS			C					

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

11/15/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	  					
Volume (veh/h)	260	673	1442	196	240	190		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	274	708	1518	206	253	200		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	326	3398	1859	252	325	290		
Arrive On Green	0.18	0.67	0.41	0.41	0.18	0.18		
Sat Flow, veh/h	1774	5253	4698	614	1774	1583		
Grp Volume(v), veh/h	274	708	1135	589	253	200		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1754	1774	1583		
Q Serve(g_s), s	9.0	3.3	18.0	18.0	8.2	7.2		
Cycle Q Clear(g_c), s	9.0	3.3	18.0	18.0	8.2	7.2		
Prop In Lane	1.00			0.35	1.00	1.00		
Lane Grp Cap(c), veh/h	326	3398	1391	720	325	290		
V/C Ratio(X)	0.84	0.21	0.82	0.82	0.78	0.69		
Avail Cap(c_a), veh/h	395	3651	1427	738	512	457		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	23.9	3.9	15.8	15.9	23.6	23.1		
Incr Delay (d2), s/veh	12.9	0.0	3.7	7.0	4.0	2.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.6	1.5	9.1	10.1	4.4	6.3		
LnGrp Delay(d),s/veh	36.8	3.9	19.6	22.9	27.6	26.0		
LnGrp LOS	D	A	B	C	C	C		
Approach Vol, veh/h		982	1724		453			
Approach Delay, s/veh		13.1	20.7		26.9			
Approach LOS		B	C		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				45.0		15.6	15.6	29.4
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				43.5		17.5	13.5	25.5
Max Q Clear Time (g_c+I1), s				5.3		10.2	11.0	20.0
Green Ext Time (p_c), s				23.2		0.9	0.2	4.8
Intersection Summary								
HCM 2010 Ctrl Delay			19.2					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 			 			 			 		
Volume (veh/h)	308	315	290	470	900	282	390	623	150	55	452	349
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	324	332	242	495	947	286	411	656	147	58	476	293
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	893	417	510	1461	455	453	1005	449	141	684	306
Arrive On Green	0.12	0.26	0.26	0.15	0.29	0.29	0.13	0.28	0.28	0.04	0.19	0.19
Sat Flow, veh/h	3442	3390	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	324	332	242	495	947	286	411	656	147	58	476	293
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	5.5	4.9	8.1	8.7	9.9	9.5	7.2	9.9	2.7	1.0	7.6	7.6
Cycle Q Clear(g_c), s	5.5	4.9	8.1	8.7	9.9	9.5	7.2	9.9	2.7	1.0	7.6	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	428	893	417	510	1461	455	453	1005	449	141	684	306
V/C Ratio(X)	0.76	0.37	0.58	0.97	0.65	0.63	0.91	0.65	0.33	0.41	0.70	0.96
Avail Cap(c_a), veh/h	453	893	417	510	1461	455	453	1165	521	227	932	417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	18.3	19.4	25.7	19.0	18.8	26.0	19.1	6.4	28.4	22.8	11.3
Incr Delay (d2), s/veh	6.8	1.2	5.8	32.3	2.2	6.5	21.7	1.1	0.4	1.9	1.4	28.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	2.4	4.2	6.3	4.9	5.0	4.7	5.0	1.8	0.5	3.8	6.3
LnGrp Delay(d),s/veh	32.5	19.5	25.2	58.0	21.2	25.3	47.7	20.2	6.8	30.3	24.2	39.7
LnGrp LOS	C	B	C	E	C	C	D	C	A	C	C	D
Approach Vol, veh/h	898			1728			1214			827		
Approach Delay, s/veh	25.7			32.4			27.9			30.1		
Approach LOS	C			C			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	20.0	12.0	15.7	11.6	21.4	6.5	21.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	16.0	8.0	16.0	8.0	17.0	4.0	20.0					
Max Q Clear Time (g_c+10), s	10.1	9.2	9.6	7.5	11.9	3.0	11.9					
Green Ext Time (p_c), s	0.0	1.7	0.0	2.1	0.1	3.5	0.0	3.8				
Intersection Summary												
HCM 2010 Ctrl Delay	29.6											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	
Volume (veh/h)	290	842	380	350	1515	190	470	450	170	70	380	290
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	305	886	337	368	1595	179	495	474	168	74	400	258
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	1516	472	653	1930	601	560	1287	701	146	675	672
Arrive On Green	0.11	0.30	0.30	0.19	0.38	0.38	0.16	0.25	0.25	0.04	0.13	0.13
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	305	886	337	368	1595	179	495	474	168	74	400	258
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	6.4	10.9	14.0	7.2	20.9	5.8	10.4	5.7	0.8	1.6	5.5	3.3
Cycle Q Clear(g_c), s	6.4	10.9	14.0	7.2	20.9	5.8	10.4	5.7	0.8	1.6	5.5	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	1516	472	653	1930	601	560	1287	701	146	675	672
V/C Ratio(X)	0.82	0.58	0.71	0.56	0.83	0.30	0.88	0.37	0.24	0.51	0.59	0.38
Avail Cap(c_a), veh/h	373	1516	472	653	1930	601	560	1585	794	233	1103	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	22.0	23.1	27.1	20.7	16.0	30.2	22.7	5.5	34.6	30.1	9.6
Incr Delay (d2), s/veh	13.3	1.7	8.9	1.1	4.2	1.3	15.5	0.2	0.2	2.7	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	5.3	7.2	3.5	10.5	2.7	6.2	2.7	1.3	0.8	2.6	1.4
LnGrp Delay(d),s/veh	45.5	23.7	32.0	28.2	24.9	17.3	45.7	22.9	5.7	37.3	31.0	9.9
LnGrp LOS	D	C	C	C	C	B	D	C	A	D	C	A
Approach Vol, veh/h	1528				2142		1137				732	
Approach Delay, s/veh	29.9				24.9		30.3				24.2	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	26.0	16.0	13.8	12.0	32.0	7.1	22.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	22.0	12.0	16.0	8.0	28.0	5.0	23.0				
Max Q Clear Time (g_c+I), s	19.2	16.0	12.4	7.5	8.4	22.9	3.6	7.7				
Green Ext Time (p_c), s	4.0	3.3	0.0	2.3	0.0	4.2	0.0	4.7				
Intersection Summary												
HCM 2010 Ctrl Delay			27.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Volume (veh/h)	312	640	280	160	580	90	100	271	130	210	563	495
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	328	674	290	168	611	84	105	285	126	221	593	395
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	454	1259	533	270	1082	484	193	720	296	294	824	578
Arrive On Green	0.13	0.36	0.36	0.08	0.31	0.31	0.06	0.20	0.20	0.09	0.23	0.23
Sat Flow, veh/h	3442	3506	1485	3442	3539	1583	3442	3538	1457	3442	3539	1583
Grp Volume(v), veh/h	328	651	313	168	611	84	105	272	139	221	593	395
Grp Sat Flow(s),veh/h/ln	1721	1695	1601	1721	1770	1583	1721	1695	1606	1721	1770	1583
Q Serve(g_s), s	5.3	8.9	9.1	2.8	8.5	2.3	1.7	4.1	4.4	3.7	9.0	7.3
Cycle Q Clear(g_c), s	5.3	8.9	9.1	2.8	8.5	2.3	1.7	4.1	4.4	3.7	9.0	7.3
Prop In Lane	1.00		0.93	1.00		1.00	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	454	1217	575	270	1082	484	193	690	327	294	824	578
V/C Ratio(X)	0.72	0.54	0.54	0.62	0.56	0.17	0.55	0.39	0.42	0.75	0.72	0.68
Avail Cap(c_a), veh/h	647	1217	575	412	1082	484	235	927	439	294	1029	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	14.9	14.9	26.1	17.0	14.9	26.9	20.2	20.3	26.1	20.7	6.1
Incr Delay (d2), s/veh	2.3	1.7	3.7	2.3	2.1	0.8	2.4	0.4	0.9	10.3	1.9	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.4	4.6	1.4	4.4	1.1	0.9	1.9	2.0	2.2	4.6	3.6
LnGrp Delay(d),s/veh	26.7	16.6	18.6	28.5	19.2	15.7	29.3	20.5	21.2	36.4	22.5	8.4
LnGrp LOS	C	B	B	C	B	B	C	C	C	D	C	A
Approach Vol, veh/h	1292				863				516		1209	
Approach Delay, s/veh	19.6				20.6				22.5		20.5	
Approach LOS	B				C				C		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	25.0	7.3	17.6	11.7	21.9	9.0	15.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	21.0	4.0	17.0	11.0	17.0	5.0	16.0				
Max Q Clear Time (g_c+I), s	14.8	11.1	3.7	11.0	7.3	10.5	5.7	6.4				
Green Ext Time (p_c), s	0.2	4.1	0.1	2.6	0.4	2.5	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			20.5									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	1024	130	139	1249	50	150	50	204	130	50	100
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	1078	137	146	1315	53	158	53	215	137	53	105
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	2144	272	232	1365	1075	177	298	267	229	458	214
Arrive On Green	0.15	0.47	0.47	0.07	0.39	0.39	0.10	0.17	0.17	0.07	0.14	0.14
Sat Flow, veh/h	3442	4570	580	3442	3539	2787	1774	1770	1583	3442	3390	1583
Grp Volume(v), veh/h	53	799	416	146	1315	53	158	53	215	137	53	105
Grp Sat Flow(s),veh/h/ln	1721	1695	1760	1721	1770	1393	1774	1770	1583	1721	1695	1583
Q Serve(g_s), s	0.9	11.5	11.5	2.9	25.4	0.8	6.2	1.8	9.1	2.7	1.0	4.3
Cycle Q Clear(g_c), s	0.9	11.5	11.5	2.9	25.4	0.8	6.2	1.8	9.1	2.7	1.0	4.3
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	519	1590	826	232	1365	1075	177	298	267	229	458	214
V/C Ratio(X)	0.10	0.50	0.50	0.63	0.96	0.05	0.89	0.18	0.81	0.60	0.12	0.49
Avail Cap(c_a), veh/h	519	1590	826	393	1365	1075	177	404	362	344	775	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	12.9	12.9	31.8	21.0	13.5	31.1	24.9	28.0	31.8	26.6	28.0
Incr Delay (d2), s/veh	0.1	1.1	2.2	2.8	17.0	0.1	38.4	0.3	9.2	2.5	0.1	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.6	6.0	1.5	15.5	0.3	4.9	0.9	4.7	1.4	0.5	2.0
LnGrp Delay(d),s/veh	25.7	14.0	15.1	34.6	38.0	13.6	69.6	25.2	37.2	34.3	26.7	29.8
LnGrp LOS	C	B	B	C	D	B	E	C	D	C	C	C
Approach Vol, veh/h	1268				1514		426				295	
Approach Delay, s/veh	14.9				36.9		47.7				31.3	
Approach LOS	B				D		D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	36.8	11.0	13.5	14.5	31.0	8.6	15.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	23.0	23.0	7.0	16.0	4.0	27.0	7.0	16.0				
Max Q Clear Time (g_c+14.9), s	13.5	13.5	8.2	6.3	2.9	27.4	4.7	11.1				
Green Ext Time (p_c), s	0.1	5.5	0.0	0.9	0.0	0.0	0.3	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			29.8									
HCM 2010 LOS			C									

Intersection

Intersection Delay, s/veh13.2

Intersection LOS B

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	201	585	665
Demand Flow Rate, veh/h	205	596	678
Vehicles Circulating, veh/h	532	6	198
Vehicles Exiting, veh/h	70	870	539
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.5	9.6	17.6
Approach LOS	A	A	C

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	205	596	678
Cap Entry Lane, veh/h	664	1123	927
Entry HV Adj Factor	0.980	0.981	0.981
Flow Entry, veh/h	201	585	665
Cap Entry, veh/h	651	1102	909
V/C Ratio	0.309	0.531	0.731
Control Delay, s/veh	9.5	9.6	17.6
LOS	A	A	C
95th %tile Queue, veh	1	3	7

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	7	533	20	0	762
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	561	21	0	802

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1374	572	0 0 582 0
Stage 1	572	-	- - - -
Stage 2	802	-	- - - -
Critical Hdwy	6.42	6.22	- - 4.12 -
Critical Hdwy Stg 1	5.42	-	- - - -
Critical Hdwy Stg 2	5.42	-	- - - -
Follow-up Hdwy	3.518	3.318	- - 2.218 -
Pot Cap-1 Maneuver	160	520	- - 992 -
Stage 1	565	-	- - - -
Stage 2	441	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	160	520	- - 992 -
Mov Cap-2 Maneuver	160	-	- - - -
Stage 1	565	-	- - - -
Stage 2	441	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 520	992	-
HCM Lane V/C Ratio	-	- 0.014	-	-
HCM Control Delay (s)	-	- 12	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0	0	-

Intersection			
Intersection Delay, s/veh	17.3		
Intersection LOS	C		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	104	686	838
Demand Flow Rate, veh/h	106	700	855
Vehicles Circulating, veh/h	650	2	102
Vehicles Exiting, veh/h	52	955	654
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.5	11.5	23.2
Approach LOS	A	B	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	106	700	855
Cap Entry Lane, veh/h	590	1128	1020
Entry HV Adj Factor	0.981	0.980	0.980
Flow Entry, veh/h	104	686	838
Cap Entry, veh/h	579	1106	1000
V/C Ratio	0.180	0.621	0.838
Control Delay, s/veh	8.5	11.5	23.2
LOS	A	B	C
95th %tile Queue, veh	1	5	10

Intersection

Intersection Delay, s/veh10.1

Intersection LOS B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	122	543	584
Demand Flow Rate, veh/h	0	124	553	596
Vehicles Circulating, veh/h	712	483	5	116
Vehicles Exiting, veh/h	0	75	707	491
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	7.3	8.8	11.8
Approach LOS	-	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	124	553	596
Cap Entry Lane, veh/h	554	697	1124	1006
Entry HV Adj Factor	1.000	0.984	0.981	0.981
Flow Entry, veh/h	0	122	543	584
Cap Entry, veh/h	554	686	1103	987
V/C Ratio	0.000	0.178	0.492	0.592
Control Delay, s/veh	6.5	7.3	8.8	11.8
LOS	A	A	A	B
95th %tile Queue, veh	0	1	3	4

Intersection

Intersection Delay, s/veh 7.0

Intersection LOS A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	14	388	420
Demand Flow Rate, veh/h	34	14	395	428
Vehicles Circulating, veh/h	432	392	9	22
Vehicles Exiting, veh/h	18	12	457	384
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	4.9	6.8	7.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	34	14	395	428
Cap Entry Lane, veh/h	734	764	1120	1105
Entry HV Adj Factor	0.968	0.993	0.981	0.981
Flow Entry, veh/h	33	14	388	420
Cap Entry, veh/h	710	758	1099	1084
V/C Ratio	0.046	0.018	0.353	0.387
Control Delay, s/veh	5.5	4.9	6.8	7.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	2

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	2	25	11	431	518	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	26	12	454	545	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1023	546	546	0	-	0
Stage 1	546	-	-	-	-	-
Stage 2	477	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	261	538	1023	-	-	-
Stage 1	580	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	258	538	1023	-	-	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	580	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1023	-	538	-	-
HCM Lane V/C Ratio	0.011	-	0.049	-	-
HCM Control Delay (s)	8.6	-	12	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	5	366	2	5	420
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	5	385	2	5	442

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	839	386	0
Stage 1	386	-	-
Stage 2	453	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	336	662	1171
Stage 1	687	-	-
Stage 2	640	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	335	662	1171
Mov Cap-2 Maneuver	335	-	-
Stage 1	687	-	-
Stage 2	637	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	462	1171
HCM Lane V/C Ratio	-	-	0.021	0.004
HCM Control Delay (s)	-	-	13	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 2010 Signalized Intersection Summary

41: Proctor Valley Rd

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	5	8	20	5	1	4	408	9	1	387	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	1	5	8	21	5	1	4	429	9	1	407	5
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	25	41	390	12	2	196	867	18	193	879	11
Arrive On Green	0.04	0.04	0.04	0.04	0.04	0.04	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	124	620	992	1188	283	57	5	1809	38	1	1834	22
Grp Volume(v), veh/h	14	0	0	27	0	0	442	0	0	413	0	0
Grp Sat Flow(s),veh/h/ln	1736	0	0	1527	0	0	1852	0	0	1858	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	0.3	0.0	0.0	3.1	0.0	0.0	2.8	0.0	0.0
Prop In Lane	0.07		0.57	0.78		0.04	0.01		0.02	0.00		0.01
Lane Grp Cap(c), veh/h	277	0	0	404	0	0	1081	0	0	1082	0	0
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.41	0.00	0.00	0.38	0.00	0.00
Avail Cap(c_a), veh/h	1623	0	0	1598	0	0	1769	0	0	1776	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.7	0.0	0.0	8.8	0.0	0.0	3.3	0.0	0.0	3.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.1	0.0	0.0	1.5	0.0	0.0	1.4	0.0	0.0
LnGrp Delay(d),s/veh	8.8	0.0	0.0	8.8	0.0	0.0	3.6	0.0	0.0	3.5	0.0	0.0
LnGrp LOS	A			A			A			A		
Approach Vol, veh/h		14			27			442			413	
Approach Delay, s/veh		8.8			8.8			3.6			3.5	
Approach LOS		A			A			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.5		5.3		13.5		5.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+l1), s		5.1		2.1		4.8		2.3				
Green Ext Time (p_c), s		3.9		0.1		4.0		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			3.8									
HCM 2010 LOS			A									

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

1/12/2017

Intersection

Int Delay, s/veh 14

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	15	15	10	185	25	630	65	205	925	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	16	16	11	195	26	663	68	216	974	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2187	2216	1000	2192	2208	697	1026	0	0	732	0	0
Stage 1	1432	1432	-	750	750	-	-	-	-	-	-	-
Stage 2	755	784	-	1442	1458	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	33	44	295	33	44	441	677	-	-	873	-	-
Stage 1	167	200	-	403	419	-	-	-	-	-	-	-
Stage 2	401	404	-	164	194	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	11	32	295	22	32	441	677	-	-	873	-	-
Mov Cap-2 Maneuver	11	32	-	22	32	-	-	-	-	-	-	-
Stage 1	161	151	-	388	403	-	-	-	-	-	-	-
Stage 2	210	388	-	113	146	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 444.1	67.5	0.4	1.8
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	677	-	-	27	25	441	873	-	-
HCM Lane V/C Ratio	0.039	-	-	1.17	1.053	0.442	0.247	-	-
HCM Control Delay (s)	10.5	-	-	\$ 444.1	\$ 422.3	19.5	10.5	-	-
HCM Lane LOS	B	-	-	F	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.7	3.2	2.2	1	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	605	192	80	480	75	171	135	85	80	160	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	32	637	128	84	505	47	180	142	68	84	168	57
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	712	143	105	855	80	239	167	77	160	310	98
Arrive On Green	0.02	0.47	0.47	0.06	0.51	0.51	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1774	1507	303	1774	1679	156	549	466	214	344	865	274
Grp Volume(v), veh/h	32	0	765	84	0	552	390	0	0	309	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1809	1774	0	1835	1229	0	0	1483	0	0
Q Serve(g_s), s	2.2	0.0	47.8	5.8	0.0	26.1	18.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	47.8	5.8	0.0	26.1	38.3	0.0	0.0	20.3	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.09	0.46		0.17	0.27		0.18
Lane Grp Cap(c), veh/h	40	0	855	105	0	935	483	0	0	569	0	0
V/C Ratio(X)	0.79	0.00	0.89	0.80	0.00	0.59	0.81	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	73	0	1031	108	0	1081	645	0	0	747	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	60.2	0.0	29.8	57.5	0.0	21.3	39.1	0.0	0.0	31.5	0.0	0.0
Incr Delay (d2), s/veh	28.2	0.0	8.9	32.5	0.0	0.6	5.6	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	25.9	3.8	0.0	13.4	13.4	0.0	0.0	8.6	0.0	0.0
LnGrp Delay(d),s/veh	88.4	0.0	38.7	90.0	0.0	21.9	44.7	0.0	0.0	32.3	0.0	0.0
LnGrp LOS	F		D	F		C	D			C		
Approach Vol, veh/h	797				636				390		309	
Approach Delay, s/veh	40.7				30.9				44.7		32.3	
Approach LOS	D				C				D		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.9	11.9	63.0		48.9	7.3	67.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		58.5	7.5	70.5		58.5	5.1	72.9				
Max Q Clear Time (g_c+I1), s		40.3	7.8	49.8		22.3	4.2	28.1				
Green Ext Time (p_c), s		4.1	0.0	8.7		4.9	0.0	11.1				
Intersection Summary												
HCM 2010 Ctrl Delay			37.3									
HCM 2010 LOS			D									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

11/15/2016

Intersection

Int Delay, s/veh 5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	462	10	10	381	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	486	11	11	401	5	11

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	412	-	0 0 211 1390
Stage 1	-	-	- - 0 978
Stage 2	-	-	- - 211 412
Critical Hdwy	4.12	-	- - 6.42 6.52
Critical Hdwy Stg 1	-	-	- - - -
Critical Hdwy Stg 2	-	-	- - 5.42 5.52
Follow-up Hdwy	2.218	-	- - 3.518 4.018
Pot Cap-1 Maneuver	1147	-	- - 777 142
Stage 1	-	-	- - - -
Stage 2	-	-	- - 824 594
Platoon blocked, %	-	-	- -
Mov Cap-1 Maneuver	1147	-	- - 448 0
Mov Cap-2 Maneuver	-	-	- - 448 0
Stage 1	-	-	- - - 0
Stage 2	-	-	- - 824 0

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1147	-	448
HCM Lane V/C Ratio	-	-	0.424	-	0.035
HCM Control Delay (s)	-	-	10.4	-	13.3
HCM Lane LOS	-	-	B	-	B
HCM 95th %tile Q(veh)	-	-	2.2	-	0.1

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

11/15/2016

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	384	67	89	10	55	423
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	404	71	94	11	58	445

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	445	0	1440
Stage 1	-	-	879
Stage 2	-	-	561
Critical Hdwy	-	-	6.52
Critical Hdwy Stg 1	-	-	5.52
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	4.018
Pot Cap-1 Maneuver	-	-	133
Stage 1	-	-	365
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	0
Mov Cap-2 Maneuver	-	-	0
Stage 1	-	-	0
Stage 2	-	-	0

Approach	EB	WB	SB
HCM Control Delay, s		9.1	0.9
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	-	991	1529
HCM Lane V/C Ratio	-	-	0.105	0.038
HCM Control Delay (s)	-	-	9.1	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

HCM 2010 Signalized Intersection Summary

5: SR-94 & Melody Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	10	49	25	10	45	53	520	55	50	670	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	42	11	52	26	11	47	56	547	58	53	705	58
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	30	86	143	37	99	79	925	98	76	945	78
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.04	0.56	0.56	0.04	0.56	0.56
Sat Flow, veh/h	541	275	801	384	346	928	1774	1656	176	1774	1698	140
Grp Volume(v), veh/h	105	0	0	84	0	0	56	0	605	53	0	763
Grp Sat Flow(s),veh/h/ln	1618	0	0	1658	0	0	1774	0	1832	1774	0	1838
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	1.4	0.0	10.1	1.4	0.0	14.6
Cycle Q Clear(g_c), s	2.7	0.0	0.0	2.1	0.0	0.0	1.4	0.0	10.1	1.4	0.0	14.6
Prop In Lane	0.40		0.50	0.31		0.56	1.00		0.10	1.00		0.08
Lane Grp Cap(c), veh/h	282	0	0	280	0	0	79	0	1023	76	0	1023
V/C Ratio(X)	0.37	0.00	0.00	0.30	0.00	0.00	0.71	0.00	0.59	0.70	0.00	0.75
Avail Cap(c_a), veh/h	643	0	0	647	0	0	288	0	1635	157	0	1506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	19.4	0.0	0.0	21.8	0.0	6.7	21.9	0.0	7.8
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.6	0.0	0.0	11.2	0.0	0.5	11.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.0	0.0	0.0	0.9	0.0	5.2	0.9	0.0	7.5
LnGrp Delay(d),s/veh	20.4	0.0	0.0	20.0	0.0	0.0	33.0	0.0	7.3	32.9	0.0	8.9
LnGrp LOS	C			B			C		A	C		A
Approach Vol, veh/h	105				84		661				816	
Approach Delay, s/veh	20.4				20.0		9.5				10.5	
Approach LOS	C				B		A				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			4	5	6	8				
Phs Duration (G+Y+Rc), s	6.5	30.3			9.5	6.6	30.3	9.5				
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.1	41.3			16.1	7.5	37.9	16.1				
Max Q Clear Time (g_c+l1), s	3.4	12.1			4.7	3.4	16.6	4.1				
Green Ext Time (p_c), s	0.0	10.5			0.8	0.0	9.2	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			11.2									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↱	↱		
Traffic Volume (veh/h)	0	647	352	0	185	40		
Future Volume (veh/h)	0	647	352	0	185	40		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	688	400	0	220	36		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.94	0.94	0.88	0.88	0.84	0.84		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1827	1827	0	313	279		
Arrive On Green	0.00	0.52	0.52	0.00	0.18	0.18		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	688	400	0	220	36		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	4.3	2.3	0.0	4.3	0.7		
Cycle Q Clear(g_c), s	0.0	4.3	2.3	0.0	4.3	0.7		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1827	1827	0	313	279		
V/C Ratio(X)	0.00	0.38	0.22	0.00	0.70	0.13		
Avail Cap(c_a), veh/h	0	2907	2907	0	1134	1012		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	5.3	4.8	0.0	14.2	12.8		
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.0	3.1	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	2.1	1.1	0.0	2.3	0.3		
LnGrp Delay(d),s/veh	0.0	5.6	5.0	0.0	17.4	13.0		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		688	400		256			
Approach Delay, s/veh		5.6	5.0		16.7			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		24.8		12.0		24.8		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		30.2		23.5		30.2		
Max Q Clear Time (g_c+I1), s		6.3		6.3		4.3		
Green Ext Time (p_c), s		12.7		0.7		13.3		
Intersection Summary								
HCM 2010 Ctrl Delay			7.5					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	80	752	352	90	0	0			
Future Volume (veh/h)	80	752	352	90	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	91	855	429	98					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.88	0.88	0.82	0.82					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	115	2956	1885	427					
Arrive On Green	0.06	0.84	0.66	0.66					
Sat Flow, veh/h	1774	3632	2961	650					
Grp Volume(v), veh/h	91	855	263	264					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1748					
Q Serve(g_s), s	1.8	1.8	2.1	2.1					
Cycle Q Clear(g_c), s	1.8	1.8	2.1	2.1					
Prop In Lane	1.00			0.37					
Lane Grp Cap(c), veh/h	115	2956	1163	1149					
V/C Ratio(X)	0.79	0.29	0.23	0.23					
Avail Cap(c_a), veh/h	957	5949	1819	1797					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	16.2	0.6	2.4	2.4					
Incr Delay (d2), s/veh	4.6	0.1	0.2	0.2					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	1.0	0.9	1.1	1.1					
LnGrp Delay(d),s/veh	20.9	0.7	2.6	2.7					
LnGrp LOS	C	A	A	A					
Approach Vol, veh/h		946	527						
Approach Delay, s/veh		2.7	2.6						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		35.2			6.3	28.9			
Change Period (Y+Rc), s		5.8			4.0	5.8			
Max Green Setting (Gmax), s		59.2			19.0	36.2			
Max Q Clear Time (g_c+l1), s		3.8			3.8	4.1			
Green Ext Time (p_c), s		25.3			0.1	19.0			
Intersection Summary									
HCM 2010 Ctrl Delay			2.7						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

11/15/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑		↗↗		
Volume (veh/h)	1582	310	519	1071	0	1805		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1665	252	546	1127	0	1584		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	2416	364	597	3323	0	0		
Arrive On Green	0.54	0.54	0.34	0.94	0.00	0.00		
Sat Flow, veh/h	4630	672	1774	3632	0			
Grp Volume(v), veh/h	1263	654	546	1127	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1744	1774	1770				
Q Serve(g_s), s	20.1	20.3	21.8	2.1				
Cycle Q Clear(g_c), s	20.1	20.3	21.8	2.1				
Prop In Lane		0.39	1.00					
Lane Grp Cap(c), veh/h	1836	944	597	3323				
V/C Ratio(X)	0.69	0.69	0.91	0.34				
Avail Cap(c_a), veh/h	1952	1004	733	3716				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(l)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	12.4	12.4	23.5	0.2				
Incr Delay (d2), s/veh	1.0	1.9	14.1	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	0.5	10.1	13.0	1.0				
LnGrp Delay(d),s/veh	13.3	14.3	37.6	0.3				
LnGrp LOS	B	B	D	A				
Approach Vol, veh/h	1917			1673				
Approach Delay, s/veh	13.7			12.4				
Approach LOS	B			B				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			29.3	44.5				73.8
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			30.5	42.5				77.5
Max Q Clear Time (g_c+11), s			23.8	22.3				4.1
Green Ext Time (p_c), s			1.1	17.7				48.6
Intersection Summary								
HCM 2010 Ctrl Delay			13.1					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

11/15/2016



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	2770	660	0	1235	355	568		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	2916	0	0	1300	531	271		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	3214	1001	0	2237	780	348		
Arrive On Green	0.63	0.00	0.00	0.63	0.22	0.22		
Sat Flow, veh/h	5253	1583	0	3725	3548	1583		
Grp Volume(v), veh/h	2916	0	0	1300	531	271		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	30.1	0.0	0.0	13.0	8.4	9.8		
Cycle Q Clear(g_c), s	30.1	0.0	0.0	13.0	8.4	9.8		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	3214	1001	0	2237	780	348		
V/C Ratio(X)	0.91	0.00	0.00	0.58	0.68	0.78		
Avail Cap(c_a), veh/h	3219	1002	0	2240	1021	456		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	9.7	0.0	0.0	6.5	21.8	22.3		
Incr Delay (d2), s/veh	4.2	0.0	0.0	0.4	1.2	6.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	15.0	0.0	0.0	6.3	4.2	4.9		
LnGrp Delay(d),s/veh	13.9	0.0	0.0	6.9	23.0	28.6		
LnGrp LOS	B			A	C	C		
Approach Vol, veh/h	2916			1300	802			
Approach Delay, s/veh	13.9			6.9	24.9			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		17.9		43.0				43.0
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		17.5		38.5				38.5
Max Q Clear Time (g_c+I1), s		11.8		32.1				15.0
Green Ext Time (p_c), s		1.6		6.4				23.0
Intersection Summary								
HCM 2010 Ctrl Delay		13.8						
HCM 2010 LOS		B						
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	155	2868	40	35	1815	50	65	5	30	45	5	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	163	3019	31	37	1911	42	68	5	27	47	5	84
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	3360	34	52	2881	63	213	34	182	244	21	210
Arrive On Green	0.11	0.65	0.65	0.03	0.56	0.56	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1774	5190	53	1774	5121	112	1303	253	1368	1106	160	1583
Grp Volume(v), veh/h	163	1968	1082	37	1265	688	68	0	32	52	0	84
Grp Sat Flow(s),veh/h/ln	1774	1695	1853	1774	1695	1843	1303	0	1621	1266	0	1583
Q Serve(g_s), s	6.4	34.6	35.0	1.5	18.4	18.5	3.6	0.0	1.2	2.1	0.0	3.4
Cycle Q Clear(g_c), s	6.4	34.6	35.0	1.5	18.4	18.5	6.9	0.0	1.2	3.3	0.0	3.4
Prop In Lane	1.00		0.03	1.00		0.06	1.00		0.84	0.90		1.00
Lane Grp Cap(c), veh/h	202	2195	1200	52	1908	1037	213	0	215	265	0	210
V/C Ratio(X)	0.81	0.90	0.90	0.71	0.66	0.66	0.32	0.00	0.15	0.20	0.00	0.40
Avail Cap(c_a), veh/h	243	2195	1200	108	1929	1048	344	0	378	406	0	369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.6	10.5	10.6	34.1	10.8	10.8	31.2	0.0	27.2	28.4	0.0	28.1
Incr Delay (d2), s/veh	15.3	5.4	9.6	16.6	0.8	1.6	0.8	0.0	0.3	0.4	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	17.5	20.6	0.9	8.7	9.6	1.3	0.0	0.6	1.0	0.0	1.6
LnGrp Delay(d),s/veh	46.0	15.9	20.1	50.7	11.7	12.4	32.1	0.0	27.5	28.8	0.0	29.3
LnGrp LOS	D	B	C	D	B	B	C		C	C		C
Approach Vol, veh/h	3213				1990		100				136	
Approach Delay, s/veh	18.8				12.6		30.6				29.1	
Approach LOS	B				B		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	13.9		6.6	50.4	13.9		12.6	44.4				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	16.5		4.3	45.7	16.5		9.7	40.3				
Max Q Clear Time (g_c+I1), s	8.9		3.5	37.0	5.4		8.4	20.5				
Green Ext Time (p_c), s	0.5		0.0	8.7	0.6		0.1	19.4				
Intersection Summary												
HCM 2010 Ctrl Delay			17.0									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

11/15/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Volume (veh/h)	200	2568	1815	70	40	140
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	211	2703	1911	63	42	126
Adj No. of Lanes	2	3	3	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	321	3598	2672	88	214	191
Arrive On Green	0.09	0.71	0.53	0.53	0.12	0.12
Sat Flow, veh/h	3442	5253	5225	166	1774	1583
Grp Volume(v), veh/h	211	2703	1280	694	42	126
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1833	1774	1583
Q Serve(g_s), s	3.1	17.4	15.0	15.1	1.1	4.0
Cycle Q Clear(g_c), s	3.1	17.4	15.0	15.1	1.1	4.0
Prop In Lane	1.00			0.09	1.00	1.00
Lane Grp Cap(c), veh/h	321	3598	1792	969	214	191
V/C Ratio(X)	0.66	0.75	0.71	0.72	0.20	0.66
Avail Cap(c_a), veh/h	361	3635	1792	969	626	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	4.8	9.4	9.4	20.8	22.0
Incr Delay (d2), s/veh	3.7	0.9	1.4	2.5	0.4	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	8.1	7.3	8.2	0.6	3.6
LnGrp Delay(d),s/veh	26.6	5.7	10.7	11.9	21.2	25.9
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		2914	1974		168	
Approach Delay, s/veh		7.2	11.2		24.7	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				41.6		10.8	9.4	32.2
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				37.5		18.5	5.5	27.5
Max Q Clear Time (g_c+I1), s				19.4		6.0	5.1	17.1
Green Ext Time (p_c), s				17.7		0.4	0.0	10.4

Intersection Summary								
HCM 2010 Ctrl Delay			9.3					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	2153	370	281	1415	115	170	125	207	120	100	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	232	2266	326	296	1489	89	179	132	155	126	105	158
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	2327	725	381	2428	756	255	551	247	193	487	218
Arrive On Green	0.09	0.46	0.46	0.11	0.48	0.48	0.07	0.16	0.16	0.06	0.14	0.14
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	232	2266	326	296	1489	89	179	132	155	126	105	158
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	5.4	35.7	11.5	6.9	17.7	2.6	4.2	2.7	7.5	2.9	2.2	7.8
Cycle Q Clear(g_c), s	5.4	35.7	11.5	6.9	17.7	2.6	4.2	2.7	7.5	2.9	2.2	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	2327	725	381	2428	756	255	551	247	193	487	218
V/C Ratio(X)	0.74	0.97	0.45	0.78	0.61	0.12	0.70	0.24	0.63	0.65	0.22	0.72
Avail Cap(c_a), veh/h	370	2327	725	470	2476	771	273	807	361	193	725	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	21.7	15.2	35.4	15.8	11.9	37.1	30.3	32.4	37.9	31.4	33.8
Incr Delay (d2), s/veh	6.5	13.0	0.4	6.4	0.4	0.1	7.2	0.2	2.6	7.6	0.2	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	19.4	5.1	3.6	8.4	1.1	2.2	1.3	3.5	1.6	1.1	3.7
LnGrp Delay(d),s/veh	42.8	34.8	15.6	41.9	16.3	11.9	44.3	30.6	35.0	45.5	31.6	38.4
LnGrp LOS	D	C	B	D	B	B	D	C	D	D	C	D
Approach Vol, veh/h	2824				1874				466		389	
Approach Delay, s/veh	33.2				20.1				37.3		38.9	
Approach LOS	C				C				D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	17.3	13.6	42.0	10.6	15.8	12.0	43.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	1.6	18.7	11.2	37.5	6.5	16.8	8.8	39.9				
Max Q Clear Time (g_c+1.9), s	1.9	9.5	8.9	37.7	6.2	9.8	7.4	19.7				
Green Ext Time (p_c), s	0.0	1.7	0.2	0.0	0.0	1.5	0.1	19.4				
Intersection Summary												
HCM 2010 Ctrl Delay			29.5									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	🚗🚗	🚗🚗🚗		🚗🚗	🚗🚗🚗		🚗	🚗🚗		🚗	🚗🚗	
Volume (veh/h)	370	1660	475	229	1236	115	330	225	248	115	225	230
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	389	1747	321	241	1301	79	347	237	208	121	237	158
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	709	1916	348	291	1576	96	360	464	390	147	278	178
Arrive On Green	0.21	0.44	0.44	0.08	0.32	0.32	0.20	0.25	0.25	0.08	0.13	0.13
Sat Flow, veh/h	3442	4327	787	3442	4903	298	1774	1826	1536	1774	2070	1328
Grp Volume(v), veh/h	389	1365	703	241	900	480	347	229	216	121	201	194
Grp Sat Flow(s),veh/h/ln	1721	1695	1724	1721	1695	1810	1774	1770	1592	1774	1770	1628
Q Serve(g_s), s	12.0	44.4	45.4	8.1	29.0	29.0	22.9	13.1	13.8	7.9	13.1	13.8
Cycle Q Clear(g_c), s	12.0	44.4	45.4	8.1	29.0	29.0	22.9	13.1	13.8	7.9	13.1	13.8
Prop In Lane	1.00		0.46	1.00		0.16	1.00		0.96	1.00		0.82
Lane Grp Cap(c), veh/h	709	1501	763	291	1090	582	360	450	405	147	238	219
V/C Ratio(X)	0.55	0.91	0.92	0.83	0.83	0.83	0.96	0.51	0.53	0.82	0.85	0.89
Avail Cap(c_a), veh/h	709	1549	788	291	1291	689	360	450	405	195	240	220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	30.7	31.0	53.3	37.0	37.0	46.7	37.8	38.0	53.3	50.0	50.3
Incr Delay (d2), s/veh	0.9	8.2	15.9	17.7	3.9	7.1	37.7	1.0	1.3	18.5	23.5	32.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	22.4	24.8	4.6	14.1	15.6	15.0	6.6	6.2	4.7	8.0	8.2
LnGrp Delay(d),s/veh	42.9	38.9	46.8	70.9	40.9	44.1	84.3	38.7	39.4	71.8	73.4	82.3
LnGrp LOS	D	D	D	E	D	D	F	D	D	E	E	F
Approach Vol, veh/h	2457				1621		792				516	
Approach Delay, s/veh	41.8				46.3		58.9				76.4	
Approach LOS	D				D		E				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	56.3	28.0	19.9	28.3	42.0	13.8	34.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	54.0	24.0	16.0	19.0	45.0	13.0	27.0				
Max Q Clear Time (g_c+1.0), s	10.0	47.4	24.9	15.8	14.0	31.0	9.9	15.8				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.0	4.5	7.0	0.1	3.7				
Intersection Summary												
HCM 2010 Ctrl Delay			49.0									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	270	1033	520	119	795	206	390	845	108	482	860	220
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	284	1087	421	125	837	154	411	889	0	507	905	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	1195	535	157	862	386	513	1063	331	511	1061	330
Arrive On Green	0.18	0.34	0.34	0.09	0.24	0.24	0.15	0.21	0.00	0.15	0.21	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	284	1087	421	125	837	154	411	889	0	507	905	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	11.5	21.7	17.8	5.1	17.4	6.0	8.5	12.4	0.0	10.9	12.7	0.0
Cycle Q Clear(g_c), s	11.5	21.7	17.8	5.1	17.4	6.0	8.5	12.4	0.0	10.9	12.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	1195	535	157	862	386	513	1063	331	511	1061	330
V/C Ratio(X)	0.88	0.91	0.79	0.79	0.97	0.40	0.80	0.84	0.00	0.99	0.85	0.00
Avail Cap(c_a), veh/h	335	1195	535	168	862	386	513	1099	342	511	1099	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.4	23.4	22.1	33.1	27.8	23.5	30.4	28.1	0.0	31.5	28.2	0.0
Incr Delay (d2), s/veh	21.5	11.8	11.2	21.5	24.4	3.1	8.9	5.6	0.0	37.6	6.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	12.5	9.4	3.4	11.4	2.9	4.7	6.3	0.0	7.8	6.6	0.0
LnGrp Delay(d),s/veh	50.9	35.2	33.3	54.6	52.2	26.5	39.3	33.7	0.0	69.0	34.7	0.0
LnGrp LOS	D	D	C	D	D	C	D	C		E	C	
Approach Vol, veh/h	1792				1116				1300			
Approach Delay, s/veh	37.3				48.9				35.5			
Approach LOS	D				D				D			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.6	29.0	15.0	19.4	17.5	22.0	15.0	19.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	25.0	11.0	16.0	14.0	18.0	11.0	16.0					
Max Q Clear Time (g_c+I1), s	23.7	10.5	14.7	13.5	19.4	12.9	14.4					
Green Ext Time (p_c), s	0.0	0.9	0.3	0.8	0.0	0.0	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			41.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑↑		↑
Traffic Volume (veh/h)	0	981	60	0	795	143	0	0	0	368	0	290
Future Volume (veh/h)	0	981	60	0	795	143	0	0	0	368	0	290
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1128	0	0	828	139				423	0	264
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96				0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2864	892	0	1993	1252				784	0	361
Arrive On Green	0.00	0.56	0.00	0.00	0.56	0.56				0.23	0.00	0.23
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	1128	0	0	828	139				423	0	264
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	6.7	0.0	0.0	7.2	1.1				5.8	0.0	8.3
Cycle Q Clear(g_c), s	0.0	6.7	0.0	0.0	7.2	1.1				5.8	0.0	8.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2864	892	0	1993	1252				784	0	361
V/C Ratio(X)	0.00	0.39	0.00	0.00	0.42	0.11				0.54	0.00	0.73
Avail Cap(c_a), veh/h	0	3181	990	0	2214	1351				1268	0	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.6	0.0	0.0	6.7	1.3				18.4	0.0	19.3
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.3	0.1				0.6	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	0.0	0.0	3.5	1.0				2.8	0.0	3.9
LnGrp Delay(d),s/veh	0.0	6.8	0.0	0.0	7.0	1.4				19.0	0.0	22.5
LnGrp LOS		A			A	A				B		C
Approach Vol, veh/h		1128			967						687	
Approach Delay, s/veh		6.8			6.2						20.3	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		36.2		17.8		36.2						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		33.8		19.9		33.8						
Max Q Clear Time (g_c+l1), s		8.7		10.3		9.2						
Green Ext Time (p_c), s		21.6		2.0		21.2						
Intersection Summary												
HCM 2010 Ctrl Delay			9.9									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↖↖			
Traffic Volume (veh/h)	0	1204	145	0	793	275	145	0	216	0	0	0
Future Volume (veh/h)	0	1204	145	0	793	275	145	0	216	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1241	139	0	911	0	173	0	221			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.97	0.97	0.97	0.87	0.87	0.87	0.84	0.84	0.84			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3295	1256	0	3295	1026	257	0	404			
Arrive On Green	0.00	0.65	0.65	0.00	0.65	0.00	0.15	0.00	0.15			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1241	139	0	911	0	173	0	221			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	6.2	1.1	0.0	4.2	0.0	5.0	0.0	4.0			
Cycle Q Clear(g_c), s	0.0	6.2	1.1	0.0	4.2	0.0	5.0	0.0	4.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3295	1256	0	3295	1026	257	0	404			
V/C Ratio(X)	0.00	0.38	0.11	0.00	0.28	0.00	0.67	0.00	0.55			
Avail Cap(c_a), veh/h	0	3650	1366	0	3650	1137	471	0	740			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	4.5	1.3	0.0	4.1	0.0	22.1	0.0	21.7			
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	0.1	0.0	3.3	0.0	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.9	0.8	0.0	2.0	0.0	2.7	0.0	1.6			
LnGrp Delay(d),s/veh	0.0	4.6	1.4	0.0	4.2	0.0	25.4	0.0	22.9			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h		1380			911			394				
Approach Delay, s/veh		4.3			4.2			24.0				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		41.2				41.2		13.4				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		39.2				39.2		14.5				
Max Q Clear Time (g_c+I1), s		8.2				6.2		7.0				
Green Ext Time (p_c), s		27.2				28.7		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			7.2									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	215	960	245	77	698	407	175	125	114	417	195	195
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	226	1011	195	81	735	365	184	132	115	439	205	152
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	1679	725	146	973	454	226	235	189	482	957	992
Arrive On Green	0.09	0.33	0.33	0.04	0.29	0.29	0.13	0.13	0.13	0.27	0.27	0.27
Sat Flow, veh/h	3442	5085	1583	3442	3390	1583	1774	1865	1502	1774	3539	2787
Grp Volume(v), veh/h	226	1011	195	81	735	365	184	125	122	439	205	152
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1774	1770	1598	1774	1770	1393
Q Serve(g_s), s	5.0	13.0	6.0	1.8	15.5	16.7	7.9	5.2	5.7	18.8	3.5	2.9
Cycle Q Clear(g_c), s	5.0	13.0	6.0	1.8	15.5	16.7	7.9	5.2	5.7	18.8	3.5	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	294	1679	725	146	973	454	226	223	201	482	957	992
V/C Ratio(X)	0.77	0.60	0.27	0.56	0.76	0.80	0.81	0.56	0.61	0.91	0.21	0.15
Avail Cap(c_a), veh/h	294	1679	725	206	1017	475	392	391	353	555	1107	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	21.9	13.1	36.8	25.4	25.9	33.3	32.2	32.4	27.6	22.1	17.2
Incr Delay (d2), s/veh	11.6	0.6	0.2	3.3	3.1	9.3	6.9	2.2	2.9	17.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	6.2	2.6	0.9	7.7	8.5	4.3	2.7	2.7	11.5	1.7	1.1
LnGrp Delay(d),s/veh	46.7	22.6	13.3	40.1	28.6	35.2	40.2	34.4	35.3	45.3	22.2	17.3
LnGrp LOS	D	C	B	D	C	D	D	C	D	D	C	B
Approach Vol, veh/h	1432				1181		431				796	
Approach Delay, s/veh	25.1				31.4		37.1				34.0	
Approach LOS	C				C		D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.8	14.4	7.8	30.4	14.5	25.7	11.2	27.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	24.5	17.3	4.7	25.5	17.3	24.5	6.7	23.5				
Max Q Clear Time (g_c+Tb), s	20.8	7.7	3.8	15.0	9.9	5.5	7.0	18.7				
Green Ext Time (p_c), s	0.5	2.2	0.0	8.4	0.3	3.0	0.0	3.7				
Intersection Summary												
HCM 2010 Ctrl Delay			30.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲			↰ ↱ ↲			↰	↱	↲	↰	↱	↲
Volume (veh/h)	175	1107	325	204	711	98	345	165	285	41	90	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	184	1165	200	215	748	71	363	174	211	43	95	31
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1614	277	246	1821	172	413	434	369	161	122	40
Arrive On Green	0.12	0.37	0.37	0.14	0.39	0.39	0.23	0.23	0.23	0.09	0.09	0.09
Sat Flow, veh/h	1774	4370	750	1774	4728	446	1774	1863	1583	1774	1346	439
Grp Volume(v), veh/h	184	904	461	215	535	284	363	174	211	43	0	126
Grp Sat Flow(s),veh/h/ln	1774	1695	1730	1774	1695	1784	1774	1863	1583	1774	0	1785
Q Serve(g_s), s	10.9	24.5	24.5	12.7	12.3	12.4	21.1	8.5	12.6	2.4	0.0	7.4
Cycle Q Clear(g_c), s	10.9	24.5	24.5	12.7	12.3	12.4	21.1	8.5	12.6	2.4	0.0	7.4
Prop In Lane	1.00		0.43	1.00		0.25	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	218	1252	639	246	1306	687	413	434	369	161	0	162
V/C Ratio(X)	0.84	0.72	0.72	0.87	0.41	0.41	0.88	0.40	0.57	0.27	0.00	0.78
Avail Cap(c_a), veh/h	428	1499	765	300	1306	687	508	533	453	265	0	267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.9	29.0	29.0	45.1	24.0	24.0	39.6	34.7	36.3	45.3	0.0	47.6
Incr Delay (d2), s/veh	8.5	1.4	2.7	20.4	0.2	0.4	13.9	0.6	1.4	0.9	0.0	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	11.7	12.1	7.6	5.8	6.2	11.9	4.4	5.7	1.2	0.0	4.0
LnGrp Delay(d),s/veh	54.4	30.4	31.7	65.5	24.2	24.4	53.5	35.3	37.7	46.2	0.0	55.5
LnGrp LOS	D	C	C	E	C	C	D	D	D	D		E
Approach Vol, veh/h	1549			1034			748			169		
Approach Delay, s/veh	33.6			32.9			44.8			53.1		
Approach LOS	C			C			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.4	19.4	44.0		14.2	17.7	45.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.6	18.1	47.3		16.0	25.8	39.6				
Max Q Clear Time (g_c+I1), s		23.1	14.7	26.5		9.4	12.9	14.4				
Green Ext Time (p_c), s		1.8	0.2	13.0		0.4	0.4	15.8				
Intersection Summary												
HCM 2010 Ctrl Delay	36.7											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	1068	330	111	633	100	220	40	196	140	190	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	79	1124	284	117	666	105	232	42	195	147	200	115
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	1434	446	207	1268	198	344	425	361	188	260	149
Arrive On Green	0.06	0.28	0.28	0.06	0.29	0.29	0.10	0.23	0.23	0.11	0.23	0.23
Sat Flow, veh/h	1774	5085	1583	3442	4439	692	3442	1863	1583	1774	1111	639
Grp Volume(v), veh/h	79	1124	284	117	507	264	232	42	195	147	0	315
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1741	1721	1863	1583	1774	0	1750
Q Serve(g_s), s	2.4	11.3	8.7	1.8	7.0	7.1	3.6	1.0	6.0	4.5	0.0	9.3
Cycle Q Clear(g_c), s	2.4	11.3	8.7	1.8	7.0	7.1	3.6	1.0	6.0	4.5	0.0	9.3
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	100	1434	446	207	968	497	344	425	361	188	0	409
V/C Ratio(X)	0.79	0.78	0.64	0.56	0.52	0.53	0.67	0.10	0.54	0.78	0.00	0.77
Avail Cap(c_a), veh/h	163	1465	456	341	1001	514	428	570	485	272	0	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	18.4	17.4	25.4	16.7	16.7	24.1	16.9	18.9	24.2	0.0	19.9
Incr Delay (d2), s/veh	12.8	2.8	2.8	2.4	0.5	1.0	3.0	0.1	1.3	8.9	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.6	4.1	0.9	3.3	3.5	1.9	0.5	2.7	2.7	0.0	4.9
LnGrp Delay(d),s/veh	38.7	21.2	20.3	27.8	17.1	17.7	27.1	17.0	20.1	33.1	0.0	23.8
LnGrp LOS	D	C	C	C	B	B	C	B	C	C		C
Approach Vol, veh/h	1487					888		469		462		
Approach Delay, s/veh	21.9					18.7		23.3		26.8		
Approach LOS	C					B		C		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	17.2	7.8	20.2	10.1	17.5	7.6	20.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	17.0	5.5	16.0	6.9	18.6	5.1	16.4					
Max Q Clear Time (g_c+10), s	8.0	3.8	13.3	5.6	11.3	4.4	9.1					
Green Ext Time (p_c), s	0.1	1.9	0.0	2.3	0.1	1.6	0.0	5.9				
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									

Intersection																
Intersection Delay, s/veh44.6																
Intersection LOS E																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	105	819	40	0	28	619	65	0	30	30	91	0	25	20	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	111	862	42	0	29	652	68	0	32	32	96	0	26	21	74
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	61.5	33	14.9	13.5
HCM LOS	F	D	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	8%	0%	56%	0%
Vol Thru, %	0%	25%	0%	100%	0%	92%	83%	44%	0%
Vol Right, %	0%	75%	0%	0%	100%	0%	17%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	121	105	819	40	338	375	45	70
LT Vol	30	0	105	0	0	28	0	25	0
Through Vol	0	30	0	819	0	310	310	20	0
RT Vol	0	91	0	0	40	0	65	0	70
Lane Flow Rate	32	127	111	862	42	355	394	47	74
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.085	0.306	0.258	1	0.084	0.751	0.816	0.127	0.177
Departure Headway (Hd)	9.673	8.653	8.388	7.877	7.162	7.611	7.448	9.728	8.756
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	414	431	474	503	473	485	371	412
Service Time	7.469	6.449	6.088	5.577	4.862	5.381	5.218	7.428	6.456
HCM Lane V/C Ratio	0.087	0.307	0.258	1.819	0.083	0.751	0.812	0.127	0.18
HCM Control Delay	13.4	15.3	14	70.1	10.5	30.1	35.7	13.8	13.3
HCM Lane LOS	B	C	B	F	B	D	E	B	B
HCM 95th-tile Q	0.3	1.3	1	13.1	0.3	6.3	7.8	0.4	0.6

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	229	115	418	187	140	140	600	211	140	655	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	126	241	110	440	197	136	147	632	175	147	689	94
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	249	328	692	207	143	195	723	200	181	968	132
Arrive On Green	0.21	0.21	0.21	0.20	0.20	0.20	0.06	0.26	0.26	0.10	0.31	0.31
Sat Flow, veh/h	629	1203	1583	3442	1028	710	3442	2741	758	1774	3130	427
Grp Volume(v), veh/h	367	0	110	440	0	333	147	408	399	147	389	394
Grp Sat Flow(s),veh/h/ln	1831	0	1583	1721	0	1738	1721	1770	1729	1774	1770	1787
Q Serve(g_s), s	15.8	0.0	4.7	9.3	0.0	15.1	3.4	17.5	17.6	6.5	15.5	15.5
Cycle Q Clear(g_c), s	15.8	0.0	4.7	9.3	0.0	15.1	3.4	17.5	17.6	6.5	15.5	15.5
Prop In Lane	0.34		1.00	1.00		0.41	1.00		0.44	1.00		0.24
Lane Grp Cap(c), veh/h	380	0	328	692	0	349	195	467	456	181	547	552
V/C Ratio(X)	0.97	0.00	0.34	0.64	0.00	0.95	0.76	0.87	0.88	0.81	0.71	0.71
Avail Cap(c_a), veh/h	380	0	328	692	0	349	195	476	465	181	556	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	26.9	29.1	0.0	31.4	37.0	28.0	28.0	35.0	24.4	24.4
Incr Delay (d2), s/veh	37.4	0.0	0.6	1.9	0.0	36.0	15.5	16.1	16.6	24.1	4.2	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.0	2.1	4.6	0.0	10.7	2.0	10.6	10.4	4.4	8.2	8.3
LnGrp Delay(d),s/veh	68.7	0.0	27.5	31.1	0.0	67.5	52.5	44.1	44.7	59.1	28.5	28.5
LnGrp LOS	E		C	C		E	D	D	D	E	C	C
Approach Vol, veh/h		477			773			954			930	
Approach Delay, s/veh		59.2			46.7			45.6			33.4	
Approach LOS		E			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	25.5		21.0	9.0	29.1		20.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	21.4			16.5	4.5	25.0		16.0				
Max Q Clear Time (g_c+1.5), s	19.6			17.8	5.4	17.5		17.1				
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	5.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			44.3									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	260	220	260	200	340	230	130	401	145	187	423	205
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	274	232	263	211	358	195	137	422	121	197	445	184
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	472	401	257	433	368	172	594	169	218	598	245
Arrive On Green	0.17	0.25	0.25	0.15	0.23	0.23	0.10	0.22	0.22	0.12	0.24	0.24
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2723	773	1774	2451	1005
Grp Volume(v), veh/h	274	232	263	211	358	195	137	273	270	197	320	309
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1726	1774	1770	1685
Q Serve(g_s), s	10.5	7.3	10.3	8.0	12.6	7.5	5.2	9.9	10.0	7.6	11.6	11.7
Cycle Q Clear(g_c), s	10.5	7.3	10.3	8.0	12.6	7.5	5.2	9.9	10.0	7.6	11.6	11.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		0.60
Lane Grp Cap(c), veh/h	295	472	401	257	433	368	172	386	377	218	432	411
V/C Ratio(X)	0.93	0.49	0.66	0.82	0.83	0.53	0.80	0.71	0.72	0.90	0.74	0.75
Avail Cap(c_a), veh/h	295	472	401	369	525	446	192	448	437	218	473	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	22.0	23.1	28.7	25.2	23.2	30.6	25.0	25.1	29.9	24.1	24.2
Incr Delay (d2), s/veh	34.3	0.8	3.8	9.4	8.9	1.2	18.6	4.2	4.7	36.0	5.6	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	3.8	4.9	4.6	7.5	3.4	3.4	5.2	5.2	5.9	6.3	6.1
LnGrp Delay(d),s/veh	62.7	22.8	26.9	38.1	34.2	24.4	49.1	29.2	29.7	65.9	29.8	30.5
LnGrp LOS	E	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h	769				764		680				826	
Approach Delay, s/veh	38.4				32.8		33.4				38.6	
Approach LOS	D				C		C				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	19.6	14.5	22.0	11.2	21.4	16.0	20.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	17.5	17.5	14.4	16.6	7.5	18.5	11.5	19.5				
Max Q Clear Time (g_c+I), s	12.0	12.0	10.0	12.3	7.2	13.7	12.5	14.6				
Green Ext Time (p_c), s	0.0	3.1	0.2	2.1	0.0	2.8	0.0	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay			35.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	228	1410	480	306	1240	350	450	1100	252	260	640	269
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	240	1484	347	322	1305	242	474	1158	181	274	674	220
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	1665	519	381	1499	278	483	1160	519	290	713	233
Arrive On Green	0.09	0.33	0.33	0.11	0.35	0.35	0.14	0.33	0.33	0.08	0.27	0.27
Sat Flow, veh/h	3442	5085	1583	3442	4312	800	3442	3539	1583	3442	2625	856
Grp Volume(v), veh/h	240	1484	347	322	1026	521	474	1158	181	274	454	440
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1722	1721	1770	1583	1721	1770	1712
Q Serve(g_s), s	7.3	29.6	20.2	9.8	30.2	30.3	14.7	34.9	9.3	8.5	26.9	26.9
Cycle Q Clear(g_c), s	7.3	29.6	20.2	9.8	30.2	30.3	14.7	34.9	9.3	8.5	26.9	26.9
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		0.50
Lane Grp Cap(c), veh/h	312	1665	519	381	1178	598	483	1160	519	290	480	465
V/C Ratio(X)	0.77	0.89	0.67	0.84	0.87	0.87	0.98	1.00	0.35	0.94	0.95	0.95
Avail Cap(c_a), veh/h	516	1809	563	387	1178	598	483	1160	519	290	480	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	34.1	30.9	46.6	32.6	32.6	45.8	35.9	27.3	48.7	38.1	38.1
Incr Delay (d2), s/veh	4.0	5.7	2.7	15.5	7.3	13.2	35.8	26.0	0.4	38.2	27.9	28.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	14.8	9.1	5.5	15.3	16.5	9.3	21.1	4.1	5.5	16.8	16.4
LnGrp Delay(d),s/veh	51.4	39.8	33.7	62.1	39.9	45.8	81.6	61.9	27.7	86.9	66.0	66.7
LnGrp LOS	D	D	C	E	D	D	F	E	C	F	E	E
Approach Vol, veh/h	2071		1869				1813			1168		
Approach Delay, s/veh	40.1		45.4				63.6			71.2		
Approach LOS	D		D				E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.8	39.0	19.0	33.0	13.7	41.1	13.0	39.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	38.0	15.0	29.0	16.0	34.0	9.0	35.0				
Max Q Clear Time (g_c+1), s	11.8	31.6	16.7	28.9	9.3	32.3	10.5	36.9				
Green Ext Time (p_c), s	0.0	3.4	0.0	0.1	0.4	1.7	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			52.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	292	1620	270	350	1320	350	190	1036	370	400	873	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	307	1705	221	368	1389	368	200	1091	389	421	919	174
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	1678	522	344	1578	491	585	1026	1087	413	1220	380
Arrive On Green	0.12	0.33	0.33	0.10	0.31	0.31	0.17	0.29	0.29	0.12	0.24	0.24
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	307	1705	221	368	1389	368	200	1091	389	421	919	174
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	8.6	33.0	10.9	10.0	25.9	14.8	5.1	29.0	2.6	12.0	16.8	9.4
Cycle Q Clear(g_c), s	8.6	33.0	10.9	10.0	25.9	14.8	5.1	29.0	2.6	12.0	16.8	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	412	1678	523	344	1578	491	585	1026	1087	413	1220	380
V/C Ratio(X)	0.75	1.02	0.42	1.07	0.88	0.75	0.34	1.06	0.36	1.02	0.75	0.46
Avail Cap(c_a), veh/h	412	1678	523	344	1627	507	585	1026	1087	413	1576	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	33.5	26.1	45.0	32.7	15.6	36.6	35.5	9.4	44.0	35.3	32.5
Incr Delay (d2), s/veh	7.3	26.0	0.5	68.1	5.8	5.9	0.3	46.4	0.2	49.3	1.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	19.4	4.8	8.0	12.9	7.2	2.5	20.7	2.3	8.5	8.0	4.2
LnGrp Delay(d),s/veh	49.8	59.5	26.6	113.1	38.5	21.5	36.9	81.9	9.6	93.3	36.8	33.3
LnGrp LOS	D	F	C	F	D	C	D	F	A	F	D	C
Approach Vol, veh/h	2233				2125				1680			
Approach Delay, s/veh	54.9				48.5				59.8			
Approach LOS	D				D				E			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	37.0	21.0	28.0	16.0	35.0	16.0	33.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	33.0	10.0	31.0	11.0	32.0	12.0	29.0				
Max Q Clear Time (g_c+1.0), s	12.0	35.0	7.1	18.8	10.6	27.9	14.0	31.0				
Green Ext Time (p_c), s	0.0	0.0	2.2	5.2	0.1	3.1	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			53.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	2177	90	0	1696	70	0	0	0	460	0	105
Future Volume (veh/h)	0	2177	90	0	1696	70	0	0	0	460	0	105
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2392	88	0	1864	66				484	0	79
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3275	1020	0	3275	1304				617	0	284
Arrive On Green	0.00	0.64	0.64	0.00	0.86	0.86				0.18	0.00	0.18
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	2392	88	0	1864	66				484	0	79
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	20.2	1.3	0.0	6.6	0.2				8.6	0.0	2.8
Cycle Q Clear(g_c), s	0.0	20.2	1.3	0.0	6.6	0.2				8.6	0.0	2.8
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3275	1020	0	3275	1304				617	0	284
V/C Ratio(X)	0.00	0.73	0.09	0.00	0.57	0.05				0.78	0.00	0.28
Avail Cap(c_a), veh/h	0	3275	1020	0	3275	1304				780	0	359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.89	0.89				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.7	4.3	0.0	2.1	0.4				25.1	0.0	22.7
Incr Delay (d2), s/veh	0.0	1.5	0.2	0.0	0.6	0.1				4.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.7	0.6	0.0	3.0	0.2				4.5	0.0	1.3
LnGrp Delay(d),s/veh	0.0	9.1	4.5	0.0	2.7	0.5				29.3	0.0	23.3
LnGrp LOS		A	A		A	A				C		C
Approach Vol, veh/h		2480			1930						563	
Approach Delay, s/veh		9.0			2.7						28.5	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		47.0		17.0		47.0						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		38.2		14.5		38.2						
Max Q Clear Time (g_c+l1), s		22.2		10.6		8.6						
Green Ext Time (p_c), s		15.9		0.9		29.6						
Intersection Summary												
HCM 2010 Ctrl Delay			8.7									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

	           											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↗↗			
Traffic Volume (veh/h)	0	2517	120	0	1691	320	75	0	110	0	0	0
Future Volume (veh/h)	0	2517	120	0	1691	320	75	0	110	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2736	119	0	1799	234	84	0	90			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3802	1304	0	3802	1184	134	0	211			
Arrive On Green	0.00	1.00	1.00	0.00	0.75	0.75	0.08	0.00	0.08			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	2736	119	0	1799	234	84	0	90			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	8.8	2.8	2.9	0.0	2.0			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	8.8	2.8	2.9	0.0	2.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3802	1304	0	3802	1184	134	0	211			
V/C Ratio(X)	0.00	0.72	0.09	0.00	0.47	0.20	0.63	0.00	0.43			
Avail Cap(c_a), veh/h	0	3802	1304	0	3802	1184	208	0	327			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.58	0.58	0.00	0.39	0.39	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	3.2	2.4	28.7	0.0	28.3			
Incr Delay (d2), s/veh	0.0	0.7	0.1	0.0	0.2	0.1	5.1	0.0	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	4.1	1.2	1.6	0.0	0.8			
LnGrp Delay(d),s/veh	0.0	0.7	0.1	0.0	3.3	2.5	33.8	0.0	29.7			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h		2855			2033			174				
Approach Delay, s/veh		0.7			3.2			31.7				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		53.7				53.7		10.3				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		45.2				45.2		7.5				
Max Q Clear Time (g_c+I1), s		2.0				10.8		4.9				
Green Ext Time (p_c), s		43.1				34.3		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			2.8									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	391	1451	790	418	863	120	520	460	321	175	560	378
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	412	1527	832	440	908	126	547	484	338	184	589	398
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	1582	867	363	1295	179	593	1130	672	259	786	558
Arrive On Green	0.13	0.31	0.31	0.11	0.29	0.29	0.17	0.32	0.32	0.08	0.22	0.22
Sat Flow, veh/h	3442	5085	2787	3442	4518	625	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	412	1527	832	440	680	354	547	484	338	184	589	398
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1753	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	10.6	26.6	26.4	9.5	16.1	16.2	14.1	9.7	14.1	4.7	14.0	19.6
Cycle Q Clear(g_c), s	10.6	26.6	26.4	9.5	16.1	16.2	14.1	9.7	14.1	4.7	14.0	19.6
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	447	1582	867	363	972	502	593	1130	672	259	786	558
V/C Ratio(X)	0.92	0.97	0.96	1.21	0.70	0.70	0.92	0.43	0.50	0.71	0.75	0.71
Avail Cap(c_a), veh/h	447	1582	867	363	972	502	593	1130	672	363	786	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	30.5	30.4	40.3	28.6	28.7	36.7	24.2	18.9	40.7	32.7	25.2
Incr Delay (d2), s/veh	24.3	15.2	21.3	117.9	2.3	4.4	20.2	1.2	2.7	3.7	6.5	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	14.7	12.6	10.4	7.9	8.5	8.3	4.9	6.6	2.4	7.5	9.7
LnGrp Delay(d),s/veh	63.0	45.7	51.7	158.2	30.9	33.1	56.9	25.4	21.6	44.4	39.1	32.8
LnGrp LOS	E	D	D	F	C	C	E	C	C	D	D	C
Approach Vol, veh/h	2771			1474			1369			1171		
Approach Delay, s/veh	50.1			69.4			37.0			37.8		
Approach LOS	D			E			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	32.7	14.0	32.0	20.0	24.0	16.2	29.8				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	9.5	26.0	9.5	28.0	15.5	20.0	11.7	25.8				
Max Q Clear Time (g_c+I), s	10.7	16.1	11.5	28.6	16.1	21.6	12.6	18.2				
Green Ext Time (p_c), s	0.1	6.3	0.0	0.0	0.0	0.0	0.0	7.1				
Intersection Summary												
HCM 2010 Ctrl Delay	49.5											
HCM 2010 LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

11/15/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↰	↑↑↑	↑↑↑		↰↰	↑
Volume (veh/h)	566	1381	793	155	345	608
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1285	950
Adj Flow Rate, veh/h	596	1454	835	163	334	671
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	100
Cap, veh/h	666	2471	994	193	482	636
Arrive On Green	0.19	0.49	0.23	0.23	0.39	0.39
Sat Flow, veh/h	3442	5253	4444	830	1223	1615
Grp Volume(v), veh/h	596	1454	661	337	334	671
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1716	1223	807
Q Serve(g_s), s	12.7	15.4	13.9	14.1	17.0	29.5
Cycle Q Clear(g_c), s	12.7	15.4	13.9	14.1	17.0	29.5
Prop In Lane	1.00			0.48	1.00	1.00
Lane Grp Cap(c), veh/h	666	2471	788	399	482	636
V/C Ratio(X)	0.89	0.59	0.84	0.85	0.69	1.05
Avail Cap(c_a), veh/h	666	2478	792	401	482	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	13.9	27.4	27.5	18.9	22.7
Incr Delay (d2), s/veh	14.6	0.4	7.9	15.2	4.2	51.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	7.2	7.4	8.3	6.3	15.1
LnGrp Delay(d),s/veh	44.1	14.2	35.4	42.7	23.2	73.7
LnGrp LOS	D	B	D	D	C	F
Approach Vol, veh/h		2050	998		1005	
Approach Delay, s/veh		22.9	37.8		56.9	
Approach LOS		C	D		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		40.9		34.0	19.0	21.9		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		36.5		29.5	14.5	17.5		
Max Q Clear Time (g_c+l1), s		17.4		31.5	14.7	16.1		
Green Ext Time (p_c), s		14.4		0.0	0.0	1.3		

Intersection Summary								
HCM 2010 Ctrl Delay			35.0					
HCM 2010 LOS			D					

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

11/15/2016



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		   	     			 		
Volume (veh/h)	220	1506	698	252	315	250		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	232	1585	735	265	332	263		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	163	2781	1299	463	436	389		
Arrive On Green	0.09	0.55	0.35	0.35	0.25	0.25		
Sat Flow, veh/h	1774	5253	3869	1319	1774	1583		
Grp Volume(v), veh/h	232	1585	673	327	332	263		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1630	1774	1583		
Q Serve(g_s), s	4.0	8.9	7.0	7.1	7.5	6.5		
Cycle Q Clear(g_c), s	4.0	8.9	7.0	7.1	7.5	6.5		
Prop In Lane	1.00			0.81	1.00	1.00		
Lane Grp Cap(c), veh/h	163	2781	1190	572	436	389		
V/C Ratio(X)	1.42	0.57	0.57	0.57	0.76	0.68		
Avail Cap(c_a), veh/h	163	2870	1249	601	654	584		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	19.7	6.5	11.4	11.4	15.2	14.8		
Incr Delay (d2), s/veh	220.6	0.3	0.5	1.2	2.9	2.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	11.9	4.2	3.3	3.4	4.0	5.8		
LnGrp Delay(d),s/veh	240.3	6.7	11.9	12.6	18.1	16.9		
LnGrp LOS	F	A	B	B	B	B		
Approach Vol, veh/h		1817	1000		595			
Approach Delay, s/veh		36.6	12.2		17.6			
Approach LOS		D	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.2		15.2	8.5	19.7		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		24.5		16.0	4.0	16.0		
Max Q Clear Time (g_c+l1), s		10.9		9.5	6.0	9.1		
Green Ext Time (p_c), s		11.3		1.1	0.0	6.2		
Intersection Summary								
HCM 2010 Ctrl Delay			26.1					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	262	1080	480	310	445	96	280	246	510	223	278	225
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	276	1137	347	326	468	101	295	259	411	235	293	190
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	379	1440	439	394	1917	597	506	700	313	296	483	216
Arrive On Green	0.11	0.37	0.37	0.11	0.38	0.38	0.15	0.20	0.20	0.09	0.14	0.14
Sat Flow, veh/h	3442	3865	1180	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	276	997	487	326	468	101	295	259	411	235	293	190
Grp Sat Flow(s),veh/h/ln	1721	1695	1655	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	5.4	18.3	18.3	6.5	4.4	3.0	5.6	4.4	9.9	4.7	5.4	6.1
Cycle Q Clear(g_c), s	5.4	18.3	18.3	6.5	4.4	3.0	5.6	4.4	9.9	4.7	5.4	6.1
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	379	1263	616	394	1917	597	506	700	313	296	483	216
V/C Ratio(X)	0.73	0.79	0.79	0.83	0.24	0.17	0.58	0.37	1.31	0.79	0.61	0.88
Avail Cap(c_a), veh/h	542	1263	616	394	1917	597	506	963	431	296	811	363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	19.5	19.5	30.2	14.9	14.5	27.8	24.2	14.3	31.3	28.4	16.2
Incr Delay (d2), s/veh	2.9	5.1	9.9	13.5	0.3	0.6	1.7	0.3	160.4	13.9	1.2	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	9.3	9.9	3.8	2.1	1.4	2.8	2.2	18.7	2.8	2.7	3.9
LnGrp Delay(d),s/veh	32.9	24.6	29.4	43.7	15.2	15.1	29.5	24.6	174.7	45.1	29.6	28.6
LnGrp LOS	C	C	C	D	B	B	C	C	F	D	C	C
Approach Vol, veh/h	1760			895			965			718		
Approach Delay, s/veh	27.2			25.6			90.0			34.4		
Approach LOS	C			C			F			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	30.0	14.3	13.5	11.7	30.3	10.0	17.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	26.0	26.0	9.0	16.0	11.0	23.0	6.0	19.0				
Max Q Clear Time (g_c+I), s	19.5	20.3	7.6	8.1	7.4	6.4	6.7	11.9				
Green Ext Time (p_c), s	0.0	3.9	0.7	1.5	0.3	3.9	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			42.0									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	390	1606	500	400	1373	220	340	560	370	210	730	290
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	411	1691	463	421	1445	200	358	589	357	221	768	242
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	480	1870	582	436	1806	562	393	1086	539	306	958	914
Arrive On Green	0.14	0.37	0.37	0.13	0.36	0.36	0.11	0.21	0.21	0.09	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	411	1691	463	421	1445	200	358	589	357	221	768	242
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	9.2	24.8	20.6	9.6	20.2	7.4	8.1	8.1	3.2	4.9	11.4	3.0
Cycle Q Clear(g_c), s	9.2	24.8	20.6	9.6	20.2	7.4	8.1	8.1	3.2	4.9	11.4	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	480	1870	582	436	1806	562	393	1086	539	306	958	914
V/C Ratio(X)	0.86	0.90	0.80	0.96	0.80	0.36	0.91	0.54	0.66	0.72	0.80	0.26
Avail Cap(c_a), veh/h	480	1870	582	436	1806	562	393	1086	539	393	1032	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	23.6	22.3	34.3	22.9	18.8	34.5	27.6	9.9	35.0	30.6	8.3
Incr Delay (d2), s/veh	14.2	7.7	10.7	33.9	3.8	1.8	25.0	0.6	3.0	4.6	4.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	12.9	10.7	6.6	10.0	3.5	5.2	3.9	4.6	2.5	5.7	1.3
LnGrp Delay(d),s/veh	47.3	31.3	33.0	68.2	26.7	20.5	59.5	28.1	12.9	39.6	34.9	8.4
LnGrp LOS	D	C	C	E	C	C	E	C	B	D	C	A
Approach Vol, veh/h	2565				2066		1304				1231	
Approach Delay, s/veh	34.2				34.6		32.6				30.6	
Approach LOS	C				C		C				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	33.0	13.0	18.9	15.0	32.0	11.0	20.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	29.0	9.0	16.0	11.0	28.0	9.0	16.0				
Max Q Clear Time (g_c+1.6), s	11.6	26.8	10.1	13.4	11.2	22.2	6.9	10.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	1.5	0.0	4.6	0.1	3.1				
Intersection Summary												
HCM 2010 Ctrl Delay			33.4									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

11/15/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 			 	 		 	 	
Volume (veh/h)	596	1350	180	90	1310	100	170	210	200	210	605	413
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	627	1421	178	95	1379	94	179	221	148	221	637	435
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	612	1870	234	583	1416	633	191	603	281	229	669	581
Arrive On Green	0.18	0.41	0.41	0.17	0.40	0.40	0.06	0.18	0.18	0.07	0.19	0.19
Sat Flow, veh/h	3442	4578	573	3442	3539	1583	3442	3390	1583	3442	3539	1583
Grp Volume(v), veh/h	627	1052	547	95	1379	94	179	221	148	221	637	435
Grp Sat Flow(s),veh/h/ln	1721	1695	1762	1721	1770	1583	1721	1695	1583	1721	1770	1583
Q Serve(g_s), s	16.0	24.0	24.0	2.1	34.5	3.4	4.7	5.2	7.6	5.8	16.0	15.2
Cycle Q Clear(g_c), s	16.0	24.0	24.0	2.1	34.5	3.4	4.7	5.2	7.6	5.8	16.0	15.2
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	612	1385	720	583	1416	633	191	603	281	229	669	581
V/C Ratio(X)	1.02	0.76	0.76	0.16	0.97	0.15	0.94	0.37	0.53	0.96	0.95	0.75
Avail Cap(c_a), veh/h	612	1770	920	583	1416	633	191	603	281	229	669	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	22.8	22.8	31.9	26.5	17.2	42.3	32.5	33.6	41.9	36.1	12.9
Incr Delay (d2), s/veh	42.8	1.5	2.8	0.1	18.0	0.1	47.1	0.4	1.8	48.9	23.8	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	11.4	12.1	1.0	20.2	1.5	3.5	2.5	3.5	4.3	10.0	7.4
LnGrp Delay(d),s/veh	79.8	24.3	25.6	32.1	44.6	17.3	89.4	32.9	35.4	90.8	59.9	18.2
LnGrp LOS	F	C	C	C	D	B	F	C	D	F	E	B
Approach Vol, veh/h	2226				1568				548		1293	
Approach Delay, s/veh	40.3				42.2				52.0		51.2	
Approach LOS	D				D				D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.2	40.8	9.0	21.0	20.0	40.0	10.0	20.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	47.0	47.0	5.0	17.0	16.0	36.0	6.0	16.0				
Max Q Clear Time (g_c+I), s	14.1	26.0	6.7	18.0	18.0	36.5	7.8	9.6				
Green Ext Time (p_c), s	0.7	10.8	0.0	0.0	0.0	0.0	0.0	1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			44.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

11/15/2016

	          											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 	 		 		  	  	
Volume (veh/h)	50	1022	130	146	1256	50	150	50	202	130	50	100
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	1076	137	154	1322	53	158	53	213	137	53	105
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	523	2139	272	240	1365	1075	177	299	267	223	453	212
Arrive On Green	0.15	0.47	0.47	0.07	0.39	0.39	0.10	0.17	0.17	0.06	0.13	0.13
Sat Flow, veh/h	3442	4569	581	3442	3539	2787	1774	1770	1583	3442	3390	1583
Grp Volume(v), veh/h	53	798	415	154	1322	53	158	53	213	137	53	105
Grp Sat Flow(s),veh/h/ln	1721	1695	1760	1721	1770	1393	1774	1770	1583	1721	1695	1583
Q Serve(g_s), s	0.9	11.5	11.5	3.1	25.6	0.8	6.2	1.8	9.0	2.7	1.0	4.3
Cycle Q Clear(g_c), s	0.9	11.5	11.5	3.1	25.6	0.8	6.2	1.8	9.0	2.7	1.0	4.3
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	523	1587	824	240	1365	1075	177	299	267	223	453	212
V/C Ratio(X)	0.10	0.50	0.50	0.64	0.97	0.05	0.89	0.18	0.80	0.61	0.12	0.50
Avail Cap(c_a), veh/h	523	1587	824	344	1365	1075	177	430	385	295	775	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	12.9	13.0	31.7	21.1	13.5	31.1	24.9	27.9	31.9	26.7	28.1
Incr Delay (d2), s/veh	0.1	1.1	2.2	2.9	17.9	0.1	38.4	0.3	7.4	2.7	0.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.6	6.0	1.5	15.9	0.3	4.9	0.9	4.5	1.4	0.5	2.0
LnGrp Delay(d),s/veh	25.6	14.1	15.1	34.6	39.0	13.6	69.6	25.2	35.3	34.6	26.8	29.9
LnGrp LOS	C	B	B	C	D	B	E	C	D	C	C	C
Approach Vol, veh/h	1266				1529		424				295	
Approach Delay, s/veh	14.9				37.7		46.8				31.5	
Approach LOS	B				D		D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	36.8	11.0	13.4	14.6	31.0	8.5	15.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	24.0	7.0	16.0	4.0	27.0	6.0	17.0					
Max Q Clear Time (g_c+1.5), s	13.5	8.2	6.3	2.9	27.6	4.7	11.0					
Green Ext Time (p_c), s	0.1	5.9	0.0	0.9	0.1	0.0	0.2	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			30.1									
HCM 2010 LOS			C									

Intersection			
Intersection Delay, s/veh17.8			
Intersection LOS C			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	109	924	578
Demand Flow Rate, veh/h	111	943	589
Vehicles Circulating, veh/h	757	18	107
Vehicles Exiting, veh/h	204	678	761
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.8	22.8	11.4
Approach LOS	A	C	B
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	111	943	589
Cap Entry Lane, veh/h	530	1110	1015
Entry HV Adj Factor	0.982	0.980	0.981
Flow Entry, veh/h	109	924	578
Cap Entry, veh/h	520	1088	996
V/C Ratio	0.209	0.850	0.580
Control Delay, s/veh	9.8	22.8	11.4
LOS	A	C	B
95th %tile Queue, veh	1	11	4

Intersection

Int Delay, s/veh 0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	4	651	58	0	549
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	685	61	0	578

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1294	716	0
Stage 1	716	-	-
Stage 2	578	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	179	430	862
Stage 1	484	-	-
Stage 2	561	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	179	430	862
Mov Cap-2 Maneuver	179	-	-
Stage 1	484	-	-
Stage 2	561	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	430	862
HCM Lane V/C Ratio	-	-	0.01	-
HCM Control Delay (s)	-	-	13.5	0
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection			
Intersection Delay, s/veh	10.4		
Intersection LOS	B		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	78	685	506
Demand Flow Rate, veh/h	79	699	516
Vehicles Circulating, veh/h	555	5	76
Vehicles Exiting, veh/h	149	587	558
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.0	11.6	9.3
Approach LOS	A	B	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	79	699	516
Cap Entry Lane, veh/h	649	1124	1047
Entry HV Adj Factor	0.987	0.980	0.981
Flow Entry, veh/h	78	685	506
Cap Entry, veh/h	640	1102	1027
V/C Ratio	0.122	0.622	0.493
Control Delay, s/veh	7.0	11.6	9.3
LOS	A	B	A
95th %tile Queue, veh	0	5	3

Intersection

Intersection Delay, s/veh 8.4

Intersection LOS A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	133	546	397
Demand Flow Rate, veh/h	0	135	557	405
Vehicles Circulating, veh/h	531	364	15	126
Vehicles Exiting, veh/h	0	208	516	373
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	6.5	9.1	8.2
Approach LOS	-	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	135	557	405
Cap Entry Lane, veh/h	664	785	1113	996
Entry HV Adj Factor	1.000	0.985	0.980	0.981
Flow Entry, veh/h	0	133	546	397
Cap Entry, veh/h	664	774	1091	977
V/C Ratio	0.000	0.172	0.500	0.407
Control Delay, s/veh	5.4	6.5	9.1	8.2
LOS	A	A	A	A
95th %tile Queue, veh	0	1	3	2

Intersection

Intersection Delay, s/veh 6.9

Intersection LOS A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	21	13	373	389
Demand Flow Rate, veh/h	21	13	381	397
Vehicles Circulating, veh/h	400	377	11	45
Vehicles Exiting, veh/h	42	15	410	345
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.1	4.8	6.7	7.2
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	21	13	381	397
Cap Entry Lane, veh/h	757	775	1118	1080
Entry HV Adj Factor	0.995	0.992	0.980	0.981
Flow Entry, veh/h	21	13	373	389
Cap Entry, veh/h	754	769	1095	1059
V/C Ratio	0.028	0.017	0.341	0.368
Control Delay, s/veh	5.1	4.8	6.7	7.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	2

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	14	32	289	356	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	15	34	304	375	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	748	376	377	0	-	0
Stage 1	376	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	380	670	1181	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	367	670	1181	-	-	-
Mov Cap-2 Maneuver	367	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	673	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1181	-	670	-	-
HCM Lane V/C Ratio	0.029	-	0.022	-	-
HCM Control Delay (s)	8.1	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	5	284	6	5	357
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	5	299	6	5	376

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	688	302	0
Stage 1	302	-	-
Stage 2	386	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	412	738	1256
Stage 1	750	-	-
Stage 2	687	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	410	738	1256
Mov Cap-2 Maneuver	410	-	-
Stage 1	750	-	-
Stage 2	684	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	601	1256
HCM Lane V/C Ratio	-	-	0.012	0.004
HCM Control Delay (s)	-	-	11.1	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection				
Intersection Delay, s/veh	6.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	15	18	299	362
Demand Flow Rate, veh/h	15	18	305	369
Vehicles Circulating, veh/h	380	283	12	28
Vehicles Exiting, veh/h	17	34	383	273
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.9	4.4	5.9	6.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	15	18	305	369
Cap Entry Lane, veh/h	773	851	1116	1099
Entry HV Adj Factor	0.993	0.995	0.980	0.981
Flow Entry, veh/h	15	18	299	362
Cap Entry, veh/h	768	847	1094	1077
V/C Ratio	0.019	0.021	0.273	0.336
Control Delay, s/veh	4.9	4.4	5.9	6.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

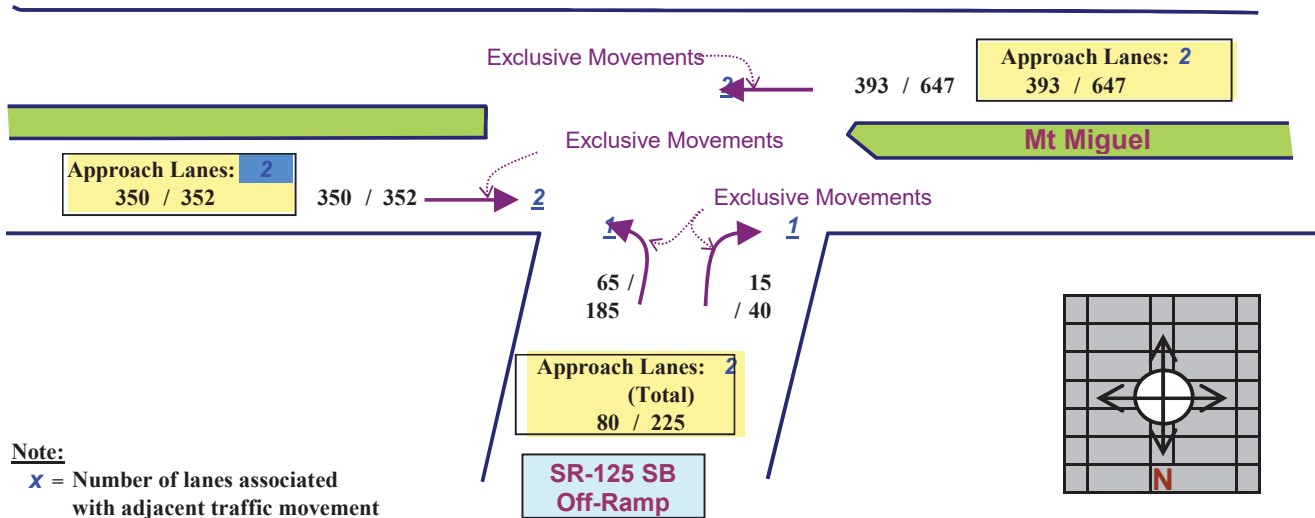
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

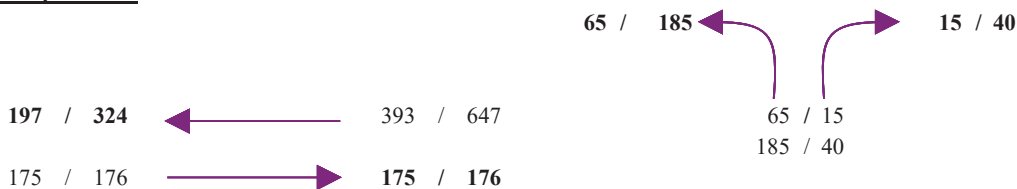
LOCATION: SR-125 SB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



(Indicate "N" on North Arrow)

ILV per Lane:



PHASE 1: 197 / 175 / 324 / 176 ⇒ 197 / 324

PHASE 2: 65 / 15 / 185 / 40 ⇒ 65 / 185

PHASE 3: 0 / 0 / 0 / 0 ⇒ 0 / 0

OPERATING LEVEL:

ILV/HR. = 262 in AM ⇒ ILV: <1,200M
and 509 in PM ⇒ ILV <1,200

TOTAL = 262 / 509 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

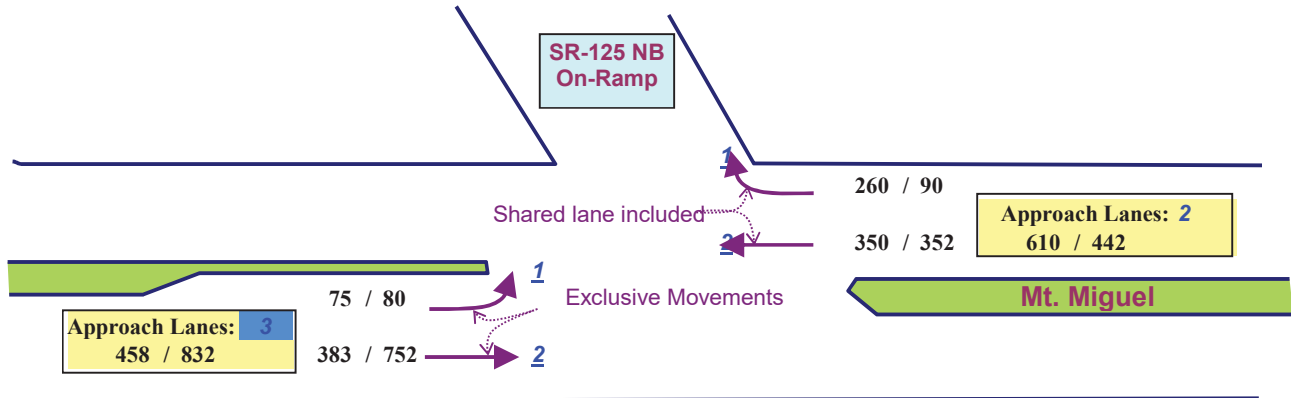
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

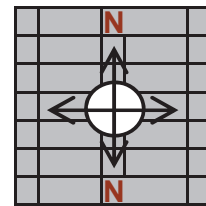
LOCATION: SR-125 NB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



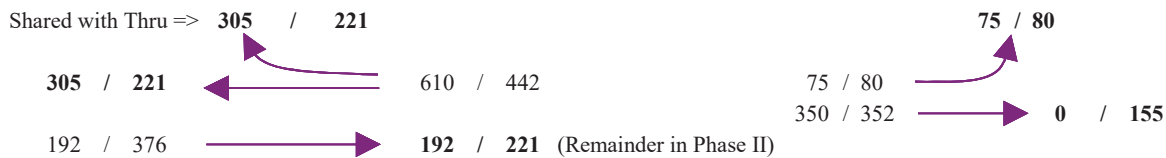
Note:

X = Number of lanes associated with adjacent traffic movement



(Indicate "N" on North Arrow)

ILV per Lane:



PHASE 1: 305 / 221 => 305 / 221

PHASE 2: 75 / 80 => 75 / 155

OPERATING LEVEL:

ILV/HR. = 380 in AM => ILV: <1,200M
and 376 in PM => ILV <1,200

TOTAL = 380 / 376 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

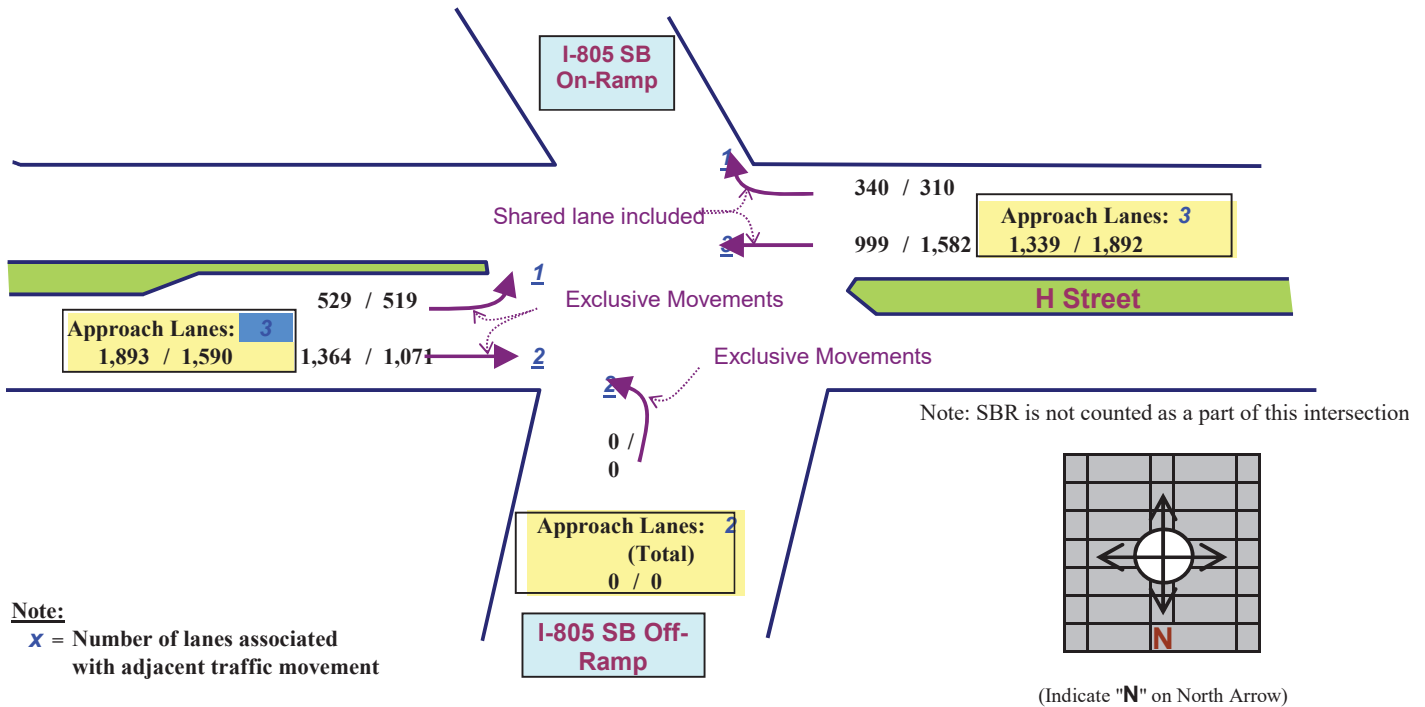
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

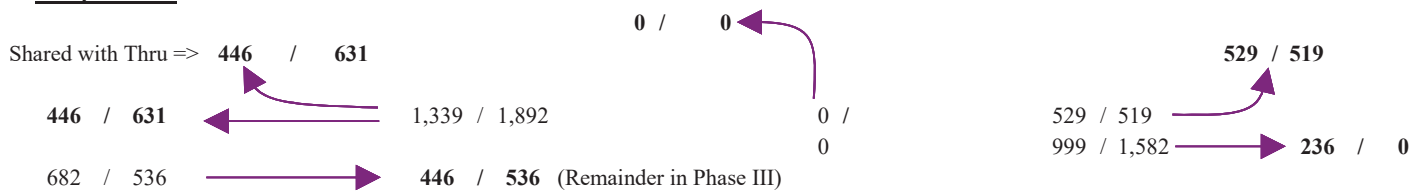
PROJECT: OVL

LOCATION: I-805 SB / H Street

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 446 / 631 / 446 / 536 => 446 / 631

PHASE 2: 0 / 0 / 0 / 0 => 0 / 0

PHASE 3: 529 / 519 / 236 / 0 => 529 / 519

TOTAL = 975 / 1,150 ILV/HR. in the AM / PM peak hours

OPERATING LEVEL:

ILV/HR. = 975 in AM => ILV: <1,200M
and 1,150 in PM => ILV <1,200

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

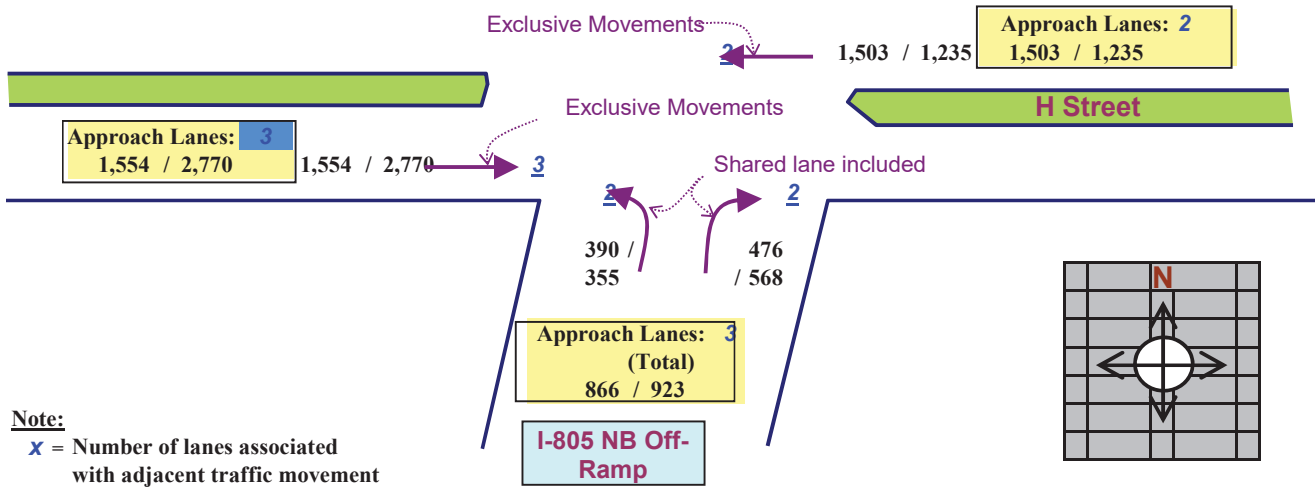
(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

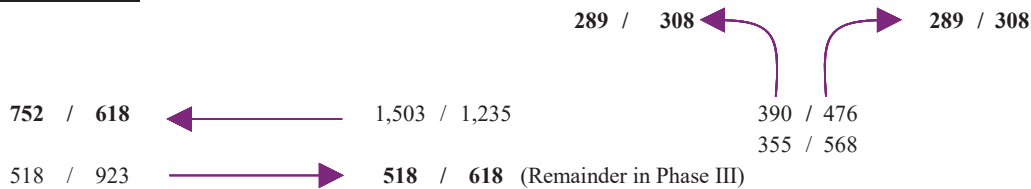
LOCATION: I-805 NB / H Street

Scenario: Existing
(AM/PM Peak)

Note: NBR turn before this intersection



ILV per Lane:



PHASE 1:

752	/	618	⇒	752	/	618
518	/	618				

PHASE 2:

289	/	308	⇒	289	/	308
289	/	308				

OPERATING LEVEL:

ILV/HR. = **1,040** in AM ⇒ ILV: <1,200M
and **925** in PM ⇒ ILV <1,200

TOTAL = **1,040 / 925** ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

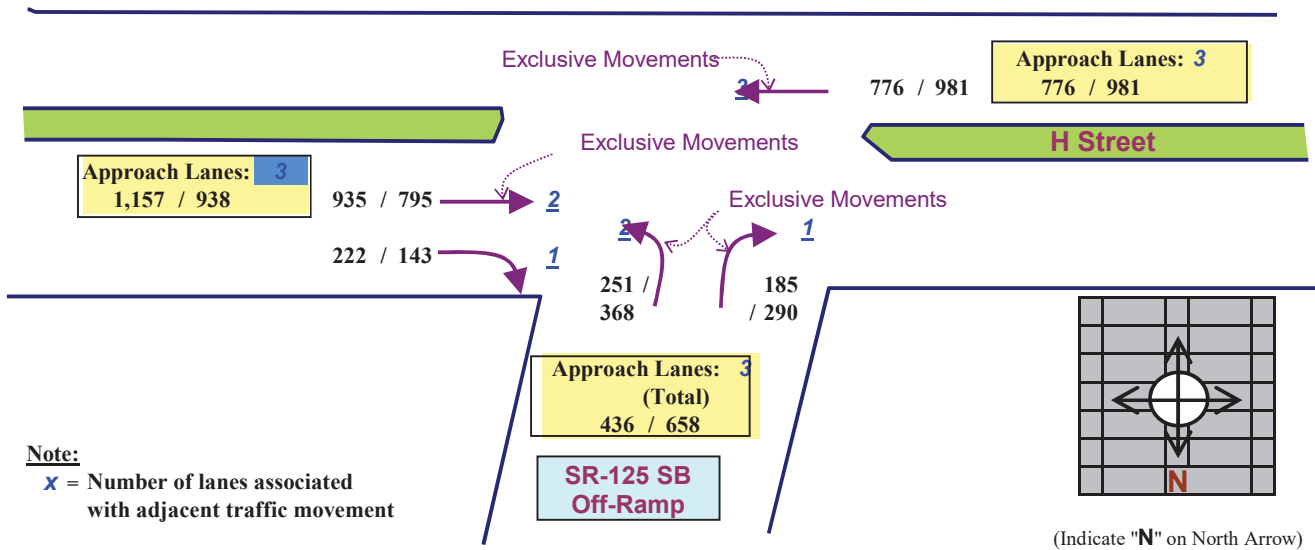
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

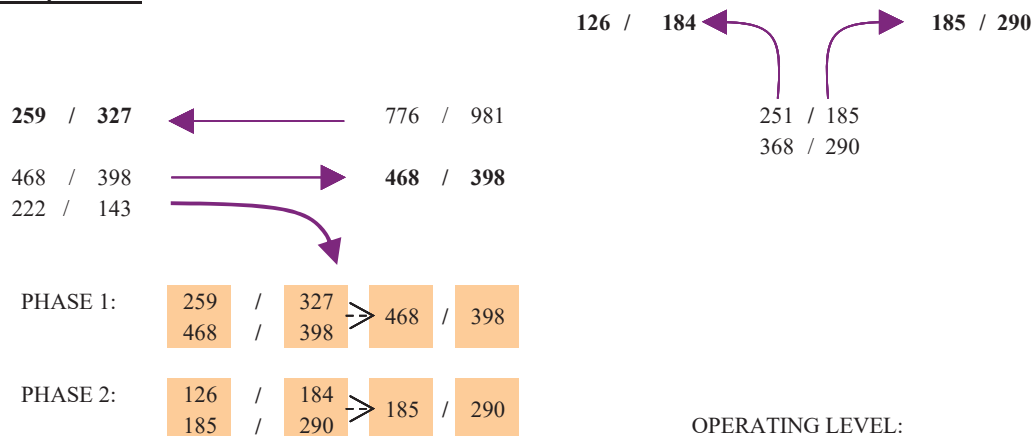
PROJECT: OVL

LOCATION: SR-125 SB / H STREET

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. =	653 in AM ==>	ILV:	<1,200M
and	688 in PM ==>	ILV	<1,200

TOTAL = 653 / 688 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

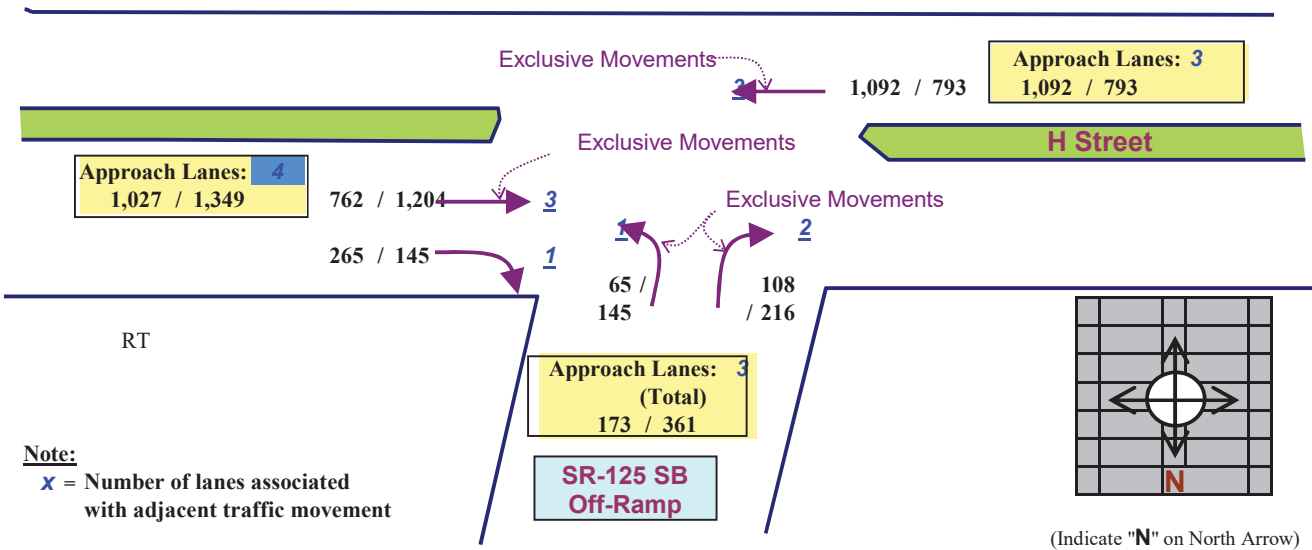
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

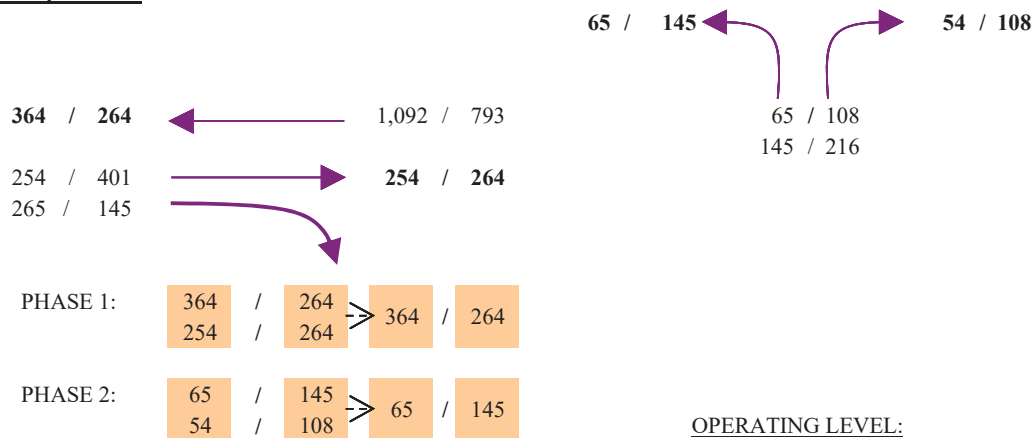
PROJECT: OVL

LOCATION: SR-125 NB / H STREET

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 429 in AM ==> ILV: <1,200M
and 409 in PM ==> ILV <1,200

TOTAL = 429 / 409 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

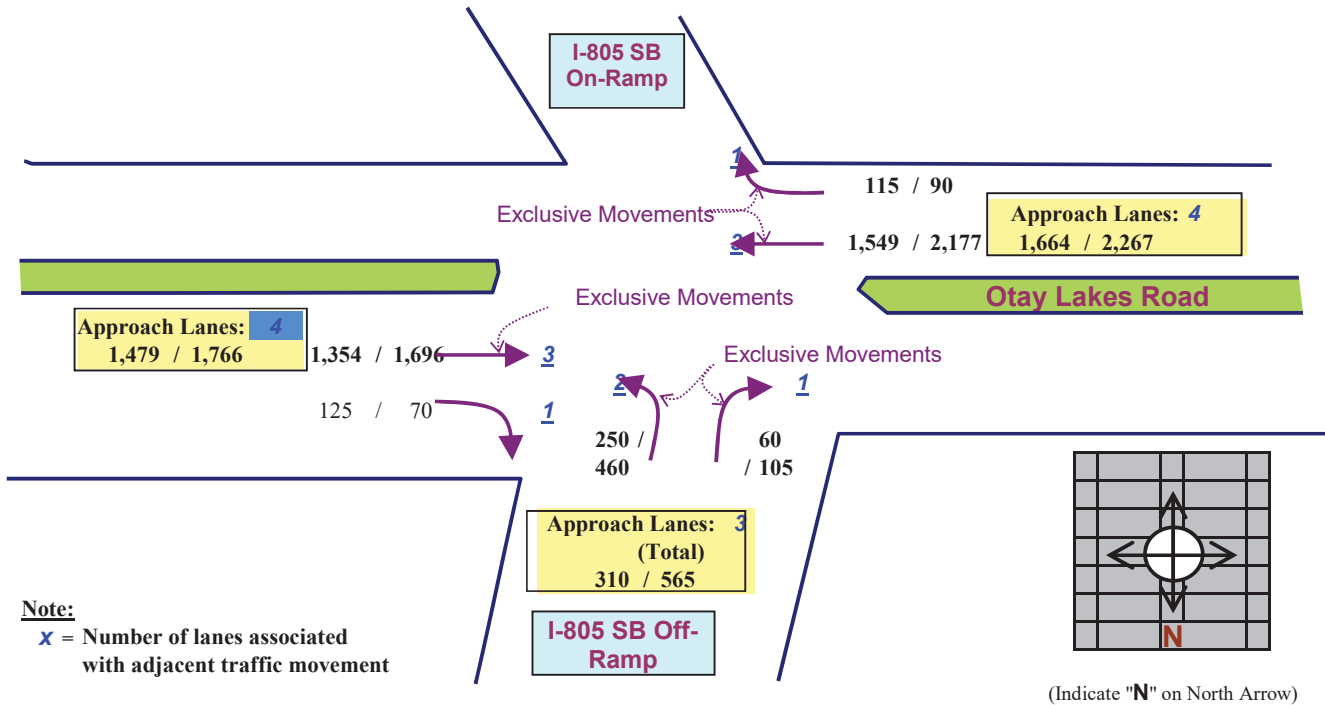
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: SR-125 SB / Otay Lakes Road

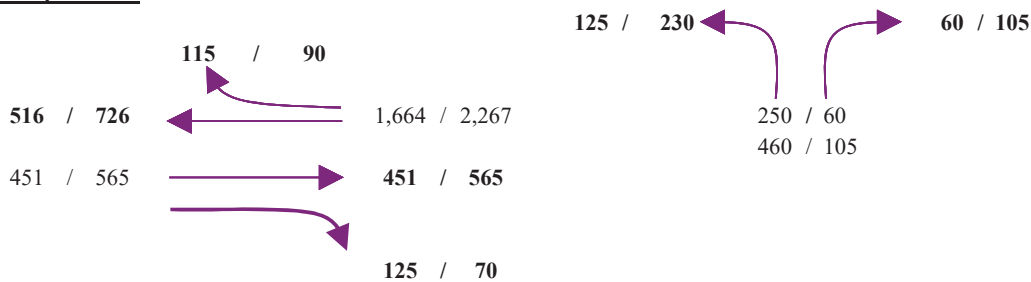
Scenario: Existing
(AM/PM Peak)



Note:

X = Number of lanes associated with adjacent traffic movement

ILV per Lane:



PHASE 1: 516 / 726 / 516 / 726

PHASE 2: 125 / 230 / 125 / 230

OPERATING LEVEL:

ILV/HR. = 641 in AM ==> ILV: <1,200M
and 956 in PM ==> ILV <1,200

TOTAL = 641 / 956 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

Scenario: Existing
(AM/PM Peak)



THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

Appendix K

Analysis Worksheets –

Year 2025 Cumulative conditions - Mitigation

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

1/12/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	5	25	17	10	320	35	960	40	145	677	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	16	5	15	18	11	232	37	1011	31	153	713	36
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	60	106	229	123	281	50	978	30	189	1093	55
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.03	0.54	0.54	0.11	0.62	0.62
Sat Flow, veh/h	501	336	598	871	696	1583	1774	1798	55	1774	1758	89
Grp Volume(v), veh/h	36	0	0	29	0	232	37	0	1042	153	0	749
Grp Sat Flow(s),veh/h/ln	1434	0	0	1567	0	1583	1774	0	1853	1774	0	1847
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	11.0	1.6	0.0	42.5	6.6	0.0	20.2
Cycle Q Clear(g_c), s	1.4	0.0	0.0	1.0	0.0	11.0	1.6	0.0	42.5	6.6	0.0	20.2
Prop In Lane	0.44		0.42	0.62		1.00	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	321	0	0	352	0	281	50	0	1008	189	0	1149
V/C Ratio(X)	0.11	0.00	0.00	0.08	0.00	0.83	0.74	0.00	1.03	0.81	0.00	0.65
Avail Cap(c_a), veh/h	511	0	0	565	0	500	138	0	1008	211	0	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	0.0	26.9	0.0	31.0	37.7	0.0	17.8	34.2	0.0	9.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	6.1	18.8	0.0	37.5	19.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.5	0.0	5.3	1.1	0.0	32.1	4.2	0.0	10.6
LnGrp Delay(d),s/veh	27.2	0.0	0.0	27.0	0.0	37.1	56.5	0.0	55.3	53.2	0.0	10.7
LnGrp LOS	C			C		D	E		F	D		B
Approach Vol, veh/h		36			261			1079			902	
Approach Delay, s/veh		27.2			36.0			55.4			17.9	
Approach LOS		C			D			E			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	47.0		18.3	6.7	53.1		18.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.3	42.5		24.7	6.1	45.7		24.7				
Max Q Clear Time (g_c+l1), s	8.6	44.5		3.4	3.6	22.2		13.0				
Green Ext Time (p_c), s	0.0	0.0		1.0	0.0	14.2		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			37.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

11/16/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	455	40	47	753	50	75	35	58	10	50	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	63	479	42	49	793	53	79	37	61	11	53	132
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	1094	96	72	1092	73	99	138	228	20	83	206
Arrive On Green	0.05	0.33	0.33	0.04	0.32	0.32	0.06	0.22	0.22	0.01	0.17	0.17
Sat Flow, veh/h	1774	3294	288	1774	3368	225	1774	634	1045	1774	474	1180
Grp Volume(v), veh/h	63	257	264	49	417	429	79	0	98	11	0	185
Grp Sat Flow(s),veh/h/ln	1774	1770	1812	1774	1770	1823	1774	0	1678	1774	0	1654
Q Serve(g_s), s	1.6	5.1	5.2	1.2	9.4	9.4	2.0	0.0	2.2	0.3	0.0	4.7
Cycle Q Clear(g_c), s	1.6	5.1	5.2	1.2	9.4	9.4	2.0	0.0	2.2	0.3	0.0	4.7
Prop In Lane	1.00		0.16	1.00		0.12	1.00		0.62	1.00		0.71
Lane Grp Cap(c), veh/h	86	588	602	72	574	591	99	0	366	20	0	288
V/C Ratio(X)	0.73	0.44	0.44	0.68	0.73	0.73	0.80	0.00	0.27	0.54	0.00	0.64
Avail Cap(c_a), veh/h	161	649	664	157	645	664	176	0	645	157	0	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	11.8	11.8	21.4	13.5	13.5	21.1	0.0	14.7	22.3	0.0	17.4
Incr Delay (d2), s/veh	11.5	0.5	0.5	10.7	3.6	3.5	13.7	0.0	0.4	20.7	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	2.7	0.8	5.1	5.2	1.3	0.0	1.0	0.3	0.0	2.3
LnGrp Delay(d),s/veh	32.7	12.3	12.3	32.1	17.1	17.0	34.8	0.0	15.1	43.0	0.0	19.8
LnGrp LOS	C	B	B	C	B	B	C		B	D		B
Approach Vol, veh/h		584			895			177			196	
Approach Delay, s/veh		14.5			17.9			23.9			21.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	14.4	6.3	19.5	7.0	12.4	6.7	19.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	17.4	4.0	16.6	4.5	16.9	4.1	16.5				
Max Q Clear Time (g_c+l1), s	2.3	4.2	3.2	7.2	4.0	6.7	3.6	11.4				
Green Ext Time (p_c), s	0.0	1.4	0.0	5.3	0.0	1.2	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay				17.7								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

1/12/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	5	15	21	10	185	25	633	68	205	931	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	5	16	22	11	195	26	666	72	216	980	53
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	66	118	228	98	243	40	830	90	261	1097	59
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.02	0.50	0.50	0.15	0.63	0.63
Sat Flow, veh/h	336	429	765	916	634	1583	1774	1653	179	1774	1751	95
Grp Volume(v), veh/h	32	0	0	33	0	195	26	0	738	216	0	1033
Grp Sat Flow(s),veh/h/ln	1530	0	0	1551	0	1583	1774	0	1831	1774	0	1846
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	8.1	1.0	0.0	23.0	8.1	0.0	32.5
Cycle Q Clear(g_c), s	1.1	0.0	0.0	1.0	0.0	8.1	1.0	0.0	23.0	8.1	0.0	32.5
Prop In Lane	0.34		0.50	0.67		1.00	1.00		0.10	1.00		0.05
Lane Grp Cap(c), veh/h	306	0	0	326	0	243	40	0	919	261	0	1156
V/C Ratio(X)	0.10	0.00	0.00	0.10	0.00	0.80	0.64	0.00	0.80	0.83	0.00	0.89
Avail Cap(c_a), veh/h	423	0	0	449	0	372	111	0	1005	331	0	1242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	0.0	25.0	0.0	28.0	33.2	0.0	14.2	28.4	0.0	10.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	7.0	15.8	0.0	4.4	12.9	0.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.6	0.0	4.0	0.7	0.0	12.6	4.9	0.0	18.7
LnGrp Delay(d),s/veh	25.1	0.0	0.0	25.1	0.0	35.0	49.0	0.0	18.7	41.2	0.0	19.1
LnGrp LOS	C			C		C	D		B	D		B
Approach Vol, veh/h		32			228			764			1249	
Approach Delay, s/veh		25.1			33.6			19.7			22.9	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.6	38.9		15.0	6.1	47.4		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	12.8	37.6		16.1	4.3	46.1		16.1				
Max Q Clear Time (g_c+l1), s	10.1	25.0		3.1	3.0	34.5		10.1				
Green Ext Time (p_c), s	0.2	9.0		0.7	0.0	8.4		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			22.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

11/16/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	105	819	40	28	619	65	30	30	91	25	20	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	111	862	42	29	652	68	32	32	96	26	21	74
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1334	65	49	1088	113	53	104	312	0	210	179
Arrive On Green	0.08	0.39	0.39	0.03	0.34	0.34	0.03	0.25	0.25	0.00	0.11	0.11
Sat Flow, veh/h	1774	3435	167	1774	3236	337	1774	411	1234	0	1863	1583
Grp Volume(v), veh/h	111	444	460	29	356	364	32	0	128	0	21	74
Grp Sat Flow(s),veh/h/ln	1774	1770	1833	1774	1770	1803	1774	0	1645	0	1863	1583
Q Serve(g_s), s	2.5	8.4	8.4	0.7	6.8	6.8	0.7	0.0	2.6	0.0	0.4	1.8
Cycle Q Clear(g_c), s	2.5	8.4	8.4	0.7	6.8	6.8	0.7	0.0	2.6	0.0	0.4	1.8
Prop In Lane	1.00		0.09	1.00		0.19	1.00		0.75	0.00		1.00
Lane Grp Cap(c), veh/h	141	687	712	49	595	606	53	0	417	0	210	179
V/C Ratio(X)	0.79	0.65	0.65	0.60	0.60	0.60	0.60	0.00	0.31	0.00	0.10	0.41
Avail Cap(c_a), veh/h	239	760	787	174	695	708	174	0	666	0	754	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	10.2	10.2	19.6	11.2	11.3	19.5	0.0	12.3	0.0	16.2	16.8
Incr Delay (d2), s/veh	9.3	1.7	1.6	11.1	1.1	1.1	10.6	0.0	0.4	0.0	0.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.4	4.5	0.5	3.4	3.5	0.5	0.0	1.2	0.0	0.2	0.8
LnGrp Delay(d),s/veh	27.8	11.8	11.8	30.7	12.3	12.3	30.2	0.0	12.7	0.0	16.4	18.3
LnGrp LOS	C	B	B	C	B	B	C		B		B	B
Approach Vol, veh/h	1015				749				160			
Approach Delay, s/veh	13.6				13.0				16.2			
Approach LOS	B				B				B			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	0.0	14.8	5.6	20.3	5.7	9.1	7.7	18.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	16.5	4.0	17.5	4.0	16.5	5.5	16.0				
Max Q Clear Time (g_c+l1), s	0.0	4.6	2.7	10.4	2.7	3.8	4.5	8.8				
Green Ext Time (p_c), s	0.0	0.8	0.0	4.9	0.0	0.8	0.0	4.9				
Intersection Summary												
HCM 2010 Ctrl Delay	13.8											
HCM 2010 LOS	B											

Appendix L

Analysis Worksheets – Year 2030 Conditions

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

3/27/2017

Intersection												
Int Delay, s/veh	59											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	5	35	33	15	335	45	1037	42	155	723	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	5	37	35	16	353	47	1092	44	163	761	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2330	2345	787	2343	2348	1114	814	0	0	1136	0	0
Stage 1	1114	1114	-	1208	1208	-	-	-	-	-	-	-
Stage 2	1216	1231	-	1135	1140	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	26	36	392	~ 25	36	~ 253	813	-	-	615	-	-
Stage 1	253	284	-	224	256	-	-	-	-	-	-	-
Stage 2	221	250	-	246	276	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	25	392	~ 15	25	~ 253	813	-	-	615	-	-
Mov Cap-2 Maneuver	-	25	-	~ 15	25	-	-	-	-	-	-	-
Stage 1	238	209	-	211	241	-	-	-	-	-	-	-
Stage 2	-	236	-	160	203	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		\$ 377.3	0.4	2.2
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	813	-	-	- 17 253	615	-	-
HCM Lane V/C Ratio	0.058	-	-	- 2.972 1.394	0.265	-	-
HCM Control Delay (s)	9.7	-	-	\$ 1353.4 237.4	13	-	-
HCM Lane LOS	A	-	-	- F F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	- 6.9 19.3	1.1	-	-

Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	620	141	55	720	110	163	85	40	90	250	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	32	653	106	58	758	77	172	89	21	95	263	37
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	692	112	74	761	77	281	133	27	167	388	51
Arrive On Green	0.03	0.44	0.44	0.04	0.46	0.46	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	1564	254	1774	1664	169	613	414	83	318	1202	157
Grp Volume(v), veh/h	32	0	759	58	0	835	282	0	0	395	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1818	1774	0	1833	1109	0	0	1677	0	0
Q Serve(g_s), s	1.2	0.0	27.9	2.3	0.0	31.7	2.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	27.9	2.3	0.0	31.7	17.2	0.0	0.0	14.4	0.0	0.0
Prop In Lane	1.00		0.14	1.00		0.09	0.61		0.07	0.24		0.09
Lane Grp Cap(c), veh/h	47	0	804	74	0	839	441	0	0	605	0	0
V/C Ratio(X)	0.68	0.00	0.94	0.78	0.00	1.00	0.64	0.00	0.00	0.65	0.00	0.00
Avail Cap(c_a), veh/h	369	0	846	318	0	839	605	0	0	818	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.7	0.0	18.6	33.1	0.0	18.9	21.7	0.0	0.0	20.7	0.0	0.0
Incr Delay (d2), s/veh	15.9	0.0	18.3	16.3	0.0	30.0	1.6	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	18.0	1.4	0.0	22.7	5.2	0.0	0.0	6.9	0.0	0.0
LnGrp Delay(d),s/veh	49.6	0.0	36.9	49.4	0.0	48.8	23.3	0.0	0.0	21.9	0.0	0.0
LnGrp LOS	D		D	D		D	C			C		
Approach Vol, veh/h		791			893			282			395	
Approach Delay, s/veh		37.4			48.9			23.3			21.9	
Approach LOS		D			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.0	7.4	35.4		27.0	6.3	36.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		31.5	12.5	32.5		31.5	14.5	30.5				
Max Q Clear Time (g_c+l1), s		19.2	4.3	29.9		16.4	3.2	33.7				
Green Ext Time (p_c), s		3.3	0.1	1.0		3.7	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			37.5									
HCM 2010 LOS			D									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

3/27/2017

Intersection

Int Delay, s/veh 5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	431	5	25	323	30	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	454	5	26	340	32	16

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	366	0	196
Stage 1	-	-	0
Stage 2	-	-	196
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1193	-	793
Stage 1	-	-	-
Stage 2	-	-	837
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1193	-	491
Mov Cap-2 Maneuver	-	-	491
Stage 1	-	-	-
Stage 2	-	-	837

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1193	-	491
HCM Lane V/C Ratio	-	-	0.38	-	0.096
HCM Control Delay (s)	-	-	9.9	-	13.1
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	1.8	-	0.3

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

3/27/2017

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	345	56	42	20	35	434
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	363	59	44	21	37	457

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	457	0	1316 59 59 -
Stage 1	-	-	785 - - -
Stage 2	-	-	531 - - -
Critical Hdwy	-	-	6.52 6.22 4.12 -
Critical Hdwy Stg 1	-	-	5.52 - - -
Critical Hdwy Stg 2	-	-	- - - -
Follow-up Hdwy	-	-	4.018 3.318 2.218 -
Pot Cap-1 Maneuver	-	-	158 1007 1545 -
Stage 1	-	-	404 - - -
Stage 2	-	-	- - - -
Platoon blocked, %	-	-	- - - -
Mov Cap-1 Maneuver	-	-	0 1007 1545 -
Mov Cap-2 Maneuver	-	-	0 - - -
Stage 1	-	-	0 - - -
Stage 2	-	-	0 - - -

Approach	EB	WB	SB
HCM Control Delay, s		8.8	0.6
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	- 1007	1545	-
HCM Lane V/C Ratio	-	- 0.065	0.024	-
HCM Control Delay (s)	-	- 8.8	7.4	-
HCM Lane LOS	-	- A	A	-
HCM 95th %tile Q(veh)	-	- 0.2	0.1	-

HCM 2010 Signalized Intersection Summary

5: SR-94 & Melody Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	35	83	40	35	80	61	640	40	50	450	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	63	37	87	42	37	84	64	674	42	53	474	53
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	77	131	147	88	148	85	866	54	75	812	91
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.05	0.50	0.50	0.04	0.49	0.49
Sat Flow, veh/h	426	452	763	296	514	861	1774	1736	108	1774	1646	184
Grp Volume(v), veh/h	187	0	0	163	0	0	64	0	716	53	0	527
Grp Sat Flow(s),veh/h/ln	1640	0	0	1672	0	0	1774	0	1844	1774	0	1830
Q Serve(g_s), s	0.7	0.0	0.0	0.0	0.0	0.0	1.7	0.0	15.0	1.4	0.0	9.6
Cycle Q Clear(g_c), s	4.7	0.0	0.0	4.0	0.0	0.0	1.7	0.0	15.0	1.4	0.0	9.6
Prop In Lane	0.34		0.47	0.26		0.52	1.00		0.06	1.00		0.10
Lane Grp Cap(c), veh/h	383	0	0	383	0	0	85	0	920	75	0	903
V/C Ratio(X)	0.49	0.00	0.00	0.43	0.00	0.00	0.75	0.00	0.78	0.70	0.00	0.58
Avail Cap(c_a), veh/h	640	0	0	645	0	0	249	0	1211	170	0	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	0.0	17.8	0.0	0.0	22.1	0.0	9.6	22.2	0.0	8.5
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.8	0.0	0.0	12.2	0.0	2.4	11.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.0	0.0	0.0	1.1	0.0	8.0	0.9	0.0	5.0
LnGrp Delay(d),s/veh	19.0	0.0	0.0	18.6	0.0	0.0	34.3	0.0	12.1	33.5	0.0	9.1
LnGrp LOS	B			B			C		B	C		A
Approach Vol, veh/h	187			163			780			580		
Approach Delay, s/veh	19.0			18.6			13.9			11.3		
Approach LOS	B			B			B			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	28.0		12.6	6.8	27.7		12.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.5	30.9		16.1	6.6	28.8		16.1				
Max Q Clear Time (g_c+l1), s	3.4	17.0		6.7	3.7	11.6		6.0				
Green Ext Time (p_c), s	0.0	6.5		1.5	0.0	7.3		1.5				
Intersection Summary												
HCM 2010 Ctrl Delay	14.0											
HCM 2010 LOS	B											

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↖	↗		
Traffic Volume (veh/h)	0	391	313	0	65	20		
Future Volume (veh/h)	0	391	313	0	65	20		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	412	329	0	68	21		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1675	1675	0	131	117		
Arrive On Green	0.00	0.47	0.47	0.00	0.07	0.07		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	412	329	0	68	21		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	1.7	1.3	0.0	0.9	0.3		
Cycle Q Clear(g_c), s	0.0	1.7	1.3	0.0	0.9	0.3		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1675	1675	0	131	117		
V/C Ratio(X)	0.00	0.25	0.20	0.00	0.52	0.18		
Avail Cap(c_a), veh/h	0	3860	3860	0	462	413		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	3.9	3.8	0.0	11.1	10.8		
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	3.4	0.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.7	0.0	0.6	0.2		
LnGrp Delay(d),s/veh	0.0	4.1	3.9	0.0	14.6	11.6		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		412	329		89			
Approach Delay, s/veh		4.1	3.9		13.9			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		17.6		7.3		17.6		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		27.2		6.5		27.2		
Max Q Clear Time (g_c+l1), s		3.7		2.9		3.3		
Green Ext Time (p_c), s		8.4		0.1		8.5		
Intersection Summary								
HCM 2010 Ctrl Delay			5.1					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	100	381	313	270	0	0			
Future Volume (veh/h)	100	381	313	270	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	105	401	329	284					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.95	0.95	0.95	0.95					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	129	2735	988	837					
Arrive On Green	0.07	0.77	0.54	0.54					
Sat Flow, veh/h	1774	3632	1913	1541					
Grp Volume(v), veh/h	105	401	320	293					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1591					
Q Serve(g_s), s	1.5	0.7	2.6	2.6					
Cycle Q Clear(g_c), s	1.5	0.7	2.6	2.6					
Prop In Lane	1.00			0.97					
Lane Grp Cap(c), veh/h	129	2735	961	864					
V/C Ratio(X)	0.81	0.15	0.33	0.34					
Avail Cap(c_a), veh/h	626	4744	1470	1322					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	11.7	0.7	3.2	3.3					
Incr Delay (d2), s/veh	4.6	0.1	0.4	0.5					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	0.9	0.4	1.4	1.3					
LnGrp Delay(d),s/veh	16.3	0.8	3.7	3.8					
LnGrp LOS	B	A	A	A					
Approach Vol, veh/h		506	613						
Approach Delay, s/veh		4.0	3.7						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		25.5			5.9	19.7			
Change Period (Y+Rc), s		5.8			4.0	5.8			
Max Green Setting (Gmax), s		34.2			9.0	21.2			
Max Q Clear Time (g_c+l1), s		2.7			3.5	4.6			
Green Ext Time (p_c), s		13.3			0.0	9.2			
Intersection Summary									
HCM 2010 Ctrl Delay			3.9						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑		↗		
Volume (veh/h)	950	380	566	1351	0	1210		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1000	137	596	1422	0	1011		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	1953	267	586	3118	0	0		
Arrive On Green	0.43	0.43	0.33	0.88	0.00	0.00		
Sat Flow, veh/h	4693	619	1774	3632	0			
Grp Volume(v), veh/h	749	388	596	1422	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1754	1774	1770				
Q Serve(g_s), s	6.1	6.1	12.5	3.0				
Cycle Q Clear(g_c), s	6.1	6.1	12.5	3.0				
Prop In Lane		0.35	1.00					
Lane Grp Cap(c), veh/h	1463	757	586	3118				
V/C Ratio(X)	0.51	0.51	1.02	0.46				
Avail Cap(c_a), veh/h	1568	811	586	3228				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	7.8	7.8	12.7	0.4				
Incr Delay (d2), s/veh	0.3	0.5	41.4	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	2.9	3.0	12.6	1.2				
LnGrp Delay(d),s/veh	8.1	8.4	54.1	0.6				
LnGrp LOS	A	A	F	A				
Approach Vol, veh/h	1137			2018				
Approach Delay, s/veh	8.2			16.4				
Approach LOS	A			B				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			17.0	20.8				37.8
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			12.5	17.5				34.5
Max Q Clear Time (g_c+I1), s			14.5	8.1				5.0
Green Ext Time (p_c), s			0.0	8.2				21.4
Intersection Summary								
HCM 2010 Ctrl Delay			13.4					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	1541	600	30	1552	405	490		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863		
Adj Flow Rate, veh/h	1622	0	32	1634	470	237		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3187	992	84	2075	747	333		
Arrive On Green	0.63	0.00	0.63	0.63	0.21	0.21		
Sat Flow, veh/h	5253	1583	27	3396	3548	1583		
Grp Volume(v), veh/h	1622	0	878	788	470	237		
Grp Sat Flow(s),veh/h/ln	1695	1583	1728	1610	1774	1583		
Q Serve(g_s), s	9.7	0.0	0.0	19.8	6.7	7.7		
Cycle Q Clear(g_c), s	9.7	0.0	18.4	19.8	6.7	7.7		
Prop In Lane		1.00	0.04		1.00	1.00		
Lane Grp Cap(c), veh/h	3187	992	1150	1009	747	333		
V/C Ratio(X)	0.51	0.00	0.76	0.78	0.63	0.71		
Avail Cap(c_a), veh/h	3265	1017	1174	1034	1315	587		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	5.7	0.0	7.3	7.5	19.9	20.3		
Incr Delay (d2), s/veh	0.1	0.0	3.0	3.8	0.9	2.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.4	0.0	10.2	9.6	3.4	3.6		
LnGrp Delay(d),s/veh	5.8	0.0	10.3	11.4	20.7	23.1		
LnGrp LOS	A		B	B	C	C		
Approach Vol, veh/h	1622			1666	707			
Approach Delay, s/veh	5.8			10.8	21.5			
Approach LOS	A			B	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		16.1		39.1				39.1
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		20.5		35.5				35.5
Max Q Clear Time (g_c+I1), s		9.7		11.7				21.8
Green Ext Time (p_c), s		2.0		21.5				12.9
Intersection Summary								
HCM 2010 Ctrl Delay			10.7					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	2081	25	90	2214	60	80	10	25	40	5	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	126	2191	21	95	2331	42	84	11	21	42	5	188
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	3055	29	122	2915	52	233	88	168	268	27	243
Arrive On Green	0.09	0.59	0.59	0.07	0.57	0.57	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1774	5194	50	1774	5144	92	1185	574	1096	1125	175	1583
Grp Volume(v), veh/h	126	1429	783	95	1534	839	84	0	32	47	0	188
Grp Sat Flow(s),veh/h/ln	1774	1695	1854	1774	1695	1846	1185	0	1669	1299	0	1583
Q Serve(g_s), s	4.9	21.3	21.4	3.7	25.5	25.6	4.8	0.0	1.2	1.8	0.0	8.1
Cycle Q Clear(g_c), s	4.9	21.3	21.4	3.7	25.5	25.6	7.8	0.0	1.2	3.0	0.0	8.1
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.66	0.89		1.00
Lane Grp Cap(c), veh/h	160	1994	1090	122	1921	1046	233	0	256	295	0	243
V/C Ratio(X)	0.79	0.72	0.72	0.78	0.80	0.80	0.36	0.00	0.13	0.16	0.00	0.78
Avail Cap(c_a), veh/h	212	1994	1090	182	1933	1053	344	0	411	426	0	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.7	10.4	10.4	32.6	12.2	12.2	30.2	0.0	26.0	27.0	0.0	28.9
Incr Delay (d2), s/veh	13.3	1.3	2.3	11.6	2.5	4.5	0.9	0.0	0.2	0.2	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	10.1	11.3	2.2	12.4	14.1	1.6	0.0	0.6	0.8	0.0	3.9
LnGrp Delay(d),s/veh	45.0	11.7	12.7	44.2	14.6	16.7	31.1	0.0	26.2	27.2	0.0	34.2
LnGrp LOS	D	B	B	D	B	B	C		C	C		C
Approach Vol, veh/h	2338			2468			116			235		
Approach Delay, s/veh	13.8			16.5			29.8			32.8		
Approach LOS	B			B			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.4	9.4	46.3		15.4	10.9	44.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.5	7.3	41.7		17.5	8.5	40.5				
Max Q Clear Time (g_c+I1), s		9.8	5.7	23.4		10.1	6.9	27.6				
Green Ext Time (p_c), s		0.8	0.0	18.0		0.8	0.0	12.6				
Intersection Summary												
HCM 2010 Ctrl Delay	16.3											
HCM 2010 LOS	B											

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰↱	↑↑↑	↑↑↑↱		↰	↱		
Volume (veh/h)	235	1866	1969	45	30	290		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	247	1964	2073	36	32	210		
Adj No. of Lanes	2	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	354	3412	2516	44	302	270		
Arrive On Green	0.10	0.67	0.49	0.49	0.17	0.17		
Sat Flow, veh/h	3442	5253	5316	89	1774	1583		
Grp Volume(v), veh/h	247	1964	1364	745	32	210		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1847	1774	1583		
Q Serve(g_s), s	3.9	11.7	19.5	19.6	0.9	7.2		
Cycle Q Clear(g_c), s	3.9	11.7	19.5	19.6	0.9	7.2		
Prop In Lane	1.00			0.05	1.00	1.00		
Lane Grp Cap(c), veh/h	354	3412	1657	903	302	270		
V/C Ratio(X)	0.70	0.58	0.82	0.82	0.11	0.78		
Avail Cap(c_a), veh/h	370	3445	1663	906	551	492		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	24.6	5.0	12.4	12.4	19.9	22.5		
Incr Delay (d2), s/veh	5.4	0.2	3.5	6.3	0.2	4.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.1	5.3	9.7	11.3	0.4	6.4		
LnGrp Delay(d),s/veh	30.0	5.2	15.9	18.7	20.0	27.3		
LnGrp LOS	C	A	B	B	C	C		
Approach Vol, veh/h		2211	2109		242			
Approach Delay, s/veh		8.0	16.9		26.4			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				42.5		14.2	10.3	32.2
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				38.4		17.6	6.1	27.8
Max Q Clear Time (g_c+I1), s				13.7		9.2	5.9	21.6
Green Ext Time (p_c), s				23.6		0.5	0.0	6.1
Intersection Summary								
HCM 2010 Ctrl Delay			13.1					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	  	  		  	  		  	 		  	 	
Volume (veh/h)	150	1431	180	311	1739	65	265	65	240	40	30	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	158	1506	189	327	1831	68	279	68	238	42	32	95
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	2018	628	422	2284	711	373	669	299	110	398	178
Arrive On Green	0.07	0.40	0.40	0.12	0.45	0.45	0.11	0.19	0.19	0.03	0.11	0.11
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	158	1506	189	327	1831	68	279	68	238	42	32	95
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	3.1	17.6	5.7	6.4	21.5	1.7	5.5	1.1	10.0	0.8	0.6	3.9
Cycle Q Clear(g_c), s	3.1	17.6	5.7	6.4	21.5	1.7	5.5	1.1	10.0	0.8	0.6	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	2018	628	422	2284	711	373	669	299	110	398	178
V/C Ratio(X)	0.65	0.75	0.30	0.77	0.80	0.10	0.75	0.10	0.80	0.38	0.08	0.53
Avail Cap(c_a), veh/h	273	2018	628	471	2308	719	422	1071	479	198	842	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	17.9	14.3	29.5	16.4	11.0	30.0	23.3	26.9	32.9	27.6	29.1
Incr Delay (d2), s/veh	4.6	1.6	0.3	7.1	2.1	0.1	6.3	0.1	4.8	2.2	0.1	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	8.5	2.5	3.5	10.4	0.8	2.9	0.5	4.7	0.4	0.3	1.8
LnGrp Delay(d),s/veh	36.1	19.5	14.6	36.6	18.5	11.1	36.3	23.3	31.6	35.1	27.7	31.5
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h	1853				2226				585		169	
Approach Delay, s/veh	20.4				21.0				32.9		31.7	
Approach LOS	C				C				C		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	17.6	13.0	32.0	12.0	12.3	9.4	35.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	21.0	9.5	27.5	8.5	16.5	5.5	31.5				
Max Q Clear Time (g_c+1.0), s	12.8	12.0	8.4	19.6	7.5	5.9	5.1	23.5				
Green Ext Time (p_c), s	0.0	1.2	0.1	7.6	0.1	1.3	0.0	7.7				
Intersection Summary												
HCM 2010 Ctrl Delay			22.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	👉👉	👉👉👉		👉👉	👉👉👉		👉	👉👉		👉	👉👉	
Volume (veh/h)	250	1408	210	306	1241	140	490	450	470	160	195	240
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	263	1482	126	322	1306	73	516	474	348	168	205	158
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	1607	137	320	1522	85	512	605	443	198	260	191
Arrive On Green	0.12	0.34	0.34	0.09	0.31	0.31	0.29	0.31	0.31	0.11	0.13	0.13
Sat Flow, veh/h	3442	4775	406	3442	4929	275	1774	1952	1429	1774	1950	1430
Grp Volume(v), veh/h	263	1052	556	322	898	481	516	430	392	168	185	178
Grp Sat Flow(s),veh/h/ln	1721	1695	1791	1721	1695	1814	1774	1770	1611	1774	1770	1610
Q Serve(g_s), s	7.8	32.1	32.1	10.0	26.8	26.8	31.0	23.8	23.9	10.0	10.9	11.6
Cycle Q Clear(g_c), s	7.8	32.1	32.1	10.0	26.8	26.8	31.0	23.8	23.9	10.0	10.9	11.6
Prop In Lane	1.00		0.23	1.00		0.15	1.00		0.89	1.00		0.89
Lane Grp Cap(c), veh/h	416	1141	603	320	1047	560	512	549	499	198	236	215
V/C Ratio(X)	0.63	0.92	0.92	1.01	0.86	0.86	1.01	0.78	0.79	0.85	0.78	0.83
Avail Cap(c_a), veh/h	416	1167	616	320	1135	607	512	549	499	231	263	240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	34.3	34.3	48.8	34.9	34.9	38.3	33.8	33.8	46.9	45.1	45.4
Incr Delay (d2), s/veh	3.1	11.8	19.3	51.8	6.4	11.1	42.0	7.3	8.1	22.1	13.1	19.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	16.9	19.1	7.0	13.4	15.1	21.0	12.7	11.7	6.1	6.2	6.3
LnGrp Delay(d),s/veh	48.1	46.1	53.6	100.6	41.3	46.1	80.3	41.1	41.9	68.9	58.2	64.7
LnGrp LOS	D	D	D	F	D	D	F	D	D	E	E	E
Approach Vol, veh/h	1871					1701		1338		531		
Approach Delay, s/veh	48.6					53.9		56.4		63.8		
Approach LOS	D					D		E		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.0	40.2	35.0	18.3	17.0	37.2	16.0	37.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	37.0	31.0	16.0	11.0	36.0	14.0	33.0				
Max Q Clear Time (g_c+1.0), s	12.0	34.1	33.0	13.6	9.8	28.8	12.0	25.9				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.8	1.0	4.4	0.1	3.9				
Intersection Summary												
HCM 2010 Ctrl Delay			53.7									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	320	773	440	281	862	253	350	700	130	300	610	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	814	463	296	907	266	368	737	0	316	642	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	1051	470	367	1097	491	408	948	295	356	871	271
Arrive On Green	0.19	0.30	0.30	0.21	0.31	0.31	0.12	0.19	0.00	0.10	0.17	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	337	814	463	296	907	266	368	737	0	316	642	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	14.6	16.3	22.5	12.3	18.4	10.8	8.2	10.7	0.0	7.0	9.3	0.0
Cycle Q Clear(g_c), s	14.6	16.3	22.5	12.3	18.4	10.8	8.2	10.7	0.0	7.0	9.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1051	470	367	1097	491	408	948	295	356	871	271
V/C Ratio(X)	0.98	0.77	0.98	0.81	0.83	0.54	0.90	0.78	0.00	0.89	0.74	0.00
Avail Cap(c_a), veh/h	344	1051	470	367	1097	491	408	1117	348	356	1117	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.1	24.8	27.0	29.2	24.8	22.2	33.7	30.0	0.0	34.3	30.4	0.0
Incr Delay (d2), s/veh	43.2	5.6	37.8	12.6	7.2	4.3	22.8	3.0	0.0	22.9	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	8.7	14.8	7.3	10.0	5.3	5.2	5.2	0.0	4.5	4.5	0.0
LnGrp Delay(d),s/veh	74.2	30.4	64.9	41.8	32.0	26.4	56.5	33.0	0.0	57.2	32.3	0.0
LnGrp LOS	E	C	E	D	C	C	E	C		E	C	
Approach Vol, veh/h	1614				1469				1105		958	
Approach Delay, s/veh	49.4				32.9				40.8		40.5	
Approach LOS	D				C				D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	27.0	13.2	17.3	19.0	28.0	12.0	18.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	16.0	23.0	8.0	17.0	15.0	24.0	8.0	17.0				
Max Q Clear Time (g_c+1.3), s	14.3	24.5	10.2	11.3	16.6	20.4	9.0	12.7				
Green Ext Time (p_c), s	1.2	0.0	0.0	2.0	0.0	2.4	0.0	1.8				
Intersection Summary												
HCM 2010 Ctrl Delay			41.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑		↑
Traffic Volume (veh/h)	0	834	155	0	890	320	0	0	0	211	0	205
Future Volume (veh/h)	0	834	155	0	890	320	0	0	0	211	0	205
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	878	0	0	937	337				222	0	216
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3095	964	0	2154	1255				633	0	291
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.61				0.18	0.00	0.18
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	878	0	0	937	337				222	0	216
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	4.4	0.0	0.0	7.7	3.1				3.1	0.0	7.0
Cycle Q Clear(g_c), s	0.0	4.4	0.0	0.0	7.7	3.1				3.1	0.0	7.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3095	964	0	2154	1255				633	0	291
V/C Ratio(X)	0.00	0.28	0.00	0.00	0.44	0.27				0.35	0.00	0.74
Avail Cap(c_a), veh/h	0	3474	1082	0	2417	1373				1043	0	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.0	0.0	0.0	5.7	1.5				19.4	0.0	21.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.3	0.2				0.4	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	0.0	0.0	3.7	2.5				1.5	0.0	3.4
LnGrp Delay(d),s/veh	0.0	5.1	0.0	0.0	6.0	1.7				19.7	0.0	25.0
LnGrp LOS		A			A	A				B		C
Approach Vol, veh/h		878			1274						438	
Approach Delay, s/veh		5.1			4.9						22.3	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		38.9		15.5		38.9						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		37.2		16.5		37.2						
Max Q Clear Time (g_c+l1), s		6.4		9.0		9.7						
Green Ext Time (p_c), s		25.8		1.0		23.5						
Intersection Summary												
HCM 2010 Ctrl Delay			7.9									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↗↖			
Traffic Volume (veh/h)	0	745	405	0	1084	936	85	0	121	0	0	0
Future Volume (veh/h)	0	745	405	0	1084	936	85	0	121	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	784	342	0	1141	0	89	0	53			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	4054	1377	0	4054	1262	129	0	202			
Arrive On Green	0.00	0.80	0.80	0.00	0.80	0.00	0.07	0.00	0.07			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	784	342	0	1141	0	89	0	53			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	3.2	3.1	0.0	5.1	0.0	4.3	0.0	1.6			
Cycle Q Clear(g_c), s	0.0	3.2	3.1	0.0	5.1	0.0	4.3	0.0	1.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	4054	1377	0	4054	1262	129	0	202			
V/C Ratio(X)	0.00	0.19	0.25	0.00	0.28	0.00	0.69	0.00	0.26			
Avail Cap(c_a), veh/h	0	5755	1907	0	5755	1792	317	0	498			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	2.1	0.9	0.0	2.3	0.0	39.3	0.0	38.0			
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.0	0.1	0.0	7.0	0.0	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.5	2.2	0.0	2.4	0.0	2.3	0.0	0.6			
LnGrp Delay(d),s/veh	0.0	2.2	1.1	0.0	2.4	0.0	46.3	0.0	38.8			
LnGrp LOS		A	A		A		D		D			
Approach Vol, veh/h	1126			1141			142					
Approach Delay, s/veh	1.8			2.4			43.5					
Approach LOS	A			A			D					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2				6		8					
Phs Duration (G+Y+Rc), s	75.0				75.0		11.8					
Change Period (Y+Rc), s	5.8				5.8		5.5					
Max Green Setting (Gmax), s	98.2				98.2		15.5					
Max Q Clear Time (g_c+I1), s	5.2				7.1		6.3					
Green Ext Time (p_c), s	62.9				62.1		0.3					
Intersection Summary												
HCM 2010 Ctrl Delay	4.6											
HCM 2010 LOS	A											

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	325	502	170	636	1107	513	280	190	190	326	160	350
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	342	528	179	669	1165	473	295	200	189	343	168	315
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	1066	626	758	1146	464	329	289	259	352	623	790
Arrive On Green	0.11	0.21	0.21	0.22	0.32	0.32	0.19	0.16	0.16	0.20	0.18	0.18
Sat Flow, veh/h	3442	5085	1583	3442	3557	1441	1774	1770	1583	1774	3539	2787
Grp Volume(v), veh/h	342	528	179	669	1110	528	295	200	189	343	168	315
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1608	1774	1770	1583	1774	1770	1393
Q Serve(g_s), s	8.5	7.9	6.7	16.2	27.8	27.8	14.0	9.2	9.8	16.6	3.5	7.9
Cycle Q Clear(g_c), s	8.5	7.9	6.7	16.2	27.8	27.8	14.0	9.2	9.8	16.6	3.5	7.9
Prop In Lane	1.00		1.00	1.00		0.90	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	1066	626	758	1092	518	329	289	259	352	623	790
V/C Ratio(X)	0.92	0.50	0.29	0.88	1.02	1.02	0.90	0.69	0.73	0.98	0.27	0.40
Avail Cap(c_a), veh/h	371	1066	626	837	1092	518	333	365	327	352	767	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	30.1	17.8	32.6	29.3	29.3	34.3	34.0	34.3	34.4	30.8	25.0
Incr Delay (d2), s/veh	28.0	0.4	0.2	10.2	31.5	44.3	25.1	3.9	6.1	41.4	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	3.8	2.9	8.8	17.7	18.6	9.2	4.8	4.7	12.1	1.7	3.0
LnGrp Delay(d),s/veh	66.2	30.4	18.0	42.8	60.7	73.6	59.4	38.0	40.4	75.8	31.0	25.3
LnGrp LOS	E	C	B	D	F	F	E	D	D	E	C	C
Approach Vol, veh/h	1049					2307		684		826		
Approach Delay, s/veh	40.0					58.5		47.9		47.4		
Approach LOS	D					E		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	18.6	23.5	22.6	20.5	19.7	13.8	32.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	17.8	17.8	21.0	16.1	16.2	18.7	9.3	27.8				
Max Q Clear Time (g_c+1.0), s	11.8	11.8	18.2	9.9	16.0	9.9	10.5	29.8				
Green Ext Time (p_c), s	0.0	2.3	0.8	5.4	0.0	3.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			51.1									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	804	445	525	1088	52	185	80	158	80	80	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	232	846	205	553	1145	34	195	84	103	84	84	79
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	1135	273	586	2331	69	231	243	206	200	99	94
Arrive On Green	0.15	0.28	0.28	0.33	0.46	0.46	0.13	0.13	0.13	0.11	0.11	0.11
Sat Flow, veh/h	1774	4093	986	1774	5076	151	1774	1863	1583	1774	884	832
Grp Volume(v), veh/h	232	700	351	553	765	414	195	84	103	84	0	163
Grp Sat Flow(s),veh/h/ln	1774	1695	1689	1774	1695	1836	1774	1863	1583	1774	0	1716
Q Serve(g_s), s	15.4	22.6	22.9	36.5	19.0	19.0	12.9	4.9	7.3	5.3	0.0	11.2
Cycle Q Clear(g_c), s	15.4	22.6	22.9	36.5	19.0	19.0	12.9	4.9	7.3	5.3	0.0	11.2
Prop In Lane	1.00		0.58	1.00		0.08	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	264	940	468	586	1557	843	231	243	206	200	0	193
V/C Ratio(X)	0.88	0.74	0.75	0.94	0.49	0.49	0.84	0.35	0.50	0.42	0.00	0.84
Avail Cap(c_a), veh/h	429	1027	512	700	1557	843	317	333	283	243	0	235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.2	39.6	39.7	39.2	22.7	22.7	51.2	47.7	48.7	49.8	0.0	52.4
Incr Delay (d2), s/veh	11.6	2.7	5.6	19.4	0.2	0.4	14.0	0.8	1.9	1.4	0.0	20.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	11.0	11.4	21.0	8.9	9.7	7.2	2.6	3.3	2.7	0.0	6.4
LnGrp Delay(d),s/veh	61.8	42.4	45.3	58.7	23.0	23.2	65.2	48.6	50.6	51.2	0.0	72.7
LnGrp LOS	E	D	D	E	C	C	E	D	D	D		E
Approach Vol, veh/h	1283					1732		382		247		
Approach Delay, s/veh	46.7					34.4		57.6		65.4		
Approach LOS	D					C		E		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.2	44.3	37.9		18.1	22.4	59.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	47.5	36.5		16.5	29.1	54.9				
Max Q Clear Time (g_c+I1), s		14.9	38.5	24.9		13.2	17.4	21.0				
Green Ext Time (p_c), s		0.7	1.3	8.5		0.3	0.5	19.2				
Intersection Summary												
HCM 2010 Ctrl Delay			43.3									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	260	651	430	602	758	50	435	90	128	45	160	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	274	685	190	634	798	42	458	95	72	47	168	53
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	318	1290	402	762	1462	77	569	546	464	60	220	69
Arrive On Green	0.18	0.25	0.25	0.22	0.30	0.30	0.17	0.29	0.29	0.03	0.16	0.16
Sat Flow, veh/h	1774	5085	1583	3442	4948	260	3442	1863	1583	1774	1359	429
Grp Volume(v), veh/h	274	685	190	634	546	294	458	95	72	47	0	221
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1817	1721	1863	1583	1774	0	1787
Q Serve(g_s), s	13.6	10.6	9.2	16.0	12.3	12.3	11.6	3.5	3.1	2.4	0.0	10.7
Cycle Q Clear(g_c), s	13.6	10.6	9.2	16.0	12.3	12.3	11.6	3.5	3.1	2.4	0.0	10.7
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	318	1290	402	762	1002	537	569	546	464	60	0	289
V/C Ratio(X)	0.86	0.53	0.47	0.83	0.54	0.55	0.81	0.17	0.16	0.78	0.00	0.77
Avail Cap(c_a), veh/h	678	1876	584	1345	1280	686	1042	1093	929	189	0	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.2	29.2	28.7	33.7	26.9	26.9	36.5	23.9	23.8	43.6	0.0	36.4
Incr Delay (d2), s/veh	6.8	0.3	0.9	2.4	0.5	0.9	2.7	0.2	0.2	19.7	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	5.0	4.1	7.8	5.8	6.3	5.8	1.8	1.4	1.5	0.0	5.6
LnGrp Delay(d),s/veh	43.0	29.6	29.6	36.2	27.3	27.8	39.3	24.1	23.9	63.2	0.0	40.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	E		D
Approach Vol, veh/h	1149			1474			625			268		
Approach Delay, s/veh	32.8			31.2			35.2			44.6		
Approach LOS	C			C			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	31.1	24.6	27.5	19.5	19.2	20.8	31.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.7	53.3	35.5	33.5	27.5	35.5	34.7	34.3				
Max Q Clear Time (g_c+14.4), s	14.4	5.5	18.0	12.6	13.6	12.7	15.6	14.3				
Green Ext Time (p_c), s	0.0	2.1	2.1	10.5	1.4	1.9	0.7	10.2				
Intersection Summary												
HCM 2010 Ctrl Delay	33.5											
HCM 2010 LOS	C											
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection																
Intersection Delay, s/veh49.5																
Intersection LOS E																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	310	378	75	0	568	460	50	0	65	50	51	0	10	50	110
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	326	398	79	0	598	484	53	0	68	53	54	0	11	53	116
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	44.8	63.3	16.4	16
HCM LOS	E	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	71%	0%	17%	0%
Vol Thru, %	0%	50%	0%	100%	0%	29%	82%	83%	0%
Vol Right, %	0%	50%	0%	0%	100%	0%	18%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	101	310	378	75	798	280	60	110
LT Vol	65	0	310	0	0	568	0	10	0
Through Vol	0	50	0	378	0	230	230	50	0
RT Vol	0	51	0	0	75	0	50	0	110
Lane Flow Rate	68	106	326	398	79	840	295	63	116
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.203	0.291	0.804	0.925	0.168	1	0.695	0.18	0.306
Departure Headway (Hd)	10.685	9.838	8.87	8.37	7.67	8.98	8.486	10.282	9.504
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	336	366	408	434	468	412	424	349	377
Service Time	8.448	7.6	6.616	6.116	5.415	6.743	6.248	8.046	7.268
HCM Lane V/C Ratio	0.202	0.29	0.799	0.917	0.169	2.039	0.696	0.181	0.308
HCM Control Delay	16.2	16.6	39.4	55.8	12	75.5	28.5	15.3	16.4
HCM Lane LOS	C	C	E	F	B	F	D	C	C
HCM 95th-tile Q	0.7	1.2	7.1	10.3	0.6	12.2	5.2	0.6	1.3

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	95	126	85	306	97	110	95	435	255	90	280	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	100	133	89	322	102	116	100	458	268	95	295	79
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	178	271	624	144	164	192	567	330	121	764	201
Arrive On Green	0.17	0.17	0.17	0.18	0.18	0.18	0.06	0.26	0.26	0.07	0.28	0.28
Sat Flow, veh/h	783	1041	1583	3442	797	906	3442	2157	1254	1774	2773	730
Grp Volume(v), veh/h	233	0	89	322	0	218	100	375	351	95	186	188
Grp Sat Flow(s),veh/h/ln	1824	0	1583	1721	0	1703	1721	1770	1641	1774	1770	1734
Q Serve(g_s), s	6.9	0.0	2.8	4.8	0.0	6.8	1.6	11.3	11.4	3.0	4.9	5.0
Cycle Q Clear(g_c), s	6.9	0.0	2.8	4.8	0.0	6.8	1.6	11.3	11.4	3.0	4.9	5.0
Prop In Lane	0.43		1.00	1.00		0.53	1.00		0.76	1.00		0.42
Lane Grp Cap(c), veh/h	312	0	271	624	0	309	192	465	432	121	487	478
V/C Ratio(X)	0.75	0.00	0.33	0.52	0.00	0.71	0.52	0.81	0.81	0.78	0.38	0.39
Avail Cap(c_a), veh/h	513	0	445	968	0	479	242	498	462	125	498	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	20.7	21.0	0.0	21.9	26.1	19.6	19.6	26.1	16.7	16.7
Incr Delay (d2), s/veh	3.6	0.0	0.7	0.7	0.0	3.0	2.2	9.0	10.1	26.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	1.3	2.3	0.0	3.5	0.8	6.7	6.4	2.3	2.4	2.5
LnGrp Delay(d),s/veh	26.0	0.0	21.4	21.7	0.0	24.8	28.3	28.6	29.7	52.6	17.2	17.3
LnGrp LOS	C		C	C		C	C	C	C	D	B	B
Approach Vol, veh/h		322			540			826			469	
Approach Delay, s/veh		24.7			23.0			29.0			24.4	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	19.5		14.2	7.7	20.2		14.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.0	16.0		16.0	4.0	16.0		16.0				
Max Q Clear Time (g_c+I), s	13.4	13.4		8.9	3.6	7.0		8.8				
Green Ext Time (p_c), s	0.0	1.6		0.9	0.0	4.2		1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			25.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	106	175	145	230	290	249	85	275	330	261	271	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	112	184	153	242	305	262	89	289	305	275	285	182
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	350	298	220	431	366	116	424	380	329	756	469
Arrive On Green	0.08	0.19	0.19	0.12	0.23	0.23	0.07	0.24	0.24	0.19	0.36	0.36
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	1770	1583	1774	2099	1303
Grp Volume(v), veh/h	112	184	153	242	305	262	89	289	305	275	239	228
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1583	1774	1770	1633
Q Serve(g_s), s	4.2	6.1	6.0	8.5	10.3	10.5	3.4	10.2	12.4	10.2	6.8	7.1
Cycle Q Clear(g_c), s	4.2	6.1	6.0	8.5	10.3	10.5	3.4	10.2	12.4	10.2	6.8	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	144	350	298	220	431	366	116	424	380	329	637	588
V/C Ratio(X)	0.78	0.53	0.51	1.10	0.71	0.72	0.77	0.68	0.80	0.84	0.37	0.39
Avail Cap(c_a), veh/h	220	652	554	220	652	554	329	465	416	556	692	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	25.1	25.0	30.0	24.2	24.3	31.5	23.7	24.5	26.9	16.2	16.3
Incr Delay (d2), s/veh	9.4	1.2	1.4	90.1	2.2	2.6	10.2	3.6	10.1	5.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.2	2.7	9.6	5.5	4.8	2.0	5.4	6.5	5.5	3.4	3.2
LnGrp Delay(d),s/veh	40.3	26.3	26.4	120.1	26.4	26.9	41.7	27.3	34.6	32.5	16.6	16.7
LnGrp LOS	D	C	C	F	C	C	D	C	C	C	B	B
Approach Vol, veh/h		449			809			683			742	
Approach Delay, s/veh		29.8			54.6			32.4			22.5	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	20.9	13.0	17.4	9.0	29.2	10.0	20.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	21.5	18.0	8.5	24.0	12.7	26.8	8.5	24.0				
Max Q Clear Time (g_c+1.2), s	12.2	14.4	10.5	8.1	5.4	9.1	6.2	12.5				
Green Ext Time (p_c), s	0.5	2.0	0.0	3.9	0.1	6.0	0.0	3.4				
Intersection Summary												
HCM 2010 Ctrl Delay			35.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	305	1300	490	251	1230	260	470	1095	350	230	715	256
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	321	1368	358	264	1295	116	495	1153	368	242	753	169
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	1745	543	315	1553	139	533	1279	572	295	840	189
Arrive On Green	0.11	0.34	0.34	0.09	0.33	0.33	0.15	0.36	0.36	0.09	0.29	0.29
Sat Flow, veh/h	3442	5085	1583	3442	4752	426	3442	3539	1583	3442	2874	645
Grp Volume(v), veh/h	321	1368	358	264	924	487	495	1153	368	242	464	458
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1788	1721	1770	1583	1721	1770	1749
Q Serve(g_s), s	12.4	32.8	26.0	10.2	34.2	34.2	19.2	41.8	26.2	9.4	34.0	34.1
Cycle Q Clear(g_c), s	12.4	32.8	26.0	10.2	34.2	34.2	19.2	41.8	26.2	9.4	34.0	34.1
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	371	1745	543	315	1108	584	533	1279	572	295	517	511
V/C Ratio(X)	0.86	0.78	0.66	0.84	0.83	0.83	0.93	0.90	0.64	0.82	0.90	0.90
Avail Cap(c_a), veh/h	406	1764	549	356	1126	594	533	1279	572	381	549	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	40.0	37.8	60.6	42.2	42.2	56.5	41.0	36.0	60.9	46.0	46.0
Incr Delay (d2), s/veh	16.4	2.4	2.9	14.8	5.5	9.8	22.7	9.0	2.5	10.5	16.8	16.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	15.7	11.8	5.5	16.9	18.5	10.8	21.9	11.8	4.9	19.0	18.8
LnGrp Delay(d),s/veh	75.8	42.4	40.6	75.4	47.7	52.1	79.2	50.0	38.4	71.3	62.7	62.9
LnGrp LOS	E	D	D	E	D	D	E	D	D	E	E	E
Approach Vol, veh/h	2047				1675		2016				1164	
Approach Delay, s/veh	47.3				53.3		55.1				64.6	
Approach LOS	D				D		E				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	50.5	25.0	43.6	18.6	48.3	15.6	53.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	47.0	21.0	42.0	16.0	45.0	15.0	48.0				
Max Q Clear Time (g_c+1.2), s	12.2	34.8	21.2	36.1	14.4	36.2	11.4	43.8				
Green Ext Time (p_c), s	0.2	11.0	0.0	3.6	0.2	8.1	0.3	3.7				
Intersection Summary												
HCM 2010 Ctrl Delay			53.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	520	1000	410	250	1060	380	495	1070	510	205	661	246
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	547	1053	390	263	1116	358	521	1126	495	216	696	227
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	577	1080	336	692	1250	389	759	1147	1464	288	953	297
Arrive On Green	0.17	0.21	0.21	0.20	0.25	0.25	0.22	0.32	0.32	0.08	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	547	1053	390	263	1116	358	521	1126	495	216	696	227
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	14.1	18.4	19.0	5.9	19.0	15.2	12.4	28.2	2.5	5.5	11.5	12.2
Cycle Q Clear(g_c), s	14.1	18.4	19.0	5.9	19.0	15.2	12.4	28.2	2.5	5.5	11.5	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	577	1080	336	692	1250	389	759	1147	1464	288	953	297
V/C Ratio(X)	0.95	0.98	1.16	0.38	0.89	0.92	0.69	0.98	0.34	0.75	0.73	0.77
Avail Cap(c_a), veh/h	577	1080	336	692	1250	389	759	1147	1464	308	1136	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	35.0	35.2	30.9	32.6	19.5	32.0	30.0	4.5	40.1	34.2	34.5
Incr Delay (d2), s/veh	25.2	22.1	100.0	0.3	9.9	29.3	2.6	22.2	0.1	9.2	2.0	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	10.8	17.6	2.8	10.0	9.8	6.2	17.3	1.9	3.0	5.6	6.0
LnGrp Delay(d),s/veh	62.1	57.1	135.3	31.3	42.5	48.8	34.6	52.2	4.6	49.3	36.2	42.5
LnGrp LOS	E	E	F	C	D	D	C	D	A	D	D	D
Approach Vol, veh/h	1990				1737				2142			
Approach Delay, s/veh	73.8				42.1				36.9		40.0	
Approach LOS	E				D				D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	23.0	23.7	20.8	19.0	26.0	11.5	33.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	19.0	17.0	20.0	15.0	22.0	8.0	29.0				
Max Q Clear Time (g_c+I), s	17.5	21.0	14.4	14.2	16.1	21.0	7.5	30.2				
Green Ext Time (p_c), s	2.2	0.0	2.2	2.6	0.0	0.8	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			49.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	1520	105	0	1606	200	0	0	0	250	0	50
Future Volume (veh/h)	0	1520	105	0	1606	200	0	0	0	250	0	50
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1600	111	0	1691	211				263	0	53
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3617	1126	0	3617	1304				386	0	178
Arrive On Green	0.00	0.71	0.71	0.00	1.00	1.00				0.11	0.00	0.11
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	1600	111	0	1691	211				263	0	53
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	8.5	1.4	0.0	0.0	0.0				4.7	0.0	2.0
Cycle Q Clear(g_c), s	0.0	8.5	1.4	0.0	0.0	0.0				4.7	0.0	2.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3617	1126	0	3617	1304				386	0	178
V/C Ratio(X)	0.00	0.44	0.10	0.00	0.47	0.16				0.68	0.00	0.30
Avail Cap(c_a), veh/h	0	3617	1126	0	3617	1304				618	0	285
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.86	0.86				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.9	2.9	0.0	0.0	0.0				27.3	0.0	26.1
Incr Delay (d2), s/veh	0.0	0.4	0.2	0.0	0.4	0.2				2.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.6	0.0	0.1	0.1				2.4	0.0	0.9
LnGrp Delay(d),s/veh	0.0	4.3	3.0	0.0	0.4	0.2				29.6	0.0	27.1
LnGrp LOS		A	A		A	A				C		C
Approach Vol, veh/h		1711			1902						316	
Approach Delay, s/veh		4.2			0.4						29.2	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		51.3		12.7		51.3						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		41.2		11.5		41.2						
Max Q Clear Time (g_c+l1), s		10.5		6.7		2.0						
Green Ext Time (p_c), s		30.3		0.5		38.5						
Intersection Summary												
HCM 2010 Ctrl Delay			4.4									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↖↖			
Traffic Volume (veh/h)	0	1560	215	0	1721	550	70	0	100	0	0	0
Future Volume (veh/h)	0	1560	215	0	1721	550	70	0	100	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1642	226	0	1812	379	74	0	105			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3804	1304	0	3804	1184	134	0	210			
Arrive On Green	0.00	1.00	1.00	0.00	0.75	0.75	0.08	0.00	0.08			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1642	226	0	1812	379	74	0	105			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	8.9	5.1	2.6	0.0	2.3			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	8.9	5.1	2.6	0.0	2.3			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3804	1304	0	3804	1184	134	0	210			
V/C Ratio(X)	0.00	0.43	0.17	0.00	0.48	0.32	0.55	0.00	0.50			
Avail Cap(c_a), veh/h	0	3804	1304	0	3804	1184	263	0	414			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.88	0.88	0.00	0.18	0.18	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	3.2	2.7	28.5	0.0	28.4			
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.0	0.1	0.1	3.8	0.0	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	4.1	2.1	1.4	0.0	0.9			
LnGrp Delay(d),s/veh	0.0	0.3	0.3	0.0	3.2	2.8	32.4	0.0	30.4			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h		1868			2191			179				
Approach Delay, s/veh		0.3			3.2			31.2				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		53.7				53.7		10.3				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		43.2				43.2		9.5				
Max Q Clear Time (g_c+I1), s		2.0				10.9		4.6				
Green Ext Time (p_c), s		40.8				32.0		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			3.1									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  	 	 	  		 	 		 	 	
Volume (veh/h)	375	980	335	211	1586	140	565	360	215	60	265	216
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	395	1032	353	222	1669	144	595	379	226	63	279	227
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	425	1867	1023	304	1583	136	618	1112	637	123	603	465
Arrive On Green	0.12	0.37	0.37	0.09	0.33	0.33	0.18	0.31	0.31	0.04	0.17	0.17
Sat Flow, veh/h	3442	5085	2787	3442	4770	411	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	395	1032	353	222	1186	627	595	379	226	63	279	227
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1790	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	9.9	14.1	8.0	5.5	29.0	29.0	15.0	7.2	8.7	1.6	6.2	10.3
Cycle Q Clear(g_c), s	9.9	14.1	8.0	5.5	29.0	29.0	15.0	7.2	8.7	1.6	6.2	10.3
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	425	1867	1023	304	1125	594	618	1112	637	123	603	465
V/C Ratio(X)	0.93	0.55	0.34	0.73	1.05	1.06	0.96	0.34	0.35	0.51	0.46	0.49
Avail Cap(c_a), veh/h	425	1867	1023	453	1125	594	618	1142	651	197	709	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	22.0	20.0	38.8	29.2	29.2	35.6	23.0	18.2	41.4	32.6	25.4
Incr Delay (d2), s/veh	26.7	0.4	0.2	3.4	42.2	52.6	27.0	0.2	0.3	3.2	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.7	3.1	2.8	20.0	22.9	9.4	3.6	3.8	0.8	3.1	4.6
LnGrp Delay(d),s/veh	64.6	22.3	20.2	42.2	71.4	81.8	62.5	23.2	18.5	44.6	33.2	26.2
LnGrp LOS	E	C	C	D	F	F	E	C	B	D	C	C
Approach Vol, veh/h	1780				2035		1200				569	
Approach Delay, s/veh	31.3				71.4		41.8				31.7	
Approach LOS	C				E		D				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	31.5	12.2	36.1	20.2	18.9	15.3	33.0				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	5.0	28.2	11.5	28.3	15.7	17.5	10.8	29.0				
Max Q Clear Time (g_c+I), s	13.6	10.7	7.5	16.1	17.0	12.3	11.9	31.0				
Green Ext Time (p_c), s	0.0	5.3	0.2	11.1	0.0	2.6	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			48.2									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	 	  	  		 			
Volume (veh/h)	520	745	1641	140	160	296		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	547	784	1727	147	160	321		
Adj No. of Lanes	2	3	3	0	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	665	3414	1872	159	278	496		
Arrive On Green	0.19	0.67	0.39	0.39	0.16	0.16		
Sat Flow, veh/h	3442	5253	4943	406	1774	3167		
Grp Volume(v), veh/h	547	784	1225	649	160	321		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1791	1774	1583		
Q Serve(g_s), s	8.0	3.1	18.0	18.1	4.4	5.0		
Cycle Q Clear(g_c), s	8.0	3.1	18.0	18.1	4.4	5.0		
Prop In Lane	1.00			0.23	1.00	1.00		
Lane Grp Cap(c), veh/h	665	3414	1329	702	278	496		
V/C Ratio(X)	0.82	0.23	0.92	0.92	0.58	0.65		
Avail Cap(c_a), veh/h	692	3941	1330	703	543	970		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	20.2	3.3	15.1	15.2	20.4	20.7		
Incr Delay (d2), s/veh	7.7	0.0	10.7	18.1	1.9	1.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.4	1.5	10.3	12.4	2.3	4.4		
LnGrp Delay(d),s/veh	27.9	3.4	25.9	33.2	22.3	22.1		
LnGrp LOS	C	A	C	C	C	C		
Approach Vol, veh/h		1331	1874		481			
Approach Delay, s/veh		13.5	28.4		22.2			
Approach LOS		B	C		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.6		12.7	14.6	25.0		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		40.5		16.0	10.5	20.5		
Max Q Clear Time (g_c+l1), s		5.1		7.0	10.0	20.1		
Green Ext Time (p_c), s		24.5		1.2	0.1	0.4		
Intersection Summary								
HCM 2010 Ctrl Delay			22.2					
HCM 2010 LOS			C					

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	  					
Volume (veh/h)	300	615	1581	210	270	220		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	316	647	1664	221	284	232		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	358	3548	2000	265	338	302		
Arrive On Green	0.20	0.70	0.44	0.44	0.19	0.19		
Sat Flow, veh/h	1774	5253	4713	601	1774	1583		
Grp Volume(v), veh/h	316	647	1240	645	284	232		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1757	1774	1583		
Q Serve(g_s), s	13.9	3.5	26.0	26.2	12.4	11.2		
Cycle Q Clear(g_c), s	13.9	3.5	26.0	26.2	12.4	11.2		
Prop In Lane	1.00			0.34	1.00	1.00		
Lane Grp Cap(c), veh/h	358	3548	1492	773	338	302		
V/C Ratio(X)	0.88	0.18	0.83	0.83	0.84	0.77		
Avail Cap(c_a), veh/h	430	3821	1537	796	452	403		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.2	4.2	19.9	20.0	31.4	30.9		
Incr Delay (d2), s/veh	16.8	0.0	3.9	7.5	10.2	6.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.5	1.6	12.9	14.2	7.0	9.9		
LnGrp Delay(d),s/veh	48.1	4.2	23.8	27.5	41.6	37.2		
LnGrp LOS	D	A	C	C	D	D		
Approach Vol, veh/h		963	1885		516			
Approach Delay, s/veh		18.6	25.1		39.6			
Approach LOS		B	C		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				60.7		19.8	20.7	39.9
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				60.5		20.5	19.5	36.5
Max Q Clear Time (g_c+I1), s				5.5		14.4	15.9	28.2
Green Ext Time (p_c), s				30.3		0.9	0.3	7.2
Intersection Summary								
HCM 2010 Ctrl Delay			25.5					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

3/27/2017

	           											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Volume (veh/h)	236	450	200	480	930	153	410	511	225	216	492	457
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	248	474	148	505	979	150	432	538	226	227	518	407
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	993	300	496	1515	472	441	988	442	221	761	340
Arrive On Green	0.10	0.26	0.26	0.14	0.30	0.30	0.13	0.28	0.28	0.06	0.22	0.22
Sat Flow, veh/h	3442	3875	1171	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	248	413	209	505	979	150	432	538	226	227	518	407
Grp Sat Flow(s),veh/h/ln	1721	1695	1656	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	4.4	6.4	6.7	9.0	10.4	4.6	7.8	8.1	4.7	4.0	8.4	9.5
Cycle Q Clear(g_c), s	4.4	6.4	6.7	9.0	10.4	4.6	7.8	8.1	4.7	4.0	8.4	9.5
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	869	424	496	1515	472	441	988	442	221	761	340
V/C Ratio(X)	0.70	0.47	0.49	1.02	0.65	0.32	0.98	0.54	0.51	1.03	0.68	1.20
Avail Cap(c_a), veh/h	441	869	424	496	1515	472	441	1134	507	221	907	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	19.7	19.8	26.7	19.0	17.0	27.1	19.1	7.3	29.2	22.5	12.2
Incr Delay (d2), s/veh	3.7	1.9	4.1	44.9	2.1	1.8	37.4	0.5	0.9	68.4	1.6	113.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.2	3.6	7.3	5.2	2.2	5.9	4.0	2.8	4.0	4.3	15.1
LnGrp Delay(d),s/veh	30.8	21.5	23.8	71.7	21.2	18.8	64.5	19.6	8.2	97.8	24.2	125.3
LnGrp LOS	C	C	C	F	C	B	E	B	A	F	C	F
Approach Vol, veh/h	870				1634				1196		1152	
Approach Delay, s/veh	24.7				36.6				33.7		74.4	
Approach LOS	C				D				C		E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	20.0	12.0	17.4	10.4	22.6	8.0	21.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	16.0	16.0	8.0	16.0	8.0	17.0	4.0	20.0				
Max Q Clear Time (g_c+M), s	8.7	8.7	9.8	11.5	6.4	12.4	6.0	10.1				
Green Ext Time (p_c), s	0.0	2.1	0.0	1.9	0.1	3.1	0.0	4.1				
Intersection Summary												
HCM 2010 Ctrl Delay			42.7									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	225	850	260	250	1221	110	470	620	170	150	280	310
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	237	895	263	263	1285	105	495	653	168	158	295	315
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	1154	359	961	2092	651	496	988	750	250	624	606
Arrive On Green	0.09	0.23	0.23	0.28	0.41	0.41	0.14	0.19	0.19	0.07	0.12	0.12
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	237	895	263	263	1285	105	495	653	168	158	295	315
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	4.7	11.6	10.9	4.2	14.0	2.9	10.1	8.4	1.1	3.1	3.8	4.2
Cycle Q Clear(g_c), s	4.7	11.6	10.9	4.2	14.0	2.9	10.1	8.4	1.1	3.1	3.8	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	326	1154	359	961	2092	651	496	988	750	250	624	606
V/C Ratio(X)	0.73	0.78	0.73	0.27	0.61	0.16	1.00	0.66	0.22	0.63	0.47	0.52
Avail Cap(c_a), veh/h	342	1154	359	976	2092	651	496	1226	824	537	1299	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	25.6	25.3	19.8	16.3	13.1	30.2	26.2	3.8	31.8	28.8	10.3
Incr Delay (d2), s/veh	7.2	5.1	12.4	0.2	1.4	0.5	39.7	0.9	0.1	2.6	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.9	5.9	2.0	6.8	1.4	7.5	4.0	1.0	1.6	1.8	1.8
LnGrp Delay(d),s/veh	38.2	30.7	37.7	20.0	17.7	13.6	69.9	27.2	4.0	34.4	29.4	11.0
LnGrp LOS	D	C	D	B	B	B	E	C	A	C	C	B
Approach Vol, veh/h	1395			1653			1316			768		
Approach Delay, s/veh	33.3			17.8			40.3			22.9		
Approach LOS	C			B			D			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.7	20.0	14.2	12.7	10.7	33.0	9.1	17.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	16.0	10.0	18.0	7.0	29.0	11.0	17.0				
Max Q Clear Time (g_c+I), s	10.2	13.6	12.1	6.2	6.7	16.0	5.1	10.4				
Green Ext Time (p_c), s	8.0	1.5	0.0	2.4	0.0	7.6	0.2	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay	28.5											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Volume (veh/h)	400	730	350	370	630	110	335	286	220	240	407	426
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	421	768	363	389	663	95	353	301	232	253	428	343
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	536	1173	548	397	1081	484	310	654	305	283	656	540
Arrive On Green	0.16	0.35	0.35	0.12	0.31	0.31	0.09	0.19	0.19	0.08	0.19	0.19
Sat Flow, veh/h	3442	3390	1583	3442	3539	1583	3442	3390	1583	3442	3539	1583
Grp Volume(v), veh/h	421	768	363	389	663	95	353	301	232	253	428	343
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1695	1583	1721	1770	1583
Q Serve(g_s), s	7.1	11.6	11.8	6.8	9.7	2.7	5.5	4.8	8.4	4.4	6.8	6.2
Cycle Q Clear(g_c), s	7.1	11.6	11.8	6.8	9.7	2.7	5.5	4.8	8.4	4.4	6.8	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	536	1173	548	397	1081	484	310	654	305	283	656	540
V/C Ratio(X)	0.79	0.65	0.66	0.98	0.61	0.20	1.14	0.46	0.76	0.89	0.65	0.64
Avail Cap(c_a), veh/h	624	1173	548	397	1081	484	310	893	417	283	991	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	16.8	16.9	26.8	18.0	15.6	27.6	21.7	23.2	27.6	22.9	6.3
Incr Delay (d2), s/veh	5.7	2.9	6.2	39.8	2.6	0.9	94.3	0.5	5.4	27.9	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	5.9	6.1	5.4	5.1	1.3	6.6	2.3	4.1	3.2	3.4	2.9
LnGrp Delay(d),s/veh	30.4	19.7	23.1	66.6	20.6	16.5	122.0	22.2	28.6	55.4	24.0	7.5
LnGrp LOS	C	B	C	E	C	B	F	C	C	E	C	A
Approach Vol, veh/h	1552				1147				886		1024	
Approach Delay, s/veh	23.4				35.9				63.6		26.3	
Approach LOS	C				D				E		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	25.0	9.5	15.2	13.4	22.6	9.0	15.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	21.0	4.0	17.0	11.0	17.0	5.0	16.0					
Max Q Clear Time (g_c+I), s	13.8	7.5	8.8	9.1	11.7	6.4	10.4					
Green Ext Time (p_c), s	0.0	3.9	0.0	2.4	0.3	2.7	0.0	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			34.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	👉👉👉	👉👉👉		👉👉	👉👉	👉👉	👉	👉👉		👉👉	👉👉👉	
Volume (veh/h)	250	905	200	181	1471	460	320	265	150	350	280	360
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	263	953	148	191	1548	379	337	279	158	368	295	238
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	1887	292	259	1522	1198	319	337	186	644	542	253
Arrive On Green	0.07	0.42	0.42	0.08	0.43	0.43	0.18	0.15	0.15	0.19	0.16	0.16
Sat Flow, veh/h	3442	4444	688	3442	3539	2787	1774	2205	1214	3442	3390	1583
Grp Volume(v), veh/h	263	726	375	191	1548	379	337	222	215	368	295	238
Grp Sat Flow(s),veh/h/ln	1721	1695	1741	1721	1770	1393	1774	1770	1649	1721	1695	1583
Q Serve(g_s), s	7.0	15.7	15.8	5.4	43.0	9.0	18.0	12.2	12.7	9.7	8.0	14.9
Cycle Q Clear(g_c), s	7.0	15.7	15.8	5.4	43.0	9.0	18.0	12.2	12.7	9.7	8.0	14.9
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.74	1.00		1.00
Lane Grp Cap(c), veh/h	241	1440	739	259	1522	1198	319	271	252	644	542	253
V/C Ratio(X)	1.09	0.50	0.51	0.74	1.02	0.32	1.06	0.82	0.85	0.57	0.54	0.94
Avail Cap(c_a), veh/h	241	1440	739	344	1522	1198	319	301	280	644	542	253
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	21.1	21.1	45.3	28.5	18.8	41.0	41.0	41.2	37.0	38.6	41.5
Incr Delay (d2), s/veh	84.6	0.3	0.6	5.6	27.5	0.2	65.7	15.2	20.0	1.2	1.1	40.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.4	7.7	2.8	26.7	3.4	14.6	7.1	7.2	4.7	3.8	9.3
LnGrp Delay(d),s/veh	131.1	21.3	21.7	50.9	56.0	19.0	106.7	56.3	61.2	38.2	39.8	81.8
LnGrp LOS	F	C	C	D	F	B	F	E	E	D	D	F
Approach Vol, veh/h	1364				2118				774		901	
Approach Delay, s/veh	42.6				48.9				79.6		50.2	
Approach LOS	D				D				E		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	46.5	22.0	20.0	11.0	47.0	22.7	19.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	40.0	18.0	16.0	7.0	43.0	17.0	17.0				
Max Q Clear Time (g_c+I), s	17.4	17.8	20.0	16.9	9.0	45.0	11.7	14.7				
Green Ext Time (p_c), s	0.1	9.1	0.0	0.0	0.0	0.0	2.1	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			52.1									
HCM 2010 LOS			D									

Intersection			
Intersection Delay, s/veh24.0			
Intersection LOS C			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	201	802	837
Demand Flow Rate, veh/h	205	818	854
Vehicles Circulating, veh/h	754	6	198
Vehicles Exiting, veh/h	70	1046	761
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	13.1	15.1	35.1
Approach LOS	B	C	E
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	205	818	854
Cap Entry Lane, veh/h	532	1123	927
Entry HV Adj Factor	0.980	0.981	0.981
Flow Entry, veh/h	201	802	837
Cap Entry, veh/h	521	1102	909
V/C Ratio	0.386	0.728	0.921
Control Delay, s/veh	13.1	15.1	35.1
LOS	B	C	E
95th %tile Queue, veh	2	7	14

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	7	689	20	0	795
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	725	21	0	837

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1573	736	0
Stage 1	736	-	-
Stage 2	837	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	121	419	862
Stage 1	474	-	-
Stage 2	425	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	121	419	862
Mov Cap-2 Maneuver	121	-	-
Stage 1	474	-	-
Stage 2	425	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 419	862	-
HCM Lane V/C Ratio	-	- 0.018	-	-
HCM Control Delay (s)	-	- 13.7	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Intersection				
Intersection Delay, s/veh	26.8			
Intersection LOS	D			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	13	109	732	952
Demand Flow Rate, veh/h	13	111	747	971
Vehicles Circulating, veh/h	1068	702	12	109
Vehicles Exiting, veh/h	12	57	1069	704
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.8	9.2	13.0	39.7
Approach LOS	A	A	B	E
Lane	Left	Left	Left	Left
Designated Moves	LTR	L	LTR	LTR
Assumed Moves	LTR	L	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	13	111	747	971
Cap Entry Lane, veh/h	388	560	1116	1013
Entry HV Adj Factor	0.992	0.981	0.980	0.981
Flow Entry, veh/h	13	109	732	952
Cap Entry, veh/h	385	549	1095	994
V/C Ratio	0.033	0.198	0.669	0.958
Control Delay, s/veh	9.8	9.2	13.0	39.7
LOS	A	A	B	E
95th %tile Queue, veh	0	1	5	16

Intersection				
Intersection Delay, s/veh18.3				
Intersection LOS C				
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	0	122	690	844
Demand Flow Rate, veh/h	0	124	703	861
Vehicles Circulating, veh/h	977	633	5	116
Vehicles Exiting, veh/h	0	75	972	641
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	0.0	8.7	11.7	25.1
Approach LOS	-	A	B	D
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	0	124	703	861
Cap Entry Lane, veh/h	425	600	1124	1006
Entry HV Adj Factor	1.000	0.984	0.981	0.981
Flow Entry, veh/h	0	122	690	844
Cap Entry, veh/h	425	590	1103	987
V/C Ratio	0.000	0.207	0.625	0.856
Control Delay, s/veh	8.5	8.7	11.7	25.1
LOS	A	A	B	D
95th %tile Queue, veh	0	1	5	11

Intersection

Intersection Delay, s/veh 13.7

Intersection LOS B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	14	630	817
Demand Flow Rate, veh/h	34	14	642	833
Vehicles Circulating, veh/h	837	639	10	22
Vehicles Exiting, veh/h	18	13	861	631
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.5	6.3	10.5	16.5
Approach LOS	A	A	B	C

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	34	14	642	833
Cap Entry Lane, veh/h	489	596	1119	1105
Entry HV Adj Factor	0.968	0.993	0.981	0.980
Flow Entry, veh/h	33	14	630	817
Cap Entry, veh/h	473	592	1097	1084
V/C Ratio	0.069	0.023	0.574	0.754
Control Delay, s/veh	8.5	6.3	10.5	16.5
LOS	A	A	B	C
95th %tile Queue, veh	0	0	4	7

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	2	25	11	577	751	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	26	12	607	791	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1422	791	792	0	-	0
Stage 1	791	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	150	390	829	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	147	390	829	-	-	-
Mov Cap-2 Maneuver	147	-	-	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	829	-	390	-	-
HCM Lane V/C Ratio	0.014	-	0.067	-	-
HCM Control Delay (s)	9.4	0	14.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	5	577	2	5	742
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	5	607	2	5	781

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1400	608	0
Stage 1	608	-	-
Stage 2	792	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	155	496	970
Stage 1	543	-	-
Stage 2	446	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	154	496	970
Mov Cap-2 Maneuver	154	-	-
Stage 1	543	-	-
Stage 2	442	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 250	970	-
HCM Lane V/C Ratio	-	- 0.038	0.005	-
HCM Control Delay (s)	-	- 20	8.7	0
HCM Lane LOS	-	- C	A	A
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Intersection				
Intersection Delay, s/veh	12.4			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	14	27	612	763
Demand Flow Rate, veh/h	14	27	624	778
Vehicles Circulating, veh/h	794	616	7	30
Vehicles Exiting, veh/h	14	15	801	613
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.4	6.4	10.1	14.6
Approach LOS	A	A	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	14	27	624	778
Cap Entry Lane, veh/h	511	610	1122	1097
Entry HV Adj Factor	0.993	0.996	0.981	0.981
Flow Entry, veh/h	14	27	612	763
Cap Entry, veh/h	507	608	1101	1075
V/C Ratio	0.027	0.044	0.556	0.709
Control Delay, s/veh	7.4	6.4	10.1	14.6
LOS	A	A	B	B
95th %tile Queue, veh	0	0	4	6

Intersection												
Int Delay, s/veh	2.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	20	64	10	205	25	859	59	390	1209	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	21	67	11	216	26	904	62	411	1273	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3097	3123	1283	3105	3103	935	1294	0	0	966	0	0
Stage 1	2104	2104	-	988	988	-	-	-	-	-	-	-
Stage 2	993	1019	-	2117	2115	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 7	11	202	~ 7	12	322	536	-	-	713	-	-
Stage 1	67	92	-	297	325	-	-	-	-	-	-	-
Stage 2	296	314	-	~ 66	91	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 4	202	-	~ 5	322	536	-	-	713	-	-
Mov Cap-2 Maneuver	-	~ 4	-	-	~ 5	-	-	-	-	-	-	-
Stage 1	64	39	-	283	309	-	-	-	-	-	-	-
Stage 2	90	299	-	~ 22	39	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.3	4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	536	-	-	-	322	713	-
HCM Lane V/C Ratio	0.049	-	-	-	0.67	0.576	-
HCM Control Delay (s)	12.1	-	-	-	36.2	16.7	-
HCM Lane LOS	B	-	-	-	E	C	-
HCM 95th %tile Q(veh)	0.2	-	-	-	4.5	3.7	-

Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	670	152	65	590	95	174	90	60	100	260	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	37	705	65	68	621	37	183	95	42	105	274	78
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	772	71	86	838	50	244	116	48	163	393	107
Arrive On Green	0.03	0.46	0.46	0.05	0.48	0.48	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1774	1680	155	1774	1741	104	515	297	123	332	1008	276
Grp Volume(v), veh/h	37	0	770	68	0	658	320	0	0	457	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1835	1774	0	1844	936	0	0	1615	0	0
Q Serve(g_s), s	2.7	0.0	51.8	5.0	0.0	38.1	13.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	51.8	5.0	0.0	38.1	45.3	0.0	0.0	31.7	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.06	0.57		0.13	0.23		0.17
Lane Grp Cap(c), veh/h	47	0	843	86	0	888	408	0	0	663	0	0
V/C Ratio(X)	0.78	0.00	0.91	0.79	0.00	0.74	0.79	0.00	0.00	0.69	0.00	0.00
Avail Cap(c_a), veh/h	79	0	920	100	0	947	509	0	0	796	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	64.2	0.0	33.4	62.4	0.0	27.7	40.7	0.0	0.0	34.1	0.0	0.0
Incr Delay (d2), s/veh	23.7	0.0	12.6	29.2	0.0	2.9	6.3	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	29.0	3.2	0.0	20.1	11.9	0.0	0.0	14.6	0.0	0.0
LnGrp Delay(d),s/veh	87.9	0.0	46.0	91.6	0.0	30.6	47.0	0.0	0.0	36.1	0.0	0.0
LnGrp LOS	F		D	F		C	D			D		
Approach Vol, veh/h		807			726			320			457	
Approach Delay, s/veh		47.9			36.4			47.0			36.1	
Approach LOS		D			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		56.2	11.0	65.4		56.2	8.0	68.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		62.5	7.5	66.5		62.5	5.9	68.1				
Max Q Clear Time (g_c+l1), s		47.3	7.0	53.8		33.7	4.7	40.1				
Green Ext Time (p_c), s		4.4	0.0	7.1		5.5	0.0	10.9				
Intersection Summary												
HCM 2010 Ctrl Delay			41.8									
HCM 2010 LOS			D									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

3/27/2017

Intersection

Int Delay, s/veh 4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	287	10	25	273	5	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	302	11	26	287	5	32

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	314	0	170
Stage 1	-	-	0
Stage 2	-	-	170
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1246	-	820
Stage 1	-	-	-
Stage 2	-	-	860
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1246	-	621
Mov Cap-2 Maneuver	-	-	621
Stage 1	-	-	-
Stage 2	-	-	860

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1246	-	621
HCM Lane V/C Ratio	-	-	0.242	-	0.059
HCM Control Delay (s)	-	-	8.8	-	11.2
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	1	-	0.2

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	382	81	129	15	25	441
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	402	85	136	16	26	464

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	464	0	1406 85 85 -
Stage 1	-	-	889 - - -
Stage 2	-	-	517 - - -
Critical Hdwy	-	-	6.52 6.22 4.12 -
Critical Hdwy Stg 1	-	-	5.52 - - -
Critical Hdwy Stg 2	-	-	- - - -
Follow-up Hdwy	-	-	4.018 3.318 2.218 -
Pot Cap-1 Maneuver	-	-	139 974 1512 -
Stage 1	-	-	361 - - -
Stage 2	-	-	- - - -
Platoon blocked, %	-	-	- - - -
Mov Cap-1 Maneuver	-	-	0 974 1512 -
Mov Cap-2 Maneuver	-	-	0 - - -
Stage 1	-	-	0 - - -
Stage 2	-	-	0 - - -

Approach	EB	WB	SB
HCM Control Delay, s		9.4	0.4
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	-	974 1512	-
HCM Lane V/C Ratio	-	-	0.156 0.017	-
HCM Control Delay (s)	-	-	9.4 7.4	-
HCM Lane LOS	-	-	A A	-
HCM 95th %tile Q(veh)	-	-	0.6 0.1	-

HCM 2010 Signalized Intersection Summary

5: SR-94 & Melody Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	10	98	25	10	50	77	590	60	50	875	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	42	11	103	26	11	53	81	621	63	53	921	63
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	30	140	110	50	131	103	1049	106	66	1051	72
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.06	0.63	0.63	0.04	0.61	0.61
Sat Flow, veh/h	316	226	1053	313	379	991	1774	1664	169	1774	1724	118
Grp Volume(v), veh/h	156	0	0	90	0	0	81	0	684	53	0	984
Grp Sat Flow(s),veh/h/ln	1595	0	0	1682	0	0	1774	0	1833	1774	0	1842
Q Serve(g_s), s	2.9	0.0	0.0	0.0	0.0	0.0	3.0	0.0	14.9	2.0	0.0	30.3
Cycle Q Clear(g_c), s	6.2	0.0	0.0	3.3	0.0	0.0	3.0	0.0	14.9	2.0	0.0	30.3
Prop In Lane	0.27		0.66	0.29		0.59	1.00		0.09	1.00		0.06
Lane Grp Cap(c), veh/h	279	0	0	291	0	0	103	0	1156	66	0	1123
V/C Ratio(X)	0.56	0.00	0.00	0.31	0.00	0.00	0.78	0.00	0.59	0.80	0.00	0.88
Avail Cap(c_a), veh/h	439	0	0	450	0	0	118	0	1200	160	0	1249
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	0.0	26.9	0.0	0.0	31.4	0.0	7.4	32.3	0.0	11.1
Incr Delay (d2), s/veh	1.8	0.0	0.0	0.6	0.0	0.0	25.3	0.0	0.7	19.1	0.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	1.6	0.0	0.0	2.2	0.0	7.6	1.3	0.0	17.1
LnGrp Delay(d),s/veh	29.8	0.0	0.0	27.5	0.0	0.0	56.8	0.0	8.1	51.4	0.0	17.8
LnGrp LOS	C			C			E		A	D		B
Approach Vol, veh/h	156				90		765				1037	
Approach Delay, s/veh	29.8				27.5		13.3				19.5	
Approach LOS	C				C		B				B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.0	47.2	13.5		8.4	45.8	13.5					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	6.1	44.3	16.1		4.5	45.9	16.1					
Max Q Clear Time (g_c+l1), s	4.0	16.9	8.2		5.0	32.3	5.3					
Green Ext Time (p_c), s	0.0	14.0	0.8		0.0	9.0	1.0					
Intersection Summary												
HCM 2010 Ctrl Delay	18.3											
HCM 2010 LOS	B											

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↖	↗		
Traffic Volume (veh/h)	0	668	351	0	190	50		
Future Volume (veh/h)	0	668	351	0	190	50		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	703	369	0	200	53		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1843	1843	0	295	264		
Arrive On Green	0.00	0.52	0.52	0.00	0.17	0.17		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	703	369	0	200	53		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	4.3	2.0	0.0	3.8	1.0		
Cycle Q Clear(g_c), s	0.0	4.3	2.0	0.0	3.8	1.0		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1843	1843	0	295	264		
V/C Ratio(X)	0.00	0.38	0.20	0.00	0.68	0.20		
Avail Cap(c_a), veh/h	0	2958	2958	0	1154	1030		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	5.2	4.6	0.0	14.1	13.0		
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.0	2.9	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	2.1	1.0	0.0	2.1	0.5		
LnGrp Delay(d),s/veh	0.0	5.5	4.7	0.0	17.1	13.4		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		703	369		253			
Approach Delay, s/veh		5.5	4.7		16.3			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		24.6		11.5		24.6		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		30.2		23.5		30.2		
Max Q Clear Time (g_c+l1), s		6.3		5.8		4.0		
Green Ext Time (p_c), s		12.5		0.7		13.2		
Intersection Summary								
HCM 2010 Ctrl Delay			7.3					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	100	758	351	100	0	0			
Future Volume (veh/h)	100	758	351	100	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	105	798	369	105					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.95	0.95	0.95	0.95					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	134	2944	1606	451					
Arrive On Green	0.08	0.83	0.59	0.59					
Sat Flow, veh/h	1774	3632	2823	767					
Grp Volume(v), veh/h	105	798	238	236					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1727					
Q Serve(g_s), s	2.0	1.7	2.2	2.3					
Cycle Q Clear(g_c), s	2.0	1.7	2.2	2.3					
Prop In Lane	1.00			0.44					
Lane Grp Cap(c), veh/h	134	2944	1041	1016					
V/C Ratio(X)	0.78	0.27	0.23	0.23					
Avail Cap(c_a), veh/h	1090	6073	1651	1612					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	15.7	0.6	3.4	3.4					
Incr Delay (d2), s/veh	3.8	0.1	0.2	0.2					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	1.1	0.8	1.1	1.1					
LnGrp Delay(d),s/veh	19.4	0.7	3.6	3.6					
LnGrp LOS	B	A	A	A					
Approach Vol, veh/h		903	474						
Approach Delay, s/veh		2.9	3.6						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		34.5			8.4	26.1			
Change Period (Y+Rc), s		5.8			5.8	5.8			
Max Green Setting (Gmax), s		59.2			21.2	32.2			
Max Q Clear Time (g_c+l1), s		3.7			4.0	4.3			
Green Ext Time (p_c), s		22.5			0.1	16.0			
Intersection Summary									
HCM 2010 Ctrl Delay			3.2						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↵	↑↑		↵↵		
Volume (veh/h)	1526	325	535	1150	0	1835		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1606	279	563	1211	0	1932		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	2337	404	611	3327	0	0		
Arrive On Green	0.54	0.54	0.34	0.94	0.00	0.00		
Sat Flow, veh/h	4533	755	1774	3632	0			
Grp Volume(v), veh/h	1246	639	563	1211	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1730	1774	1770				
Q Serve(g_s), s	20.2	20.4	22.8	2.3				
Cycle Q Clear(g_c), s	20.2	20.4	22.8	2.3				
Prop In Lane		0.44	1.00					
Lane Grp Cap(c), veh/h	1815	926	611	3327				
V/C Ratio(X)	0.69	0.69	0.92	0.36				
Avail Cap(c_a), veh/h	1921	980	721	3657				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	12.8	12.8	23.6	0.2				
Incr Delay (d2), s/veh	1.0	1.9	15.6	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	0.6	10.1	13.8	1.0				
LnGrp Delay(d),s/veh	13.8	14.8	39.2	0.3				
LnGrp LOS	B	B	D	A				
Approach Vol, veh/h	1885			1774				
Approach Delay, s/veh	14.1			12.6				
Approach LOS	B			B				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			30.4	44.7				75.0
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			30.5	42.5				77.5
Max Q Clear Time (g_c+I1), s			24.8	22.4				4.3
Green Ext Time (p_c), s			1.0	17.7				49.7
Intersection Summary								
HCM 2010 Ctrl Delay			13.4					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	2783	580	0	1325	365	591		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	2929	0	0	1395	283	573		
Adj No. of Lanes	3	1	0	2	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	3178	989	0	2212	406	725		
Arrive On Green	0.62	0.00	0.00	0.62	0.23	0.23		
Sat Flow, veh/h	5253	1583	0	3725	1774	3167		
Grp Volume(v), veh/h	2929	0	0	1395	283	573		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	31.4	0.0	0.0	15.0	9.0	10.5		
Cycle Q Clear(g_c), s	31.4	0.0	0.0	15.0	9.0	10.5		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	3178	989	0	2212	406	725		
V/C Ratio(X)	0.92	0.00	0.00	0.63	0.70	0.79		
Avail Cap(c_a), veh/h	3180	990	0	2213	504	900		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	10.2	0.0	0.0	7.1	21.8	22.3		
Incr Delay (d2), s/veh	5.1	0.0	0.0	0.6	3.1	3.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	15.9	0.0	0.0	7.3	4.8	4.9		
LnGrp Delay(d),s/veh	15.3	0.0	0.0	7.7	24.9	26.2		
LnGrp LOS	B			A	C	C		
Approach Vol, veh/h	2929			1395	856			
Approach Delay, s/veh	15.3			7.7	25.8			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		18.6		43.0				43.0
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		17.5		38.5				38.5
Max Q Clear Time (g_c+I1), s		12.5		33.4				17.0
Green Ext Time (p_c), s		1.6		5.1				21.1
Intersection Summary								
HCM 2010 Ctrl Delay		15.0						
HCM 2010 LOS		B						
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 			 			 				 	
Volume (veh/h)	145	2939	55	45	1826	50	70	5	35	55	5	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	153	3094	46	47	1922	42	74	5	32	58	5	111
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	3256	48	60	2852	62	216	33	209	262	19	236
Arrive On Green	0.11	0.63	0.63	0.03	0.56	0.56	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1774	5163	76	1774	5121	112	1271	218	1398	1114	126	1583
Grp Volume(v), veh/h	153	2027	1113	47	1272	692	74	0	37	63	0	111
Grp Sat Flow(s),veh/h/ln	1774	1695	1849	1774	1695	1843	1271	0	1616	1240	0	1583
Q Serve(g_s), s	6.1	39.8	40.5	1.9	19.3	19.3	4.1	0.0	1.4	2.7	0.0	4.6
Cycle Q Clear(g_c), s	6.1	39.8	40.5	1.9	19.3	19.3	8.2	0.0	1.4	4.2	0.0	4.6
Prop In Lane	1.00		0.04	1.00		0.06	1.00		0.86	0.92		1.00
Lane Grp Cap(c), veh/h	191	2138	1166	60	1888	1026	216	0	241	281	0	236
V/C Ratio(X)	0.80	0.95	0.95	0.78	0.67	0.67	0.34	0.00	0.15	0.22	0.00	0.47
Avail Cap(c_a), veh/h	238	2139	1167	105	1888	1026	316	0	368	390	0	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	12.3	12.4	34.7	11.4	11.4	31.7	0.0	26.8	28.4	0.0	28.2
Incr Delay (d2), s/veh	14.6	9.9	16.7	19.6	1.0	1.8	0.9	0.0	0.3	0.4	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	21.2	25.5	1.3	9.1	10.1	1.5	0.0	0.7	1.2	0.0	2.1
LnGrp Delay(d),s/veh	46.1	22.2	29.1	54.4	12.3	13.1	32.7	0.0	27.1	28.8	0.0	29.6
LnGrp LOS	D	C	C	D	B	B	C		C	C		C
Approach Vol, veh/h	3293			2011			111			174		
Approach Delay, s/veh	25.6			13.6			30.8			29.3		
Approach LOS	C			B			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.3	6.9	50.2		15.3	12.3	44.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	4.3	45.7		16.5	9.7	40.3				
Max Q Clear Time (g_c+l1), s		10.2	3.9	42.5		6.6	8.1	21.3				
Green Ext Time (p_c), s		0.6	0.0	3.2		0.7	0.1	18.9				
Intersection Summary												
HCM 2010 Ctrl Delay	21.5											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰↱	↑↑↑	↑↑↑↱		↰	↱		
Volume (veh/h)	280	2904	1761	70	40	140		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	295	3057	1854	63	42	126		
Adj No. of Lanes	2	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	358	3606	2625	89	214	191		
Arrive On Green	0.10	0.71	0.52	0.52	0.12	0.12		
Sat Flow, veh/h	3442	5253	5219	171	1774	1583		
Grp Volume(v), veh/h	295	3057	1244	673	42	126		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1832	1774	1583		
Q Serve(g_s), s	4.4	23.2	14.7	14.7	1.1	4.0		
Cycle Q Clear(g_c), s	4.4	23.2	14.7	14.7	1.1	4.0		
Prop In Lane	1.00			0.09	1.00	1.00		
Lane Grp Cap(c), veh/h	358	3606	1762	952	214	191		
V/C Ratio(X)	0.82	0.85	0.71	0.71	0.20	0.66		
Avail Cap(c_a), veh/h	358	3610	1765	954	621	555		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	23.2	5.6	9.6	9.6	20.9	22.2		
Incr Delay (d2), s/veh	14.3	2.1	1.3	2.4	0.4	3.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.8	11.2	7.1	7.9	0.6	3.7		
LnGrp Delay(d),s/veh	37.5	7.7	10.9	12.0	21.4	26.1		
LnGrp LOS	D	A	B	B	C	C		
Approach Vol, veh/h		3352	1917		168			
Approach Delay, s/veh		10.3	11.3		24.9			
Approach LOS		B	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				42.0		10.9	10.0	32.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				37.5		18.5	5.5	27.5
Max Q Clear Time (g_c+I1), s				25.2		6.0	6.4	16.7
Green Ext Time (p_c), s				12.3		0.4	0.0	10.7
Intersection Summary								
HCM 2010 Ctrl Delay			11.1					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	235	2254	345	320	1371	135	175	125	276	120	100	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	247	2373	300	337	1443	110	184	132	228	126	105	158
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	2230	694	414	2364	736	257	626	280	185	552	247
Arrive On Green	0.09	0.44	0.44	0.12	0.46	0.46	0.07	0.18	0.18	0.05	0.16	0.16
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	247	2373	300	337	1443	110	184	132	228	126	105	158
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	6.0	37.5	11.2	8.2	18.1	3.4	4.5	2.7	11.8	3.1	2.2	8.0
Cycle Q Clear(g_c), s	6.0	37.5	11.2	8.2	18.1	3.4	4.5	2.7	11.8	3.1	2.2	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	2230	694	414	2364	736	257	626	280	185	552	247
V/C Ratio(X)	0.76	1.06	0.43	0.81	0.61	0.15	0.72	0.21	0.81	0.68	0.19	0.64
Avail Cap(c_a), veh/h	354	2230	694	451	2373	739	262	774	346	185	695	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	24.0	16.6	36.7	17.1	13.2	38.7	30.1	33.9	39.7	31.4	33.8
Incr Delay (d2), s/veh	8.7	38.8	0.4	10.2	0.5	0.1	8.8	0.2	11.5	9.7	0.2	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	25.4	4.9	4.5	8.5	1.5	2.4	1.4	6.1	1.7	1.1	3.7
LnGrp Delay(d),s/veh	46.5	62.8	17.1	46.9	17.5	13.2	47.5	30.3	45.4	49.4	31.6	36.8
LnGrp LOS	D	F	B	D	B	B	D	C	D	D	C	D
Approach Vol, veh/h	2920				1890		544				389	
Approach Delay, s/veh	56.7				22.5		42.4				39.5	
Approach LOS	E				C		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.6	14.8	42.0	10.9	17.8	12.5	44.3					
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5					
Max Green Setting (Gmax), s	18.7	11.2	37.5	6.5	16.8	8.8	39.9					
Max Q Clear Time (g_c+1.5), s	13.8	10.2	39.5	6.5	10.0	8.0	20.1					
Green Ext Time (p_c), s	0.0	1.3	0.1	0.0	0.0	1.6	0.1	19.1				
Intersection Summary												
HCM 2010 Ctrl Delay			42.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	👉👉	👉👉👉		👉👉	👉👉👉		👉	👉👉		👉	👉👉	
Volume (veh/h)	360	1760	485	250	1301	120	360	265	296	100	210	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	379	1853	332	263	1369	84	379	279	259	105	221	137
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	700	1966	347	291	1633	100	360	451	403	130	267	159
Arrive On Green	0.20	0.45	0.45	0.08	0.33	0.33	0.20	0.25	0.25	0.07	0.13	0.13
Sat Flow, veh/h	3442	4349	768	3442	4899	301	1774	1770	1583	1774	2136	1272
Grp Volume(v), veh/h	379	1439	746	263	947	506	379	279	259	105	181	177
Grp Sat Flow(s),veh/h/ln	1721	1695	1727	1721	1695	1810	1774	1770	1583	1774	1770	1638
Q Serve(g_s), s	11.7	47.8	49.3	9.0	30.6	30.6	24.0	16.5	17.2	6.9	11.8	12.5
Cycle Q Clear(g_c), s	11.7	47.8	49.3	9.0	30.6	30.6	24.0	16.5	17.2	6.9	11.8	12.5
Prop In Lane	1.00		0.44	1.00		0.17	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	700	1533	781	291	1130	603	360	451	403	130	222	205
V/C Ratio(X)	0.54	0.94	0.96	0.90	0.84	0.84	1.05	0.62	0.64	0.81	0.82	0.86
Avail Cap(c_a), veh/h	700	1548	788	291	1290	688	360	451	403	195	239	222
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	30.8	31.3	53.7	36.5	36.5	47.1	39.0	39.3	54.0	50.4	50.7
Incr Delay (d2), s/veh	0.9	11.3	21.8	29.4	4.5	8.1	62.0	2.6	3.4	13.7	18.6	26.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	24.8	28.2	5.5	15.1	16.7	17.9	8.4	7.9	3.9	6.9	7.1
LnGrp Delay(d),s/veh	43.0	42.2	53.1	83.1	41.0	44.6	109.2	41.6	42.7	67.7	69.0	76.8
LnGrp LOS	D	D	D	F	D	D	F	D	D	E	E	E
Approach Vol, veh/h	2564				1716		917				463	
Approach Delay, s/veh	45.5				48.5		69.8				71.7	
Approach LOS	D				D		E				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	57.5	28.0	18.8	28.1	43.4	12.7	34.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	54.0	24.0	16.0	19.0	45.0	13.0	27.0				
Max Q Clear Time (g_c+1), s	11.0	51.3	26.0	14.5	13.7	32.6	8.9	19.2				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.3	4.8	6.8	0.1	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay			52.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	290	1111	570	240	911	230	405	880	266	486	790	190
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	305	1169	495	253	959	179	426	926	0	512	832	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1330	595	225	1119	501	503	942	293	537	992	309
Arrive On Green	0.19	0.38	0.38	0.13	0.32	0.32	0.15	0.19	0.00	0.16	0.20	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	305	1169	495	253	959	179	426	926	0	512	832	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	17.3	31.6	18.6	13.0	26.1	5.9	12.4	18.6	0.0	15.1	16.1	0.0
Cycle Q Clear(g_c), s	17.3	31.6	18.6	13.0	26.1	5.9	12.4	18.6	0.0	15.1	16.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	1330	595	225	1119	501	503	942	293	537	992	309
V/C Ratio(X)	0.92	0.88	0.83	1.12	0.86	0.36	0.85	0.98	0.00	0.95	0.84	0.00
Avail Cap(c_a), veh/h	330	1415	633	225	1277	571	503	942	293	537	1091	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.0	29.8	11.9	44.8	32.9	11.7	42.6	41.6	0.0	42.9	39.7	0.0
Incr Delay (d2), s/veh	30.6	6.4	8.8	97.6	5.4	0.4	12.6	25.0	0.0	27.5	5.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	16.6	10.1	12.4	13.5	3.5	6.7	10.8	0.0	9.2	8.1	0.0
LnGrp Delay(d),s/veh	71.6	36.2	20.8	142.3	38.3	12.1	55.3	66.6	0.0	70.3	45.2	0.0
LnGrp LOS	E	D	C	F	D	B	E	E		E	D	
Approach Vol, veh/h	1969			1391			1352			1344		
Approach Delay, s/veh	37.8			53.8			63.0			54.8		
Approach LOS	D			D			E			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	42.5	19.0	24.0	23.1	36.4	20.0	23.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	41.0	13.0	22.0	17.0	37.0	16.0	19.0				
Max Q Clear Time (g_c+1.0), s	15.0	33.6	14.4	18.1	19.3	28.1	17.1	20.6				
Green Ext Time (p_c), s	0.0	5.0	0.0	1.9	0.0	4.4	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	50.9											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑↑		↑
Traffic Volume (veh/h)	0	1114	85	0	867	221	0	0	0	429	0	315
Future Volume (veh/h)	0	1114	85	0	867	221	0	0	0	429	0	315
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1173	0	0	913	233				452	0	279
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2877	896	0	2002	1266				805	0	370
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57				0.23	0.00	0.23
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	1173	0	0	913	233				452	0	279
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	7.3	0.0	0.0	8.5	1.9				6.5	0.0	9.2
Cycle Q Clear(g_c), s	0.0	7.3	0.0	0.0	8.5	1.9				6.5	0.0	9.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2877	896	0	2002	1266				805	0	370
V/C Ratio(X)	0.00	0.41	0.00	0.00	0.46	0.18				0.56	0.00	0.75
Avail Cap(c_a), veh/h	0	3085	960	0	2147	1331				1190	0	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	6.9	0.0	0.0	7.2	1.3				19.1	0.0	20.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.3	0.1				0.7	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	0.0	0.0	4.2	1.9				3.2	0.0	4.4
LnGrp Delay(d),s/veh	0.0	7.1	0.0	0.0	7.5	1.5				19.7	0.0	23.7
LnGrp LOS		A			A	A				B		C
Approach Vol, veh/h		1173			1146						731	
Approach Delay, s/veh		7.1			6.3						21.2	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		37.7		18.7		37.7						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		34.2		19.5		34.2						
Max Q Clear Time (g_c+l1), s		9.3		11.2		10.5						
Green Ext Time (p_c), s		22.3		1.9		21.4						
Intersection Summary												
HCM 2010 Ctrl Delay			10.2									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑↑	↑	↑		↑↑			
Traffic Volume (veh/h)	0	1367	180	0	907	296	180	0	308	0	0	0
Future Volume (veh/h)	0	1367	180	0	907	296	180	0	308	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1439	178	0	955	0	189	0	292			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3265	1265	0	3265	1017	279	0	438			
Arrive On Green	0.00	0.64	0.64	0.00	0.64	0.00	0.16	0.00	0.16			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1439	178	0	955	0	189	0	292			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	7.9	1.4	0.0	4.7	0.0	5.7	0.0	5.6			
Cycle Q Clear(g_c), s	0.0	7.9	1.4	0.0	4.7	0.0	5.7	0.0	5.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3265	1265	0	3265	1017	279	0	438			
V/C Ratio(X)	0.00	0.44	0.14	0.00	0.29	0.00	0.68	0.00	0.67			
Avail Cap(c_a), veh/h	0	3452	1323	0	3452	1075	489	0	767			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.0	1.3	0.0	4.4	0.0	22.4	0.0	22.3			
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	0.1	0.0	3.1	0.0	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	3.7	1.1	0.0	2.2	0.0	3.0	0.0	2.2			
LnGrp Delay(d),s/veh	0.0	5.2	1.4	0.0	4.5	0.0	25.5	0.0	24.2			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h		1617			955			481				
Approach Delay, s/veh		4.8			4.5			24.7				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		41.9				41.9		14.3				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		38.2				38.2		15.5				
Max Q Clear Time (g_c+I1), s		9.9				6.7		7.7				
Green Ext Time (p_c), s		26.2				29.0		1.2				
Intersection Summary												
HCM 2010 Ctrl Delay					7.9							
HCM 2010 LOS					A							

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	 
Volume (veh/h)	220	1206	250	90	833	456	180	130	126	433	190	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	232	1269	200	95	877	417	189	137	128	456	200	147
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	1640	716	158	967	452	230	234	202	495	987	1008
Arrive On Green	0.08	0.32	0.32	0.05	0.29	0.29	0.13	0.13	0.13	0.28	0.28	0.28
Sat Flow, veh/h	3442	5085	1583	3442	3390	1583	1774	1803	1555	1774	3539	2787
Grp Volume(v), veh/h	232	1269	200	95	877	417	189	134	131	456	200	147
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1774	1770	1588	1774	1770	1393
Q Serve(g_s), s	5.3	18.2	6.4	2.2	20.1	20.6	8.4	5.8	6.3	20.1	3.5	2.9
Cycle Q Clear(g_c), s	5.3	18.2	6.4	2.2	20.1	20.6	8.4	5.8	6.3	20.1	3.5	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	286	1640	716	158	967	452	230	229	206	495	987	1008
V/C Ratio(X)	0.81	0.77	0.28	0.60	0.91	0.92	0.82	0.59	0.64	0.92	0.20	0.15
Avail Cap(c_a), veh/h	286	1640	716	200	987	461	380	379	341	539	1075	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	24.7	13.8	37.8	27.8	28.0	34.2	33.1	33.3	28.2	22.2	17.3
Incr Delay (d2), s/veh	16.1	2.4	0.2	3.7	11.7	24.0	7.1	2.4	3.2	20.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	8.8	2.8	1.1	10.9	11.9	4.5	2.9	2.9	12.6	1.7	1.1
LnGrp Delay(d),s/veh	52.5	27.0	14.1	41.4	39.5	52.0	41.3	35.4	36.5	48.7	22.3	17.4
LnGrp LOS	D	C	B	D	D	D	D	D	D	D	C	B
Approach Vol, veh/h	1701				1389		454				803	
Approach Delay, s/veh	29.0				43.4		38.2				36.4	
Approach LOS	C				D		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.0	15.0	8.2	30.5	15.0	27.0	11.2	27.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	24.5	17.3	4.7	25.5	17.3	24.5	6.7	23.5				
Max Q Clear Time (g_c+max), s	22.1	8.3	4.2	20.2	10.4	5.5	7.3	22.6				
Green Ext Time (p_c), s	0.4	2.2	0.0	4.9	0.3	3.0	0.0	0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			35.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	1255	330	271	944	115	380	175	335	51	90	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	189	1321	215	285	994	89	400	184	264	54	95	31
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	1567	255	275	1836	164	436	458	389	158	120	39
Arrive On Green	0.12	0.36	0.36	0.16	0.39	0.39	0.25	0.25	0.25	0.09	0.09	0.09
Sat Flow, veh/h	1774	4409	717	1774	4753	425	1774	1863	1583	1774	1346	439
Grp Volume(v), veh/h	189	1016	520	285	708	375	400	184	264	54	0	126
Grp Sat Flow(s),veh/h/ln	1774	1695	1736	1774	1695	1788	1774	1863	1583	1774	0	1785
Q Serve(g_s), s	12.2	32.2	32.2	18.1	18.9	19.0	25.6	9.6	17.6	3.3	0.0	8.1
Cycle Q Clear(g_c), s	12.2	32.2	32.2	18.1	18.9	19.0	25.6	9.6	17.6	3.3	0.0	8.1
Prop In Lane	1.00		0.41	1.00		0.24	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	221	1205	617	275	1310	691	436	458	389	158	0	159
V/C Ratio(X)	0.86	0.84	0.84	1.03	0.54	0.54	0.92	0.40	0.68	0.34	0.00	0.79
Avail Cap(c_a), veh/h	393	1375	704	275	1310	691	466	489	415	243	0	245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.0	34.6	34.6	49.3	27.8	27.8	42.8	36.8	39.8	49.9	0.0	52.1
Incr Delay (d2), s/veh	9.2	4.4	8.3	63.6	0.5	0.9	22.3	0.6	4.1	1.3	0.0	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	15.7	16.7	13.7	8.9	9.5	15.3	5.0	8.1	1.7	0.0	4.4
LnGrp Delay(d),s/veh	59.2	39.0	42.9	112.9	28.2	28.6	65.1	37.4	43.9	51.2	0.0	61.4
LnGrp LOS	E	D	D	F	C	C	E	D	D	D		E
Approach Vol, veh/h	1725					1368		848		180		
Approach Delay, s/veh	42.4					46.0		52.5		58.4		
Approach LOS	D					D		D		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	33.2		22.6	46.0	14.9		19.0	49.5				
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5		4.5	4.5				
Max Green Setting (Gmax), s	30.6		18.1	47.3	16.0		25.8	39.6				
Max Q Clear Time (g_c+I1), s	27.6		20.1	34.2	10.1		14.2	21.0				
Green Ext Time (p_c), s	1.1		0.0	7.3	0.3		0.4	14.8				
Intersection Summary												
HCM 2010 Ctrl Delay			46.3									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (veh/h)	85	1261	340	291	810	150	250	45	241	160	230	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	89	1327	295	306	853	158	263	47	243	168	242	115
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	1872	583	383	1791	330	308	375	319	196	265	126
Arrive On Green	0.06	0.37	0.37	0.11	0.41	0.41	0.09	0.20	0.20	0.11	0.22	0.22
Sat Flow, veh/h	1774	5085	1583	3442	4317	795	3442	1863	1583	1774	1195	568
Grp Volume(v), veh/h	89	1327	295	306	669	342	263	47	243	168	0	357
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1722	1721	1863	1583	1774	0	1763
Q Serve(g_s), s	4.3	19.2	12.5	7.5	12.4	12.5	6.5	1.8	12.5	8.0	0.0	17.0
Cycle Q Clear(g_c), s	4.3	19.2	12.5	7.5	12.4	12.5	6.5	1.8	12.5	8.0	0.0	17.0
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	114	1872	583	383	1406	714	308	375	319	196	0	391
V/C Ratio(X)	0.78	0.71	0.51	0.80	0.48	0.48	0.85	0.13	0.76	0.86	0.00	0.91
Avail Cap(c_a), veh/h	208	2038	635	420	1406	714	308	379	322	196	0	395
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	23.3	21.1	37.3	18.4	18.4	38.6	28.2	32.4	37.6	0.0	32.7
Incr Delay (d2), s/veh	10.7	1.1	0.7	9.7	0.3	0.5	20.2	0.1	10.2	29.6	0.0	24.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	9.2	5.6	4.0	5.8	6.0	3.9	0.9	6.4	5.5	0.0	10.9
LnGrp Delay(d),s/veh	50.4	24.3	21.8	47.0	18.6	18.9	58.9	28.3	42.7	67.2	0.0	57.5
LnGrp LOS	D	C	C	D	B	B	E	C	D	E		E
Approach Vol, veh/h	1711				1317		553				525	
Approach Delay, s/veh	25.2				25.3		49.1				60.6	
Approach LOS	C				C		D				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	21.8	14.1	36.2	12.2	23.6	10.1	40.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	17.5	10.5	34.5	7.7	19.3	10.1	34.9				
Max Q Clear Time (g_c+10), s	10.0	14.5	9.5	21.2	8.5	19.0	6.3	14.5				
Green Ext Time (p_c), s	0.0	1.0	0.1	10.5	0.0	0.1	0.1	15.7				
Intersection Summary												
HCM 2010 Ctrl Delay			33.0									
HCM 2010 LOS			C									

Intersection																
Intersection Delay, s/veh61.4																
Intersection LOS F																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	110	1056	40	0	50	756	65	0	45	45	127	0	45	30	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	116	1112	42	0	53	796	68	0	47	47	134	0	47	32	74
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	66.9	72	19.2	15.6
HCM LOS	F	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	12%	0%	60%	0%
Vol Thru, %	0%	26%	0%	100%	0%	88%	85%	40%	0%
Vol Right, %	0%	74%	0%	0%	100%	0%	15%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	172	110	1056	40	428	443	75	70
LT Vol	45	0	110	0	0	50	0	45	0
Through Vol	0	45	0	1056	0	378	378	30	0
RT Vol	0	127	0	0	40	0	65	0	70
Lane Flow Rate	47	181	116	1112	42	451	466	79	74
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.137	0.471	0.295	1	0.093	1	1	0.233	0.195
Departure Headway (Hd)	10.38	9.368	9.268	8.768	8.068	8.358	8.196	10.631	9.534
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	344	384	390	422	447	437	448	339	375
Service Time	8.171	7.156	6.968	6.468	5.768	6.061	5.9	8.331	7.333
HCM Lane V/C Ratio	0.137	0.471	0.297	2.635	0.094	1.032	1.04	0.233	0.197
HCM Control Delay	14.8	20.3	15.8	74.3	11.6	72.4	71.6	16.5	14.7
HCM Lane LOS	B	C	C	F	B	F	F	C	B
HCM 95th-tile Q	0.5	2.4	1.2	12.4	0.3	12.7	12.8	0.9	0.7

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

3/27/2017

	            											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	232	125	450	210	145	140	625	211	145	725	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	147	244	121	474	221	142	147	658	175	153	763	121
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	263	365	732	226	145	192	771	205	171	976	155
Arrive On Green	0.23	0.23	0.23	0.21	0.21	0.21	0.06	0.28	0.28	0.10	0.32	0.32
Sat Flow, veh/h	687	1141	1583	3442	1061	682	3442	2767	735	1774	3061	485
Grp Volume(v), veh/h	391	0	121	474	0	363	147	421	412	153	441	443
Grp Sat Flow(s),veh/h/ln	1828	0	1583	1721	0	1742	1721	1770	1733	1774	1770	1777
Q Serve(g_s), s	20.7	0.0	6.3	12.4	0.0	20.5	4.2	22.2	22.3	8.4	22.3	22.3
Cycle Q Clear(g_c), s	20.7	0.0	6.3	12.4	0.0	20.5	4.2	22.2	22.3	8.4	22.3	22.3
Prop In Lane	0.38		1.00	1.00		0.39	1.00		0.42	1.00		0.27
Lane Grp Cap(c), veh/h	422	0	365	732	0	370	192	493	483	171	564	567
V/C Ratio(X)	0.93	0.00	0.33	0.65	0.00	0.98	0.77	0.85	0.85	0.90	0.78	0.78
Avail Cap(c_a), veh/h	426	0	369	732	0	370	192	511	500	171	582	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	31.7	35.5	0.0	38.7	46.0	33.7	33.7	44.2	30.5	30.5
Incr Delay (d2), s/veh	26.3	0.0	0.5	2.0	0.0	41.3	16.9	12.9	13.2	40.9	6.6	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.5	0.0	2.8	6.1	0.0	14.0	2.4	12.6	12.4	6.1	11.9	12.0
LnGrp Delay(d),s/veh	63.5	0.0	32.2	37.5	0.0	80.0	62.9	46.6	47.0	85.0	37.1	37.1
LnGrp LOS	E		C	D		E	E	D	D	F	D	D
Approach Vol, veh/h	512				837				980		1037	
Approach Delay, s/veh	56.1				55.9				49.2		44.2	
Approach LOS	E				E				D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			4	5	6	8				
Phs Duration (G+Y+Rc), s	14.0	32.0			27.3	10.0	36.0	25.5				
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	28.5			23.0	5.5	32.5	21.0				
Max Q Clear Time (g_c+10), s	10.4	24.3			22.7	6.2	24.3	22.5				
Green Ext Time (p_c), s	0.0	3.2			0.1	0.0	5.7	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			50.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	262	285	395	210	350	271	140	416	160	200	440	215
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	276	300	405	221	368	238	147	438	136	211	463	194
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	290	464	394	267	439	374	183	598	184	214	590	245
Arrive On Green	0.16	0.25	0.25	0.15	0.24	0.24	0.10	0.22	0.22	0.12	0.24	0.24
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2667	821	1774	2439	1014
Grp Volume(v), veh/h	276	300	405	221	368	238	147	289	285	211	335	322
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1718	1774	1770	1684
Q Serve(g_s), s	10.9	10.2	17.5	8.5	13.2	9.5	5.7	10.7	10.8	8.4	12.5	12.6
Cycle Q Clear(g_c), s	10.9	10.2	17.5	8.5	13.2	9.5	5.7	10.7	10.8	8.4	12.5	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		0.60
Lane Grp Cap(c), veh/h	290	464	394	267	439	374	183	397	385	214	428	407
V/C Ratio(X)	0.95	0.65	1.03	0.83	0.84	0.64	0.80	0.73	0.74	0.99	0.78	0.79
Avail Cap(c_a), veh/h	290	464	394	363	516	439	189	440	427	214	465	442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	23.7	26.4	29.0	25.6	24.2	30.9	25.3	25.4	30.9	25.0	25.0
Incr Delay (d2), s/veh	40.1	3.1	52.7	11.0	10.2	2.4	21.0	5.4	6.0	57.1	7.9	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	5.6	13.4	5.0	8.0	4.4	3.8	5.8	5.8	7.4	7.0	6.8
LnGrp Delay(d),s/veh	69.2	26.8	79.1	40.0	35.8	26.5	51.9	30.7	31.4	87.9	32.8	33.8
LnGrp LOS	E	C	F	D	D	C	D	C	C	F	C	C
Approach Vol, veh/h	981			827			721			868		
Approach Delay, s/veh	60.3			34.3			35.3			46.6		
Approach LOS	E			C			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	20.3	15.1	22.0	11.8	21.5	16.0	21.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	17.5	14.4	16.6	7.5	18.5	11.5	19.5					
Max Q Clear Time (g_c+10.4), s	12.8	10.5	19.5	7.7	14.6	12.9	15.2					
Green Ext Time (p_c), s	0.0	2.8	0.2	0.0	0.0	2.4	0.0	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay	45.2											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	246	1390	480	270	1240	240	390	610	296	250	690	295
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	259	1463	494	284	1305	242	411	642	301	263	726	300
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	331	1720	536	347	1479	274	418	1114	499	332	708	293
Arrive On Green	0.10	0.34	0.34	0.10	0.34	0.34	0.12	0.31	0.31	0.10	0.29	0.29
Sat Flow, veh/h	3442	5085	1583	3442	4312	800	3442	3539	1583	3442	2444	1010
Grp Volume(v), veh/h	259	1463	494	284	1026	521	411	642	301	263	526	500
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1722	1721	1770	1583	1721	1770	1685
Q Serve(g_s), s	7.9	28.6	32.1	8.7	30.5	30.5	12.7	16.2	17.2	8.0	31.0	31.0
Cycle Q Clear(g_c), s	7.9	28.6	32.1	8.7	30.5	30.5	12.7	16.2	17.2	8.0	31.0	31.0
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	331	1720	536	347	1162	590	418	1114	499	332	513	488
V/C Ratio(X)	0.78	0.85	0.92	0.82	0.88	0.88	0.98	0.58	0.60	0.79	1.02	1.03
Avail Cap(c_a), veh/h	515	1806	562	386	1162	590	418	1114	499	450	513	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	32.9	34.0	47.1	33.1	33.1	46.9	30.7	31.0	47.3	38.0	38.0
Incr Delay (d2), s/veh	4.1	3.9	20.4	11.9	8.2	14.7	39.3	0.7	2.1	6.7	46.2	47.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	13.9	17.0	4.7	15.6	16.9	8.3	8.0	7.8	4.1	21.7	20.8
LnGrp Delay(d),s/veh	51.4	36.8	54.4	59.1	41.3	47.8	86.2	31.4	33.1	54.0	84.2	85.3
LnGrp LOS	D	D	D	E	D	D	F	C	C	D	F	F
Approach Vol, veh/h	2216				1831				1354		1289	
Approach Delay, s/veh	42.4				45.9				48.4		78.5	
Approach LOS	D				D				D		E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	40.2	17.0	35.0	14.3	40.7	14.3	37.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	38.0	13.0	31.0	16.0	34.0	14.0	30.0				
Max Q Clear Time (g_c+10), s	10.7	34.1	14.7	33.0	9.9	32.5	10.0	19.2				
Green Ext Time (p_c), s	0.1	2.1	0.0	0.0	0.4	1.5	0.3	7.6				
Intersection Summary												
HCM 2010 Ctrl Delay			51.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	526	1110	440	390	1010	370	390	1071	520	440	655	270
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	554	1168	452	411	1063	341	411	1127	547	463	689	252
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	543	1356	422	421	1176	366	789	1101	1208	421	1038	323
Arrive On Green	0.16	0.27	0.27	0.12	0.23	0.23	0.23	0.31	0.31	0.12	0.20	0.20
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	554	1168	452	411	1063	341	411	1127	547	463	689	252
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	14.2	19.7	24.0	10.7	18.3	13.8	9.4	28.0	3.7	11.0	11.2	13.6
Cycle Q Clear(g_c), s	14.2	19.7	24.0	10.7	18.3	13.8	9.4	28.0	3.7	11.0	11.2	13.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	543	1356	422	421	1176	366	789	1101	1208	421	1038	323
V/C Ratio(X)	1.02	0.86	1.07	0.98	0.90	0.93	0.52	1.02	0.45	1.10	0.66	0.78
Avail Cap(c_a), veh/h	543	1356	422	421	1187	369	789	1101	1208	421	1243	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	31.4	33.0	39.4	33.6	17.8	30.4	31.0	7.0	39.5	33.0	33.9
Incr Delay (d2), s/veh	44.1	5.9	63.9	37.7	9.8	29.8	0.6	33.2	0.3	74.0	1.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.9	17.9	7.3	9.6	9.0	4.5	18.7	2.6	9.5	5.3	6.7
LnGrp Delay(d),s/veh	82.0	37.3	96.9	77.1	43.4	47.7	31.0	64.2	7.2	113.5	34.0	42.1
LnGrp LOS	F	D	F	E	D	D	C	F	A	F	C	D
Approach Vol, veh/h	2174				1815		2085				1404	
Approach Delay, s/veh	61.1				51.9		42.7				61.7	
Approach LOS	E				D		D				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	28.0	24.6	22.4	18.2	24.8	15.0	32.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	24.0	17.0	22.0	14.0	21.0	11.0	28.0				
Max Q Clear Time (g_c+1.0), s	12.5	26.0	11.4	15.6	16.2	20.3	13.0	30.0				
Green Ext Time (p_c), s	0.0	0.0	4.4	2.8	0.0	0.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			53.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	2486	100	0	1760	125	0	0	0	470	0	110
Future Volume (veh/h)	0	2486	100	0	1760	125	0	0	0	470	0	110
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2617	94	0	1853	121				495	0	84
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3274	1019	0	3274	1304				618	0	284
Arrive On Green	0.00	0.64	0.64	0.00	0.43	0.43				0.18	0.00	0.18
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	2617	94	0	1853	121				495	0	84
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	24.2	1.4	0.0	17.5	1.5				8.8	0.0	2.9
Cycle Q Clear(g_c), s	0.0	24.2	1.4	0.0	17.5	1.5				8.8	0.0	2.9
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3274	1019	0	3274	1304				618	0	284
V/C Ratio(X)	0.00	0.80	0.09	0.00	0.57	0.09				0.80	0.00	0.30
Avail Cap(c_a), veh/h	0	3274	1019	0	3274	1304				726	0	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.76	0.76				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.4	4.3	0.0	11.5	1.8				25.2	0.0	22.7
Incr Delay (d2), s/veh	0.0	2.1	0.2	0.0	0.5	0.1				5.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.6	0.7	0.0	8.4	1.3				4.7	0.0	1.3
LnGrp Delay(d),s/veh	0.0	10.5	4.5	0.0	12.0	1.9				30.8	0.0	23.4
LnGrp LOS		B	A		B	A				C		C
Approach Vol, veh/h		2711			1974						579	
Approach Delay, s/veh		10.3			11.4						29.7	
Approach LOS		B			B						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		47.0		17.0		47.0						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		39.2		13.5		39.2						
Max Q Clear Time (g_c+l1), s		26.2		10.8		19.5						
Green Ext Time (p_c), s		13.0		0.7		19.6						
Intersection Summary												
HCM 2010 Ctrl Delay			12.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↖↖			
Traffic Volume (veh/h)	0	2826	130	0	1800	340	85	0	140	0	0	0
Future Volume (veh/h)	0	2826	130	0	1800	340	85	0	140	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2975	137	0	1895	358	89	0	147			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3035	1304	0	3035	945	402	0	631			
Arrive On Green	0.00	0.20	0.20	0.00	0.60	0.60	0.23	0.00	0.23			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	2975	137	0	1895	358	89	0	147			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	37.3	2.0	0.0	15.3	7.5	2.6	0.0	2.8			
Cycle Q Clear(g_c), s	0.0	37.3	2.0	0.0	15.3	7.5	2.6	0.0	2.8			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3035	1304	0	3035	945	402	0	631			
V/C Ratio(X)	0.00	0.98	0.11	0.00	0.62	0.38	0.22	0.00	0.23			
Avail Cap(c_a), veh/h	0	3035	1304	0	3035	945	402	0	631			
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.48	0.48	0.00	0.54	0.54	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	25.3	2.3	0.0	8.3	6.7	20.2	0.0	20.2			
Incr Delay (d2), s/veh	0.0	7.6	0.1	0.0	0.5	0.6	1.3	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	19.6	2.0	0.0	7.2	3.4	1.4	0.0	1.1			
LnGrp Delay(d),s/veh	0.0	33.0	2.4	0.0	8.8	7.3	21.4	0.0	21.1			
LnGrp LOS		C	A		A	A	C		C			
Approach Vol, veh/h		3112			2253			236				
Approach Delay, s/veh		31.6			8.6			21.2				
Approach LOS		C			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		44.0				44.0		20.0				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		38.2				38.2		14.5				
Max Q Clear Time (g_c+I1), s		39.3				17.3		4.8				
Green Ext Time (p_c), s		0.0				20.8		0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			21.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  	 	 	  		 	 		 	 	
Volume (veh/h)	441	1501	860	410	935	150	530	470	281	190	560	465
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	464	1580	905	432	984	137	558	495	296	200	589	426
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	1582	867	478	1455	202	593	995	665	275	669	501
Arrive On Green	0.13	0.31	0.31	0.14	0.32	0.32	0.17	0.28	0.28	0.08	0.19	0.19
Sat Flow, veh/h	3442	5085	2787	3442	4515	627	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	464	1580	905	432	738	383	558	495	296	200	589	426
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1752	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	11.5	27.9	28.0	11.1	17.0	17.1	14.4	10.5	12.0	5.1	14.6	17.0
Cycle Q Clear(g_c), s	11.5	27.9	28.0	11.1	17.0	17.1	14.4	10.5	12.0	5.1	14.6	17.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	440	1582	867	478	1092	565	593	995	665	275	669	501
V/C Ratio(X)	1.06	1.00	1.04	0.90	0.68	0.68	0.94	0.50	0.45	0.73	0.88	0.85
Avail Cap(c_a), veh/h	440	1582	867	478	1092	565	593	995	665	363	669	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	31.0	31.0	38.2	26.4	26.5	36.8	27.0	18.6	40.4	35.5	28.7
Incr Delay (d2), s/veh	58.2	22.3	42.6	20.4	1.7	3.3	23.5	1.8	2.2	4.9	15.5	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.3	15.8	6.6	8.1	8.7	8.8	5.4	5.6	2.6	8.6	12.2
LnGrp Delay(d),s/veh	97.4	53.3	73.6	58.6	28.1	29.7	60.3	28.8	20.8	45.4	51.0	45.1
LnGrp LOS	F	D	F	E	C	C	E	C	C	D	D	D
Approach Vol, veh/h		2949			1553			1349			1215	
Approach Delay, s/veh		66.5			37.0			40.1			48.0	
Approach LOS		E			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.7	29.3	17.0	32.0	20.0	21.0	16.0	33.0				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	9.5	23.0	12.5	28.0	15.5	17.0	11.5	29.0				
Max Q Clear Time (g_c+I1), s	17.1	14.0	13.1	30.0	16.4	19.0	13.5	19.1				
Green Ext Time (p_c), s	0.1	5.9	0.0	0.0	0.0	0.0	0.0	9.4				
Intersection Summary												
HCM 2010 Ctrl Delay			51.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	 	  	  		  			
Volume (veh/h)	601	1406	870	160	390	625		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1314	950		
Adj Flow Rate, veh/h	633	1480	916	164	356	717		
Adj No. of Lanes	2	3	3	0	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	100		
Cap, veh/h	675	2441	988	176	510	658		
Arrive On Green	0.20	0.48	0.23	0.23	0.41	0.41		
Sat Flow, veh/h	3442	5253	4510	774	1251	1615		
Grp Volume(v), veh/h	633	1480	714	366	356	717		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1726	1251	807		
Q Serve(g_s), s	14.5	17.1	16.5	16.6	18.8	32.6		
Cycle Q Clear(g_c), s	14.5	17.1	16.5	16.6	18.8	32.6		
Prop In Lane	1.00			0.45	1.00	1.00		
Lane Grp Cap(c), veh/h	675	2441	771	393	510	658		
V/C Ratio(X)	0.94	0.61	0.93	0.93	0.70	1.09		
Avail Cap(c_a), veh/h	675	2441	771	393	510	658		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.7	15.3	30.2	30.3	19.6	23.7		
Incr Delay (d2), s/veh	20.7	0.4	17.1	28.7	4.2	61.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.8	8.0	9.6	11.0	7.0	17.2		
LnGrp Delay(d),s/veh	52.4	15.7	47.4	58.9	23.8	85.6		
LnGrp LOS	D	B	D	E	C	F		
Approach Vol, veh/h		2113	1080		1073			
Approach Delay, s/veh		26.7	51.3		65.1			
Approach LOS		C	D		E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.9		37.1	20.2	22.7		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		38.4		32.6	15.7	18.2		
Max Q Clear Time (g_c+l1), s		19.1		34.6	16.5	18.6		
Green Ext Time (p_c), s		15.0		0.0	0.0	0.0		
Intersection Summary								
HCM 2010 Ctrl Delay			42.6					
HCM 2010 LOS			D					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	 					
Volume (veh/h)	250	1546	770	290	331	260		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	263	1627	811	305	348	274		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	176	2623	1112	415	462	413		
Arrive On Green	0.10	0.52	0.30	0.30	0.26	0.26		
Sat Flow, veh/h	1774	5253	3817	1363	1774	1583		
Grp Volume(v), veh/h	263	1627	753	363	348	274		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1622	1774	1583		
Q Serve(g_s), s	4.0	9.2	8.0	8.1	7.3	6.2		
Cycle Q Clear(g_c), s	4.0	9.2	8.0	8.1	7.3	6.2		
Prop In Lane	1.00			0.84	1.00	1.00		
Lane Grp Cap(c), veh/h	176	2623	1033	494	462	413		
V/C Ratio(X)	1.49	0.62	0.73	0.73	0.75	0.66		
Avail Cap(c_a), veh/h	176	2623	1347	645	705	629		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	18.1	6.9	12.5	12.5	13.7	13.3		
Incr Delay (d2), s/veh	248.9	0.5	1.4	3.1	2.5	1.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.1	4.3	3.9	4.0	3.8	5.5		
LnGrp Delay(d),s/veh	267.1	7.4	13.9	15.6	16.2	15.1		
LnGrp LOS	F	A	B	B	B	B		
Approach Vol, veh/h		1890	1116		622			
Approach Delay, s/veh		43.5	14.5		15.7			
Approach LOS		D	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		25.3		15.0	8.5	16.8		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		16.0		16.0	4.0	16.0		
Max Q Clear Time (g_c+l1), s		11.2		9.3	6.0	10.1		
Green Ext Time (p_c), s		4.5		1.2	0.0	2.2		
Intersection Summary								
HCM 2010 Ctrl Delay			29.8					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	227	1170	480	260	535	91	280	272	430	185	285	250
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	239	1232	484	274	563	96	295	286	444	195	300	263
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	1355	530	311	1872	583	411	766	343	259	610	273
Arrive On Green	0.10	0.38	0.38	0.09	0.37	0.37	0.12	0.22	0.22	0.08	0.17	0.17
Sat Flow, veh/h	3442	3597	1408	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	239	1161	555	274	563	96	295	286	444	195	300	263
Grp Sat Flow(s),veh/h/ln	1721	1695	1614	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	4.5	21.5	21.7	5.2	5.2	2.7	5.5	4.6	10.5	3.7	5.1	8.0
Cycle Q Clear(g_c), s	4.5	21.5	21.7	5.2	5.2	2.7	5.5	4.6	10.5	3.7	5.1	8.0
Prop In Lane	1.00		0.87	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	341	1277	608	311	1872	583	411	766	343	259	610	273
V/C Ratio(X)	0.70	0.91	0.91	0.88	0.30	0.16	0.72	0.37	1.30	0.75	0.49	0.96
Avail Cap(c_a), veh/h	467	1277	608	311	1872	583	411	960	429	259	853	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	19.6	19.6	29.8	14.9	14.1	28.1	22.2	13.9	30.1	24.8	14.7
Incr Delay (d2), s/veh	2.9	11.1	20.4	24.0	0.4	0.6	5.9	0.3	153.3	11.6	0.6	31.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	12.0	13.0	3.5	2.5	1.3	2.9	2.3	19.3	2.2	2.6	6.2
LnGrp Delay(d),s/veh	31.8	30.7	40.0	53.8	15.3	14.7	34.0	22.5	167.1	41.7	25.5	45.9
LnGrp LOS	C	C	D	D	B	B	C	C	F	D	C	D
Approach Vol, veh/h	1955					933		1025		758		
Approach Delay, s/veh	33.5					26.5		88.5		36.7		
Approach LOS	C					C		F		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	29.0	11.9	15.4	10.6	28.4	9.0	18.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	25.0	7.0	16.0	9.0	22.0	5.0	18.0				
Max Q Clear Time (g_c+I), s	17.2	23.7	7.5	10.0	6.5	7.2	5.7	12.5				
Green Ext Time (p_c), s	0.0	1.1	0.0	1.4	0.2	4.1	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay	44.7											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	
Volume (veh/h)	290	1416	360	220	1230	120	460	550	400	220	660	330
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	305	1491	374	232	1295	126	484	579	410	232	695	347
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	2027	631	189	1712	533	473	1180	455	325	961	853
Arrive On Green	0.12	0.40	0.40	0.05	0.34	0.34	0.14	0.23	0.23	0.09	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	305	1491	374	232	1295	126	484	579	410	232	695	347
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	6.2	18.1	13.5	4.0	16.5	4.2	10.0	7.2	11.3	4.8	9.3	4.1
Cycle Q Clear(g_c), s	6.2	18.1	13.5	4.0	16.5	4.2	10.0	7.2	11.3	4.8	9.3	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	2027	631	189	1712	533	473	1180	455	325	961	853
V/C Ratio(X)	0.76	0.74	0.59	1.23	0.76	0.24	1.02	0.49	0.90	0.71	0.72	0.41
Avail Cap(c_a), veh/h	520	2027	631	189	1712	533	473	1188	457	426	1118	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	18.6	17.2	34.4	21.5	17.4	31.4	24.2	15.5	32.0	27.7	7.9
Incr Delay (d2), s/veh	4.7	2.4	4.1	139.3	3.2	1.0	47.4	0.3	20.8	3.9	2.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	8.9	6.6	5.5	8.2	2.0	7.8	3.4	8.9	2.4	4.6	1.7
LnGrp Delay(d),s/veh	35.8	21.0	21.3	173.7	24.7	18.4	78.7	24.5	36.3	35.8	29.7	8.2
LnGrp LOS	D	C	C	F	C	B	F	C	D	D	C	A
Approach Vol, veh/h	2170				1653				1473			
Approach Delay, s/veh	23.1				45.1				45.6			
Approach LOS	C				D				D			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	33.0	14.0	17.7	12.5	28.5	10.9	20.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	29.0	10.0	16.0	11.0	22.0	9.0	17.0				
Max Q Clear Time (g_c+I), s	10.0	20.1	12.0	11.3	8.2	18.5	6.8	13.3				
Green Ext Time (p_c), s	0.0	6.4	0.0	2.4	0.3	2.6	0.2	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			34.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Volume (veh/h)	486	1140	320	310	1290	100	240	692	250	240	655	400
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	512	1200	242	326	1358	105	253	728	189	253	689	421
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	535	1469	296	683	1376	616	268	807	207	268	708	563
Arrive On Green	0.16	0.35	0.35	0.20	0.39	0.39	0.08	0.20	0.20	0.08	0.20	0.20
Sat Flow, veh/h	3442	4246	856	3442	3539	1583	3442	4035	1036	3442	3539	1583
Grp Volume(v), veh/h	512	958	484	326	1358	105	253	610	307	253	689	421
Grp Sat Flow(s),veh/h/ln	1721	1695	1712	1721	1770	1583	1721	1695	1680	1721	1770	1583
Q Serve(g_s), s	13.3	23.2	23.2	7.5	34.2	3.9	6.6	15.8	16.1	6.6	17.4	14.1
Cycle Q Clear(g_c), s	13.3	23.2	23.2	7.5	34.2	3.9	6.6	15.8	16.1	6.6	17.4	14.1
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	535	1173	592	683	1376	616	268	678	336	268	708	563
V/C Ratio(X)	0.96	0.82	0.82	0.48	0.99	0.17	0.95	0.90	0.91	0.95	0.97	0.75
Avail Cap(c_a), veh/h	535	1318	666	683	1376	616	268	678	336	268	708	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	26.8	26.8	31.9	27.3	18.0	41.3	35.1	35.2	41.3	35.8	12.4
Incr Delay (d2), s/veh	28.2	3.7	7.1	0.5	21.0	0.1	40.3	15.1	28.1	40.3	27.2	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	11.4	12.1	3.6	20.6	1.7	4.6	8.8	10.0	4.6	11.2	6.9
LnGrp Delay(d),s/veh	65.9	30.6	34.0	32.5	48.3	18.1	81.6	50.2	63.4	81.6	63.0	17.9
LnGrp LOS	E	C	C	C	D	B	F	D	E	F	E	B
Approach Vol, veh/h	1954				1789		1170				1363	
Approach Delay, s/veh	40.7				43.6		60.5				52.5	
Approach LOS	D				D		E				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.9	35.1	11.0	22.0	18.0	39.0	11.0	22.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	35.0	7.0	18.0	14.0	35.0	7.0	18.0				
Max Q Clear Time (g_c+1.5), s	19.5	25.2	8.6	19.4	15.3	36.2	8.6	18.1				
Green Ext Time (p_c), s	3.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			47.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	490	1226	270	180	1050	560	150	260	166	460	270	410
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	516	1291	273	189	1105	526	158	274	166	484	284	369
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	585	1844	390	261	1219	960	191	338	198	518	678	317
Arrive On Green	0.17	0.44	0.44	0.08	0.34	0.34	0.11	0.16	0.16	0.15	0.20	0.20
Sat Flow, veh/h	3442	4207	889	3442	3539	2787	1774	2147	1262	3442	3390	1583
Grp Volume(v), veh/h	516	1040	524	189	1105	526	158	224	216	484	284	369
Grp Sat Flow(s),veh/h/ln	1721	1695	1706	1721	1770	1393	1774	1770	1640	1721	1695	1583
Q Serve(g_s), s	13.2	22.4	22.4	4.8	26.8	13.7	7.9	11.0	11.5	12.5	6.6	18.0
Cycle Q Clear(g_c), s	13.2	22.4	22.4	4.8	26.8	13.7	7.9	11.0	11.5	12.5	6.6	18.0
Prop In Lane	1.00		0.52	1.00		1.00	1.00		0.77	1.00		1.00
Lane Grp Cap(c), veh/h	585	1486	748	261	1219	960	191	278	258	518	678	317
V/C Ratio(X)	0.88	0.70	0.70	0.72	0.91	0.55	0.83	0.81	0.84	0.93	0.42	1.17
Avail Cap(c_a), veh/h	585	1486	748	306	1219	960	217	315	292	518	678	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	20.5	20.5	40.7	28.1	23.8	39.3	36.6	36.8	37.8	31.4	36.0
Incr Delay (d2), s/veh	14.7	2.8	5.4	6.8	11.3	2.2	20.4	12.9	17.2	24.2	0.4	103.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	11.0	11.6	2.5	15.0	5.6	4.9	6.4	6.4	7.7	3.1	16.9
LnGrp Delay(d),s/veh	51.2	23.2	25.9	47.5	39.4	26.1	59.7	49.5	54.0	61.9	31.8	139.2
LnGrp LOS	D	C	C	D	D	C	E	D	D	E	C	F
Approach Vol, veh/h	2080				1820		598				1137	
Approach Delay, s/veh	30.8				36.4		53.8				79.5	
Approach LOS	C				D		D				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	43.5	13.7	22.0	19.3	35.0	17.6	18.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	37.0	37.0	11.0	18.0	14.0	31.0	13.0	16.0				
Max Q Clear Time (g_c+I), s	24.4	24.4	9.9	20.0	15.2	28.8	14.5	13.5				
Green Ext Time (p_c), s	0.1	9.4	0.0	0.0	0.0	1.7	0.0	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			44.9									
HCM 2010 LOS			D									

Intersection			
Intersection Delay, s/veh27.7			
Intersection LOS D			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	109	1045	683
Demand Flow Rate, veh/h	111	1066	696
Vehicles Circulating, veh/h	880	18	107
Vehicles Exiting, veh/h	204	785	884
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	11.4	38.1	14.5
Approach LOS	B	E	B
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	111	1066	696
Cap Entry Lane, veh/h	469	1110	1015
Entry HV Adj Factor	0.982	0.980	0.981
Flow Entry, veh/h	109	1045	683
Cap Entry, veh/h	460	1088	996
V/C Ratio	0.237	0.961	0.686
Control Delay, s/veh	11.4	38.1	14.5
LOS	B	E	B
95th %tile Queue, veh	1	17	6

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	4	766	58	0	644
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	4	806	61	0	678

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1515	837	0
Stage 1	837	-	-
Stage 2	678	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	132	367	777
Stage 1	425	-	-
Stage 2	504	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	132	367	777
Mov Cap-2 Maneuver	132	-	-
Stage 1	425	-	-
Stage 2	504	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 367	777	-
HCM Lane V/C Ratio	-	- 0.011	-	-
HCM Control Delay (s)	-	- 14.9	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0	0	-

Intersection				
Intersection Delay, s/veh	13.8			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	12	83	810	622
Demand Flow Rate, veh/h	12	84	826	634
Vehicles Circulating, veh/h	705	687	15	85
Vehicles Exiting, veh/h	14	154	702	686
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.8	8.3	15.8	12.0
Approach LOS	A	A	C	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	12	84	826	634
Cap Entry Lane, veh/h	558	568	1113	1038
Entry HV Adj Factor	0.992	0.987	0.980	0.981
Flow Entry, veh/h	12	83	810	622
Cap Entry, veh/h	554	561	1091	1018
V/C Ratio	0.021	0.148	0.742	0.611
Control Delay, s/veh	6.8	8.3	15.8	12.0
LOS	A	A	C	B
95th %tile Queue, veh	0	1	7	4

Intersection			
Intersection Delay, s/veh11.1			
Intersection LOS B			
Approach	WB	NB	SB
Entry Lanes	0	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	673	517
Demand Flow Rate, veh/h	0	687	527
Vehicles Circulating, veh/h	494	19	126
Vehicles Exiting, veh/h	212	634	503
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	11.6	10.4
Approach LOS	-	B	B
Lane	Left	Left	
Designated Moves	TR	LT	
Assumed Moves	TR	LT	
RT Channelized			
Lane Util	1.000	1.000	
Critical Headway, s	5.193	5.193	
Entry Flow, veh/h	687	527	
Cap Entry Lane, veh/h	1109	996	
Entry HV Adj Factor	0.980	0.981	
Flow Entry, veh/h	673	517	
Cap Entry, veh/h	1087	977	
V/C Ratio	0.620	0.529	
Control Delay, s/veh	11.6	10.4	
LOS	B	B	
95th %tile Queue, veh	4	3	

Intersection

Intersection Delay, s/veh 8.4

Intersection LOS A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	21	13	494	504
Demand Flow Rate, veh/h	21	13	504	514
Vehicles Circulating, veh/h	517	500	11	45
Vehicles Exiting, veh/h	42	15	527	468
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.7	5.5	8.2	8.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	21	13	504	514
Cap Entry Lane, veh/h	674	685	1118	1080
Entry HV Adj Factor	0.995	0.992	0.980	0.981
Flow Entry, veh/h	21	13	494	504
Cap Entry, veh/h	671	680	1095	1059
V/C Ratio	0.031	0.019	0.451	0.476
Control Delay, s/veh	5.7	5.5	8.2	8.8
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	3

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	16	32	404	463	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	17	34	425	487	3

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	982	489	491 0
Stage 1	489	-	- -
Stage 2	493	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	276	579	1072 -
Stage 1	616	-	- -
Stage 2	614	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	264	579	1072 -
Mov Cap-2 Maneuver	264	-	- -
Stage 1	616	-	- -
Stage 2	588	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1072	-	541	-	-
HCM Lane V/C Ratio	0.031	-	0.033	-	-
HCM Control Delay (s)	8.5	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR		NBT	NBR	SBL SBT
Vol, veh/h	2	5		399	6	5 464
Conflicting Peds, #/hr	0	0		0	0	0 0
Sign Control	Stop	Stop		Free	Free	Free Free
RT Channelized	-	None		-	None	- None
Storage Length	0	-		-	-	- -
Veh in Median Storage, #	0	-		0	-	- 0
Grade, %	0	-		0	-	- 0
Peak Hour Factor	95	95		95	95	95 95
Heavy Vehicles, %	2	2		2	2	2 2
Mvmt Flow	2	5		420	6	5 488
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	922	423		0	0	426 0
Stage 1	423	-		-	-	- -
Stage 2	499	-		-	-	- -
Critical Hdwy	6.42	6.22		-	-	4.12 -
Critical Hdwy Stg 1	5.42	-		-	-	- -
Critical Hdwy Stg 2	5.42	-		-	-	- -
Follow-up Hdwy	3.518	3.318		-	-	2.218 -
Pot Cap-1 Maneuver	300	631		-	-	1133 -
Stage 1	661	-		-	-	- -
Stage 2	610	-		-	-	- -
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	298	631		-	-	1133 -
Mov Cap-2 Maneuver	298	-		-	-	- -
Stage 1	661	-		-	-	- -
Stage 2	606	-		-	-	- -
Approach	WB			NB	SB	
HCM Control Delay, s	12.6			0	0.1	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	478	1133	-	
HCM Lane V/C Ratio	-	-	0.015	0.005	-	
HCM Control Delay (s)	-	-	12.6	8.2	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Intersection				
Intersection Delay, s/veh	7.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	15	18	425	480
Demand Flow Rate, veh/h	15	18	434	490
Vehicles Circulating, veh/h	501	412	12	28
Vehicles Exiting, veh/h	17	34	504	402
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	5.1	7.3	8.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	15	18	434	490
Cap Entry Lane, veh/h	685	748	1116	1099
Entry HV Adj Factor	0.993	0.995	0.980	0.981
Flow Entry, veh/h	15	18	425	480
Cap Entry, veh/h	680	744	1094	1077
V/C Ratio	0.022	0.024	0.389	0.446
Control Delay, s/veh	5.5	5.1	7.3	8.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	2

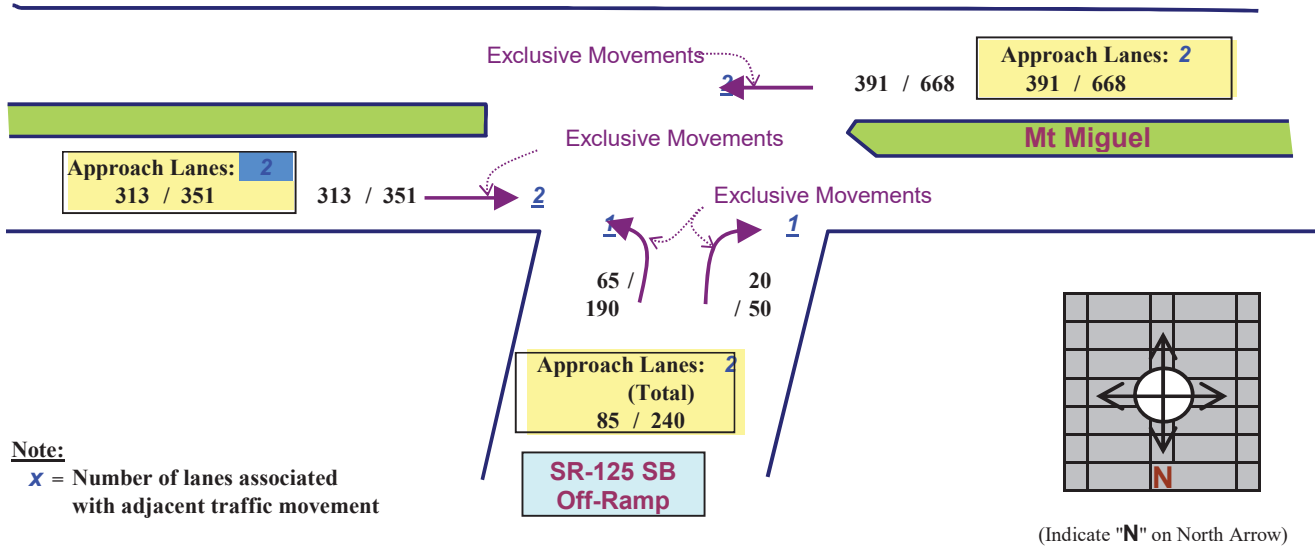
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

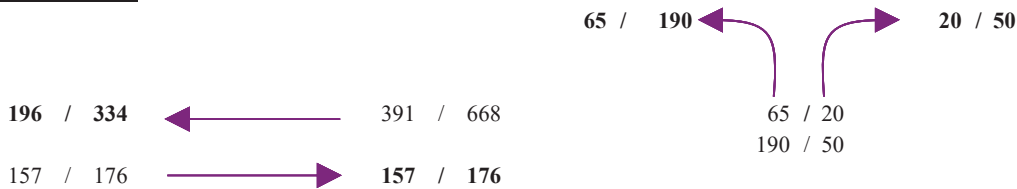
PROJECT: OVL

LOCATION: SR-125 SB / Mt. Miguel

Scenario: 2030 + Project - No State
(AM/PM Peak)



ILV per Lane:



PHASE 1:

196	/	334
157	/	176

 ⇒

196	/	334
-----	---	-----

PHASE 2:

65	/	190
20	/	50

 ⇒

65	/	190
----	---	-----

PHASE 3:

0	/	0
0	/	0

 ⇒

0	/	0
---	---	---

TOTAL = 261 / 524 ILV/HR. in the AM / PM peak hours

OPERATING LEVEL:

ILV/HR. = 261 in AM ⇒ ILV: <1,200M
and 524 in PM ⇒ ILV <1,200

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

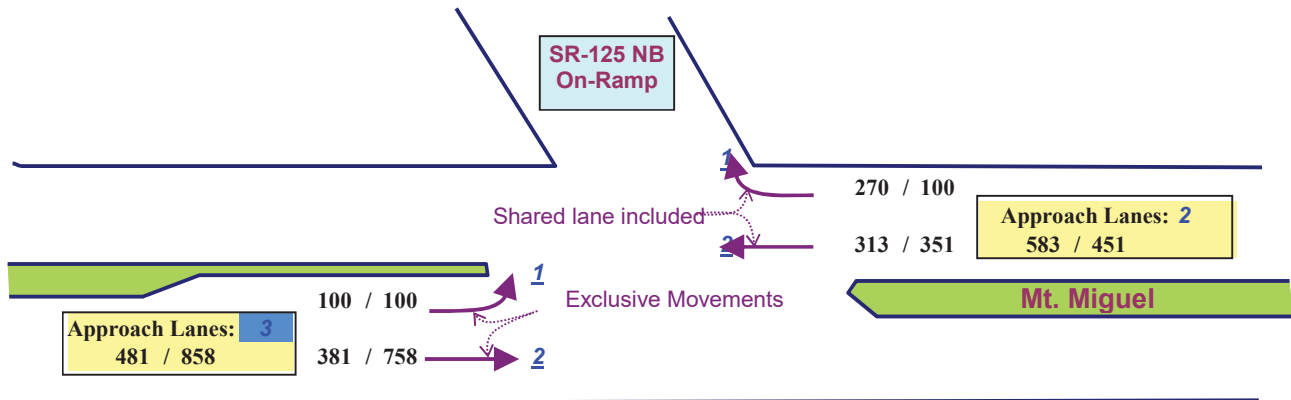
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

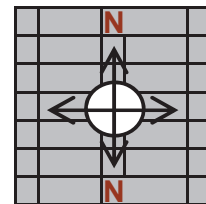
LOCATION: SR-125 NB / Mt. Miguel

Scenario: 2030 + Project - No State
(AM/PM Peak)



Note:

X = Number of lanes associated
with adjacent traffic movement



(Indicate "N" on North Arrow)

ILV per Lane:

Shared with Thru => 292 / 226

292 / 226 ← 583 / 451

100 / 100 → 0 / 154

191 / 379 → 191 / 226 (Remainder in Phase II)

PHASE 1: 292 / 191 → 226 / 226

PHASE 2: 100 / 0 → 100 / 154

OPERATING LEVEL:

ILV/HR. = 392 in AM => ILV: <1,200M
and 379 in PM => ILV <1,200

TOTAL = 392 / 379 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

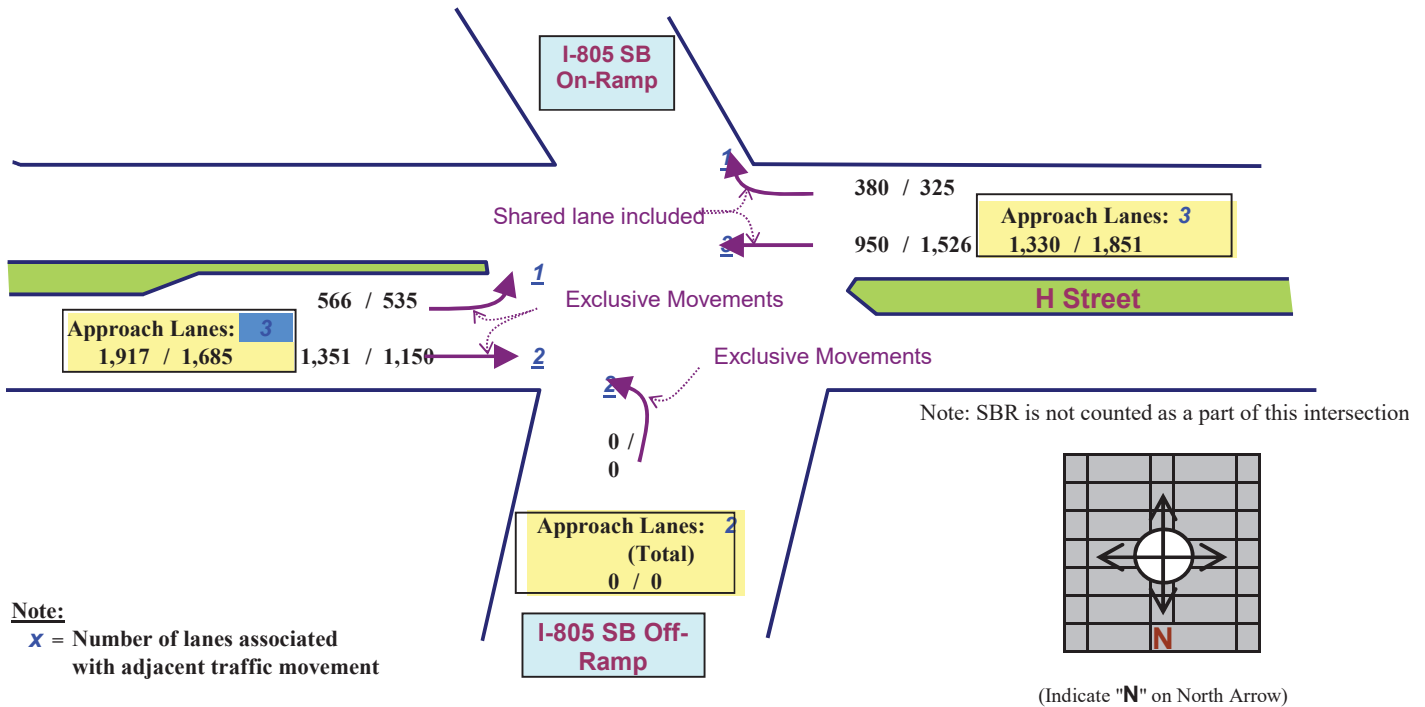
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

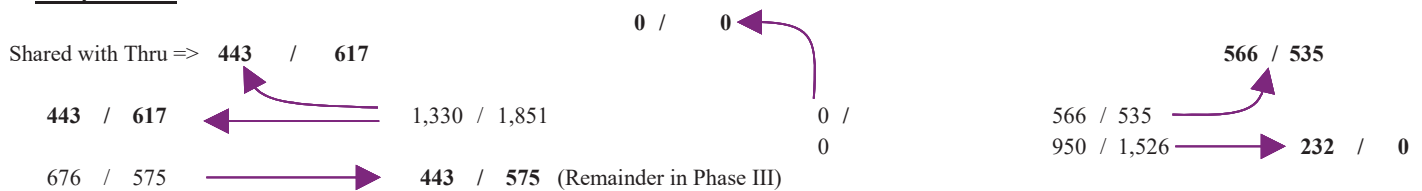
LOCATION: I-805 SB / H Street

Scenario: 2030 + Project - No State
(AM/PM Peak)



Note:
X = Number of lanes associated
with adjacent traffic movement

ILV per Lane:



PHASE 1: 443 / 617 / 443 / 575 => 443 / 617

PHASE 2: 0 / 0 / 0 / 0 => 0 / 0

PHASE 3: 566 / 535 / 232 / 0 => 566 / 535

OPERATING LEVEL:

ILV/HR. = 1,009 in AM => ILV: <1,200M
and 1,152 in PM => ILV <1,200

TOTAL = 1,009 / 1,152 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

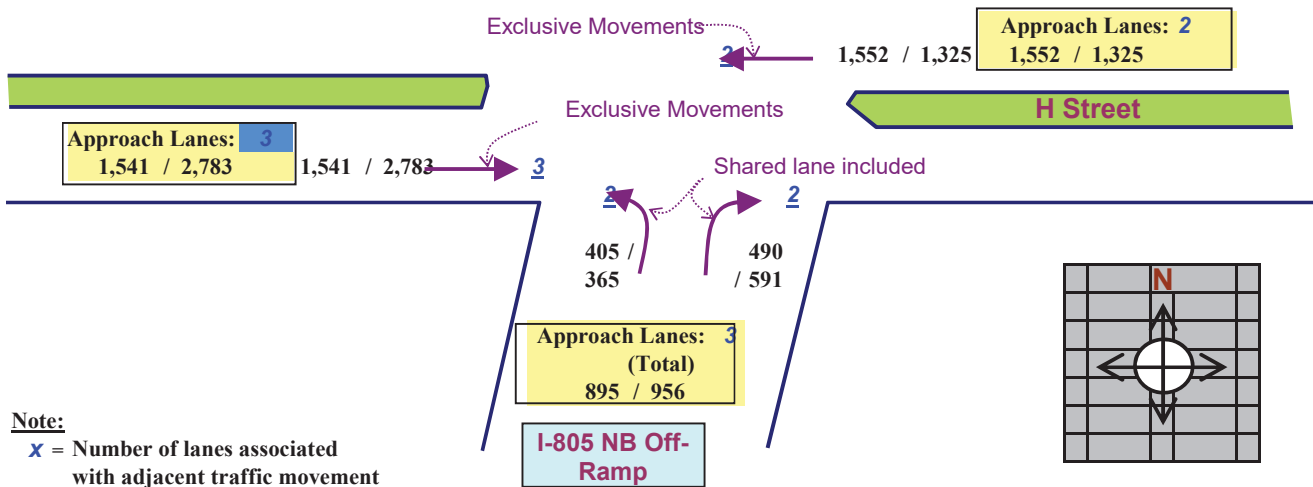
(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

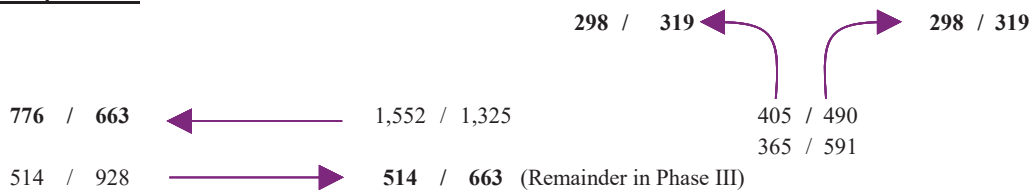
LOCATION: I-805 NB / H Street

Scenario: 2030 + Project - No State
(AM/PM Peak)

Note: NBR turn before this intersection



ILV per Lane:



PHASE 1: 776 / 663 > 776 / 663

PHASE 2: 298 / 319 > 298 / 319

OPERATING LEVEL:

ILV/HR. = 1,074 in AM ==> ILV: <1,200M
and 981 in PM ==> ILV <1,200

TOTAL = 1,074 / 981 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

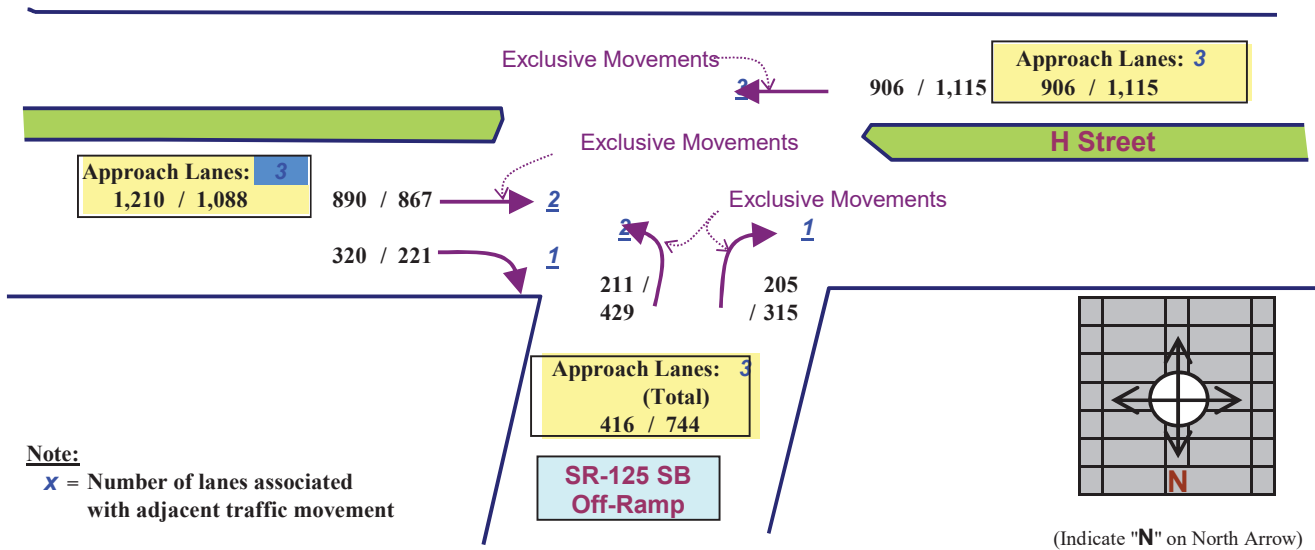
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

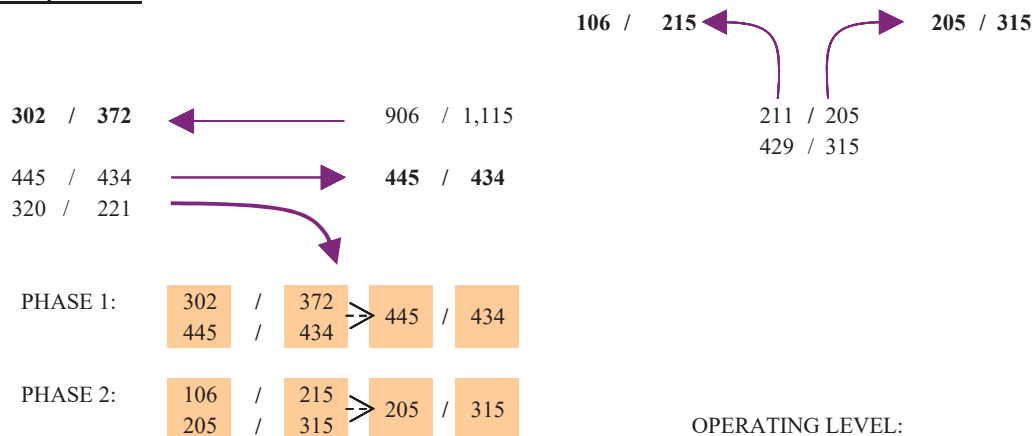
PROJECT: OVL

LOCATION: SR-125 SB / H STREET

Scenario: 2030 + Project - No State
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. =	650 in AM ==>	ILV:	<1,200M
and	749 in PM ==>	ILV	<1,200

TOTAL = 650 / 749 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

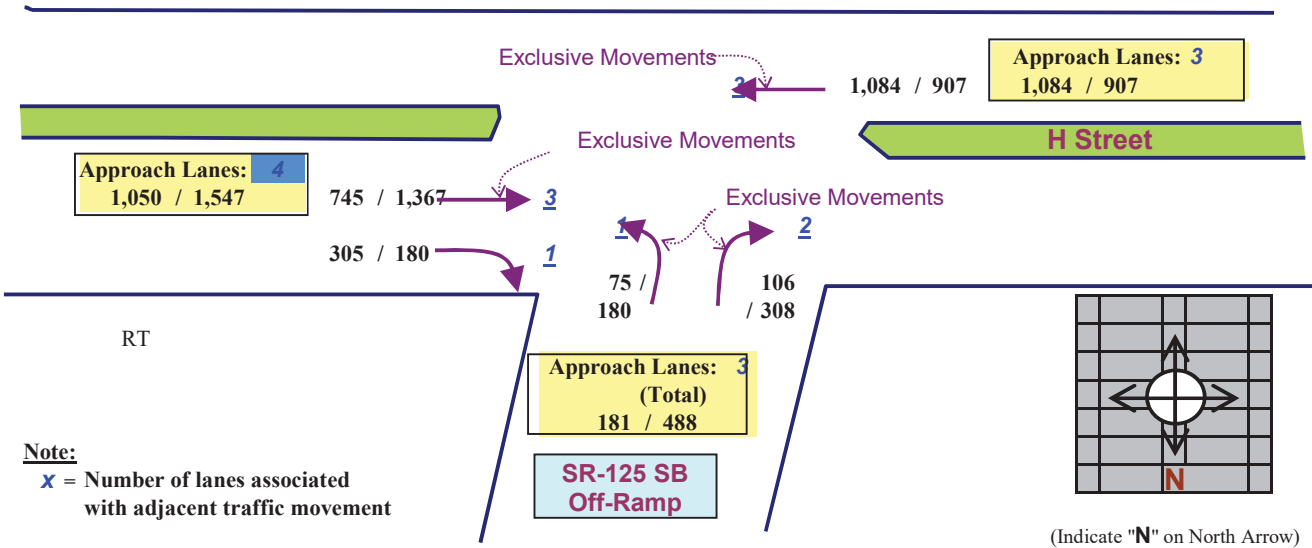
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

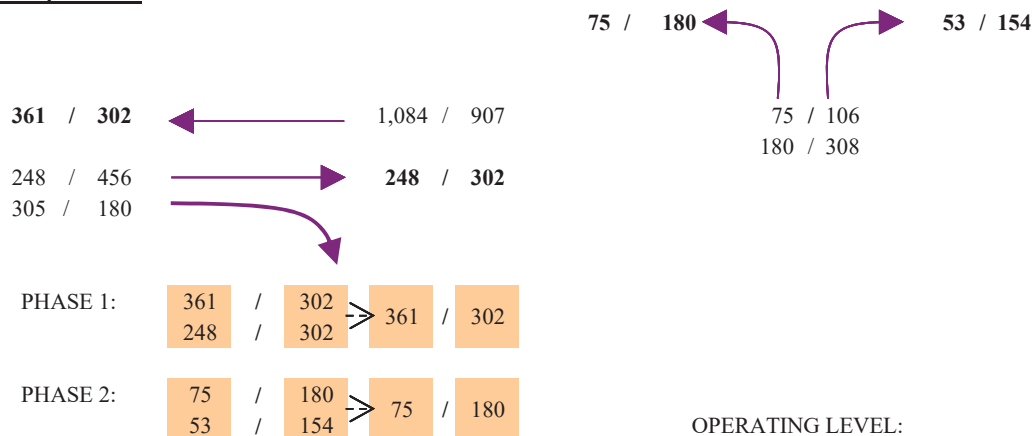
PROJECT: OVL

LOCATION: SR-125 NB / H STREET

Scenario: 2030 + Project - No State
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 436 in AM ⇒ ILV: <1,200M
and 482 in PM ⇒ ILV <1,200

TOTAL = 436 / 482 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

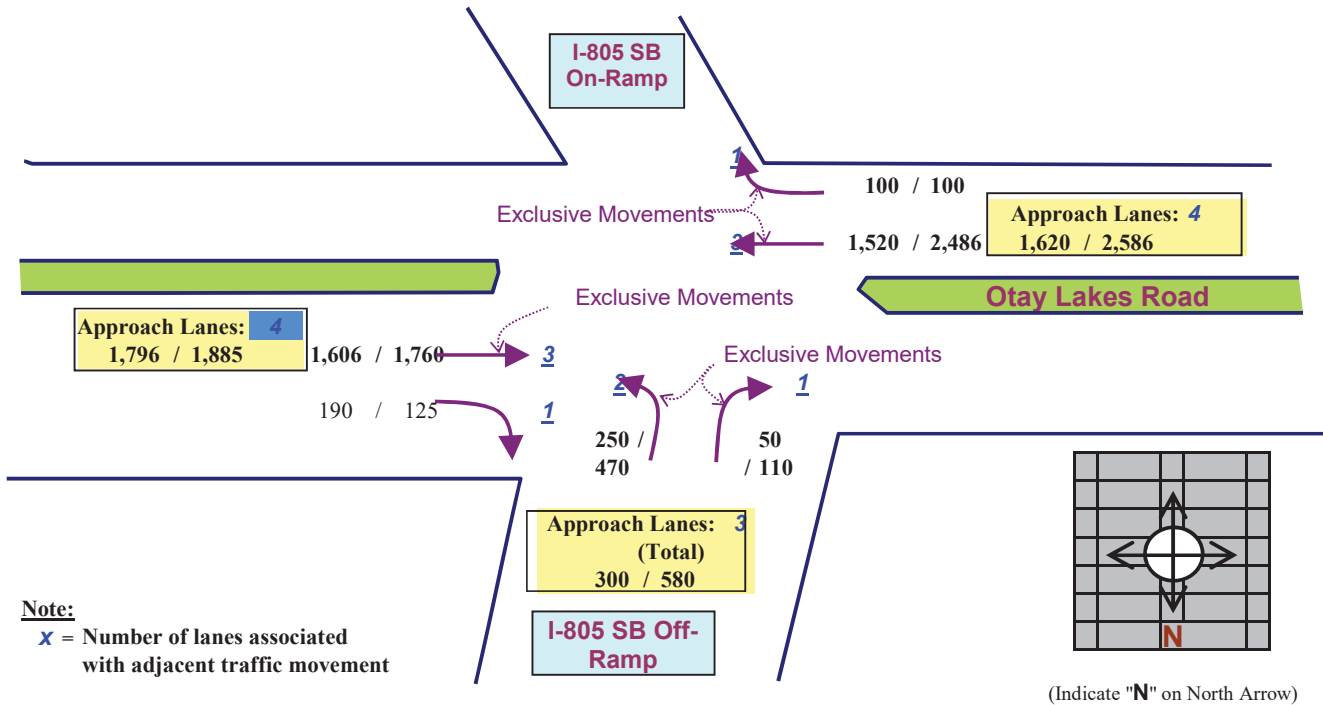
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: SR-125 SB / Otay Lakes Road

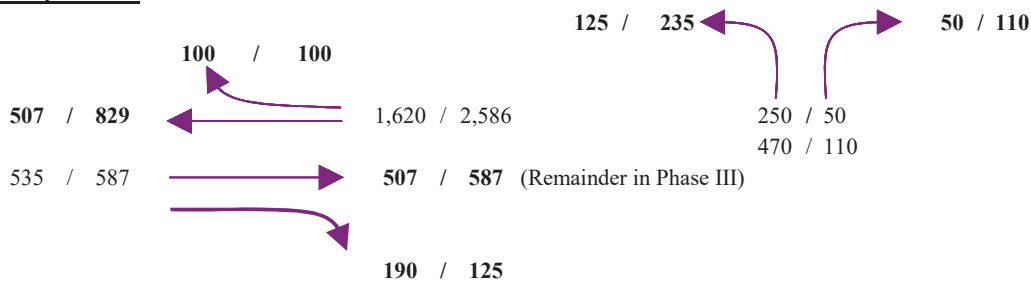
Scenario: 2030 + Project - No State
(AM/PM Peak)



Note:

X = Number of lanes associated with adjacent traffic movement

ILV per Lane:



PHASE 1: 507 / 829 > 507 / 829

PHASE 2: 125 / 235 > 125 / 235

OPERATING LEVEL:

ILV/HR. = 632 in AM ==> ILV: <1,200M
and 1,064 in PM ==> ILV <1,200

TOTAL = 632 / 1,064 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

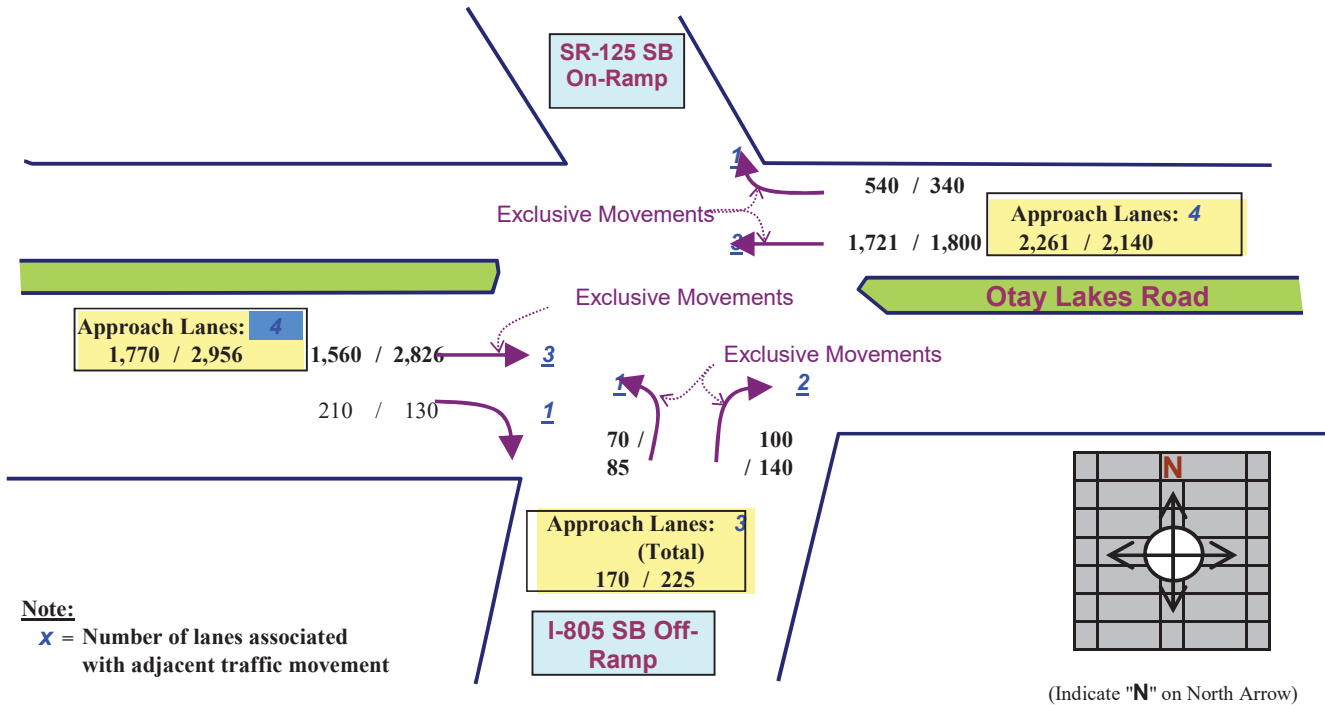
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: SR-125 NB / OTAY LAKES ROAD

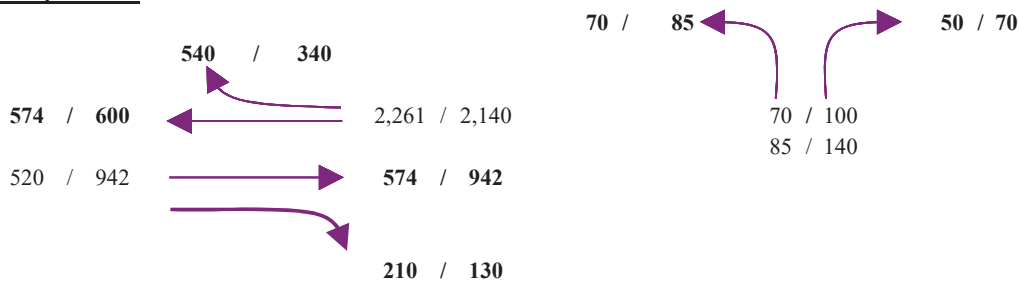
Scenario: 2030 + Project - No State
(AM/PM Peak)



Note:

X = Number of lanes associated with adjacent traffic movement

ILV per Lane:



PHASE 1: 574 / 600 > 574 / 942

PHASE 2: 70 / 85 > 70 / 85

OPERATING LEVEL:

ILV/HR. = 644 in AM ==> ILV: <1,200M
and 1,027 in PM ==> ILV <1,200

TOTAL = 644 / 1,027 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

Appendix M

Analysis Worksheets – Year 2030 Conditions – Mitigation

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	5	35	33	15	335	45	1037	42	155	723	50
Future Volume (veh/h)	15	5	35	33	15	335	45	1037	42	155	723	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	16	5	26	35	16	246	47	1092	33	163	761	42
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	47	133	222	91	258	60	1077	33	183	1169	65
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.60	0.60	0.10	0.67	0.67
Sat Flow, veh/h	368	289	814	988	556	1583	1774	1799	54	1774	1749	97
Grp Volume(v), veh/h	47	0	0	51	0	246	47	0	1125	163	0	803
Grp Sat Flow(s),veh/h/ln	1471	0	0	1544	0	1583	1774	0	1853	1774	0	1846
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	15.4	2.6	0.0	59.9	9.1	0.0	25.6
Cycle Q Clear(g_c), s	2.4	0.0	0.0	2.4	0.0	15.4	2.6	0.0	59.9	9.1	0.0	25.6
Prop In Lane	0.34		0.55	0.69		1.00	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	288	0	0	312	0	258	60	0	1110	183	0	1233
V/C Ratio(X)	0.16	0.00	0.00	0.16	0.00	0.95	0.78	0.00	1.01	0.89	0.00	0.65
Avail Cap(c_a), veh/h	288	0	0	312	0	258	122	0	1110	183	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	0.0	36.0	0.0	41.5	47.9	0.0	20.1	44.3	0.0	9.7
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	43.2	19.5	0.0	30.4	38.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.2	0.0	9.8	1.6	0.0	39.6	6.4	0.0	13.1
LnGrp Delay(d),s/veh	36.3	0.0	0.0	36.3	0.0	84.6	67.4	0.0	50.4	82.3	0.0	11.0
LnGrp LOS	D			D		F	E		F	F		B
Approach Vol, veh/h		47			297			1172			966	
Approach Delay, s/veh		36.3			76.3			51.1			23.0	
Approach LOS		D			E			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.8	64.4		20.8	7.9	71.3		20.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.3	59.9		16.3	6.9	63.3		16.3				
Max Q Clear Time (g_c+I1), s	11.1	61.9		4.4	4.6	27.6		17.4				
Green Ext Time (p_c), s	0.0	0.0		1.0	0.0	20.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				42.9								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	378	75	568	460	50	65	50	51	10	50	110
Future Volume (veh/h)	310	378	75	568	460	50	65	50	51	10	50	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	326	398	79	598	484	53	68	53	54	11	53	116
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	383	630	282	658	1071	117	87	151	154	20	73	160
Arrive On Green	0.22	0.18	0.18	0.37	0.33	0.33	0.05	0.18	0.18	0.01	0.14	0.14
Sat Flow, veh/h	1774	3539	1583	1774	3219	351	1774	847	863	1774	521	1140
Grp Volume(v), veh/h	326	398	79	598	265	272	68	0	107	11	0	169
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1801	1774	0	1710	1774	0	1661
Q Serve(g_s), s	12.1	7.2	3.0	22.0	8.1	8.2	2.6	0.0	3.8	0.4	0.0	6.7
Cycle Q Clear(g_c), s	12.1	7.2	3.0	22.0	8.1	8.2	2.6	0.0	3.8	0.4	0.0	6.7
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.50	1.00		0.69
Lane Grp Cap(c), veh/h	383	630	282	658	589	599	87	0	305	20	0	234
V/C Ratio(X)	0.85	0.63	0.28	0.91	0.45	0.45	0.79	0.00	0.35	0.56	0.00	0.72
Avail Cap(c_a), veh/h	688	823	368	864	589	599	142	0	460	103	0	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	26.2	24.5	20.5	18.0	18.0	32.4	0.0	24.8	33.9	0.0	28.3
Incr Delay (d2), s/veh	5.3	1.1	0.5	11.1	0.5	0.5	14.3	0.0	0.7	22.9	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	3.6	1.3	12.7	4.0	4.1	1.6	0.0	1.8	0.3	0.0	3.3
LnGrp Delay(d),s/veh	31.2	27.3	25.0	31.6	18.6	18.6	46.7	0.0	25.5	56.8	0.0	32.5
LnGrp LOS	C	C	C	C	B	B	D		C	E		C
Approach Vol, veh/h		803			1135			175			180	
Approach Delay, s/veh		28.7			25.4			33.7			34.0	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	16.8	30.0	16.7	7.9	14.2	19.4	27.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	18.5	33.5	16.0	5.5	17.0	26.7	22.8				
Max Q Clear Time (g_c+I1), s	2.4	5.8	24.0	9.2	4.6	8.7	14.1	10.2				
Green Ext Time (p_c), s	0.0	1.3	1.5	3.1	0.0	1.0	0.8	4.7				
Intersection Summary												
HCM 2010 Ctrl Delay			27.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	5	20	64	10	205	25	859	59	390	1209	20
Future Volume (veh/h)	10	5	20	64	10	205	25	859	59	390	1209	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	5	21	67	11	203	26	904	62	411	1273	21
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	43	100	209	30	212	34	889	61	421	1341	22
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.02	0.52	0.52	0.24	0.73	0.73
Sat Flow, veh/h	252	317	747	1142	225	1583	1774	1724	118	1774	1827	30
Grp Volume(v), veh/h	37	0	0	78	0	203	26	0	966	411	0	1294
Grp Sat Flow(s),veh/h/ln	1316	0	0	1367	0	1583	1774	0	1842	1774	0	1857
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	15.3	1.8	0.0	61.9	27.6	0.0	73.3
Cycle Q Clear(g_c), s	6.8	0.0	0.0	6.8	0.0	15.3	1.8	0.0	61.9	27.6	0.0	73.3
Prop In Lane	0.30		0.57	0.86		1.00	1.00		0.06	1.00		0.02
Lane Grp Cap(c), veh/h	215	0	0	239	0	212	34	0	950	421	0	1363
V/C Ratio(X)	0.17	0.00	0.00	0.33	0.00	0.96	0.76	0.00	1.02	0.98	0.00	0.95
Avail Cap(c_a), veh/h	215	0	0	239	0	212	61	0	950	421	0	1363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.0	0.0	0.0	47.8	0.0	51.6	58.6	0.0	29.1	45.4	0.0	14.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.8	0.0	49.1	28.3	0.0	33.4	37.3	0.0	14.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	2.4	0.0	9.6	1.1	0.0	40.0	17.8	0.0	42.3
LnGrp Delay(d),s/veh	46.4	0.0	0.0	48.6	0.0	100.7	86.8	0.0	62.5	82.7	0.0	28.0
LnGrp LOS	D			D		F	F		F	F		C
Approach Vol, veh/h		37			281			992			1705	
Approach Delay, s/veh		46.4			86.2			63.1			41.2	
Approach LOS		D			F			E			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	33.0	66.4		20.6	6.8	92.6		20.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	28.5	61.9		16.1	4.1	86.3		16.1				
Max Q Clear Time (g_c+I1), s	29.6	63.9		8.8	3.8	75.3		17.3				
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	9.7		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				52.7								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1056	40	50	756	65	45	45	127	45	30	70
Future Volume (veh/h)	110	1056	40	50	756	65	45	45	127	45	30	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	116	1112	31	53	796	47	47	47	71	47	32	63
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1908	853	67	1671	99	62	74	112	62	62	122
Arrive On Green	0.08	0.54	0.54	0.04	0.49	0.49	0.04	0.11	0.11	0.04	0.11	0.11
Sat Flow, veh/h	1774	3539	1583	1774	3396	201	1774	671	1013	1774	562	1106
Grp Volume(v), veh/h	116	1112	31	53	415	428	47	0	118	47	0	95
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1827	1774	0	1684	1774	0	1668
Q Serve(g_s), s	4.2	13.7	0.6	1.9	10.1	10.1	1.7	0.0	4.3	1.7	0.0	3.5
Cycle Q Clear(g_c), s	4.2	13.7	0.6	1.9	10.1	10.1	1.7	0.0	4.3	1.7	0.0	3.5
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.60	1.00		0.66
Lane Grp Cap(c), veh/h	151	1908	853	67	871	899	62	0	186	62	0	184
V/C Ratio(X)	0.77	0.58	0.04	0.79	0.48	0.48	0.75	0.00	0.64	0.75	0.00	0.52
Avail Cap(c_a), veh/h	358	3149	1409	109	1326	1369	109	0	423	109	0	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.1	10.0	7.0	30.9	10.9	10.9	31.0	0.0	27.6	31.0	0.0	27.2
Incr Delay (d2), s/veh	8.0	0.3	0.0	18.0	0.4	0.4	16.4	0.0	3.6	16.4	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.7	0.3	1.3	4.9	5.1	1.1	0.0	2.2	1.1	0.0	1.7
LnGrp Delay(d),s/veh	37.1	10.3	7.0	49.0	11.3	11.3	47.5	0.0	31.2	47.5	0.0	29.5
LnGrp LOS	D	B	A	D	B	B	D		C	D		C
Approach Vol, veh/h	1259				896				165			
Approach Delay, s/veh	12.7				13.6				35.8			
Approach LOS	B				B				D			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	11.7	7.0	39.5	6.8	11.7	10.0	36.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	16.3	4.0	57.7	4.0	16.3	13.1	48.6				
Max Q Clear Time (g_c+I1), s	3.7	6.3	3.9	15.7	3.7	5.5	6.2	12.1				
Green Ext Time (p_c), s	0.0	0.8	0.0	19.3	0.0	0.8	0.1	18.1				
Intersection Summary												
HCM 2010 Ctrl Delay	15.9											
HCM 2010 LOS	B											

Appendix N

Analysis Worksheets – Year 2030 With Cumulative Units Conditions

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

3/27/2017

Intersection												
Int Delay, s/veh	67.2											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	5	35	38	15	335	45	1042	47	155	728	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	5	37	40	16	353	47	1097	49	163	766	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2343	2360	793	2356	2361	1122	819	0	0	1146	0	0
Stage 1	1119	1119	-	1216	1216	-	-	-	-	-	-	-
Stage 2	1224	1241	-	1140	1145	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	25	35	389	~ 25	35	~ 251	810	-	-	610	-	-
Stage 1	251	282	-	221	254	-	-	-	-	-	-	-
Stage 2	219	247	-	244	274	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	24	389	~ 14	24	~ 251	810	-	-	610	-	-
Mov Cap-2 Maneuver	-	24	-	~ 14	24	-	-	-	-	-	-	-
Stage 1	236	207	-	208	239	-	-	-	-	-	-	-
Stage 2	-	233	-	158	201	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		\$ 428.5	0.4	2.2
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	810	-	-	- 16 251 610	-	-	-
HCM Lane V/C Ratio	0.058	-	-	- 3.487 1.405 0.267	-	-	-
HCM Control Delay (s)	9.7	-	-	\$ 1605.7 242.2 13	-	-	-
HCM Lane LOS	A	-	-	- F F B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	- 7.7 19.5 1.1	-	-	-

Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	620	146	55	720	110	178	85	40	90	250	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	32	653	143	58	758	95	187	89	41	95	263	47
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	689	151	74	783	98	258	113	45	157	385	65
Arrive On Green	0.02	0.47	0.47	0.04	0.48	0.48	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	1481	324	1774	1623	203	568	334	134	315	1139	191
Grp Volume(v), veh/h	32	0	796	58	0	853	317	0	0	405	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1806	1774	0	1827	1036	0	0	1645	0	0
Q Serve(g_s), s	1.6	0.0	36.7	2.8	0.0	39.5	7.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	36.7	2.8	0.0	39.5	26.4	0.0	0.0	18.6	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.11	0.59		0.13	0.23		0.12
Lane Grp Cap(c), veh/h	44	0	840	74	0	881	416	0	0	607	0	0
V/C Ratio(X)	0.73	0.00	0.95	0.78	0.00	0.97	0.76	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	88	0	861	88	0	881	435	0	0	631	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.1	0.0	22.3	41.3	0.0	21.9	28.4	0.0	0.0	25.0	0.0	0.0
Incr Delay (d2), s/veh	20.4	0.0	19.0	31.2	0.0	22.9	7.5	0.0	0.0	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	22.6	2.0	0.0	25.3	8.2	0.0	0.0	8.9	0.0	0.0
LnGrp Delay(d),s/veh	62.5	0.0	41.3	72.5	0.0	44.8	35.9	0.0	0.0	27.6	0.0	0.0
LnGrp LOS	E		D	E		D	D			C		
Approach Vol, veh/h		828			911			317			405	
Approach Delay, s/veh		42.1			46.5			35.9			27.6	
Approach LOS		D			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.9	8.1	45.0		33.9	6.7	46.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.7	4.3	41.5		30.7	4.3	41.5				
Max Q Clear Time (g_c+l1), s		28.4	4.8	38.7		20.6	3.6	41.5				
Green Ext Time (p_c), s		1.0	0.0	1.8		3.2	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			40.5									
HCM 2010 LOS			D									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

3/27/2017

Intersection						
Int Delay, s/veh	5.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	436	5	25	338	30	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	459	5	26	356	32	16
Major/Minor	Major2	Major1		Minor2		
Conflicting Flow All	382	-	0	0	204	1303
Stage 1	-	-	-	-	0	921
Stage 2	-	-	-	-	204	382
Critical Hdwy	4.12	-	-	-	6.42	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	5.42	5.52
Follow-up Hdwy	2.218	-	-	-	3.518	4.018
Pot Cap-1 Maneuver	1176	-	-	-	784	161
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	830	613
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1176	-	-	-	478	0
Mov Cap-2 Maneuver	-	-	-	-	478	0
Stage 1	-	-	-	-	-	0
Stage 2	-	-	-	-	830	0
Approach	WB		NB		SB	
HCM Control Delay, s	9.9		0		13.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1	
Capacity (veh/h)	-	-	1176	-	478	
HCM Lane V/C Ratio	-	-	0.39	-	0.099	
HCM Control Delay (s)	-	-	10	-	13.4	
HCM Lane LOS	-	-	B	-	B	
HCM 95th %tile Q(veh)	-	-	1.9	-	0.3	

HCM 2010 TWSC
4: Proctor Valley Road & Melody Road

3/27/2017

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	365	81	52	20	35	444
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	384	85	55	21	37	467

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	467	0	1395 85 85 -
Stage 1	-	-	854 - - -
Stage 2	-	-	541 - - -
Critical Hdwy	-	-	6.52 6.22 4.12 -
Critical Hdwy Stg 1	-	-	5.52 - - -
Critical Hdwy Stg 2	-	-	- - - -
Follow-up Hdwy	-	-	4.018 3.318 2.218 -
Pot Cap-1 Maneuver	-	-	141 974 1512 -
Stage 1	-	-	375 - - -
Stage 2	-	-	- - - -
Platoon blocked, %	-	-	- - - -
Mov Cap-1 Maneuver	-	-	0 974 1512 -
Mov Cap-2 Maneuver	-	-	0 - - -
Stage 1	-	-	0 - - -
Stage 2	-	-	0 - - -

Approach	EB	WB	SB
HCM Control Delay, s		9	0.5
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	- 974	1512	-
HCM Lane V/C Ratio	-	- 0.078	0.024	-
HCM Control Delay (s)	-	- 9	7.4	-
HCM Lane LOS	-	- A	A	-
HCM 95th %tile Q(veh)	-	- 0.3	0.1	-

HCM 2010 Signalized Intersection Summary

5: SR-94 & Melody Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	35	98	40	35	80	66	640	40	50	450	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	63	37	103	42	37	84	69	674	42	53	474	53
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	76	150	147	94	156	89	860	54	75	802	90
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.05	0.50	0.50	0.04	0.49	0.49
Sat Flow, veh/h	382	421	827	291	521	863	1774	1736	108	1774	1646	184
Grp Volume(v), veh/h	203	0	0	163	0	0	69	0	716	53	0	527
Grp Sat Flow(s),veh/h/ln	1630	0	0	1675	0	0	1774	0	1844	1774	0	1830
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	0.0	1.8	0.0	15.4	1.4	0.0	10.0
Cycle Q Clear(g_c), s	5.3	0.0	0.0	4.0	0.0	0.0	1.8	0.0	15.4	1.4	0.0	10.0
Prop In Lane	0.31		0.51	0.26		0.52	1.00		0.06	1.00		0.10
Lane Grp Cap(c), veh/h	394	0	0	398	0	0	89	0	913	75	0	892
V/C Ratio(X)	0.52	0.00	0.00	0.41	0.00	0.00	0.78	0.00	0.78	0.71	0.00	0.59
Avail Cap(c_a), veh/h	626	0	0	633	0	0	244	0	1187	166	0	1098
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	17.8	0.0	0.0	22.5	0.0	10.0	22.7	0.0	8.9
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.7	0.0	0.0	13.4	0.0	2.6	11.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	2.0	0.0	0.0	1.2	0.0	8.4	0.9	0.0	5.1
LnGrp Delay(d),s/veh	19.3	0.0	0.0	18.4	0.0	0.0	35.9	0.0	12.6	34.2	0.0	9.5
LnGrp LOS	B			B			D		B	C		A
Approach Vol, veh/h	203			163			785			580		
Approach Delay, s/veh	19.3			18.4			14.7			11.7		
Approach LOS	B			B			B			B		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	28.3		13.2	6.9	27.9		13.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.5	30.9		16.1	6.6	28.8		16.1				
Max Q Clear Time (g_c+l1), s	3.4	17.4		7.3	3.8	12.0		6.0				
Green Ext Time (p_c), s	0.0	6.4		1.5	0.0	7.2		1.6				
Intersection Summary												
HCM 2010 Ctrl Delay	14.6											
HCM 2010 LOS	B											

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↖	↗		
Traffic Volume (veh/h)	0	414	363	0	65	20		
Future Volume (veh/h)	0	414	363	0	65	20		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	436	382	0	68	9		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1864	1864	0	115	102		
Arrive On Green	0.00	0.53	0.53	0.00	0.06	0.06		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	436	382	0	68	9		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	1.8	1.6	0.0	1.0	0.1		
Cycle Q Clear(g_c), s	0.0	1.8	1.6	0.0	1.0	0.1		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1864	1864	0	115	102		
V/C Ratio(X)	0.00	0.23	0.20	0.00	0.59	0.09		
Avail Cap(c_a), veh/h	0	4635	4635	0	1123	1003		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	3.5	3.5	0.0	12.6	12.2		
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	5.2	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.8	0.0	0.7	0.1		
LnGrp Delay(d),s/veh	0.0	3.7	3.6	0.0	17.8	12.6		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		436	382		77			
Approach Delay, s/veh		3.7	3.6		17.2			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		20.4		7.3		20.4		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		36.2		17.5		36.2		
Max Q Clear Time (g_c+l1), s		3.8		3.0		3.6		
Green Ext Time (p_c), s		10.7		0.1		10.7		
Intersection Summary								
HCM 2010 Ctrl Delay			4.8					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Traffic Volume (veh/h)	100	404	363	270	0	0			
Future Volume (veh/h)	100	404	363	270	0	0			
Number	5	2	6	16					
Initial Q (Qb), veh	0	0	0	0					
Ped-Bike Adj(A_pbT)	1.00			1.00					
Parking Bus, Adj	1.00	1.00	1.00	1.00					
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900					
Adj Flow Rate, veh/h	105	425	382	284					
Adj No. of Lanes	1	2	2	0					
Peak Hour Factor	0.95	0.95	0.95	0.95					
Percent Heavy Veh, %	2	2	2	2					
Cap, veh/h	133	2899	1207	887					
Arrive On Green	0.07	0.82	0.62	0.62					
Sat Flow, veh/h	1774	3632	2042	1431					
Grp Volume(v), veh/h	105	425	346	320					
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1610					
Q Serve(g_s), s	1.9	0.8	3.0	3.0					
Cycle Q Clear(g_c), s	1.9	0.8	3.0	3.0					
Prop In Lane	1.00			0.89					
Lane Grp Cap(c), veh/h	133	2899	1096	998					
V/C Ratio(X)	0.79	0.15	0.32	0.32					
Avail Cap(c_a), veh/h	940	6534	2108	1918					
HCM Platoon Ratio	1.00	1.00	1.00	1.00					
Upstream Filter(I)	1.00	1.00	1.00	1.00					
Uniform Delay (d), s/veh	14.6	0.6	2.9	2.9					
Incr Delay (d2), s/veh	3.9	0.0	0.4	0.4					
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0					
%ile BackOfQ(50%),veh/ln	1.0	0.4	1.6	1.4					
LnGrp Delay(d),s/veh	18.5	0.6	3.2	3.3					
LnGrp LOS	B	A	A	A					
Approach Vol, veh/h		530	666						
Approach Delay, s/veh		4.2	3.3						
Approach LOS		A	A						
Timer	1	2	3	4	5	6	7	8	
Assigned Phs		2			5	6			
Phs Duration (G+Y+Rc), s		32.1			6.4	25.7			
Change Period (Y+Rc), s		5.8			4.0	5.8			
Max Green Setting (Gmax), s		59.2			17.0	38.2			
Max Q Clear Time (g_c+l1), s		2.8			3.9	5.0			
Green Ext Time (p_c), s		18.0			0.1	14.8			
Intersection Summary									
HCM 2010 Ctrl Delay			3.7						
HCM 2010 LOS			A						

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑		↗		
Volume (veh/h)	956	380	585	1363	0	1230		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1006	295	616	1435	0	979		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	1676	491	597	3124	0	0		
Arrive On Green	0.43	0.43	0.34	0.88	0.00	0.00		
Sat Flow, veh/h	4074	1144	1774	3632	0			
Grp Volume(v), veh/h	873	428	616	1435	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1661	1774	1770				
Q Serve(g_s), s	7.6	7.6	12.9	3.1				
Cycle Q Clear(g_c), s	7.6	7.6	12.9	3.1				
Prop In Lane		0.69	1.00					
Lane Grp Cap(c), veh/h	1454	712	597	3124				
V/C Ratio(X)	0.60	0.60	1.03	0.46				
Avail Cap(c_a), veh/h	1512	741	597	3184				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	8.4	8.4	12.7	0.4				
Incr Delay (d2), s/veh	0.6	1.3	45.4	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	8.6	3.7	13.7	1.2				
LnGrp Delay(d),s/veh	9.0	9.7	58.1	0.5				
LnGrp LOS	A	A	F	A				
Approach Vol, veh/h	1301			2051				
Approach Delay, s/veh	9.3			17.8				
Approach LOS	A			B				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			17.4	20.9				38.3
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			12.9	17.1				34.5
Max Q Clear Time (g_c+l1), s			14.9	9.6				5.1
Green Ext Time (p_c), s			0.0	6.8				22.7
Intersection Summary								
HCM 2010 Ctrl Delay			14.5					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘↘	↗		
Volume (veh/h)	1567	600	30	1583	405	499		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863		
Adj Flow Rate, veh/h	1649	0	32	1666	542	275		
Adj No. of Lanes	3	1	0	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	3100	965	81	2016	828	370		
Arrive On Green	0.61	0.00	0.61	0.61	0.23	0.23		
Sat Flow, veh/h	5253	1583	27	3393	3548	1583		
Grp Volume(v), veh/h	1649	0	896	802	542	275		
Grp Sat Flow(s),veh/h/ln	1695	1583	1724	1610	1774	1583		
Q Serve(g_s), s	10.7	0.0	3.5	22.2	7.9	9.2		
Cycle Q Clear(g_c), s	10.7	0.0	21.8	22.2	7.9	9.2		
Prop In Lane		1.00	0.04		1.00	1.00		
Lane Grp Cap(c), veh/h	3100	965	1116	982	828	370		
V/C Ratio(X)	0.53	0.00	0.80	0.82	0.65	0.74		
Avail Cap(c_a), veh/h	3149	980	1131	997	1269	566		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	6.5	0.0	8.4	8.7	19.9	20.4		
Incr Delay (d2), s/veh	0.2	0.0	4.2	5.3	0.9	3.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.9	0.0	11.8	11.0	3.9	4.4		
LnGrp Delay(d),s/veh	6.6	0.0	12.7	14.0	20.8	23.4		
LnGrp LOS	A		B	B	C	C		
Approach Vol, veh/h	1649			1698	817			
Approach Delay, s/veh	6.6			13.3	21.6			
Approach LOS	A			B	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		17.9		39.4				39.4
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		20.5		35.5				35.5
Max Q Clear Time (g_c+I1), s		11.2		12.7				24.2
Green Ext Time (p_c), s		2.1		20.8				10.7
Intersection Summary								
HCM 2010 Ctrl Delay		12.3						
HCM 2010 LOS		B						
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 			 			 				 	
Volume (veh/h)	120	2116	25	90	2289	60	80	10	25	40	5	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	126	2227	23	95	2409	52	84	11	23	42	5	168
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	2762	29	122	2611	56	269	85	179	299	29	251
Arrive On Green	0.09	0.53	0.53	0.07	0.51	0.51	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	5190	54	1774	5123	110	1207	538	1126	1119	183	1583
Grp Volume(v), veh/h	126	1454	796	95	1591	870	84	0	34	47	0	168
Grp Sat Flow(s),veh/h/ln	1774	1695	1853	1774	1695	1843	1207	0	1664	1302	0	1583
Q Serve(g_s), s	3.9	19.8	19.8	3.0	24.4	24.6	3.7	0.0	1.0	1.3	0.0	5.6
Cycle Q Clear(g_c), s	3.9	19.8	19.8	3.0	24.4	24.6	6.1	0.0	1.0	2.3	0.0	5.6
Prop In Lane	1.00		0.03	1.00		0.06	1.00		0.68	0.89		1.00
Lane Grp Cap(c), veh/h	163	1804	986	122	1728	939	269	0	264	328	0	251
V/C Ratio(X)	0.77	0.81	0.81	0.78	0.92	0.93	0.31	0.00	0.13	0.14	0.00	0.67
Avail Cap(c_a), veh/h	300	1804	986	268	1736	944	468	0	538	560	0	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	10.8	10.8	25.8	12.7	12.8	23.6	0.0	20.3	21.1	0.0	22.3
Incr Delay (d2), s/veh	7.7	2.8	5.0	10.0	8.5	14.6	0.7	0.0	0.2	0.2	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	9.8	11.3	1.8	13.3	16.1	1.3	0.0	0.5	0.7	0.0	2.7
LnGrp Delay(d),s/veh	32.6	13.6	15.8	35.8	21.3	27.4	24.2	0.0	20.5	21.3	0.0	25.3
LnGrp LOS	C	B	B	D	C	C	C		C	C		C
Approach Vol, veh/h	2376			2556			118			215		
Approach Delay, s/veh	15.3			23.9			23.2			24.4		
Approach LOS	B			C			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.4	8.4	34.4		13.4	9.7	33.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.2	8.5	29.8		18.2	9.5	28.8				
Max Q Clear Time (g_c+I1), s		8.1	5.0	21.8		7.6	5.9	26.6				
Green Ext Time (p_c), s		0.9	0.1	7.9		0.9	0.1	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay	20.0											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	235	1901	2044	45	30	290		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	247	2001	2152	36	32	221		
Adj No. of Lanes	2	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	269	3393	2631	44	313	279		
Arrive On Green	0.08	0.67	0.51	0.51	0.18	0.18		
Sat Flow, veh/h	3442	5253	5319	86	1774	1583		
Grp Volume(v), veh/h	247	2001	1415	773	32	221		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1848	1774	1583		
Q Serve(g_s), s	4.1	12.4	20.2	20.2	0.9	7.7		
Cycle Q Clear(g_c), s	4.1	12.4	20.2	20.2	0.9	7.7		
Prop In Lane	1.00			0.05	1.00	1.00		
Lane Grp Cap(c), veh/h	269	3393	1732	944	313	279		
V/C Ratio(X)	0.92	0.59	0.82	0.82	0.10	0.79		
Avail Cap(c_a), veh/h	269	3402	1738	947	539	481		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	26.3	5.3	11.8	11.8	19.9	22.7		
Incr Delay (d2), s/veh	34.0	0.3	3.2	5.7	0.1	5.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.2	5.8	10.0	11.6	0.4	6.8		
LnGrp Delay(d),s/veh	60.3	5.5	15.0	17.6	20.0	27.7		
LnGrp LOS	E	A	B	B	C	C		
Approach Vol, veh/h		2248	2188		253			
Approach Delay, s/veh		11.5	15.9		26.7			
Approach LOS		B	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				42.9		14.7	9.0	33.9
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				38.5		17.5	4.5	29.5
Max Q Clear Time (g_c+I1), s				14.4		9.7	6.1	22.2
Green Ext Time (p_c), s				23.2		0.5	0.0	7.2
Intersection Summary								
HCM 2010 Ctrl Delay			14.4					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	1466	180	323	1814	65	265	65	246	40	30	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	158	1543	189	340	1909	68	279	68	259	42	32	105
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	1949	607	440	2242	698	367	711	318	110	446	199
Arrive On Green	0.07	0.38	0.38	0.13	0.44	0.44	0.11	0.20	0.20	0.03	0.13	0.13
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	158	1543	189	340	1909	68	279	68	259	42	32	105
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	3.1	18.9	5.9	6.7	23.6	1.8	5.5	1.1	11.0	0.8	0.6	4.4
Cycle Q Clear(g_c), s	3.1	18.9	5.9	6.7	23.6	1.8	5.5	1.1	11.0	0.8	0.6	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	1949	607	440	2242	698	367	711	318	110	446	199
V/C Ratio(X)	0.65	0.79	0.31	0.77	0.85	0.10	0.76	0.10	0.81	0.38	0.07	0.53
Avail Cap(c_a), veh/h	294	1949	607	539	2280	710	367	1032	462	196	856	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	19.2	15.2	29.7	17.6	11.5	30.5	22.9	26.8	33.3	27.1	28.8
Incr Delay (d2), s/veh	3.8	2.3	0.3	5.6	3.3	0.1	8.9	0.1	7.1	2.2	0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.1	2.6	3.5	11.6	0.8	3.1	0.5	5.4	0.4	0.3	2.0
LnGrp Delay(d),s/veh	35.6	21.5	15.5	35.2	20.9	11.5	39.4	22.9	34.0	35.5	27.2	30.9
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h	1890				2317				606		179	
Approach Delay, s/veh	22.1				22.7				35.2		31.3	
Approach LOS	C				C				D		C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	18.6	13.5	31.4	12.0	13.3	9.4	35.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	20.5	11.0	26.5	7.5	17.0	6.0	31.5				
Max Q Clear Time (g_c+12.8)	12.8	13.0	8.7	20.9	7.5	6.4	5.1	25.6				
Green Ext Time (p_c), s	0.0	1.1	0.3	5.5	0.0	1.4	0.0	5.4				
Intersection Summary												
HCM 2010 Ctrl Delay			24.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	
Volume (veh/h)	250	1448	210	331	1328	140	490	450	482	160	195	240
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	263	1524	158	348	1398	79	516	474	423	168	205	185
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	1588	165	284	1609	91	521	567	505	198	249	213
Arrive On Green	0.10	0.34	0.34	0.08	0.33	0.33	0.29	0.32	0.32	0.11	0.14	0.14
Sat Flow, veh/h	3442	4682	485	3442	4925	278	1774	1773	1581	1774	1810	1549
Grp Volume(v), veh/h	263	1103	579	348	962	515	516	473	424	168	200	190
Grp Sat Flow(s),veh/h/ln	1721	1695	1777	1721	1695	1814	1774	1770	1584	1774	1770	1589
Q Serve(g_s), s	8.2	34.7	34.8	9.0	29.1	29.1	31.6	27.0	27.1	10.1	12.0	12.7
Cycle Q Clear(g_c), s	8.2	34.7	34.8	9.0	29.1	29.1	31.6	27.0	27.1	10.1	12.0	12.7
Prop In Lane	1.00		0.27	1.00		0.15	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	327	1150	603	284	1107	592	521	566	506	198	244	219
V/C Ratio(X)	0.80	0.96	0.96	1.22	0.87	0.87	0.99	0.84	0.84	0.85	0.82	0.87
Avail Cap(c_a), veh/h	327	1151	604	284	1182	633	521	566	506	244	260	233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	35.3	35.3	50.0	34.5	34.5	38.3	34.4	34.4	47.5	45.7	46.0
Incr Delay (d2), s/veh	13.5	17.6	27.0	128.1	6.8	11.9	36.8	10.6	11.7	20.1	17.8	26.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	19.1	21.6	9.3	14.7	16.5	20.8	14.8	13.4	6.1	7.0	7.2
LnGrp Delay(d),s/veh	61.8	52.9	62.3	178.0	41.3	46.4	75.1	45.0	46.1	67.5	63.5	72.4
LnGrp LOS	E	D	E	F	D	D	E	D	D	E	E	E
Approach Vol, veh/h	1945				1825		1413				558	
Approach Delay, s/veh	56.9				68.8		56.3				67.7	
Approach LOS	E				E		E				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.0	41.0	36.0	19.0	14.4	39.6	16.2	38.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	37.0	37.0	32.0	16.0	8.0	38.0	15.0	33.0				
Max Q Clear Time (g_c+1), s	36.8	36.8	33.6	14.7	10.2	31.1	12.1	29.1				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.3	0.0	4.5	0.1	2.5				
Intersection Summary												
HCM 2010 Ctrl Delay			61.6									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	320	825	440	300	974	265	350	700	139	306	610	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	868	421	316	1025	237	368	737	0	322	642	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	1242	555	254	1104	494	447	1121	349	268	857	267
Arrive On Green	0.18	0.35	0.35	0.14	0.31	0.31	0.13	0.22	0.00	0.08	0.17	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	337	868	421	316	1025	237	368	737	0	322	642	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	14.0	16.2	18.1	11.0	21.6	9.3	8.0	10.2	0.0	6.0	9.2	0.0
Cycle Q Clear(g_c), s	14.0	16.2	18.1	11.0	21.6	9.3	8.0	10.2	0.0	6.0	9.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	1242	555	254	1104	494	447	1121	349	268	857	267
V/C Ratio(X)	1.04	0.70	0.76	1.25	0.93	0.48	0.82	0.66	0.00	1.20	0.75	0.00
Avail Cap(c_a), veh/h	323	1242	555	254	1104	494	447	1321	411	268	1057	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.5	21.5	22.1	33.0	25.7	21.4	32.6	27.4	0.0	35.5	30.5	0.0
Incr Delay (d2), s/veh	62.1	3.3	9.3	139.4	14.6	3.3	11.8	0.9	0.0	120.2	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	8.4	9.3	15.2	12.8	4.5	4.5	4.8	0.0	7.3	4.5	0.0
LnGrp Delay(d),s/veh	93.6	24.8	31.4	172.4	40.3	24.8	44.4	28.3	0.0	155.7	32.8	0.0
LnGrp LOS	F	C	C	F	D	C	D	C		F	C	
Approach Vol, veh/h	1626				1578		1105				964	
Approach Delay, s/veh	40.8				64.4		33.7				73.9	
Approach LOS	D				E		C				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	31.0	14.0	17.0	18.0	28.0	10.0	21.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	27.0	10.0	16.0	14.0	24.0	6.0	20.0				
Max Q Clear Time (g_c+1.0), s	11.0	20.1	10.0	11.2	16.0	23.6	8.0	12.2				
Green Ext Time (p_c), s	0.0	3.7	0.0	1.7	0.0	0.3	0.0	3.7				
Intersection Summary												
HCM 2010 Ctrl Delay			52.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑		↑
Traffic Volume (veh/h)	0	1106	155	0	1346	376	0	0	0	240	0	205
Future Volume (veh/h)	0	1106	155	0	1346	376	0	0	0	240	0	205
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1164	0	0	1417	396				253	0	216
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3182	991	0	2214	1278				624	0	287
Arrive On Green	0.00	0.63	0.00	0.00	0.63	0.63				0.18	0.00	0.18
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	1164	0	0	1417	396				253	0	216
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	6.5	0.0	0.0	14.6	3.8				3.8	0.0	7.6
Cycle Q Clear(g_c), s	0.0	6.5	0.0	0.0	14.6	3.8				3.8	0.0	7.6
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3182	991	0	2214	1278				624	0	287
V/C Ratio(X)	0.00	0.37	0.00	0.00	0.64	0.31				0.41	0.00	0.75
Avail Cap(c_a), veh/h	0	3231	1006	0	2249	1293				970	0	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.3	0.0	0.0	6.8	1.5				21.2	0.0	22.7
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.9	0.3				0.5	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	0.0	0.0	7.4	3.3				1.8	0.0	3.6
LnGrp Delay(d),s/veh	0.0	5.5	0.0	0.0	7.7	1.7				21.6	0.0	27.0
LnGrp LOS		A			A	A				C		C
Approach Vol, veh/h		1164			1813						469	
Approach Delay, s/veh		5.5			6.4						24.1	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		42.4		16.1		42.4						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		37.2		16.5		37.2						
Max Q Clear Time (g_c+l1), s		8.5		9.6		16.6						
Green Ext Time (p_c), s		27.6		1.0		20.0						
Intersection Summary												
HCM 2010 Ctrl Delay			8.5									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↘		↗↗			
Traffic Volume (veh/h)	0	946	305	0	1495	788	75	0	132	0	0	0
Future Volume (veh/h)	0	946	305	0	1495	788	75	0	132	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	996	258	0	1574	0	79	0	128			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3555	1246	0	3555	1107	156	0	245			
Arrive On Green	0.00	0.70	0.70	0.00	0.70	0.00	0.09	0.00	0.09			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	996	258	0	1574	0	79	0	128			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	3.9	2.2	0.0	7.2	0.0	2.3	0.0	2.3			
Cycle Q Clear(g_c), s	0.0	3.9	2.2	0.0	7.2	0.0	2.3	0.0	2.3			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3555	1246	0	3555	1107	156	0	245			
V/C Ratio(X)	0.00	0.28	0.21	0.00	0.44	0.00	0.51	0.00	0.52			
Avail Cap(c_a), veh/h	0	3697	1290	0	3697	1151	504	0	792			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	3.0	1.4	0.0	3.5	0.0	23.1	0.0	23.1			
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.2	0.0	3.0	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.4	0.0	3.3	0.0	1.2	0.0	1.0			
LnGrp Delay(d),s/veh	0.0	3.1	1.6	0.0	3.7	0.0	26.1	0.0	25.2			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h		1254			1574			207				
Approach Delay, s/veh		2.8			3.7			25.6				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		42.9				42.9		10.2				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		38.6				38.6		15.1				
Max Q Clear Time (g_c+I1), s		5.9				9.2		4.3				
Green Ext Time (p_c), s		30.9				28.0		0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			4.8									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			 			 	 
Volume (veh/h)	325	629	170	661	1381	563	280	190	202	349	160	350
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	342	662	147	696	1454	488	295	200	202	367	168	252
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	1126	644	667	1322	439	329	294	263	377	683	720
Arrive On Green	0.07	0.22	0.22	0.19	0.35	0.35	0.19	0.17	0.17	0.21	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	3778	1253	1774	1770	1583	1774	3539	2787
Grp Volume(v), veh/h	342	662	147	696	1303	639	295	200	202	367	168	252
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1642	1774	1770	1583	1774	1770	1393
Q Serve(g_s), s	5.7	10.2	5.3	16.9	30.5	30.5	14.2	9.3	10.6	17.9	3.5	6.4
Cycle Q Clear(g_c), s	5.7	10.2	5.3	16.9	30.5	30.5	14.2	9.3	10.6	17.9	3.5	6.4
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	1126	644	667	1186	574	329	294	263	377	683	720
V/C Ratio(X)	1.52	0.59	0.23	1.04	1.10	1.11	0.90	0.68	0.77	0.97	0.25	0.35
Avail Cap(c_a), veh/h	225	1126	644	667	1186	574	330	351	314	377	796	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	30.4	16.9	35.1	28.3	28.3	34.7	34.2	34.8	34.1	29.8	26.4
Incr Delay (d2), s/veh	255.2	0.8	0.2	46.6	57.3	72.4	25.7	4.1	9.2	39.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	4.8	2.3	12.3	23.6	25.3	9.3	4.8	5.3	12.9	1.7	2.5
LnGrp Delay(d),s/veh	296.0	31.2	17.1	81.7	85.6	100.7	60.4	38.3	44.0	73.6	30.0	26.7
LnGrp LOS	F	C	B	F	F	F	E	D	D	E	C	C
Approach Vol, veh/h	1151		2638				697			787		
Approach Delay, s/veh	108.1		88.2				49.3			49.3		
Approach LOS	F		F				D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	19.0	21.4	23.8	20.7	21.3	10.2	35.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	17.3	16.9	19.3	16.2	19.6	5.7	30.5				
Max Q Clear Time (g_c+1.9), s	11.9	12.6	18.9	12.2	16.2	8.4	7.7	32.5				
Green Ext Time (p_c), s	0.0	1.8	0.0	6.5	0.0	3.3	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			81.6									
HCM 2010 LOS			F									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	965	445	606	1436	58	185	80	195	83	80	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	232	1016	426	638	1512	50	195	84	194	87	84	131
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	828	347	422	1966	65	272	285	242	274	102	158
Arrive On Green	0.08	0.24	0.24	0.24	0.39	0.39	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1774	3518	1475	1774	5056	167	1774	1863	1583	1774	657	1025
Grp Volume(v), veh/h	232	979	463	638	1014	548	195	84	194	87	0	215
Grp Sat Flow(s),veh/h/ln	1774	1695	1602	1774	1695	1833	1774	1863	1583	1774	0	1682
Q Serve(g_s), s	6.9	19.3	19.3	19.5	21.4	21.4	8.6	3.3	9.7	3.6	0.0	10.2
Cycle Q Clear(g_c), s	6.9	19.3	19.3	19.5	21.4	21.4	8.6	3.3	9.7	3.6	0.0	10.2
Prop In Lane	1.00		0.92	1.00		0.09	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	149	798	377	422	1318	713	272	285	242	274	0	260
V/C Ratio(X)	1.55	1.23	1.23	1.51	0.77	0.77	0.72	0.29	0.80	0.32	0.00	0.83
Avail Cap(c_a), veh/h	149	798	377	422	1318	713	372	391	332	346	0	328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.6	31.4	31.4	31.3	21.9	21.9	33.1	30.8	33.5	30.8	0.0	33.6
Incr Delay (d2), s/veh	279.8	113.5	123.8	242.8	2.8	5.1	4.2	0.6	9.4	0.7	0.0	13.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	21.5	21.4	37.9	10.5	11.8	4.5	1.7	4.9	1.8	0.0	5.7
LnGrp Delay(d),s/veh	317.4	144.8	155.2	274.1	24.7	27.0	37.2	31.4	42.9	31.5	0.0	46.6
LnGrp LOS	F	F	F	F	C	C	D	C	D	C		D
Approach Vol, veh/h	1674					2200		473		302		
Approach Delay, s/veh	171.6					97.6		38.5		42.3		
Approach LOS	F					F		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.1	24.0	23.8		17.2	11.4	36.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.2	19.5	19.3		16.0	6.9	31.9				
Max Q Clear Time (g_c+I1), s		11.7	21.5	21.3		12.2	8.9	23.4				
Green Ext Time (p_c), s		0.9	0.0	0.0		0.5	0.0	7.9				
Intersection Summary												
HCM 2010 Ctrl Delay	114.6											
HCM 2010 LOS	F											

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	260	853	430	708	1193	50	435	90	177	45	160	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	274	898	442	745	1256	53	458	95	175	47	168	105
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	1139	355	823	1435	61	479	532	452	59	193	121
Arrive On Green	0.18	0.22	0.22	0.24	0.29	0.29	0.14	0.29	0.29	0.03	0.18	0.18
Sat Flow, veh/h	1774	5085	1583	3442	5005	211	3442	1863	1583	1774	1073	671
Grp Volume(v), veh/h	274	898	442	745	851	458	458	95	175	47	0	273
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1825	1721	1863	1583	1774	0	1744
Q Serve(g_s), s	12.4	13.8	18.5	17.4	19.7	19.7	10.9	3.2	7.3	2.2	0.0	12.6
Cycle Q Clear(g_c), s	12.4	13.8	18.5	17.4	19.7	19.7	10.9	3.2	7.3	2.2	0.0	12.6
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	313	1139	355	823	972	523	479	532	452	59	0	314
V/C Ratio(X)	0.88	0.79	1.25	0.90	0.88	0.88	0.96	0.18	0.39	0.79	0.00	0.87
Avail Cap(c_a), veh/h	354	1139	355	854	972	523	479	532	452	140	0	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.1	30.2	32.1	30.5	28.1	28.1	35.3	22.2	23.7	39.6	0.0	32.9
Incr Delay (d2), s/veh	19.4	3.8	132.5	12.8	9.0	15.3	30.2	0.2	0.5	20.5	0.0	19.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	6.8	21.1	9.7	10.4	12.1	7.2	1.7	3.3	1.4	0.0	7.7
LnGrp Delay(d),s/veh	52.5	34.0	164.6	43.3	37.1	43.3	65.5	22.4	24.2	60.2	0.0	52.1
LnGrp LOS	D	C	F	D	D	D	E	C	C	E		D
Approach Vol, veh/h	1614			2054			728			320		
Approach Delay, s/veh	72.9			40.7			49.9			53.3		
Approach LOS	E			D			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	28.1	24.3	23.0	16.0	19.4	19.1	28.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5	21.5	20.5	18.5	11.5	16.5	16.5	22.5				
Max Q Clear Time (g_c+14.2), s	14.2	9.3	19.4	20.5	12.9	14.6	14.4	21.7				
Green Ext Time (p_c), s	0.0	2.1	0.4	0.0	0.0	0.3	0.2	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay	54.0											
HCM 2010 LOS	D											
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection																
Intersection Delay, s/veh63.9																
Intersection LOS F																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	310	629	75	0	605	1001	50	0	65	50	68	0	10	50	110
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	326	662	79	0	637	1054	53	0	68	53	72	0	11	53	116
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	61.1	75.4	18.1	17.2
HCM LOS	F	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	55%	0%	17%	0%
Vol Thru, %	0%	42%	0%	100%	0%	45%	91%	83%	0%
Vol Right, %	0%	58%	0%	0%	100%	0%	9%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	118	310	629	75	1106	551	60	110
LT Vol	65	0	310	0	0	605	0	10	0
Through Vol	0	50	0	629	0	501	501	50	0
RT Vol	0	68	0	0	75	0	50	0	110
Lane Flow Rate	68	124	326	662	79	1164	579	63	116
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.213	0.355	0.84	1	0.177	1	1	0.191	0.324
Departure Headway (Hd)	11.198	10.296	9.27	8.77	8.069	9.034	8.696	10.869	10.087
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	320	349	392	417	444	407	417	330	355
Service Time	8.973	8.072	7.031	6.531	5.831	6.829	6.491	8.645	7.864
HCM Lane V/C Ratio	0.212	0.355	0.832	1.588	0.178	2.86	1.388	0.191	0.327
HCM Control Delay	17	18.7	45.5	74.6	12.6	75.9	74.4	16.2	17.7
HCM Lane LOS	C	C	E	F	B	F	F	C	C
HCM 95th-tile Q	0.8	1.6	7.8	12.4	0.6	12.2	12.4	0.7	1.4

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	95	140	85	312	128	110	95	435	258	90	280	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	100	147	78	328	135	105	100	458	261	95	295	68
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	192	280	653	184	143	189	561	318	121	776	176
Arrive On Green	0.18	0.18	0.18	0.19	0.19	0.19	0.05	0.26	0.26	0.07	0.27	0.27
Sat Flow, veh/h	739	1087	1583	3442	973	757	3442	2180	1234	1774	2867	651
Grp Volume(v), veh/h	247	0	78	328	0	240	100	371	348	95	180	183
Grp Sat Flow(s),veh/h/ln	1826	0	1583	1721	0	1729	1721	1770	1645	1774	1770	1748
Q Serve(g_s), s	7.5	0.0	2.5	5.0	0.0	7.6	1.7	11.5	11.6	3.1	4.8	5.0
Cycle Q Clear(g_c), s	7.5	0.0	2.5	5.0	0.0	7.6	1.7	11.5	11.6	3.1	4.8	5.0
Prop In Lane	0.40		1.00	1.00		0.44	1.00		0.75	1.00		0.37
Lane Grp Cap(c), veh/h	323	0	280	653	0	328	189	456	423	121	479	473
V/C Ratio(X)	0.77	0.00	0.28	0.50	0.00	0.73	0.53	0.81	0.82	0.78	0.38	0.39
Avail Cap(c_a), veh/h	500	0	433	942	0	473	235	484	450	121	484	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	20.8	21.2	0.0	22.3	26.9	20.4	20.4	26.8	17.3	17.4
Incr Delay (d2), s/veh	3.8	0.0	0.5	0.6	0.0	3.3	2.3	9.9	11.1	27.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	1.1	2.4	0.0	3.9	0.8	6.8	6.5	2.4	2.4	2.5
LnGrp Delay(d),s/veh	26.7	0.0	21.4	21.8	0.0	25.6	29.2	30.2	31.5	54.4	17.8	17.9
LnGrp LOS	C		C	C		C	C	C	C	D	B	B
Approach Vol, veh/h	325		568			819			458			
Approach Delay, s/veh	25.4		23.4			30.6			25.4			
Approach LOS	C		C			C			C			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6			14.8	7.7	20.3		15.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.0	16.0		16.0	4.0	16.0		16.0				
Max Q Clear Time (g_c+1.5), s	13.6	13.6		9.5	3.7	7.0		9.6				
Green Ext Time (p_c), s	0.0	1.4		0.9	0.0	4.2		1.5				
Intersection Summary												
HCM 2010 Ctrl Delay			26.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	123	175	145	230	290	258	85	278	330	280	277	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	129	184	142	242	305	261	89	293	284	295	292	189
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	371	316	214	424	361	116	405	363	348	750	473
Arrive On Green	0.09	0.20	0.20	0.12	0.23	0.23	0.07	0.23	0.23	0.20	0.36	0.36
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	1770	1583	1774	2086	1314
Grp Volume(v), veh/h	129	184	142	242	305	261	89	293	284	295	246	235
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1583	1774	1770	1631
Q Serve(g_s), s	5.0	6.2	5.6	8.5	10.7	10.7	3.5	10.8	11.9	11.3	7.3	7.6
Cycle Q Clear(g_c), s	5.0	6.2	5.6	8.5	10.7	10.7	3.5	10.8	11.9	11.3	7.3	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	163	371	316	214	424	361	116	405	363	348	636	586
V/C Ratio(X)	0.79	0.50	0.45	1.13	0.72	0.72	0.77	0.72	0.78	0.85	0.39	0.40
Avail Cap(c_a), veh/h	214	634	539	214	634	539	319	452	404	541	672	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	25.1	24.8	31.0	25.1	25.2	32.4	25.1	25.5	27.4	16.8	16.9
Incr Delay (d2), s/veh	13.6	1.0	1.0	101.6	2.3	2.8	10.2	5.0	8.8	7.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	3.3	2.5	10.1	5.7	5.0	2.0	5.8	6.1	6.2	3.6	3.5
LnGrp Delay(d),s/veh	45.0	26.1	25.8	132.6	27.4	27.9	42.7	30.1	34.3	34.9	17.2	17.3
LnGrp LOS	D	C	C	F	C	C	D	C	C	C	B	B
Approach Vol, veh/h		455			808			666			776	
Approach Delay, s/veh		31.4			59.1			33.6			24.0	
Approach LOS		C			E			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.3	20.6	13.0	18.6	9.1	29.9	11.0	20.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	21.5	18.0	8.5	24.0	12.7	26.8	8.5	24.0				
Max Q Clear Time (g_c+1.3), s	13.3	13.9	10.5	8.2	5.5	9.6	7.0	12.7				
Green Ext Time (p_c), s	0.5	2.3	0.0	3.9	0.1	5.9	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			38.1									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	317	1300	490	263	1230	260	470	1095	356	230	715	281
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	334	1368	358	277	1295	116	495	1153	375	242	753	170
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	383	1739	541	326	1547	139	531	1274	570	295	836	189
Arrive On Green	0.11	0.34	0.34	0.09	0.33	0.33	0.15	0.36	0.36	0.09	0.29	0.29
Sat Flow, veh/h	3442	5085	1583	3442	4752	426	3442	3539	1583	3442	2870	648
Grp Volume(v), veh/h	334	1368	358	277	924	487	495	1153	375	242	464	459
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1788	1721	1770	1583	1721	1770	1748
Q Serve(g_s), s	13.0	33.0	26.2	10.8	34.4	34.4	19.3	42.1	27.0	9.4	34.3	34.3
Cycle Q Clear(g_c), s	13.0	33.0	26.2	10.8	34.4	34.4	19.3	42.1	27.0	9.4	34.3	34.3
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	383	1739	541	326	1104	582	531	1274	570	295	516	510
V/C Ratio(X)	0.87	0.79	0.66	0.85	0.84	0.84	0.93	0.91	0.66	0.82	0.90	0.90
Avail Cap(c_a), veh/h	405	1756	547	354	1121	591	531	1274	570	379	546	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	40.3	38.1	60.6	42.5	42.5	56.8	41.3	36.5	61.2	46.3	46.3
Incr Delay (d2), s/veh	17.9	2.4	2.9	16.4	5.6	10.1	23.5	9.4	2.8	10.6	17.4	17.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	15.8	11.8	5.9	16.9	18.6	10.9	22.2	12.2	4.9	19.3	19.1
LnGrp Delay(d),s/veh	77.4	42.7	41.0	77.1	48.2	52.7	80.3	50.7	39.3	71.8	63.7	63.9
LnGrp LOS	E	D	D	E	D	D	F	D	D	E	E	E
Approach Vol, veh/h	2060				1688		2023				1165	
Approach Delay, s/veh	48.1				54.2		55.9				65.4	
Approach LOS	D				D		E				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.9	50.5	25.0	43.7	19.1	48.3	15.7	53.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	47.0	21.0	42.0	16.0	45.0	15.0	48.0				
Max Q Clear Time (g_c+1.0), s	12.8	35.0	21.3	36.3	15.0	36.4	11.4	44.1				
Green Ext Time (p_c), s	0.1	10.8	0.0	3.4	0.1	7.9	0.3	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay			54.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 	 	 	  	
Volume (veh/h)	526	1000	410	250	1060	380	495	1073	510	205	667	258
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	554	1053	390	263	1116	358	521	1129	495	216	702	240
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	577	1080	336	692	1250	389	739	1147	1464	288	982	306
Arrive On Green	0.17	0.21	0.21	0.20	0.25	0.25	0.21	0.32	0.32	0.08	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	554	1053	390	263	1116	358	521	1129	495	216	702	240
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	14.3	18.4	19.0	5.9	19.0	15.2	12.5	28.3	2.5	5.5	11.6	12.9
Cycle Q Clear(g_c), s	14.3	18.4	19.0	5.9	19.0	15.2	12.5	28.3	2.5	5.5	11.6	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	577	1080	336	692	1250	389	739	1147	1464	288	982	306
V/C Ratio(X)	0.96	0.98	1.16	0.38	0.89	0.92	0.71	0.98	0.34	0.75	0.71	0.79
Avail Cap(c_a), veh/h	577	1080	336	692	1250	389	739	1147	1464	308	1136	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	35.0	35.2	30.9	32.6	19.5	32.5	30.0	4.5	40.1	33.8	34.3
Incr Delay (d2), s/veh	27.7	22.1	100.0	0.3	9.9	29.3	3.1	22.8	0.1	9.2	1.8	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.8	17.6	2.8	10.0	9.8	6.2	17.4	1.9	3.0	5.6	6.4
LnGrp Delay(d),s/veh	64.7	57.1	135.3	31.3	42.5	48.8	35.6	52.8	4.6	49.3	35.6	44.0
LnGrp LOS	E	E	F	C	D	D	D	D	A	D	D	D
Approach Vol, veh/h	1997					1737		2145		1158		
Approach Delay, s/veh	74.5					42.1		37.5		39.9		
Approach LOS	E					D		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	23.0	23.2	21.3	19.0	26.0	11.5	33.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	18.0	19.0	17.0	20.0	15.0	22.0	8.0	29.0				
Max Q Clear Time (g_c+I), s	17.5	21.0	14.5	14.9	16.3	21.0	7.5	30.3				
Green Ext Time (p_c), s	2.2	0.0	2.1	2.4	0.0	0.8	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			49.5									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗				↘↘		↗
Traffic Volume (veh/h)	0	1526	105	0	1618	200	0	0	0	250	0	50
Future Volume (veh/h)	0	1526	105	0	1618	200	0	0	0	250	0	50
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1606	100	0	1703	179				263	0	42
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3619	1127	0	3619	1304				385	0	177
Arrive On Green	0.00	0.71	0.71	0.00	1.00	1.00				0.11	0.00	0.11
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	1606	100	0	1703	179				263	0	42
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	8.5	1.2	0.0	0.0	0.0				4.7	0.0	1.5
Cycle Q Clear(g_c), s	0.0	8.5	1.2	0.0	0.0	0.0				4.7	0.0	1.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3619	1127	0	3619	1304				385	0	177
V/C Ratio(X)	0.00	0.44	0.09	0.00	0.47	0.14				0.68	0.00	0.24
Avail Cap(c_a), veh/h	0	3619	1127	0	3619	1304				618	0	285
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.85	0.85				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	3.9	2.8	0.0	0.0	0.0				27.3	0.0	25.9
Incr Delay (d2), s/veh	0.0	0.4	0.2	0.0	0.4	0.2				2.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.6	0.0	0.1	0.1				2.4	0.0	0.7
LnGrp Delay(d),s/veh	0.0	4.3	3.0	0.0	0.4	0.2				29.7	0.0	26.7
LnGrp LOS		A	A		A	A				C		C
Approach Vol, veh/h		1706			1882						305	
Approach Delay, s/veh		4.2			0.4						29.3	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		51.3		12.7		51.3						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		41.2		11.5		41.2						
Max Q Clear Time (g_c+l1), s		10.5		6.7		2.0						
Green Ext Time (p_c), s		30.2		0.5		38.5						
Intersection Summary												
HCM 2010 Ctrl Delay			4.3									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↖		↖↖			
Traffic Volume (veh/h)	0	1566	215	0	1733	550	70	0	100	0	0	0
Future Volume (veh/h)	0	1566	215	0	1733	550	70	0	100	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1648	163	0	1824	453	74	0	84			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3819	1304	0	3819	1189	128	0	202			
Arrive On Green	0.00	1.00	1.00	0.00	0.75	0.75	0.07	0.00	0.07			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1648	163	0	1824	453	74	0	84			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	8.9	6.4	2.6	0.0	1.8			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	8.9	6.4	2.6	0.0	1.8			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3819	1304	0	3819	1189	128	0	202			
V/C Ratio(X)	0.00	0.43	0.13	0.00	0.48	0.38	0.58	0.00	0.42			
Avail Cap(c_a), veh/h	0	3819	1304	0	3819	1189	402	0	631			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.88	0.88	0.00	0.17	0.17	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	3.1	2.8	28.7	0.0	28.4			
Incr Delay (d2), s/veh	0.0	0.3	0.2	0.0	0.1	0.2	4.4	0.0	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	4.1	2.8	1.4	0.0	0.8			
LnGrp Delay(d),s/veh	0.0	0.3	0.2	0.0	3.2	2.9	33.1	0.0	29.9			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h		1811			2277			158				
Approach Delay, s/veh		0.3			3.1			31.4				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		53.9				53.9		10.1				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		38.2				38.2		14.5				
Max Q Clear Time (g_c+I1), s		2.0				10.9		4.6				
Green Ext Time (p_c), s		35.9				27.1		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			3.0									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	378	983	335	236	1592	140	565	360	227	60	265	222
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	398	1035	353	248	1676	136	595	379	239	63	279	234
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	424	1823	999	329	1587	129	616	1119	652	123	612	469
Arrive On Green	0.12	0.36	0.36	0.10	0.33	0.33	0.18	0.32	0.32	0.04	0.17	0.17
Sat Flow, veh/h	3442	5085	2787	3442	4796	389	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	398	1035	353	248	1184	628	595	379	239	63	279	234
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1794	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	10.0	14.4	8.2	6.2	29.0	29.0	15.0	7.2	9.2	1.6	6.2	10.7
Cycle Q Clear(g_c), s	10.0	14.4	8.2	6.2	29.0	29.0	15.0	7.2	9.2	1.6	6.2	10.7
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	424	1823	999	329	1122	594	616	1119	652	123	612	469
V/C Ratio(X)	0.94	0.57	0.35	0.75	1.06	1.06	0.97	0.34	0.37	0.51	0.46	0.50
Avail Cap(c_a), veh/h	424	1823	999	452	1122	594	616	1139	661	196	707	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	22.6	20.7	38.6	29.3	29.3	35.7	23.0	17.9	41.5	32.6	25.5
Incr Delay (d2), s/veh	28.7	0.4	0.2	4.7	42.8	53.2	27.7	0.2	0.3	3.3	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	6.8	3.2	3.1	20.1	22.9	9.5	3.6	4.0	0.8	3.1	4.8
LnGrp Delay(d),s/veh	66.8	23.1	20.9	43.3	72.1	82.5	63.4	23.1	18.2	44.8	33.1	26.3
LnGrp LOS	E	C	C	D	F	F	E	C	B	D	C	C
Approach Vol, veh/h		1786			2060			1213			576	
Approach Delay, s/veh		32.4			71.8			41.9			31.6	
Approach LOS		C			E			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	31.7	12.9	35.4	20.2	19.1	15.3	33.0				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	5.0	28.2	11.5	28.3	15.7	17.5	10.8	29.0				
Max Q Clear Time (g_c+I), s	13.6	11.2	8.2	16.4	17.0	12.7	12.0	31.0				
Green Ext Time (p_c), s	0.0	5.4	0.3	10.8	0.0	2.4	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			48.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	523	757	1666	140	160	302		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	551	797	1754	147	162	324		
Adj No. of Lanes	2	3	3	0	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	667	3412	1870	156	279	498		
Arrive On Green	0.19	0.67	0.39	0.39	0.16	0.16		
Sat Flow, veh/h	3442	5253	4950	400	1774	3167		
Grp Volume(v), veh/h	551	797	1242	659	162	324		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1792	1774	1583		
Q Serve(g_s), s	8.1	3.2	18.5	18.6	4.4	5.0		
Cycle Q Clear(g_c), s	8.1	3.2	18.5	18.6	4.4	5.0		
Prop In Lane	1.00			0.22	1.00	1.00		
Lane Grp Cap(c), veh/h	667	3412	1326	701	279	498		
V/C Ratio(X)	0.83	0.23	0.94	0.94	0.58	0.65		
Avail Cap(c_a), veh/h	689	3929	1326	701	542	967		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	20.3	3.4	15.3	15.4	20.5	20.7		
Incr Delay (d2), s/veh	7.9	0.0	12.6	20.7	1.9	1.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.6	1.5	10.8	13.2	2.3	4.4		
LnGrp Delay(d),s/veh	28.2	3.4	27.9	36.0	22.4	22.2		
LnGrp LOS	C	A	C	D	C	C		
Approach Vol, veh/h		1348	1901		486			
Approach Delay, s/veh		13.5	30.7		22.2			
Approach LOS		B	C		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.7		12.8	14.7	25.0		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		40.5		16.0	10.5	20.5		
Max Q Clear Time (g_c+l1), s		5.2		7.0	10.1	20.6		
Green Ext Time (p_c), s		24.8		1.2	0.1	0.0		
Intersection Summary								
HCM 2010 Ctrl Delay			23.4					
HCM 2010 LOS			C					

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		   	     			 		
Volume (veh/h)	300	627	1606	229	279	220		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	316	660	1691	241	294	232		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	357	3533	1973	280	346	309		
Arrive On Green	0.20	0.69	0.44	0.44	0.20	0.20		
Sat Flow, veh/h	1774	5253	4669	639	1774	1583		
Grp Volume(v), veh/h	316	660	1271	661	294	232		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1750	1774	1583		
Q Serve(g_s), s	14.1	3.7	27.5	27.8	13.1	11.3		
Cycle Q Clear(g_c), s	14.1	3.7	27.5	27.8	13.1	11.3		
Prop In Lane	1.00			0.36	1.00	1.00		
Lane Grp Cap(c), veh/h	357	3533	1486	767	346	309		
V/C Ratio(X)	0.89	0.19	0.86	0.86	0.85	0.75		
Avail Cap(c_a), veh/h	424	3768	1515	782	445	397		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.7	4.4	20.6	20.7	31.7	31.0		
Incr Delay (d2), s/veh	17.5	0.0	5.0	9.5	11.7	5.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.7	1.7	13.7	15.4	7.5	10.0		
LnGrp Delay(d),s/veh	49.2	4.4	25.6	30.2	43.4	36.8		
LnGrp LOS	D	A	C	C	D	D		
Approach Vol, veh/h		976	1932		526			
Approach Delay, s/veh		18.9	27.2		40.5			
Approach LOS		B	C		D			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				61.2		20.4	20.9	40.3
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				60.5		20.5	19.5	36.5
Max Q Clear Time (g_c+I1), s				5.7		15.1	16.1	29.8
Green Ext Time (p_c), s				31.4		0.9	0.3	6.0
Intersection Summary								
HCM 2010 Ctrl Delay			26.9					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	256	450	200	480	930	156	410	531	225	222	536	501
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	269	474	148	505	979	153	432	559	226	234	564	453
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	990	299	495	1479	460	440	996	446	220	770	345
Arrive On Green	0.11	0.26	0.26	0.14	0.29	0.29	0.13	0.28	0.28	0.06	0.22	0.22
Sat Flow, veh/h	3442	3875	1171	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	269	413	209	505	979	153	432	559	226	234	564	453
Grp Sat Flow(s),veh/h/ln	1721	1695	1656	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	4.7	6.5	6.7	9.0	10.6	4.8	7.8	8.4	4.7	4.0	9.3	9.5
Cycle Q Clear(g_c), s	4.7	6.5	6.7	9.0	10.6	4.8	7.8	8.4	4.7	4.0	9.3	9.5
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	866	423	495	1479	460	440	996	446	220	770	345
V/C Ratio(X)	0.72	0.48	0.49	1.02	0.66	0.33	0.98	0.56	0.51	1.06	0.73	1.31
Avail Cap(c_a), veh/h	440	866	423	495	1479	460	440	1130	506	220	904	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	19.8	19.9	26.8	19.5	17.4	27.2	19.2	7.3	29.3	22.8	11.9
Incr Delay (d2), s/veh	4.7	1.9	4.1	45.9	2.3	1.9	38.2	0.5	0.9	78.8	2.6	160.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.3	3.6	7.3	5.2	2.3	6.0	4.2	2.9	4.3	4.8	20.0
LnGrp Delay(d),s/veh	31.7	21.6	24.0	72.7	21.9	19.4	65.5	19.7	8.2	108.1	25.4	172.8
LnGrp LOS	C	C	C	F	C	B	E	B	A	F	C	F
Approach Vol, veh/h	891				1637				1217		1251	
Approach Delay, s/veh	25.2				37.3				33.8		94.2	
Approach LOS	C				D				C		F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	20.0	12.0	17.6	10.8	22.2	8.0	21.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	16.0	16.0	8.0	16.0	8.0	17.0	4.0	20.0				
Max Q Clear Time (g_c+1), s	8.7	8.7	9.8	11.5	6.7	12.6	6.0	10.4				
Green Ext Time (p_c), s	0.0	2.1	0.0	2.1	0.1	3.0	0.0	4.1				
Intersection Summary												
HCM 2010 Ctrl Delay			48.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	
Volume (veh/h)	225	856	260	250	1233	110	470	620	170	150	280	310
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	237	901	263	263	1298	105	495	653	168	158	295	315
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	1154	359	961	2092	651	496	988	750	250	624	606
Arrive On Green	0.09	0.23	0.23	0.28	0.41	0.41	0.14	0.19	0.19	0.07	0.12	0.12
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	237	901	263	263	1298	105	495	653	168	158	295	315
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	4.7	11.7	10.9	4.2	14.2	2.9	10.1	8.4	1.1	3.1	3.8	4.2
Cycle Q Clear(g_c), s	4.7	11.7	10.9	4.2	14.2	2.9	10.1	8.4	1.1	3.1	3.8	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	326	1154	359	961	2092	651	496	988	750	250	624	606
V/C Ratio(X)	0.73	0.78	0.73	0.27	0.62	0.16	1.00	0.66	0.22	0.63	0.47	0.52
Avail Cap(c_a), veh/h	342	1154	359	976	2092	651	496	1226	824	537	1299	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	25.6	25.3	19.8	16.4	13.1	30.2	26.2	3.8	31.8	28.8	10.3
Incr Delay (d2), s/veh	7.2	5.3	12.4	0.2	1.4	0.5	39.7	0.9	0.1	2.6	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.1	5.9	2.0	6.9	1.4	7.5	4.0	1.0	1.6	1.8	1.8
LnGrp Delay(d),s/veh	38.2	30.9	37.7	20.0	17.8	13.6	69.9	27.2	4.0	34.4	29.4	11.0
LnGrp LOS	D	C	D	B	B	B	E	C	A	C	C	B
Approach Vol, veh/h	1401					1666		1316		768		
Approach Delay, s/veh	33.4					17.9		40.3		22.9		
Approach LOS	C					B		D		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.7	20.0	14.2	12.7	10.7	33.0	9.1	17.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	20.0	16.0	10.0	18.0	7.0	29.0	11.0	17.0				
Max Q Clear Time (g_c+I), s	10.2	13.7	12.1	6.2	6.7	16.2	5.1	10.4				
Green Ext Time (p_c), s	8.0	1.4	0.0	2.4	0.0	7.6	0.2	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			28.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 		 	  		 	 	
Volume (veh/h)	406	730	350	370	630	110	335	300	220	240	438	438
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	427	768	363	389	663	105	353	316	221	253	461	335
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	541	1174	548	397	1077	482	277	652	304	284	687	556
Arrive On Green	0.16	0.35	0.35	0.12	0.30	0.30	0.08	0.19	0.19	0.08	0.19	0.19
Sat Flow, veh/h	3442	3390	1583	3442	3539	1583	3442	3390	1583	3442	3539	1583
Grp Volume(v), veh/h	427	768	363	389	663	105	353	316	221	253	461	335
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1695	1583	1721	1770	1583
Q Serve(g_s), s	7.2	11.6	11.8	6.8	9.7	3.0	4.9	5.0	7.9	4.4	7.3	6.0
Cycle Q Clear(g_c), s	7.2	11.6	11.8	6.8	9.7	3.0	4.9	5.0	7.9	4.4	7.3	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	541	1174	548	397	1077	482	277	652	304	284	687	556
V/C Ratio(X)	0.79	0.65	0.66	0.98	0.62	0.22	1.27	0.48	0.73	0.89	0.67	0.60
Avail Cap(c_a), veh/h	624	1174	548	397	1077	482	277	894	418	284	992	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	16.8	16.8	26.8	18.1	15.7	27.9	21.8	23.0	27.6	22.7	6.1
Incr Delay (d2), s/veh	5.9	2.9	6.2	39.6	2.6	1.0	147.8	0.6	4.0	27.7	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	5.9	6.1	5.4	5.1	1.4	8.0	2.4	3.8	3.2	3.7	2.9
LnGrp Delay(d),s/veh	30.5	19.6	23.0	66.4	20.7	16.8	175.7	22.4	27.0	55.3	23.8	7.2
LnGrp LOS	C	B	C	E	C	B	F	C	C	E	C	A
Approach Vol, veh/h	1558				1157		890				1049	
Approach Delay, s/veh	23.4				35.7		84.3				26.1	
Approach LOS	C				D		F				C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	25.0	8.9	15.8	13.5	22.5	9.0	15.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	21.0	4.0	17.0	11.0	17.0	5.0	16.0				
Max Q Clear Time (g_c+I), s	10.8	13.8	6.9	9.3	9.2	11.7	6.4	9.9				
Green Ext Time (p_c), s	0.0	3.9	0.0	2.5	0.3	2.7	0.0	1.7				
Intersection Summary												
HCM 2010 Ctrl Delay			38.7									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	 	 		 		  		
Volume (veh/h)	250	914	200	193	1490	460	320	265	156	350	280	360
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	263	962	148	203	1568	316	337	279	101	368	295	232
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	1874	288	271	1522	1198	319	350	124	700	542	253
Arrive On Green	0.07	0.42	0.42	0.08	0.43	0.43	0.18	0.14	0.14	0.20	0.16	0.16
Sat Flow, veh/h	3442	4450	683	3442	3539	2787	1774	2564	908	3442	3390	1583
Grp Volume(v), veh/h	263	732	378	203	1568	316	337	191	189	368	295	232
Grp Sat Flow(s),veh/h/ln	1721	1695	1742	1721	1770	1393	1774	1770	1703	1721	1695	1583
Q Serve(g_s), s	7.0	15.9	16.0	5.8	43.0	7.3	18.0	10.4	10.8	9.5	8.0	14.4
Cycle Q Clear(g_c), s	7.0	15.9	16.0	5.8	43.0	7.3	18.0	10.4	10.8	9.5	8.0	14.4
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	241	1428	734	271	1522	1198	319	242	233	700	542	253
V/C Ratio(X)	1.09	0.51	0.51	0.75	1.03	0.26	1.06	0.79	0.81	0.53	0.54	0.92
Avail Cap(c_a), veh/h	241	1428	734	344	1522	1198	319	301	289	700	542	253
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	21.4	21.4	45.1	28.5	18.3	41.0	41.8	41.9	35.5	38.6	41.3
Incr Delay (d2), s/veh	84.6	0.3	0.6	6.7	31.2	0.1	65.7	10.6	13.4	0.7	1.1	34.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.5	7.8	3.0	27.5	2.8	14.6	5.8	6.0	4.6	3.8	8.8
LnGrp Delay(d),s/veh	131.1	21.7	22.0	51.8	59.7	18.4	106.7	52.4	55.4	36.3	39.8	76.2
LnGrp LOS	F	C	C	D	F	B	F	D	E	D	D	E
Approach Vol, veh/h	1373			2087			717			895		
Approach Delay, s/veh	42.7			52.7			78.7			47.8		
Approach LOS	D			D			E			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	46.1	22.0	20.0	11.0	47.0	24.3	17.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	40.0	18.0	16.0	7.0	43.0	17.0	17.0				
Max Q Clear Time (g_c+1), s	17.8	18.0	20.0	16.4	9.0	45.0	11.5	12.8				
Green Ext Time (p_c), s	0.1	9.2	0.0	0.0	0.0	0.0	2.1	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay	52.8											
HCM 2010 LOS	D											

Intersection			
Intersection Delay, s/veh	187.0		
Intersection LOS	F		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	201	1118	1499
Demand Flow Rate, veh/h	205	1140	1529
Vehicles Circulating, veh/h	1076	6	198
Vehicles Exiting, veh/h	70	1721	1083
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	22.5	50.4	311.0
Approach LOS	C	F	F
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	205	1140	1529
Cap Entry Lane, veh/h	385	1123	927
Entry HV Adj Factor	0.980	0.981	0.980
Flow Entry, veh/h	201	1118	1499
Cap Entry, veh/h	378	1101	909
V/C Ratio	0.532	1.015	1.649
Control Delay, s/veh	22.5	50.4	311.0
LOS	C	F	F
95th %tile Queue, veh	3	22	81

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	7	989	20	0	1424
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	1041	21	0	1499

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2551	1052	0
Stage 1	1052	-	-
Stage 2	1499	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	29	275	656
Stage 1	336	-	-
Stage 2	204	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	29	275	656
Mov Cap-2 Maneuver	29	-	-
Stage 1	336	-	-
Stage 2	204	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 275	656	-
HCM Lane V/C Ratio	-	- 0.027	-	-
HCM Control Delay (s)	-	- 18.5	0	-
HCM Lane LOS	-	- C	A	-
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Intersection				
Intersection Delay, s/veh	93.2			
Intersection LOS	F			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	13	120	906	1273
Demand Flow Rate, veh/h	13	122	924	1298
Vehicles Circulating, veh/h	1395	879	12	115
Vehicles Exiting, veh/h	18	57	1396	886
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	13.8	11.8	20.9	153.2
Approach LOS	B	B	C	F
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	13	122	924	1298
Cap Entry Lane, veh/h	280	469	1116	1007
Entry HV Adj Factor	0.992	0.982	0.980	0.980
Flow Entry, veh/h	13	120	906	1273
Cap Entry, veh/h	278	461	1095	988
V/C Ratio	0.046	0.260	0.828	1.289
Control Delay, s/veh	13.8	11.8	20.9	153.2
LOS	B	B	C	F
95th %tile Queue, veh	0	1	10	46

Intersection			
Intersection Delay, s/veh66.9			
Intersection LOS F			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	122	869	1165
Demand Flow Rate, veh/h	124	886	1188
Vehicles Circulating, veh/h	816	5	116
Vehicles Exiting, veh/h	75	1299	824
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	11.0	18.1	109.2
Approach LOS	B	C	F
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	124	886	1188
Cap Entry Lane, veh/h	500	1124	1006
Entry HV Adj Factor	0.984	0.981	0.980
Flow Entry, veh/h	122	869	1165
Cap Entry, veh/h	492	1103	987
V/C Ratio	0.248	0.788	1.181
Control Delay, s/veh	11.0	18.1	109.2
LOS	B	C	F
95th %tile Queue, veh	1	9	35

Intersection				
Intersection Delay, s/veh41.1				
Intersection LOS E				
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	14	809	1137
Demand Flow Rate, veh/h	34	14	825	1160
Vehicles Circulating, veh/h	1164	822	9	22
Vehicles Exiting, veh/h	18	12	1189	814
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.1	7.7	15.5	60.6
Approach LOS	B	A	C	F
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	34	14	825	1160
Cap Entry Lane, veh/h	353	497	1120	1105
Entry HV Adj Factor	0.968	0.993	0.981	0.980
Flow Entry, veh/h	33	14	809	1137
Cap Entry, veh/h	341	493	1098	1084
V/C Ratio	0.096	0.028	0.737	1.049
Control Delay, s/veh	12.1	7.7	15.5	60.6
LOS	B	A	C	F
95th %tile Queue, veh	0	0	7	24

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	2	25	11	747	1055	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	26	12	786	1111	1

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1920	1111	1112 0
Stage 1	1111	-	- -
Stage 2	809	-	- -
Critical Hdwy	6.42	6.22	4.12 -
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518	3.318	2.218 -
Pot Cap-1 Maneuver	74	254	628 -
Stage 1	315	-	- -
Stage 2	438	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	71	254	628 -
Mov Cap-2 Maneuver	71	-	- -
Stage 1	315	-	- -
Stage 2	423	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	20.8	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	628	-	254	-	-
HCM Lane V/C Ratio	0.018	-	0.104	-	-
HCM Control Delay (s)	10.8	0	20.8	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	5	637	2	5	747
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	5	671	2	5	786

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1469	672	0
Stage 1	672	-	-
Stage 2	797	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	140	456	918
Stage 1	508	-	-
Stage 2	444	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	139	456	918
Mov Cap-2 Maneuver	139	-	-
Stage 1	508	-	-
Stage 2	440	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.6	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 226	918	-
HCM Lane V/C Ratio	-	- 0.042	0.006	-
HCM Control Delay (s)	-	- 21.6	8.9	0
HCM Lane LOS	-	- C	A	A
HCM 95th %tile Q(veh)	-	- 0.1	0	-

Intersection				
Intersection Delay, s/veh	13.9			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	14	59	654	784
Demand Flow Rate, veh/h	14	60	667	800
Vehicles Circulating, veh/h	849	659	7	63
Vehicles Exiting, veh/h	14	15	856	656
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	5	0
Ped Cap Adj	1.000	1.000	0.999	1.000
Approach Delay, s/veh	7.9	7.5	10.9	17.0
Approach LOS	A	A	B	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	14	60	667	800
Cap Entry Lane, veh/h	483	585	1122	1061
Entry HV Adj Factor	0.993	0.982	0.981	0.981
Flow Entry, veh/h	14	59	654	784
Cap Entry, veh/h	480	574	1100	1040
V/C Ratio	0.029	0.103	0.595	0.754
Control Delay, s/veh	7.9	7.5	10.9	17.0
LOS	A	A	B	C
95th %tile Queue, veh	0	0	4	7

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	20	10	20	730	625	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	180	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	11	21	768	658	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1479	668	679	0	-	0
Stage 1	668	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	138	458	913	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	437	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	135	458	913	-	-	-
Mov Cap-2 Maneuver	135	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	427	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.9	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	913	-	176	-	-
HCM Lane V/C Ratio	0.023	-	0.179	-	-
HCM Control Delay (s)	9	-	29.9	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

HCM 2010 TWSC
1: SR-94 & Lyons Valley Road

3/27/2017

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	20	74	10	205	25	864	64	390	1219	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	25	325	-	-	165	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	21	78	11	216	26	909	67	411	1283	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3116	3144	1294	3124	3121	943	1304	0	0	977	0	0
Stage 1	2115	2115	-	996	996	-	-	-	-	-	-	-
Stage 2	1001	1029	-	2128	2125	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 7	11	199	~ 7	11	318	531	-	-	706	-	-
Stage 1	66	91	-	294	322	-	-	-	-	-	-	-
Stage 2	293	311	-	~ 65	90	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 4	199	-	~ 4	318	531	-	-	706	-	-
Mov Cap-2 Maneuver	-	~ 4	-	-	~ 4	-	-	-	-	-	-	-
Stage 1	63	38	-	280	306	-	-	-	-	-	-	-
Stage 2	86	296	-	~ 21	38	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.3	4.1
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	531	-	-	-	318	706	-
HCM Lane V/C Ratio	0.05	-	-	-	0.679	0.581	-
HCM Control Delay (s)	12.1	-	-	-	37.2	16.9	-
HCM Lane LOS	B	-	-	-	E	C	-
HCM 95th %tile Q(veh)	0.2	-	-	-	4.6	3.8	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary

2: Proctor Valley Road/Jefferson Road & SR-94

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	670	167	65	590	95	184	90	60	100	260	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	37	705	81	68	621	68	194	95	42	105	274	78
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	752	86	87	793	87	246	108	44	162	386	105
Arrive On Green	0.03	0.46	0.46	0.05	0.48	0.48	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1774	1641	189	1774	1650	181	522	286	117	328	1021	278
Grp Volume(v), veh/h	37	0	786	68	0	689	331	0	0	457	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1829	1774	0	1831	925	0	0	1627	0	0
Q Serve(g_s), s	2.4	0.0	48.0	4.5	0.0	36.9	13.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	48.0	4.5	0.0	36.9	42.1	0.0	0.0	28.3	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.10	0.59		0.13	0.23		0.17
Lane Grp Cap(c), veh/h	47	0	839	87	0	880	398	0	0	653	0	0
V/C Ratio(X)	0.79	0.00	0.94	0.78	0.00	0.78	0.83	0.00	0.00	0.70	0.00	0.00
Avail Cap(c_a), veh/h	75	0	865	89	0	880	402	0	0	658	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.0	0.0	30.3	55.4	0.0	25.4	38.0	0.0	0.0	31.4	0.0	0.0
Incr Delay (d2), s/veh	24.4	0.0	17.1	34.8	0.0	4.6	13.6	0.0	0.0	3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	28.2	3.0	0.0	19.7	12.1	0.0	0.0	13.4	0.0	0.0
LnGrp Delay(d),s/veh	81.4	0.0	47.4	90.2	0.0	30.1	51.7	0.0	0.0	34.7	0.0	0.0
LnGrp LOS	F		D	F		C	D			C		
Approach Vol, veh/h		823			757			331			457	
Approach Delay, s/veh		48.9			35.5			51.7			34.7	
Approach LOS		D			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.0	10.3	58.5		49.0	7.6	61.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		44.9	5.9	55.7		44.9	5.0	56.6				
Max Q Clear Time (g_c+l1), s		44.1	6.5	50.0		30.3	4.4	38.9				
Green Ext Time (p_c), s		0.4	0.0	3.9		4.4	0.0	9.2				
Intersection Summary												
HCM 2010 Ctrl Delay			42.3									
HCM 2010 LOS			D									

HCM 2010 TWSC
3: Proctor Valley Road & Maxfield Road

3/27/2017

Intersection

Int Delay, s/veh 4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	302	10	25	283	5	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	318	11	26	298	5	32

Major/Minor	Major2	Major1	Minor2
Conflicting Flow All	324	0	175
Stage 1	-	-	0
Stage 2	-	-	175
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1236	-	815
Stage 1	-	-	-
Stage 2	-	-	855
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1236	-	605
Mov Cap-2 Maneuver	-	-	605
Stage 1	-	-	-
Stage 2	-	-	855

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBT	NBR	WBL	WBR	SBLn1
Capacity (veh/h)	-	-	1236	-	605
HCM Lane V/C Ratio	-	-	0.257	-	0.061
HCM Control Delay (s)	-	-	8.9	-	11.3
HCM Lane LOS	-	-	A	-	B
HCM 95th %tile Q(veh)	-	-	1	-	0.2

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	392	96	164	15	25	466
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	413	101	173	16	26	491

Major/Minor	Major1	Minor1	Major2
Conflicting Flow All	491	0	1469
Stage 1	-	-	926
Stage 2	-	-	543
Critical Hdwy	-	-	6.52
Critical Hdwy Stg 1	-	-	5.52
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	4.018
Pot Cap-1 Maneuver	-	-	~ 127
Stage 1	-	-	347
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	0
Mov Cap-2 Maneuver	-	-	0
Stage 1	-	-	0
Stage 2	-	-	0

Approach	EB	WB	SB
HCM Control Delay, s		9.7	0.4
HCM LOS		A	

Minor Lane/Major Mvmt	EBL	EBTWBLn1	SBL	SBR
Capacity (veh/h)	-	-	954	1491
HCM Lane V/C Ratio	-	-	0.198	0.018
HCM Control Delay (s)	-	-	9.7	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.1

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary

5: SR-94 & Melody Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	10	108	25	10	50	92	590	60	50	875	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	42	11	114	26	11	53	97	621	63	53	921	63
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	29	148	104	52	135	124	1077	109	67	1061	73
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.07	0.65	0.65	0.04	0.62	0.62
Sat Flow, veh/h	293	212	1087	313	383	997	1774	1664	169	1774	1724	118
Grp Volume(v), veh/h	167	0	0	90	0	0	97	0	684	53	0	984
Grp Sat Flow(s),veh/h/ln	1593	0	0	1693	0	0	1774	0	1833	1774	0	1842
Q Serve(g_s), s	3.8	0.0	0.0	0.0	0.0	0.0	4.1	0.0	15.8	2.2	0.0	33.3
Cycle Q Clear(g_c), s	7.5	0.0	0.0	3.7	0.0	0.0	4.1	0.0	15.8	2.2	0.0	33.3
Prop In Lane	0.25		0.68	0.29		0.59	1.00		0.09	1.00		0.06
Lane Grp Cap(c), veh/h	276	0	0	291	0	0	124	0	1186	67	0	1133
V/C Ratio(X)	0.61	0.00	0.00	0.31	0.00	0.00	0.78	0.00	0.58	0.79	0.00	0.87
Avail Cap(c_a), veh/h	395	0	0	408	0	0	158	0	1299	165	0	1313
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	0.0	29.7	0.0	0.0	34.5	0.0	7.5	36.0	0.0	12.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.6	0.0	0.0	17.5	0.0	0.5	18.3	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.0	1.7	0.0	0.0	2.6	0.0	8.0	1.4	0.0	18.5
LnGrp Delay(d),s/veh	33.4	0.0	0.0	30.3	0.0	0.0	52.0	0.0	8.0	54.3	0.0	17.8
LnGrp LOS	C			C			D		A	D		B
Approach Vol, veh/h		167			90			781			1037	
Approach Delay, s/veh		33.4			30.3			13.5			19.6	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	53.3		14.7	9.8	50.8		14.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.0	53.4		16.1	6.7	53.7		16.1				
Max Q Clear Time (g_c+l1), s	4.2	17.8		9.5	6.1	35.3		5.7				
Green Ext Time (p_c), s	0.0	15.9		0.8	0.0	11.1		1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			18.9									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

6: Mt Miguel Road / San Miguel Ranch Rd & SR-125 SB Ramps

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↑↑	↑↑		↖	↗		
Traffic Volume (veh/h)	0	734	382	0	190	50		
Future Volume (veh/h)	0	734	382	0	190	50		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	0	773	402	0	200	53		
Adj No. of Lanes	0	2	2	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	2	2	0	2	2		
Cap, veh/h	0	1902	1902	0	293	261		
Arrive On Green	0.00	0.54	0.54	0.00	0.17	0.17		
Sat Flow, veh/h	0	3725	3725	0	1774	1583		
Grp Volume(v), veh/h	0	773	402	0	200	53		
Grp Sat Flow(s),veh/h/ln	0	1770	1770	0	1774	1583		
Q Serve(g_s), s	0.0	4.9	2.3	0.0	4.0	1.1		
Cycle Q Clear(g_c), s	0.0	4.9	2.3	0.0	4.0	1.1		
Prop In Lane	0.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1902	1902	0	293	261		
V/C Ratio(X)	0.00	0.41	0.21	0.00	0.68	0.20		
Avail Cap(c_a), veh/h	0	2815	2815	0	1098	980		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	5.2	4.6	0.0	14.9	13.7		
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.0	3.0	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	2.4	1.1	0.0	2.2	0.5		
LnGrp Delay(d),s/veh	0.0	5.5	4.7	0.0	18.0	14.1		
LnGrp LOS		A	A		B	B		
Approach Vol, veh/h		773	402		253			
Approach Delay, s/veh		5.5	4.7		17.2			
Approach LOS		A	A		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		26.2		11.8		26.2		
Change Period (Y+Rc), s		5.8		5.5		5.8		
Max Green Setting (Gmax), s		30.2		23.5		30.2		
Max Q Clear Time (g_c+l1), s		6.9		6.0		4.3		
Green Ext Time (p_c), s		13.5		0.7		14.4		
Intersection Summary								
HCM 2010 Ctrl Delay			7.3					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

7: Mt Miguel Road / San Miguel Ranch Rd & SR-125 NB Ramp

07/12/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	100	824	382	100	0	0		
Future Volume (veh/h)	100	824	382	100	0	0		
Number	5	2	6	16				
Initial Q (Qb), veh	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00			1.00				
Parking Bus, Adj	1.00	1.00	1.00	1.00				
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900				
Adj Flow Rate, veh/h	105	867	402	105				
Adj No. of Lanes	1	2	2	0				
Peak Hour Factor	0.95	0.95	0.95	0.95				
Percent Heavy Veh, %	2	2	2	2				
Cap, veh/h	134	2962	1807	467				
Arrive On Green	0.08	0.84	0.65	0.65				
Sat Flow, veh/h	1774	3632	2878	720				
Grp Volume(v), veh/h	105	867	254	253				
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1736				
Q Serve(g_s), s	2.1	1.9	2.1	2.1				
Cycle Q Clear(g_c), s	2.1	1.9	2.1	2.1				
Prop In Lane	1.00			0.41				
Lane Grp Cap(c), veh/h	134	2962	1148	1126				
V/C Ratio(X)	0.78	0.29	0.22	0.22				
Avail Cap(c_a), veh/h	948	5895	1802	1768				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	16.1	0.6	2.6	2.6				
Incr Delay (d2), s/veh	3.8	0.1	0.2	0.2				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	1.1	0.9	1.1	1.1				
LnGrp Delay(d),s/veh	19.9	0.7	2.8	2.8				
LnGrp LOS	B	A	A	A				
Approach Vol, veh/h		972	507					
Approach Delay, s/veh		2.8	2.8					
Approach LOS		A	A					
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		
Phs Duration (G+Y+Rc), s		35.5			6.7	28.9		
Change Period (Y+Rc), s		5.8			4.0	5.8		
Max Green Setting (Gmax), s		59.2			19.0	36.2		
Max Q Clear Time (g_c+l1), s		3.9			4.1	4.1		
Green Ext Time (p_c), s		25.1			0.1	18.9		
Intersection Summary								
HCM 2010 Ctrl Delay			2.8					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary

8: I-805 SB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑		↖	↑↑		↗↗		
Volume (veh/h)	1542	325	547	1158	0	1835		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1863	0	1863		
Adj Flow Rate, veh/h	1623	268	576	1219	0	1616		
Adj No. of Lanes	3	0	1	2	0	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	0	2		
Cap, veh/h	2336	384	622	3329	0	0		
Arrive On Green	0.53	0.53	0.35	0.94	0.00	0.00		
Sat Flow, veh/h	4569	723	1774	3632	0			
Grp Volume(v), veh/h	1248	643	576	1219	0.0			
Grp Sat Flow(s),veh/h/ln	1695	1735	1774	1770				
Q Serve(g_s), s	20.8	21.0	23.7	2.4				
Cycle Q Clear(g_c), s	20.8	21.0	23.7	2.4				
Prop In Lane		0.42	1.00					
Lane Grp Cap(c), veh/h	1799	921	622	3329				
V/C Ratio(X)	0.69	0.70	0.93	0.37				
Avail Cap(c_a), veh/h	1898	971	713	3613				
HCM Platoon Ratio	1.00	1.00	1.00	1.00				
Upstream Filter(I)	1.00	1.00	1.00	1.00				
Uniform Delay (d), s/veh	13.2	13.3	23.7	0.2				
Incr Delay (d2), s/veh	1.0	2.1	16.8	0.1				
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0				
%ile BackOfQ(50%),veh/ln	0.8	10.5	14.4	1.0				
LnGrp Delay(d),s/veh	14.3	15.4	40.5	0.3				
LnGrp LOS	B	B	D	A				
Approach Vol, veh/h	1891			1795				
Approach Delay, s/veh	14.6			13.2				
Approach LOS	B			B				
Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4				8
Phs Duration (G+Y+Rc), s			31.1	44.8				75.9
Change Period (Y+Rc), s			4.5	4.5				4.5
Max Green Setting (Gmax), s			30.5	42.5				77.5
Max Q Clear Time (g_c+I1), s			25.7	23.0				4.4
Green Ext Time (p_c), s			0.9	17.3				50.0
Intersection Summary								
HCM 2010 Ctrl Delay			13.9					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

9: I-805 NB Ramp & East H Street

3/27/2017



Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	↑↑↑↑	↗		↑↑	↘↘	↗		
Volume (veh/h)	2857	580	0	1345	365	616		
Number	4	14	3	8	5	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	1863		
Adj Flow Rate, veh/h	3007	0	0	1416	291	589		
Adj No. of Lanes	3	1	0	2	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	2		
Cap, veh/h	3162	984	0	2201	413	737		
Arrive On Green	0.62	0.00	0.00	0.62	0.23	0.23		
Sat Flow, veh/h	5253	1583	0	3725	1774	3167		
Grp Volume(v), veh/h	3007	0	0	1416	291	589		
Grp Sat Flow(s),veh/h/ln	1695	1583	0	1770	1774	1583		
Q Serve(g_s), s	33.9	0.0	0.0	15.6	9.3	10.9		
Cycle Q Clear(g_c), s	33.9	0.0	0.0	15.6	9.3	10.9		
Prop In Lane		1.00	0.00		1.00	1.00		
Lane Grp Cap(c), veh/h	3162	984	0	2201	413	737		
V/C Ratio(X)	0.95	0.00	0.00	0.64	0.70	0.80		
Avail Cap(c_a), veh/h	3163	985	0	2201	501	895		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	10.8	0.0	0.0	7.4	21.8	22.4		
Incr Delay (d2), s/veh	7.6	0.0	0.0	0.6	3.5	4.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	17.8	0.0	0.0	7.7	4.9	5.2		
LnGrp Delay(d),s/veh	18.4	0.0	0.0	8.0	25.3	26.7		
LnGrp LOS	B			A	C	C		
Approach Vol, veh/h	3007			1416	880			
Approach Delay, s/veh	18.4			8.0	26.2			
Approach LOS	B			A	C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		18.9		43.0				43.0
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		17.5		38.5				38.5
Max Q Clear Time (g_c+I1), s		12.9		35.9				17.6
Green Ext Time (p_c), s		1.6		2.6				20.6
Intersection Summary								
HCM 2010 Ctrl Delay			16.9					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

10: Terra Nova Dr & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳			↰ ↱ ↲	↱ ↳			↰ ↱ ↲	↱ ↳
Volume (veh/h)	145	3038	55	45	1873	50	70	5	35	55	5	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	153	3198	47	47	1972	42	74	5	32	58	5	111
Adj No. of Lanes	1	3	0	1	3	0	1	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	3257	48	60	2854	61	216	33	209	262	19	236
Arrive On Green	0.11	0.63	0.63	0.03	0.56	0.56	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1774	5164	76	1774	5125	109	1271	218	1398	1114	126	1583
Grp Volume(v), veh/h	153	2094	1151	47	1304	710	74	0	37	63	0	111
Grp Sat Flow(s),veh/h/ln	1774	1695	1849	1774	1695	1844	1271	0	1616	1240	0	1583
Q Serve(g_s), s	6.1	43.3	44.1	1.9	20.1	20.1	4.1	0.0	1.4	2.7	0.0	4.6
Cycle Q Clear(g_c), s	6.1	43.3	44.1	1.9	20.1	20.1	8.2	0.0	1.4	4.2	0.0	4.6
Prop In Lane	1.00		0.04	1.00		0.06	1.00		0.86	0.92		1.00
Lane Grp Cap(c), veh/h	191	2138	1166	60	1888	1027	216	0	241	280	0	236
V/C Ratio(X)	0.80	0.98	0.99	0.78	0.69	0.69	0.34	0.00	0.15	0.22	0.00	0.47
Avail Cap(c_a), veh/h	237	2138	1166	105	1888	1027	316	0	368	390	0	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	12.9	13.1	34.7	11.6	11.6	31.7	0.0	26.8	28.5	0.0	28.2
Incr Delay (d2), s/veh	14.6	14.9	23.1	19.6	1.1	2.0	0.9	0.0	0.3	0.4	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	24.2	29.5	1.3	9.5	10.6	1.5	0.0	0.7	1.2	0.0	2.1
LnGrp Delay(d),s/veh	46.2	27.8	36.1	54.4	12.6	13.6	32.7	0.0	27.1	28.9	0.0	29.6
LnGrp LOS	D	C	D	D	B	B	C		C	C		C
Approach Vol, veh/h	3398			2061			111			174		
Approach Delay, s/veh	31.5			13.9			30.8			29.4		
Approach LOS	C			B			C			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.3	6.9	50.2		15.3	12.3	44.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	4.3	45.7		16.5	9.7	40.3				
Max Q Clear Time (g_c+l1), s		10.2	3.9	46.1		6.6	8.1	22.1				
Green Ext Time (p_c), s		0.6	0.0	0.0		0.7	0.1	18.1				
Intersection Summary												
HCM 2010 Ctrl Delay	25.1											
HCM 2010 LOS	C											

HCM 2010 Signalized Intersection Summary

11: East H Street & Del Rey Blvd

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰↱	↑↑↑	↑↑↑↱		↰	↱		
Volume (veh/h)	280	3003	1808	70	40	140		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	295	3161	1903	63	42	126		
Adj No. of Lanes	2	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	358	3606	2629	87	214	191		
Arrive On Green	0.10	0.71	0.52	0.52	0.12	0.12		
Sat Flow, veh/h	3442	5253	5224	167	1774	1583		
Grp Volume(v), veh/h	295	3161	1275	691	42	126		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1833	1774	1583		
Q Serve(g_s), s	4.4	25.2	15.3	15.3	1.1	4.0		
Cycle Q Clear(g_c), s	4.4	25.2	15.3	15.3	1.1	4.0		
Prop In Lane	1.00			0.09	1.00	1.00		
Lane Grp Cap(c), veh/h	358	3606	1762	953	214	191		
V/C Ratio(X)	0.82	0.88	0.72	0.72	0.20	0.66		
Avail Cap(c_a), veh/h	358	3609	1765	954	621	554		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	23.2	5.9	9.8	9.8	20.9	22.2		
Incr Delay (d2), s/veh	14.4	2.7	1.5	2.8	0.4	3.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.8	12.3	7.4	8.4	0.6	3.7		
LnGrp Delay(d),s/veh	37.5	8.6	11.3	12.5	21.4	26.1		
LnGrp LOS	D	A	B	B	C	C		
Approach Vol, veh/h		3456	1966		168			
Approach Delay, s/veh		11.1	11.7		24.9			
Approach LOS		B	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				42.0		10.9	10.0	32.0
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				37.5		18.5	5.5	27.5
Max Q Clear Time (g_c+I1), s				27.2		6.0	6.4	17.3
Green Ext Time (p_c), s				10.2		0.4	0.0	10.1
Intersection Summary								
HCM 2010 Ctrl Delay			11.7					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary

12: Pasel Del Rey & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	235	2353	345	328	1418	135	175	125	292	120	100	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	247	2477	300	345	1493	110	184	132	244	126	105	158
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	322	2201	685	420	2346	730	256	652	292	183	576	258
Arrive On Green	0.09	0.43	0.43	0.12	0.46	0.46	0.07	0.18	0.18	0.05	0.16	0.16
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	247	2477	300	345	1493	110	184	132	244	126	105	158
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	6.1	37.5	11.5	8.5	19.4	3.5	4.5	2.7	12.9	3.1	2.2	8.0
Cycle Q Clear(g_c), s	6.1	37.5	11.5	8.5	19.4	3.5	4.5	2.7	12.9	3.1	2.2	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	2201	685	420	2346	730	256	652	292	183	576	258
V/C Ratio(X)	0.77	1.13	0.44	0.82	0.64	0.15	0.72	0.20	0.84	0.69	0.18	0.61
Avail Cap(c_a), veh/h	350	2201	685	445	2346	730	258	764	342	183	686	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	24.6	17.2	37.1	17.8	13.5	39.2	29.9	34.1	40.3	31.3	33.7
Incr Delay (d2), s/veh	9.1	63.0	0.4	11.2	0.6	0.1	9.2	0.2	14.5	10.4	0.2	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	30.2	5.1	4.7	9.1	1.5	2.5	1.4	6.8	1.8	1.1	3.7
LnGrp Delay(d),s/veh	47.4	87.5	17.6	48.3	18.4	13.6	48.4	30.1	48.6	50.8	31.4	36.3
LnGrp LOS	D	F	B	D	B	B	D	C	D	D	C	D
Approach Vol, veh/h	3024				1948				560		389	
Approach Delay, s/veh	77.3				23.4				44.2		39.7	
Approach LOS	E				C				D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	20.5	15.1	42.0	11.0	18.6	12.6	44.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.6	18.7	11.2	37.5	6.5	16.8	8.8	39.9				
Max Q Clear Time (g_c+I), s	15.1	14.9	10.5	39.5	6.5	10.0	8.1	21.4				
Green Ext Time (p_c), s	0.0	1.1	0.1	0.0	0.0	1.6	0.1	18.1				
Intersection Summary												
HCM 2010 Ctrl Delay			54.0									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	360	1875	485	266	1356	120	360	265	329	100	210	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	379	1974	332	280	1427	84	379	279	293	105	221	137
Adj No. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	679	1998	330	290	1677	99	358	449	401	130	267	159
Arrive On Green	0.20	0.45	0.45	0.08	0.34	0.34	0.20	0.25	0.25	0.07	0.13	0.13
Sat Flow, veh/h	3442	4398	727	3442	4913	289	1774	1770	1583	1774	2136	1272
Grp Volume(v), veh/h	379	1513	793	280	985	526	379	279	293	105	181	177
Grp Sat Flow(s),veh/h/ln	1721	1695	1735	1721	1695	1812	1774	1770	1583	1774	1770	1638
Q Serve(g_s), s	11.8	52.3	54.0	9.6	32.1	32.1	24.0	16.6	20.1	6.9	11.9	12.6
Cycle Q Clear(g_c), s	11.8	52.3	54.0	9.6	32.1	32.1	24.0	16.6	20.1	6.9	11.9	12.6
Prop In Lane	1.00		0.42	1.00		0.16	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	679	1540	788	290	1157	618	358	449	401	130	221	205
V/C Ratio(X)	0.56	0.98	1.01	0.97	0.85	0.85	1.06	0.62	0.73	0.81	0.82	0.86
Avail Cap(c_a), veh/h	679	1540	788	290	1284	686	358	449	401	194	238	221
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	32.0	32.4	54.3	36.3	36.3	47.4	39.3	40.6	54.2	50.7	51.0
Incr Delay (d2), s/veh	1.0	18.8	33.5	43.8	5.2	9.3	63.7	2.6	6.6	13.9	18.9	26.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	28.4	32.9	6.3	15.7	17.5	18.0	8.5	9.5	3.9	7.0	7.2
LnGrp Delay(d),s/veh	44.1	50.8	65.9	98.0	41.6	45.6	111.1	42.0	47.3	68.2	69.6	77.4
LnGrp LOS	D	D	F	F	D	D	F	D	D	E	E	E
Approach Vol, veh/h	2685				1791		951				463	
Approach Delay, s/veh	54.3				51.6		71.1				72.2	
Approach LOS	D				D		E				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	58.0	28.0	18.9	27.4	44.6	12.7	34.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	54.0	24.0	16.0	19.0	45.0	13.0	27.0				
Max Q Clear Time (g_c+1), s	11.6	56.0	26.0	14.6	13.8	34.1	8.9	22.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	4.8	6.5	0.1	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			57.6									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary

14: Otay Lakes Road & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	290	1249	570	235	982	238	405	870	291	492	790	190
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	305	1315	442	247	1034	188	426	916	0	518	832	0
Adj No. of Lanes	1	2	1	1	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	326	1376	615	220	1165	521	486	923	287	526	982	306
Arrive On Green	0.18	0.39	0.39	0.12	0.33	0.33	0.14	0.18	0.00	0.15	0.19	0.00
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	305	1315	442	247	1034	188	426	916	0	518	832	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	17.7	37.8	16.0	13.0	29.0	6.2	12.7	18.8	0.0	15.7	16.5	0.0
Cycle Q Clear(g_c), s	17.7	37.8	16.0	13.0	29.0	6.2	12.7	18.8	0.0	15.7	16.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	326	1376	615	220	1165	521	486	923	287	526	982	306
V/C Ratio(X)	0.94	0.96	0.72	1.12	0.89	0.36	0.88	0.99	0.00	0.98	0.85	0.00
Avail Cap(c_a), veh/h	326	1386	620	220	1251	560	486	923	287	526	1069	333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.1	31.1	11.3	45.8	33.3	11.6	44.1	42.8	0.0	44.2	40.7	0.0
Incr Delay (d2), s/veh	33.6	14.9	4.0	97.1	7.7	0.4	16.5	27.7	0.0	35.2	6.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	21.3	8.4	12.2	15.3	3.7	7.1	11.1	0.0	10.0	8.3	0.0
LnGrp Delay(d),s/veh	75.7	46.0	15.2	142.9	41.0	12.0	60.6	70.5	0.0	79.5	46.8	0.0
LnGrp LOS	E	D	B	F	D	B	E	E		E	D	
Approach Vol, veh/h	2062				1469				1342			
Approach Delay, s/veh	43.8				54.4				67.3			
Approach LOS	D				D				E			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	44.7	18.8	24.2	23.2	38.5	20.0	23.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	13.0	41.0	13.0	22.0	17.0	37.0	16.0	19.0				
Max Q Clear Time (g_c+max), s	15.0	39.8	14.7	18.5	19.7	31.0	17.7	20.8				
Green Ext Time (p_c), s	0.0	0.9	0.0	1.7	0.0	3.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			54.8									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

15: SR-125 SB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑	↑				↑↑↑		↑
Traffic Volume (veh/h)	0	1520	85	0	1065	256	0	0	0	511	0	315
Future Volume (veh/h)	0	1520	85	0	1065	256	0	0	0	511	0	315
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	1600	0	0	1121	258				538	0	269
Adj No. of Lanes	0	3	1	0	2	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	2891	900	0	2012	1277				818	0	376
Arrive On Green	0.00	0.57	0.00	0.00	0.57	0.57				0.24	0.00	0.24
Sat Flow, veh/h	0	5253	1583	0	3632	1583				3442	0	1583
Grp Volume(v), veh/h	0	1600	0	0	1121	258				538	0	269
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1770	1583				1721	0	1583
Q Serve(g_s), s	0.0	11.6	0.0	0.0	11.7	2.2				8.2	0.0	9.1
Cycle Q Clear(g_c), s	0.0	11.6	0.0	0.0	11.7	2.2				8.2	0.0	9.1
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2891	900	0	2012	1277				818	0	376
V/C Ratio(X)	0.00	0.55	0.00	0.00	0.56	0.20				0.66	0.00	0.71
Avail Cap(c_a), veh/h	0	2937	915	0	2044	1291				1475	0	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	1.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.9	0.0	0.0	7.9	1.3				20.1	0.0	20.4
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.6	0.2				1.0	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.4	0.0	0.0	5.8	2.1				4.0	0.0	4.2
LnGrp Delay(d),s/veh	0.0	8.3	0.0	0.0	8.5	1.5				21.1	0.0	23.2
LnGrp LOS		A			A	A				C		C
Approach Vol, veh/h		1600			1379						807	
Approach Delay, s/veh		8.3			7.2						21.8	
Approach LOS		A			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		39.0		19.4		39.0						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		33.7		25.0		33.7						
Max Q Clear Time (g_c+l1), s		13.6		11.1		13.7						
Green Ext Time (p_c), s		19.6		2.8		19.5						
Intersection Summary												
HCM 2010 Ctrl Delay			10.8									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary

16: SR-125 NB Ramp & East H Street

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↗		↑↑↑↑	↗	↘		↗↗			
Traffic Volume (veh/h)	0	1855	180	0	1141	335	180	0	382	0	0	0
Future Volume (veh/h)	0	1855	180	0	1141	335	180	0	382	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	1953	178	0	1201	0	189	0	370			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3215	1285	0	3215	1001	318	0	499			
Arrive On Green	0.00	0.63	0.63	0.00	0.63	0.00	0.18	0.00	0.18			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	1953	178	0	1201	0	189	0	370			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	13.7	1.4	0.0	6.8	0.0	5.9	0.0	7.5			
Cycle Q Clear(g_c), s	0.0	13.7	1.4	0.0	6.8	0.0	5.9	0.0	7.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3215	1285	0	3215	1001	318	0	499			
V/C Ratio(X)	0.00	0.61	0.14	0.00	0.37	0.00	0.59	0.00	0.74			
Avail Cap(c_a), veh/h	0	3242	1293	0	3242	1010	459	0	721			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	6.6	1.2	0.0	5.3	0.0	22.6	0.0	23.3			
Incr Delay (d2), s/veh	0.0	0.5	0.1	0.0	0.2	0.0	1.9	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	6.5	1.2	0.0	3.2	0.0	3.0	0.0	3.1			
LnGrp Delay(d),s/veh	0.0	7.1	1.3	0.0	5.5	0.0	24.5	0.0	25.8			
LnGrp LOS		A	A		A		C		C			
Approach Vol, veh/h		2131			1201			559				
Approach Delay, s/veh		6.6			5.5			25.4				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		43.7				43.7		16.2				
Change Period (Y+Rc), s		5.8				5.8		5.5				
Max Green Setting (Gmax), s		38.2				38.2		15.5				
Max Q Clear Time (g_c+I1), s		15.7				8.8		9.5				
Green Ext Time (p_c), s		22.1				28.8		1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			8.9									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	 
Volume (veh/h)	220	1568	250	106	1006	487	180	130	159	499	190	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	232	1651	200	112	1059	450	189	137	162	525	200	147
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	1561	690	178	977	415	229	242	216	516	1057	1054
Arrive On Green	0.08	0.31	0.31	0.05	0.28	0.28	0.13	0.14	0.14	0.29	0.30	0.30
Sat Flow, veh/h	3442	5085	1583	3442	3502	1488	1774	1770	1583	1774	3539	2787
Grp Volume(v), veh/h	232	1651	200	112	1025	484	189	137	162	525	200	147
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1600	1774	1770	1583	1774	1770	1393
Q Serve(g_s), s	5.6	25.9	6.9	2.7	23.5	23.5	8.7	6.1	8.3	24.5	3.5	2.9
Cycle Q Clear(g_c), s	5.6	25.9	6.9	2.7	23.5	23.5	8.7	6.1	8.3	24.5	3.5	2.9
Prop In Lane	1.00		1.00	1.00		0.93	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	1561	690	178	946	447	229	242	216	516	1057	1054
V/C Ratio(X)	0.85	1.06	0.29	0.63	1.08	1.08	0.83	0.57	0.75	1.02	0.19	0.14
Avail Cap(c_a), veh/h	274	1561	690	192	946	447	364	364	325	516	1057	1054
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	29.2	15.3	39.1	30.4	30.4	35.8	34.0	35.0	29.9	22.0	17.2
Incr Delay (d2), s/veh	21.2	39.7	0.2	5.8	54.6	67.0	8.3	2.1	5.1	44.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	17.7	3.0	1.4	18.1	18.6	4.8	3.1	3.9	18.2	1.7	1.1
LnGrp Delay(d),s/veh	59.5	68.9	15.6	44.9	85.0	97.4	44.0	36.1	40.1	73.9	22.0	17.2
LnGrp LOS	E	F	B	D	F	F	D	D	D	F	C	B
Approach Vol, veh/h	2083					1621		488		872		
Approach Delay, s/veh	62.7					85.9		40.5		52.4		
Approach LOS	E					F		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	29.0	16.0	8.8	30.4	15.4	29.6	11.2	28.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	24.5	17.3	4.7	25.5	17.3	24.5	6.7	23.5				
Max Q Clear Time (g_c+20), s	20.5	10.3	4.7	27.9	10.7	5.5	7.6	25.5				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.3	3.2	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			66.2									
HCM 2010 LOS			E									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲	↱ ↲	↲	↰ ↱ ↲	↱ ↲	↲	↰ ↱ ↲	↱ ↲	↲	↰ ↱ ↲	↱ ↲	↲
Volume (veh/h)	180	1715	330	322	1164	119	380	175	442	59	90	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	189	1805	205	339	1225	93	400	184	376	62	95	31
Adj No. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1755	198	257	1930	146	434	456	388	156	118	39
Arrive On Green	0.12	0.38	0.38	0.14	0.40	0.40	0.24	0.24	0.24	0.09	0.09	0.09
Sat Flow, veh/h	1774	4637	524	1774	4822	366	1774	1863	1583	1774	1346	439
Grp Volume(v), veh/h	189	1317	693	339	861	457	400	184	376	62	0	126
Grp Sat Flow(s), veh/h/ln	1774	1695	1770	1774	1695	1798	1774	1863	1583	1774	0	1785
Q Serve(g_s), s	13.1	47.3	47.3	18.1	25.5	25.5	27.5	10.3	29.4	4.1	0.0	8.7
Cycle Q Clear(g_c), s	13.1	47.3	47.3	18.1	25.5	25.5	27.5	10.3	29.4	4.1	0.0	8.7
Prop In Lane	1.00		0.30	1.00		0.20	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	218	1283	670	257	1357	720	434	456	388	156	0	157
V/C Ratio(X)	0.87	1.03	1.03	1.32	0.63	0.63	0.92	0.40	0.97	0.40	0.00	0.80
Avail Cap(c_a), veh/h	366	1283	670	257	1357	720	434	456	388	227	0	229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.8	38.8	38.8	53.4	30.1	30.1	46.0	39.5	46.7	53.9	0.0	55.9
Incr Delay (d2), s/veh	10.8	32.1	43.8	168.4	1.0	1.8	24.9	0.6	37.7	1.6	0.0	12.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.1	27.8	31.2	20.9	12.1	13.1	16.4	5.4	16.9	2.1	0.0	4.8
LnGrp Delay(d), s/veh	64.6	71.0	82.6	221.9	31.1	32.0	70.9	40.1	84.4	55.5	0.0	68.2
LnGrp LOS	E	F	F	F	C	C	E	D	F	E		E
Approach Vol, veh/h	2199			1657			960			188		
Approach Delay, s/veh	74.1			70.4			70.3			64.0		
Approach LOS	E			E			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.1	22.6	51.8		15.5	19.9	54.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.6	18.1	47.3		16.0	25.8	39.6				
Max Q Clear Time (g_c+I1), s		31.4	20.1	49.3		10.7	15.1	27.5				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.3	0.3	11.3				
Intersection Summary												
HCM 2010 Ctrl Delay	71.8											
HCM 2010 LOS	E											

HCM 2010 Signalized Intersection Summary

19: Hunte Parkway & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		 				 	
Volume (veh/h)	85	1836	340	358	1085	150	250	45	381	160	230	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	89	1933	295	377	1142	158	263	47	390	168	242	115
Adj No. of Lanes	1	3	1	2	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	1949	607	402	1968	272	294	362	308	187	256	122
Arrive On Green	0.06	0.38	0.38	0.12	0.44	0.44	0.09	0.19	0.19	0.11	0.21	0.21
Sat Flow, veh/h	1774	5085	1583	3442	4518	625	3442	1863	1583	1774	1195	568
Grp Volume(v), veh/h	89	1933	295	377	857	443	263	47	390	168	0	357
Grp Sat Flow(s),veh/h/ln	1774	1695	1583	1721	1695	1752	1721	1863	1583	1774	0	1763
Q Serve(g_s), s	4.4	34.0	12.7	9.8	17.2	17.2	6.8	1.9	17.5	8.4	0.0	18.0
Cycle Q Clear(g_c), s	4.4	34.0	12.7	9.8	17.2	17.2	6.8	1.9	17.5	8.4	0.0	18.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	114	1949	607	402	1477	763	294	362	308	187	0	378
V/C Ratio(X)	0.78	0.99	0.49	0.94	0.58	0.58	0.89	0.13	1.27	0.90	0.00	0.94
Avail Cap(c_a), veh/h	199	1949	607	402	1477	763	294	362	308	187	0	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.5	27.6	21.0	39.4	19.2	19.2	40.7	30.0	36.3	39.8	0.0	34.8
Incr Delay (d2), s/veh	10.8	18.4	0.6	29.9	0.6	1.1	27.2	0.2	143.3	38.4	0.0	32.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	19.1	5.6	6.3	8.1	8.5	4.4	1.0	19.9	6.1	0.0	12.1
LnGrp Delay(d),s/veh	52.3	46.0	21.6	69.3	19.8	20.3	67.9	30.1	179.6	78.2	0.0	67.1
LnGrp LOS	D	D	C	E	B	C	E	C	F	E		E
Approach Vol, veh/h	2317				1677		700				525	
Approach Delay, s/veh	43.1				31.0		127.6				70.7	
Approach LOS	D				C		F				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	22.0	15.0	39.0	12.2	23.8	10.3	43.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	17.5	10.5	34.5	7.7	19.3	10.1	34.9				
Max Q Clear Time (g_c+10), s	10.4	19.5	11.8	36.0	8.8	20.0	6.4	19.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	14.6				
Intersection Summary												
HCM 2010 Ctrl Delay			53.3									
HCM 2010 LOS			D									

Intersection																
Intersection Delay, s/veh66.1																
Intersection LOS F																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	110	1771	40	0	74	1098	65	0	45	45	176	0	45	30	70
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	116	1864	42	0	78	1156	68	0	47	47	185	0	47	32	74
Number of Lanes	0	1	1	1	0	0	2	0	0	1	1	0	0	0	1	1
Approach	EB				WB				NB				SB			
Opposing Approach	WB				EB				SB				NB			
Opposing Lanes	2				3				2				2			
Conflicting Approach Left	SB				NB				EB				WB			
Conflicting Lanes Left	2				2				3				2			
Conflicting Approach Right	NB				SB				WB				EB			
Conflicting Lanes Right	2				2				2				3			
HCM Control Delay	70.9				73.5				24				16.1			
HCM LOS	F				F				C				C			
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2							
Vol Left, %	100%	0%	100%	0%	0%	12%	0%	60%	0%							
Vol Thru, %	0%	20%	0%	100%	0%	88%	89%	40%	0%							
Vol Right, %	0%	80%	0%	0%	100%	0%	11%	0%	100%							
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop							
Traffic Vol by Lane	45	221	110	1771	40	623	614	75	70							
LT Vol	45	0	110	0	0	74	0	45	0							
Through Vol	0	45	0	1771	0	549	549	30	0							
RT Vol	0	176	0	0	40	0	65	0	70							
Lane Flow Rate	47	233	116	1864	42	656	646	79	74							
Geometry Grp	8	8	8	8	8	8	8	8	8							
Degree of Util (X)	0.138	0.609	0.306	1	0.097	1	1	0.238	0.202							
Departure Headway (Hd)	10.472	9.417	9.502	9.001	8.301	8.597	8.463	10.871	9.873							
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes							
Cap	343	384	379	429	432	426	433	331	364							
Service Time	8.207	7.152	7.252	6.752	6.052	6.359	6.225	8.615	7.618							
HCM Lane V/C Ratio	0.137	0.607	0.306	4.345	0.097	1.54	1.492	0.239	0.203							
HCM Control Delay	14.9	25.8	16.4	75.6	11.9	73.8	73.2	17	15.1							
HCM Lane LOS	B	D	C	F	B	F	F	C	C							
HCM 95th-tile Q	0.5	3.9	1.3	12.2	0.3	12.5	12.6	0.9	0.7							

HCM 2010 Signalized Intersection Summary

21: East Lake Parkway & Fenton St

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	135	263	125	454	230	145	140	625	219	145	725	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	142	277	121	478	242	142	147	658	184	153	763	121
Adj No. of Lanes	0	1	1	2	1	0	2	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	281	367	729	233	137	191	762	213	170	977	155
Arrive On Green	0.23	0.23	0.23	0.21	0.21	0.21	0.06	0.28	0.28	0.10	0.32	0.32
Sat Flow, veh/h	621	1211	1583	3442	1102	647	3442	2734	764	1774	3061	485
Grp Volume(v), veh/h	419	0	121	478	0	384	147	426	416	153	441	443
Grp Sat Flow(s),veh/h/ln	1832	0	1583	1721	0	1749	1721	1770	1728	1774	1770	1777
Q Serve(g_s), s	22.6	0.0	6.3	12.6	0.0	21.0	4.2	22.7	22.7	8.5	22.4	22.4
Cycle Q Clear(g_c), s	22.6	0.0	6.3	12.6	0.0	21.0	4.2	22.7	22.7	8.5	22.4	22.4
Prop In Lane	0.34		1.00	1.00		0.37	1.00		0.44	1.00		0.27
Lane Grp Cap(c), veh/h	425	0	367	729	0	370	191	493	482	170	565	567
V/C Ratio(X)	0.99	0.00	0.33	0.66	0.00	1.04	0.77	0.86	0.86	0.90	0.78	0.78
Avail Cap(c_a), veh/h	425	0	367	729	0	370	191	509	497	170	580	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	31.7	35.8	0.0	39.1	46.2	33.9	34.0	44.4	30.6	30.6
Incr Delay (d2), s/veh	39.9	0.0	0.5	2.1	0.0	56.6	17.3	13.9	14.3	41.7	6.6	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	0.0	2.8	6.2	0.0	15.9	2.4	12.9	12.7	6.1	11.9	12.0
LnGrp Delay(d),s/veh	77.8	0.0	32.2	37.9	0.0	95.7	63.5	47.9	48.3	86.1	37.2	37.2
LnGrp LOS	E		C	D		F	E	D	D	F	D	D
Approach Vol, veh/h		540			862			989			1037	
Approach Delay, s/veh		67.6			63.6			50.4			44.4	
Approach LOS		E			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	32.1		27.5	10.0	36.1		25.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	28.5		23.0	5.5	32.5		21.0				
Max Q Clear Time (g_c+10), s	10.5	24.7		24.6	6.2	24.4		23.0				
Green Ext Time (p_c), s	0.0	3.0		0.0	0.0	5.7		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	54.6											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

22: Lane Ave & Fenton St

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	311	285	395	210	350	296	140	424	160	212	444	239
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	327	300	405	221	368	265	147	446	136	223	467	220
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	287	461	392	266	439	373	183	614	186	212	576	269
Arrive On Green	0.16	0.25	0.25	0.15	0.24	0.24	0.10	0.23	0.23	0.12	0.25	0.25
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	2679	810	1774	2343	1096
Grp Volume(v), veh/h	327	300	405	221	368	265	147	293	289	223	352	335
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1770	1720	1774	1770	1669
Q Serve(g_s), s	11.5	10.3	17.6	8.6	13.4	10.9	5.8	10.9	11.0	8.5	13.3	13.4
Cycle Q Clear(g_c), s	11.5	10.3	17.6	8.6	13.4	10.9	5.8	10.9	11.0	8.5	13.3	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.66
Lane Grp Cap(c), veh/h	287	461	392	266	439	373	183	405	394	212	435	410
V/C Ratio(X)	1.14	0.65	1.03	0.83	0.84	0.71	0.80	0.72	0.73	1.05	0.81	0.82
Avail Cap(c_a), veh/h	287	461	392	360	512	435	187	436	424	212	461	435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.0	26.7	29.3	25.8	24.9	31.1	25.3	25.3	31.2	25.2	25.3
Incr Delay (d2), s/veh	95.5	3.2	54.6	11.3	10.5	4.4	21.4	5.4	6.0	75.4	9.9	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	5.7	13.6	5.0	8.1	5.2	3.9	5.9	5.9	8.6	7.6	7.4
LnGrp Delay(d),s/veh	125.2	27.2	81.3	40.6	36.3	29.4	52.5	30.7	31.3	106.6	35.1	36.3
LnGrp LOS	F	C	F	D	D	C	D	C	C	F	D	D
Approach Vol, veh/h	1032			854			729			910		
Approach Delay, s/veh	79.5			35.3			35.3			53.1		
Approach LOS	E			D			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	20.8	15.2	22.1	11.8	21.9	16.0	21.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	17.5	17.5	14.4	16.6	7.5	18.5	11.5	19.5				
Max Q Clear Time (g_c+10), s	13.0	13.0	10.6	19.6	7.8	15.4	13.5	15.4				
Green Ext Time (p_c), s	0.0	2.8	0.2	0.0	0.0	2.0	0.0	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay	52.8											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

23: Heritage Rd/Paseo Ranchero & Telegraph Canyon Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	279	1390	480	278	1240	240	390	610	312	250	690	311
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	294	1463	494	293	1305	242	411	642	317	263	726	316
Adj No. of Lanes	2	3	1	2	3	0	2	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	365	1719	535	355	1445	268	417	1109	496	332	694	302
Arrive On Green	0.11	0.34	0.34	0.10	0.33	0.33	0.12	0.31	0.31	0.10	0.29	0.29
Sat Flow, veh/h	3442	5085	1583	3442	4312	800	3442	3539	1583	3442	2403	1045
Grp Volume(v), veh/h	294	1463	494	293	1026	521	411	642	317	263	535	507
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1722	1721	1770	1583	1721	1770	1678
Q Serve(g_s), s	9.0	28.7	32.2	9.0	31.0	31.0	12.8	16.3	18.5	8.0	31.0	31.0
Cycle Q Clear(g_c), s	9.0	28.7	32.2	9.0	31.0	31.0	12.8	16.3	18.5	8.0	31.0	31.0
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	365	1719	535	355	1136	577	417	1109	496	332	511	485
V/C Ratio(X)	0.80	0.85	0.92	0.83	0.90	0.90	0.99	0.58	0.64	0.79	1.05	1.05
Avail Cap(c_a), veh/h	513	1800	560	385	1136	577	417	1109	496	449	511	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	33.0	34.2	47.2	34.0	34.0	47.1	30.9	31.6	47.5	38.2	38.2
Incr Delay (d2), s/veh	6.3	4.0	20.6	12.9	10.2	17.6	40.3	0.8	2.7	6.8	52.5	53.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	14.0	17.1	4.9	16.1	17.6	8.4	8.1	8.5	4.1	22.5	21.5
LnGrp Delay(d),s/veh	53.2	37.0	54.8	60.1	44.2	51.7	87.4	31.7	34.4	54.3	90.7	91.9
LnGrp LOS	D	D	D	E	D	D	F	C	C	D	F	F
Approach Vol, veh/h	2251				1840				1370		1305	
Approach Delay, s/veh	43.0				48.9				49.0		83.8	
Approach LOS	D				D				D		F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.1	40.3	17.0	35.0	15.4	40.0	14.3	37.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	12.0	38.0	13.0	31.0	16.0	34.0	14.0	30.0				
Max Q Clear Time (g_c+1.0), s	11.0	34.2	14.8	33.0	11.0	33.0	10.0	20.5				
Green Ext Time (p_c), s	0.1	2.1	0.0	0.0	0.4	1.0	0.3	7.0				
Intersection Summary												
HCM 2010 Ctrl Delay			53.7									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

24: La Media Rd & Telegraph Canyon Road & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	542	1110	440	390	1010	370	390	1079	520	440	659	278
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	571	1168	452	411	1063	342	411	1136	547	463	694	261
Adj No. of Lanes	2	3	1	2	3	1	2	2	2	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	543	1356	422	421	1176	366	774	1101	1208	421	1059	330
Arrive On Green	0.16	0.27	0.27	0.12	0.23	0.23	0.22	0.31	0.31	0.12	0.21	0.21
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	3539	2787	3442	5085	1583
Grp Volume(v), veh/h	571	1168	452	411	1063	342	411	1136	547	463	694	261
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1770	1393	1721	1695	1583
Q Serve(g_s), s	14.2	19.7	24.0	10.7	18.3	13.8	9.5	28.0	3.7	11.0	11.3	14.1
Cycle Q Clear(g_c), s	14.2	19.7	24.0	10.7	18.3	13.8	9.5	28.0	3.7	11.0	11.3	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	543	1356	422	421	1176	366	774	1101	1208	421	1059	330
V/C Ratio(X)	1.05	0.86	1.07	0.98	0.90	0.93	0.53	1.03	0.45	1.10	0.66	0.79
Avail Cap(c_a), veh/h	543	1356	422	421	1187	369	774	1101	1208	421	1243	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	31.4	33.0	39.4	33.6	17.8	30.7	31.0	7.0	39.5	32.7	33.8
Incr Delay (d2), s/veh	53.1	5.9	63.9	37.7	9.8	30.4	0.7	35.6	0.3	74.0	1.0	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	9.9	17.9	7.3	9.6	9.1	4.6	19.1	2.6	9.5	5.4	7.0
LnGrp Delay(d),s/veh	91.1	37.3	96.9	77.1	43.4	48.2	31.4	66.6	7.2	113.5	33.6	43.0
LnGrp LOS	F	D	F	E	D	D	C	F	A	F	C	D
Approach Vol, veh/h	2191				1816		2094				1418	
Approach Delay, s/veh	63.6				52.0		44.2				61.4	
Approach LOS	E				D		D				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	28.0	24.2	22.8	18.2	24.8	15.0	32.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	24.0	17.0	22.0	14.0	21.0	11.0	28.0				
Max Q Clear Time (g_c+12.5), s	12.5	26.0	11.5	16.1	16.2	20.3	13.0	30.0				
Green Ext Time (p_c), s	0.0	0.0	4.4	2.7	0.0	0.5	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			55.0									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

25: SR-125 SB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑↑	↑				↑↑		↑
Traffic Volume (veh/h)	0	2502	100	0	1768	125	0	0	0	470	0	110
Future Volume (veh/h)	0	2502	100	0	1768	125	0	0	0	470	0	110
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863				1863	0	1863
Adj Flow Rate, veh/h	0	2634	94	0	1861	121				495	0	84
Adj No. of Lanes	0	3	1	0	3	1				2	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2				2	0	2
Cap, veh/h	0	3194	995	0	3194	1304				672	0	309
Arrive On Green	0.00	0.63	0.63	0.00	0.84	0.84				0.20	0.00	0.20
Sat Flow, veh/h	0	5253	1583	0	5253	1583				3442	0	1583
Grp Volume(v), veh/h	0	2634	94	0	1861	121				495	0	84
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583				1721	0	1583
Q Serve(g_s), s	0.0	25.6	1.5	0.0	7.5	0.4				8.7	0.0	2.9
Cycle Q Clear(g_c), s	0.0	25.6	1.5	0.0	7.5	0.4				8.7	0.0	2.9
Prop In Lane	0.00		1.00	0.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3194	995	0	3194	1304				672	0	309
V/C Ratio(X)	0.00	0.82	0.09	0.00	0.58	0.09				0.74	0.00	0.27
Avail Cap(c_a), veh/h	0	3194	995	0	3194	1304				672	0	309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.84	0.84				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	9.2	4.7	0.0	2.6	0.5				24.2	0.0	21.9
Incr Delay (d2), s/veh	0.0	2.6	0.2	0.0	0.7	0.1				7.1	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.5	0.7	0.0	3.4	0.4				4.7	0.0	1.4
LnGrp Delay(d),s/veh	0.0	11.7	4.9	0.0	3.2	0.6				31.3	0.0	24.0
LnGrp LOS		B	A		A	A				C		C
Approach Vol, veh/h		2728			1982						579	
Approach Delay, s/veh		11.5			3.1						30.2	
Approach LOS		B			A						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		46.0		18.0		46.0						
Change Period (Y+Rc), s		5.8		5.5		5.8						
Max Green Setting (Gmax), s		40.2		12.5		40.2						
Max Q Clear Time (g_c+l1), s		27.6		10.7		9.5						
Green Ext Time (p_c), s		12.6		0.5		30.6						
Intersection Summary												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary

26: SR-125 NB Ramps & Otay Lakes Road

07/12/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑		↑↑↑↑	↑	↑		↑↑			
Traffic Volume (veh/h)	0	2842	130	0	1808	340	85	0	140	0	0	0
Future Volume (veh/h)	0	2842	130	0	1808	340	85	0	140	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1863	1863	0	1863	1863	1863	0	1863			
Adj Flow Rate, veh/h	0	2992	126	0	1903	253	89	0	115			
Adj No. of Lanes	0	3	1	0	3	1	1	0	2			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	2	2	0	2	2	2	0	2			
Cap, veh/h	0	3780	1304	0	3780	1177	142	0	223			
Arrive On Green	0.00	1.00	1.00	0.00	0.74	0.74	0.08	0.00	0.08			
Sat Flow, veh/h	0	5253	1583	0	5253	1583	1774	0	2787			
Grp Volume(v), veh/h	0	2992	126	0	1903	253	89	0	115			
Grp Sat Flow(s),veh/h/ln	0	1695	1583	0	1695	1583	1774	0	1393			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	9.8	3.1	3.1	0.0	2.5			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	9.8	3.1	3.1	0.0	2.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3780	1304	0	3780	1177	142	0	223			
V/C Ratio(X)	0.00	0.79	0.10	0.00	0.50	0.21	0.63	0.00	0.51			
Avail Cap(c_a), veh/h	0	3780	1304	0	3780	1177	208	0	327			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.48	0.48	0.00	0.54	0.54	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	3.4	2.5	28.5	0.0	28.2			
Incr Delay (d2), s/veh	0.0	0.9	0.1	0.0	0.3	0.2	4.8	0.0	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.0	0.0	4.5	1.4	1.7	0.0	1.0			
LnGrp Delay(d),s/veh	0.0	0.9	0.1	0.0	3.6	2.7	33.3	0.0	30.2			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h	3118			2156			204					
Approach Delay, s/veh	0.8			3.5			31.6					
Approach LOS	A			A			C					
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2						6			8		
Phs Duration (G+Y+Rc), s	53.4						53.4			10.6		
Change Period (Y+Rc), s	5.8						5.8			5.5		
Max Green Setting (Gmax), s	45.2						45.2			7.5		
Max Q Clear Time (g_c+I1), s	2.0						11.8			5.1		
Green Ext Time (p_c), s	43.1						33.3			0.2		
Intersection Summary												
HCM 2010 Ctrl Delay	3.0											
HCM 2010 LOS	A											

HCM 2010 Signalized Intersection Summary

27: East Lake Parkway & Otay Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 		 	 	
Volume (veh/h)	449	1509	860	426	939	150	530	470	314	190	560	469
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	473	1588	905	448	988	147	558	495	268	200	589	431
Adj No. of Lanes	2	3	2	2	3	0	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	1582	867	478	1441	214	593	995	665	275	669	501
Arrive On Green	0.13	0.31	0.31	0.14	0.32	0.32	0.17	0.28	0.28	0.08	0.19	0.19
Sat Flow, veh/h	3442	5085	2787	3442	4472	664	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	473	1588	905	448	748	387	558	495	268	200	589	431
Grp Sat Flow(s),veh/h/ln	1721	1695	1393	1721	1695	1746	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	11.5	28.0	28.0	11.6	17.3	17.4	14.4	10.5	10.6	5.1	14.6	17.0
Cycle Q Clear(g_c), s	11.5	28.0	28.0	11.6	17.3	17.4	14.4	10.5	10.6	5.1	14.6	17.0
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	440	1582	867	478	1092	562	593	995	665	275	669	501
V/C Ratio(X)	1.08	1.00	1.04	0.94	0.69	0.69	0.94	0.50	0.40	0.73	0.88	0.86
Avail Cap(c_a), veh/h	440	1582	867	478	1092	562	593	995	665	363	669	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	31.0	31.0	38.4	26.5	26.6	36.8	27.0	18.2	40.4	35.5	28.9
Incr Delay (d2), s/veh	64.7	23.5	42.6	26.3	1.8	3.5	23.5	1.8	1.8	4.9	15.5	17.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	16.5	15.8	7.2	8.3	8.9	8.8	5.4	5.0	2.6	8.6	12.4
LnGrp Delay(d),s/veh	103.9	54.5	73.6	64.6	28.3	30.0	60.3	28.8	20.0	45.4	51.0	46.1
LnGrp LOS	F	F	F	E	C	C	E	C	C	D	D	D
Approach Vol, veh/h		2966			1583			1321			1220	
Approach Delay, s/veh		68.2			39.0			40.3			48.4	
Approach LOS		E			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.7	29.3	17.0	32.0	20.0	21.0	16.0	33.0				
Change Period (Y+Rc), s	4.5	4.0	4.5	4.0	4.5	4.0	4.5	4.0				
Max Green Setting (Gmax), s	9.5	23.0	12.5	28.0	15.5	17.0	11.5	29.0				
Max Q Clear Time (g_c+I1), s	17.1	12.6	13.6	30.0	16.4	19.0	13.5	19.4				
Green Ext Time (p_c), s	0.1	6.5	0.0	0.0	0.0	0.0	0.0	9.1				
Intersection Summary												
HCM 2010 Ctrl Delay			53.1									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

28: Otay Lakes Road & Lane Ave

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	🚗🚗	🚗🚗🚗	🚗🚗🚗		🚗🚗🚗	🚗		
Volume (veh/h)	609	1439	886	160	390	629		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1313	950		
Adj Flow Rate, veh/h	641	1515	933	168	358	719		
Adj No. of Lanes	2	3	3	0	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	100		
Cap, veh/h	675	2441	987	177	509	658		
Arrive On Green	0.20	0.48	0.23	0.23	0.41	0.41		
Sat Flow, veh/h	3442	5253	4505	778	1250	1615		
Grp Volume(v), veh/h	641	1515	729	372	358	719		
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1725	1250	807		
Q Serve(g_s), s	14.7	17.7	16.9	17.0	19.0	32.6		
Cycle Q Clear(g_c), s	14.7	17.7	16.9	17.0	19.0	32.6		
Prop In Lane	1.00			0.45	1.00	1.00		
Lane Grp Cap(c), veh/h	675	2441	771	393	509	658		
V/C Ratio(X)	0.95	0.62	0.94	0.95	0.70	1.09		
Avail Cap(c_a), veh/h	675	2441	771	393	509	658		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.8	15.4	30.4	30.4	19.7	23.7		
Incr Delay (d2), s/veh	22.9	0.5	20.1	32.5	4.3	63.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	8.2	10.0	11.6	7.2	17.3		
LnGrp Delay(d),s/veh	54.6	15.9	50.5	62.9	24.0	86.7		
LnGrp LOS	D	B	D	E	C	F		
Approach Vol, veh/h		2156	1101		1077			
Approach Delay, s/veh		27.4	54.7		65.8			
Approach LOS		C	D		E			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.9		37.1	20.2	22.7		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		38.4		32.6	15.7	18.2		
Max Q Clear Time (g_c+l1), s		19.7		34.6	16.7	19.0		
Green Ext Time (p_c), s		14.9		0.0	0.0	0.0		
Intersection Summary								
HCM 2010 Ctrl Delay			43.9					
HCM 2010 LOS			D					
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

29: Otay Lakes Road

3/27/2017



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		  	  					
Volume (veh/h)	250	1579	786	302	356	260		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863		
Adj Flow Rate, veh/h	263	1662	827	318	375	274		
Adj No. of Lanes	1	3	3	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	172	2594	1104	422	483	431		
Arrive On Green	0.10	0.51	0.30	0.30	0.27	0.27		
Sat Flow, veh/h	1774	5253	3791	1385	1774	1583		
Grp Volume(v), veh/h	263	1662	774	371	375	274		
Grp Sat Flow(s),veh/h/ln	1774	1695	1695	1618	1774	1583		
Q Serve(g_s), s	4.0	9.8	8.5	8.6	8.1	6.3		
Cycle Q Clear(g_c), s	4.0	9.8	8.5	8.6	8.1	6.3		
Prop In Lane	1.00			0.86	1.00	1.00		
Lane Grp Cap(c), veh/h	172	2594	1033	493	483	431		
V/C Ratio(X)	1.53	0.64	0.75	0.75	0.78	0.64		
Avail Cap(c_a), veh/h	172	2594	1311	626	686	612		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	18.7	7.4	13.0	13.0	13.9	13.2		
Incr Delay (d2), s/veh	267.1	0.5	1.8	3.9	3.6	1.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.6	4.6	4.2	4.4	4.4	5.6		
LnGrp Delay(d),s/veh	285.8	7.9	14.8	16.9	17.5	14.8		
LnGrp LOS	F	A	B	B	B	B		
Approach Vol, veh/h		1925	1145		649			
Approach Delay, s/veh		45.9	15.5		16.4			
Approach LOS		D	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		25.6		15.8	8.5	17.1		
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s		16.0		16.0	4.0	16.0		
Max Q Clear Time (g_c+I1), s		11.8		10.1	6.0	10.6		
Green Ext Time (p_c), s		3.9		1.2	0.0	2.0		
Intersection Summary								
HCM 2010 Ctrl Delay			31.4					
HCM 2010 LOS			C					

HCM 2010 Signalized Intersection Summary

30: Hunte Parkway & Otoy Lakes Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	285	1170	480	260	535	99	280	330	430	189	313	278
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	300	1232	494	274	563	104	295	347	442	199	329	282
Adj No. of Lanes	2	3	0	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	400	1338	534	309	1770	551	405	783	350	258	632	283
Arrive On Green	0.12	0.37	0.37	0.09	0.35	0.35	0.12	0.22	0.22	0.07	0.18	0.18
Sat Flow, veh/h	3442	3574	1427	3442	5085	1583	3442	3539	1583	3442	3539	1583
Grp Volume(v), veh/h	300	1168	558	274	563	104	295	347	442	199	329	282
Grp Sat Flow(s),veh/h/ln	1721	1695	1611	1721	1695	1583	1721	1770	1583	1721	1770	1583
Q Serve(g_s), s	5.6	22.0	22.1	5.3	5.4	3.1	5.5	5.7	10.8	3.8	5.6	8.5
Cycle Q Clear(g_c), s	5.6	22.0	22.1	5.3	5.4	3.1	5.5	5.7	10.8	3.8	5.6	8.5
Prop In Lane	1.00		0.89	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	1269	603	309	1770	551	405	783	350	258	632	283
V/C Ratio(X)	0.75	0.92	0.92	0.89	0.32	0.19	0.73	0.44	1.26	0.77	0.52	1.00
Avail Cap(c_a), veh/h	464	1269	603	309	1770	551	405	954	427	258	848	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	19.9	20.0	30.0	16.0	15.2	28.4	22.4	13.9	30.3	24.8	13.9
Incr Delay (d2), s/veh	5.8	12.2	22.2	25.0	0.5	0.8	6.5	0.4	138.7	13.5	0.7	40.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	12.4	13.5	3.5	2.6	1.4	3.0	2.8	18.5	2.3	2.8	7.4
LnGrp Delay(d),s/veh	34.3	32.2	42.1	55.0	16.4	15.9	34.9	22.8	152.6	43.8	25.5	54.7
LnGrp LOS	C	C	D	E	B	B	C	C	F	D	C	D
Approach Vol, veh/h	2026					941		1084		810		
Approach Delay, s/veh	35.2					27.6		79.1		40.2		
Approach LOS	D					C		E		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	29.0	11.9	15.9	11.8	27.2	9.0	18.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	10.0	25.0	7.0	16.0	9.0	22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	17.3	24.1	7.5	10.5	7.6	7.4	5.8	12.8				
Green Ext Time (p_c), s	0.0	0.7	0.0	1.4	0.1	4.1	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			44.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

31: East Lake Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	
Volume (veh/h)	290	1432	360	220	1238	120	460	550	400	220	660	330
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	305	1507	368	232	1303	115	484	579	410	232	695	336
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	403	2028	631	189	1712	533	473	1179	454	325	960	852
Arrive On Green	0.12	0.40	0.40	0.05	0.34	0.34	0.14	0.23	0.23	0.09	0.19	0.19
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	3442	5085	1583	3442	5085	2787
Grp Volume(v), veh/h	305	1507	368	232	1303	115	484	579	410	232	695	336
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1721	1695	1583	1721	1695	1393
Q Serve(g_s), s	6.2	18.4	13.2	4.0	16.6	3.8	10.0	7.2	11.3	4.8	9.3	3.9
Cycle Q Clear(g_c), s	6.2	18.4	13.2	4.0	16.6	3.8	10.0	7.2	11.3	4.8	9.3	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	403	2028	631	189	1712	533	473	1179	454	325	960	852
V/C Ratio(X)	0.76	0.74	0.58	1.23	0.76	0.22	1.02	0.49	0.90	0.71	0.72	0.39
Avail Cap(c_a), veh/h	521	2028	631	189	1712	533	473	1189	457	426	1119	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	18.7	17.1	34.4	21.5	17.3	31.4	24.2	15.5	32.0	27.7	7.9
Incr Delay (d2), s/veh	4.7	2.5	3.9	139.2	3.3	0.9	47.3	0.3	20.8	3.9	2.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	9.0	6.4	5.5	8.2	1.8	7.8	3.4	8.9	2.4	4.6	1.7
LnGrp Delay(d),s/veh	35.8	21.2	21.0	173.6	24.8	18.2	78.7	24.5	36.4	35.8	29.7	8.2
LnGrp LOS	D	C	C	F	C	B	F	C	D	D	C	A
Approach Vol, veh/h	2180					1650		1473		1263		
Approach Delay, s/veh	23.2					45.2		45.6		25.1		
Approach LOS	C					D		D		C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	33.0	14.0	17.7	12.5	28.5	10.9	20.9				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	1.0	29.0	10.0	16.0	11.0	22.0	9.0	17.0				
Max Q Clear Time (g_c+10), s	1.0	20.4	12.0	11.3	8.2	18.6	6.8	13.3				
Green Ext Time (p_c), s	0.0	6.3	0.0	2.4	0.3	2.6	0.2	2.3				
Intersection Summary												
HCM 2010 Ctrl Delay			34.1									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

32: Hunte Parkway & Olympic Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↰↱↲		↰↱	↰↱	↰	↰↱	↰↱↲		↰↱	↰↱	↰
Volume (veh/h)	502	1140	320	310	1290	100	240	733	250	240	675	408
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	528	1200	242	326	1358	105	253	772	189	253	711	429
Adj No. of Lanes	2	3	0	2	2	1	2	3	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	535	1469	296	683	1376	616	268	817	198	268	708	563
Arrive On Green	0.16	0.35	0.35	0.20	0.39	0.39	0.08	0.20	0.20	0.08	0.20	0.20
Sat Flow, veh/h	3442	4246	856	3442	3539	1583	3442	4087	991	3442	3539	1583
Grp Volume(v), veh/h	528	958	484	326	1358	105	253	639	322	253	711	429
Grp Sat Flow(s),veh/h/ln	1721	1695	1712	1721	1770	1583	1721	1695	1688	1721	1770	1583
Q Serve(g_s), s	13.8	23.2	23.2	7.5	34.2	3.9	6.6	16.7	17.0	6.6	18.0	14.5
Cycle Q Clear(g_c), s	13.8	23.2	23.2	7.5	34.2	3.9	6.6	16.7	17.0	6.6	18.0	14.5
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	535	1173	592	683	1376	616	268	678	338	268	708	563
V/C Ratio(X)	0.99	0.82	0.82	0.48	0.99	0.17	0.95	0.94	0.95	0.95	1.00	0.76
Avail Cap(c_a), veh/h	535	1318	666	683	1376	616	268	678	338	268	708	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	26.8	26.8	31.9	27.3	18.0	41.3	35.5	35.6	41.3	36.0	12.5
Incr Delay (d2), s/veh	35.2	3.7	7.1	0.5	21.0	0.1	40.3	21.6	36.7	40.3	34.9	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	11.4	12.1	3.6	20.6	1.7	4.6	9.9	11.3	4.6	12.2	7.3
LnGrp Delay(d),s/veh	73.1	30.6	34.0	32.5	48.3	18.1	81.6	57.1	72.3	81.6	70.9	18.6
LnGrp LOS	E	C	C	C	D	B	F	E	E	F	F	B
Approach Vol, veh/h	1970				1789		1214				1393	
Approach Delay, s/veh	42.8				43.6		66.2				56.7	
Approach LOS	D				D		E				E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.9	35.1	11.0	22.0	18.0	39.0	11.0	22.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	14.0	35.0	7.0	18.0	14.0	35.0	7.0	18.0				
Max Q Clear Time (g_c+I), s	19.5	25.2	8.6	20.0	15.8	36.2	8.6	19.0				
Green Ext Time (p_c), s	3.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			50.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

33: East Lake Parkway & Hunte Parkway

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	490	1251	270	188	1062	560	150	260	182	460	270	410
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	516	1317	273	198	1118	526	158	274	181	484	284	369
Adj No. of Lanes	2	3	0	2	2	2	1	2	0	2	3	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	585	1841	381	270	1219	960	191	334	214	505	678	317
Arrive On Green	0.17	0.44	0.44	0.08	0.34	0.34	0.11	0.16	0.16	0.15	0.20	0.20
Sat Flow, veh/h	3442	4224	875	3442	3539	2787	1774	2071	1327	3442	3390	1583
Grp Volume(v), veh/h	516	1057	533	198	1118	526	158	233	222	484	284	369
Grp Sat Flow(s),veh/h/ln	1721	1695	1708	1721	1770	1393	1774	1770	1629	1721	1695	1583
Q Serve(g_s), s	13.2	23.0	23.0	5.1	27.2	13.7	7.9	11.4	11.9	12.6	6.6	18.0
Cycle Q Clear(g_c), s	13.2	23.0	23.0	5.1	27.2	13.7	7.9	11.4	11.9	12.6	6.6	18.0
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.81	1.00		1.00
Lane Grp Cap(c), veh/h	585	1478	745	270	1219	960	191	285	263	505	678	317
V/C Ratio(X)	0.88	0.72	0.72	0.73	0.92	0.55	0.83	0.82	0.85	0.96	0.42	1.17
Avail Cap(c_a), veh/h	585	1478	745	306	1219	960	217	315	290	505	678	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	20.8	20.8	40.5	28.3	23.8	39.3	36.5	36.7	38.1	31.4	36.0
Incr Delay (d2), s/veh	14.7	3.0	5.8	7.7	12.3	2.2	20.4	14.2	18.9	29.8	0.4	103.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	11.3	12.0	2.7	15.3	5.6	4.9	6.7	6.7	8.1	3.1	16.9
LnGrp Delay(d),s/veh	51.2	23.8	26.6	48.2	40.6	26.1	59.7	50.6	55.5	67.9	31.8	139.2
LnGrp LOS	D	C	C	D	D	C	E	D	E	E	C	F
Approach Vol, veh/h	2106				1842		613				1137	
Approach Delay, s/veh	31.2				37.2		54.7				82.1	
Approach LOS	C				D		D				F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	43.2	13.7	22.0	19.3	35.0	17.2	18.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	37.0	37.0	11.0	18.0	14.0	31.0	13.0	16.0				
Max Q Clear Time (g_c+I1), s	25.0	25.0	9.9	20.0	15.2	29.2	14.6	13.9				
Green Ext Time (p_c), s	0.1	9.1	0.0	0.0	0.0	1.4	0.0	0.6				
Intersection Summary												
HCM 2010 Ctrl Delay			45.8									
HCM 2010 LOS			D									

Intersection			
Intersection Delay, s/veh 109.5			
Intersection LOS F			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	109	2097	1192
Demand Flow Rate, veh/h	111	2139	1215
Vehicles Circulating, veh/h	1953	18	107
Vehicles Exiting, veh/h	204	1304	1957
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	66.3	432.4	115.4
Approach LOS	F	F	F
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	111	2139	1215
Cap Entry Lane, veh/h	160	1110	1015
Entry HV Adj Factor	0.982	0.980	0.981
Flow Entry, veh/h	109	2097	1192
Cap Entry, veh/h	157	1088	996
V/C Ratio	0.693	1.927	1.197
Control Delay, s/veh	66.3	432.4	115.4
LOS	F	F	F
95th %tile Queue, veh	4	132	37

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR		NBT	NBR	SBL SBT
Vol, veh/h	0	4		1765	58	0 1127
Conflicting Peds, #/hr	0	0		0	0	0 0
Sign Control	Stop	Stop		Free	Free	Free Free
RT Channelized	-	None		-	None	- None
Storage Length	-	0		-	-	- -
Veh in Median Storage, #	0	-		0	-	- 0
Grade, %	0	-		0	-	- 0
Peak Hour Factor	95	95		95	95	95 95
Heavy Vehicles, %	2	2		2	2	2 2
Mvmt Flow	0	4		1858	61	0 1186
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3074	1888		0	0	1919 0
Stage 1	1888	-		-	-	- -
Stage 2	1186	-		-	-	- -
Critical Hdwy	6.42	6.22		-	-	4.12 -
Critical Hdwy Stg 1	5.42	-		-	-	- -
Critical Hdwy Stg 2	5.42	-		-	-	- -
Follow-up Hdwy	3.518	3.318		-	-	2.218 -
Pot Cap-1 Maneuver	13	88		-	-	308 -
Stage 1	131	-		-	-	- -
Stage 2	290	-		-	-	- -
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	13	88		-	-	308 -
Mov Cap-2 Maneuver	13	-		-	-	- -
Stage 1	131	-		-	-	- -
Stage 2	290	-		-	-	- -
Approach	WB		NB		SB	
HCM Control Delay, s	48		0		0	
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	88	308	-	
HCM Lane V/C Ratio	-	-	0.048	-	-	
HCM Control Delay (s)	-	-	48	0	-	
HCM Lane LOS	-	-	E	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection				
Intersection Delay, s/veh	177.2			
Intersection LOS	F			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	12	83	1652	1141
Demand Flow Rate, veh/h	12	84	1685	1164
Vehicles Circulating, veh/h	1235	1546	15	85
Vehicles Exiting, veh/h	14	154	1232	1545
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.6	24.8	248.8	86.2
Approach LOS	B	C	F	F
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	12	84	1685	1164
Cap Entry Lane, veh/h	329	241	1113	1038
Entry HV Adj Factor	0.992	0.987	0.980	0.981
Flow Entry, veh/h	12	83	1652	1141
Cap Entry, veh/h	326	238	1091	1018
V/C Ratio	0.037	0.349	1.514	1.122
Control Delay, s/veh	11.6	24.8	248.8	86.2
LOS	B	C	F	F
95th %tile Queue, veh	0	1	78	30

Intersection			
Intersection Delay, s/veh 43.8			
Intersection LOS F			
Approach	WB	NB	SB
Entry Lanes	0	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	0	1515	1036
Demand Flow Rate, veh/h	0	1546	1056
Vehicles Circulating, veh/h	1353	19	126
Vehicles Exiting, veh/h	212	1163	1362
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	0.0	196.8	66.2
Approach LOS	-	F	F
Lane	Left	Left	
Designated Moves	TR	LT	
Assumed Moves	TR	LT	
RT Channelized			
Lane Util	1.000	1.000	
Critical Headway, s	5.193	5.193	
Entry Flow, veh/h	1546	1056	
Cap Entry Lane, veh/h	1109	996	
Entry HV Adj Factor	0.980	0.981	
Flow Entry, veh/h	1515	1036	
Cap Entry, veh/h	1087	977	
V/C Ratio	1.394	1.060	
Control Delay, s/veh	196.8	66.2	
LOS	F	F	
95th %tile Queue, veh	63	24	

Intersection				
Intersection Delay, s/veh34.0				
Intersection LOS D				
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	21	13	1010	1012
Demand Flow Rate, veh/h	21	13	1030	1032
Vehicles Circulating, veh/h	1035	1026	11	45
Vehicles Exiting, veh/h	42	15	1045	994
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.8	9.4	31.2	37.7
Approach LOS	A	A	D	E
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	21	13	1030	1032
Cap Entry Lane, veh/h	401	405	1118	1080
Entry HV Adj Factor	0.995	0.992	0.980	0.981
Flow Entry, veh/h	21	13	1010	1012
Cap Entry, veh/h	400	402	1095	1059
V/C Ratio	0.052	0.032	0.922	0.955
Control Delay, s/veh	9.8	9.4	31.2	37.7
LOS	A	A	D	E
95th %tile Queue, veh	0	0	15	17

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	16	32	434	523	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	17	34	457	551	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1076	552	554	0	-	0
Stage 1	552	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	243	533	1016	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	232	533	1016	-	-	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.5	0.6		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1016	-	495	-	-	
HCM Lane V/C Ratio	0.033	-	0.036	-	-	
HCM Control Delay (s)	8.7	0	12.5	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	5	429	6	5	524
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	5	452	6	5	552

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1017	455	0
Stage 1	455	-	-
Stage 2	562	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	263	605	1103
Stage 1	639	-	-
Stage 2	571	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	261	605	1103
Mov Cap-2 Maneuver	261	-	-
Stage 1	639	-	-
Stage 2	567	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	439	1103
HCM Lane V/C Ratio	-	-	0.017	0.005
HCM Control Delay (s)	-	-	13.3	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection				
Intersection Delay, s/veh	8.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	15	18	457	543
Demand Flow Rate, veh/h	15	18	466	554
Vehicles Circulating, veh/h	565	444	12	28
Vehicles Exiting, veh/h	17	34	568	434
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.9	5.2	7.7	9.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	15	18	466	554
Cap Entry Lane, veh/h	642	725	1116	1099
Entry HV Adj Factor	0.993	0.995	0.980	0.980
Flow Entry, veh/h	15	18	457	543
Cap Entry, veh/h	638	721	1094	1077
V/C Ratio	0.023	0.025	0.417	0.504
Control Delay, s/veh	5.9	5.2	7.7	9.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	3

Intersection												
Int Delay, s/veh	9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	45	0	35	0	0	0	75	620	0	0	950	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	180	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	0	37	0	0	0	79	653	0	0	1000	26
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1824	1824	1013	1843	1837	653	1026	0	0	653	0	0
Stage 1	1013	1013	-	811	811	-	-	-	-	-	-	-
Stage 2	811	811	-	1032	1026	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	59	77	290	58	76	467	677	-	-	934	-	-
Stage 1	288	316	-	373	393	-	-	-	-	-	-	-
Stage 2	373	393	-	281	312	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	54	68	290	46	67	467	677	-	-	934	-	-
Mov Cap-2 Maneuver	54	68	-	46	67	-	-	-	-	-	-	-
Stage 1	254	316	-	329	347	-	-	-	-	-	-	-
Stage 2	329	347	-	245	312	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	187.5			0			1.2			0		
HCM LOS	F			A								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	677	-	-	84	-	934	-	-				
HCM Lane V/C Ratio	0.117	-	-	1.003	-	-	-	-				
HCM Control Delay (s)	11	-	-	187.5	0	0	-	-				
HCM Lane LOS	B	-	-	F	A	A	-	-				
HCM 95th %tile Q(veh)	0.4	-	-	5.6	-	0	-	-				

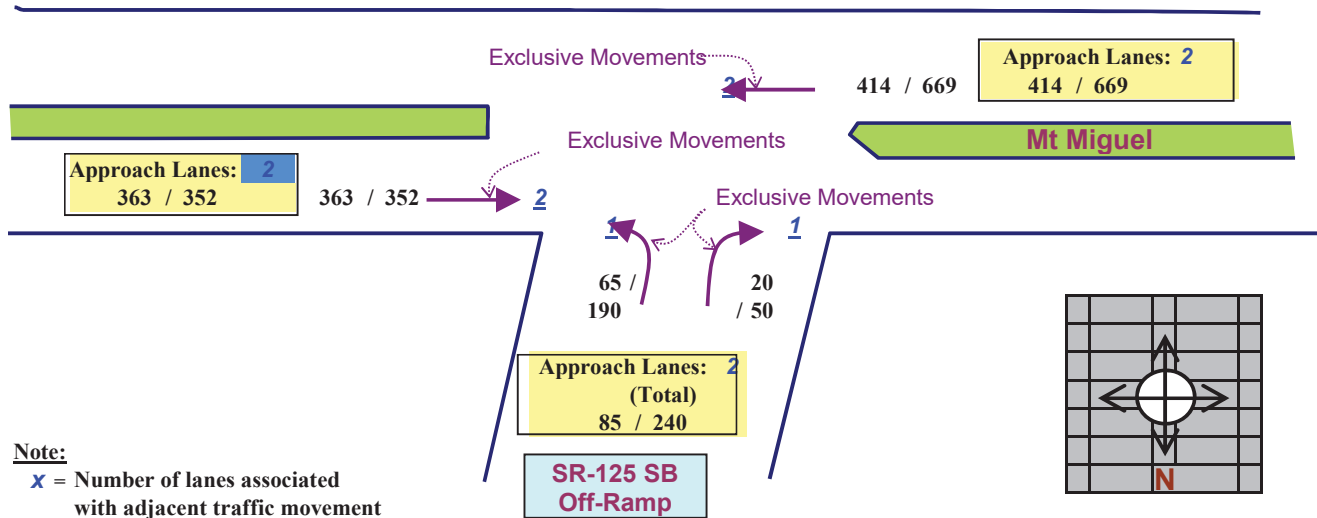
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

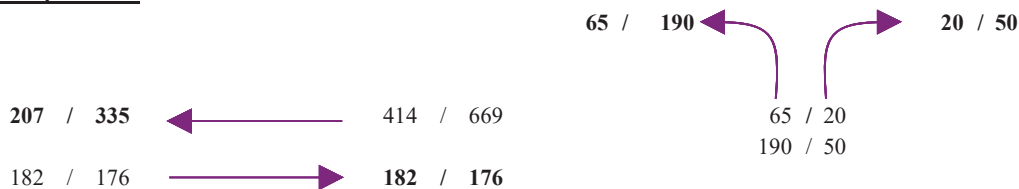
LOCATION: SR-125 SB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



(Indicate "N" on North Arrow)

ILV per Lane:



PHASE 1:

207	/	335
182	/	176

 ⇒

207	/	335
-----	---	-----

PHASE 2:

65	/	190
20	/	50

 ⇒

65	/	190
----	---	-----

PHASE 3:

0	/	0
0	/	0

 ⇒

0	/	0
---	---	---

TOTAL = 272 / 525 ILV/HR. in the AM / PM peak hours

OPERATING LEVEL:

ILV/HR. = 272 in AM ⇒ ILV: <1,200M
and 525 in PM ⇒ ILV <1,200

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

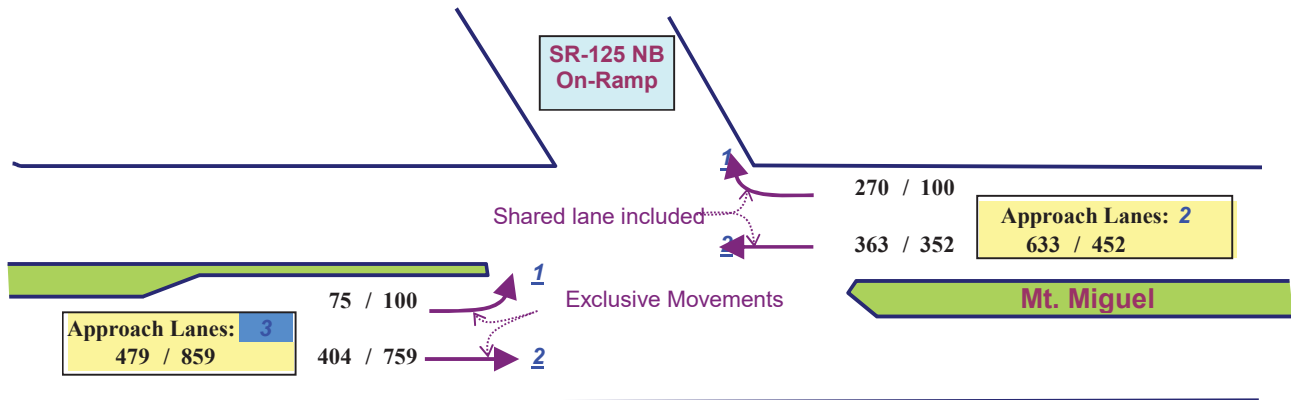
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

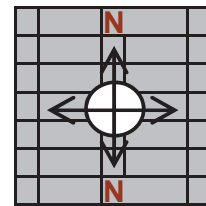
LOCATION: SR-125 NB / Mt. Miguel

Scenario: Existing
(AM/PM Peak)



Note:

X = Number of lanes associated
with adjacent traffic movement



(Indicate "N" on North Arrow)

ILV per Lane:

Shared with Thru => 317 / 226
317 / 226
202 / 380
633 / 452
75 / 100
363 / 352
0 / 154
202 / 226 (Remainder in Phase II)

PHASE 1: 317 / 202 / 226 / 226 => 317 / 226

PHASE 2: 75 / 0 / 100 / 154 => 75 / 154

OPERATING LEVEL:

ILV/HR. = 392 in AM => ILV: <1,200M
and 380 in PM => ILV <1,200

TOTAL = 392 / 380 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

Scenario: Existing
(AM/PM Peak)



Shared with Thru => 439 / 617

439 / 617 1,316 / 1,852 0 / 0

682 / 574 439 / 574 (Remainder in Phase III)

575 / 537 956 / 1,527 243 / 0

PHASE 3:

575	/	537	⇒	575	/	537
243	/	0				

ILV/HR. = **1,014** in AM ==> ILV: <1,200M
and **1,154** in PM ==> ILV <1,200

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

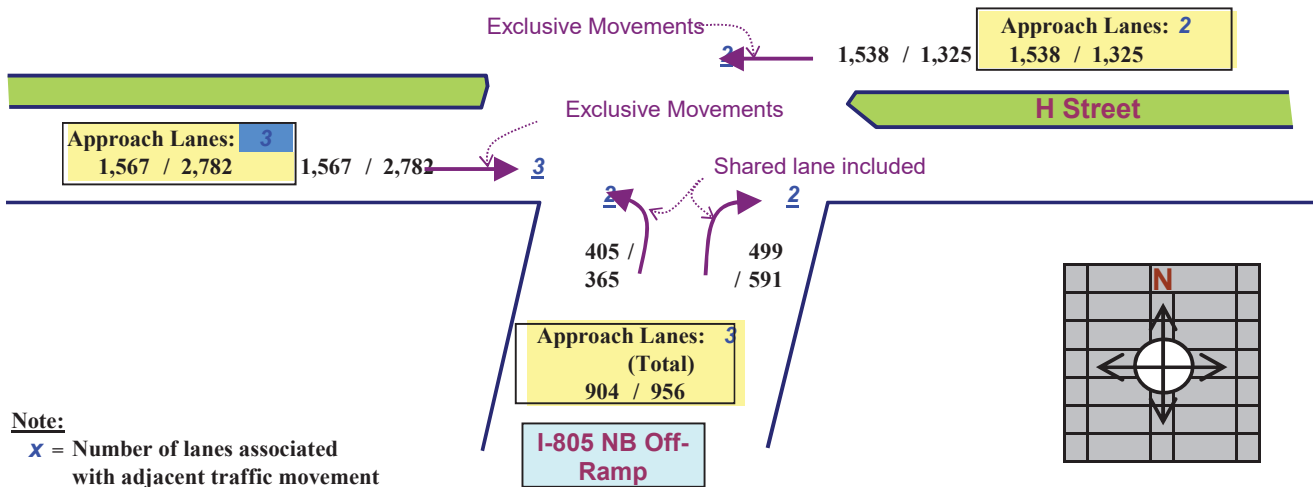
(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

PROJECT: OVL

LOCATION: I-805 NB / H Street

Scenario: Existing
(AM/PM Peak)

Note: NBR turn before this intersection

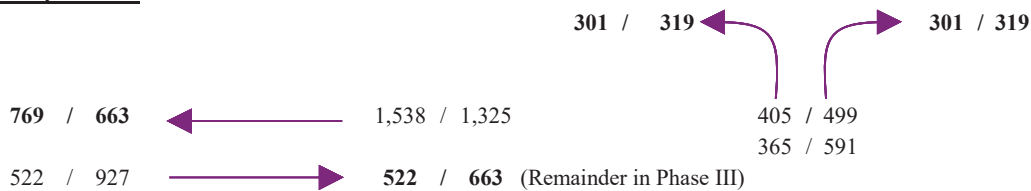


Note:

x = Number of lanes associated with adjacent traffic movement

(Indicate "N" on North Arrow)

ILV per Lane:



PHASE 1: 769 / 522 / 663 / 663 => 769 / 663

PHASE 2: 301 / 301 / 319 / 319 => 301 / 319

OPERATING LEVEL:

ILV/HR. = 1,070 in AM ==> ILV: <1,200M
and 981 in PM ==> ILV <1,200

TOTAL = 1,070 / 981 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

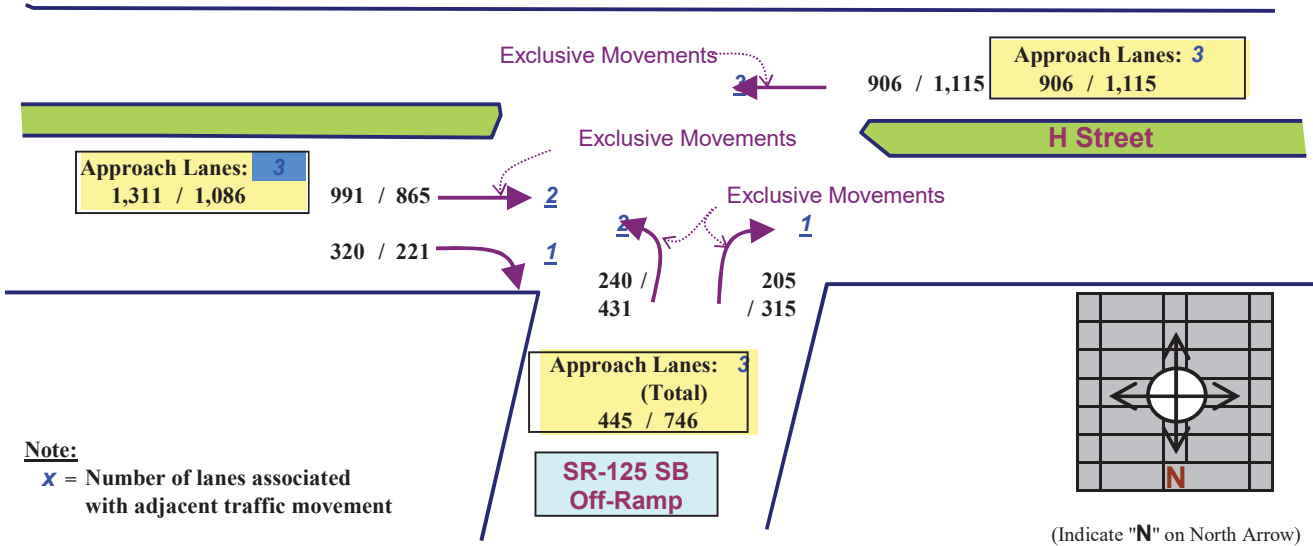
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

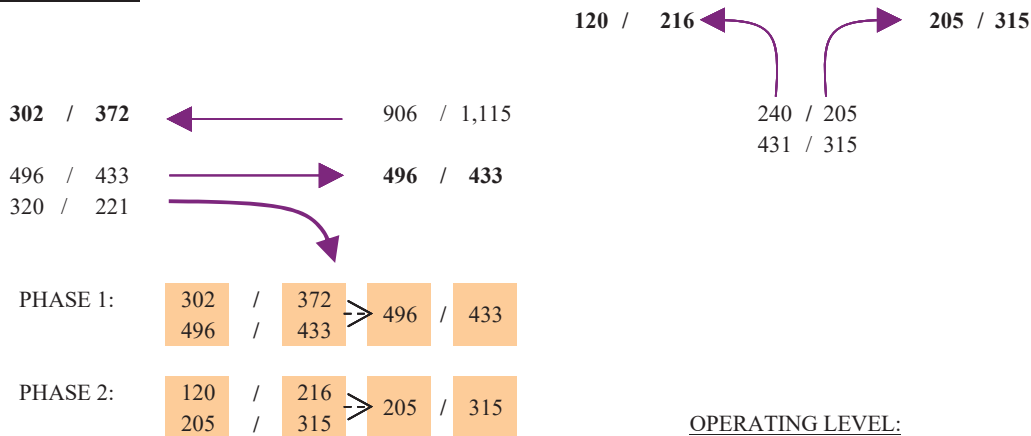
PROJECT: OVL

LOCATION: SR-125 SB / H STREET

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 701 in AM ==> ILV: <1,200M
and 748 in PM ==> ILV <1,200

TOTAL = 701 / 748 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

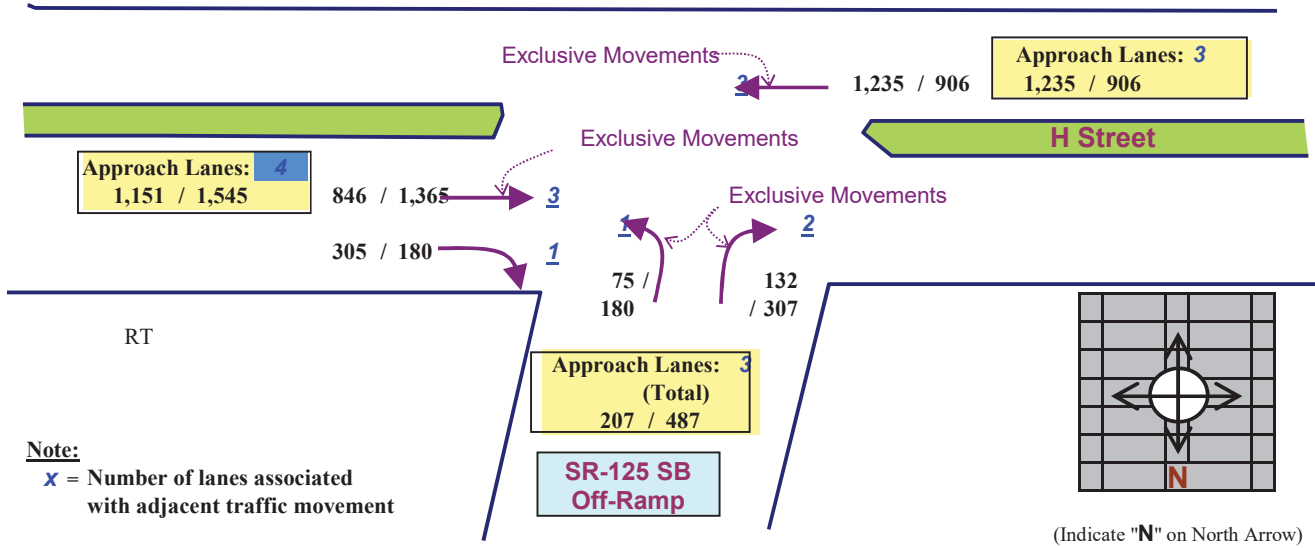
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

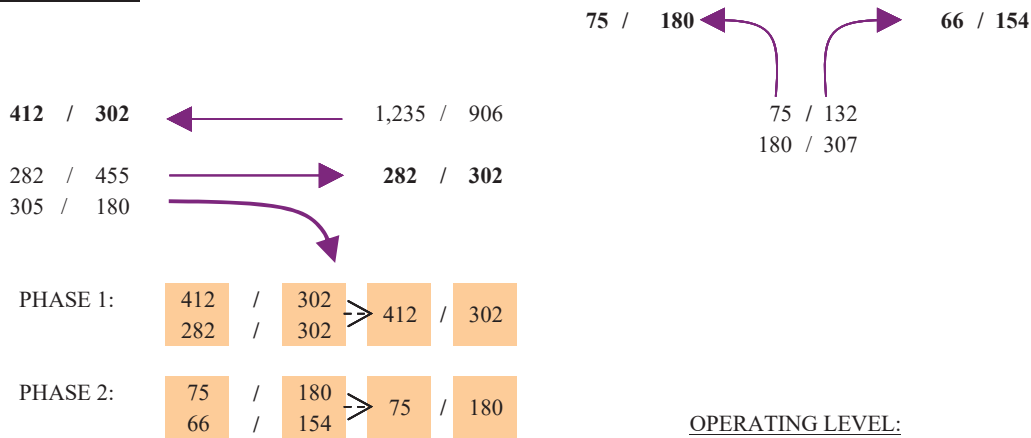
PROJECT: OVL

LOCATION: SR-125 NB / H STREET

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



OPERATING LEVEL:

ILV/HR. = 487 in AM ==> ILV: <1,200M
and 482 in PM ==> ILV <1,200

TOTAL = 487 / 482 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

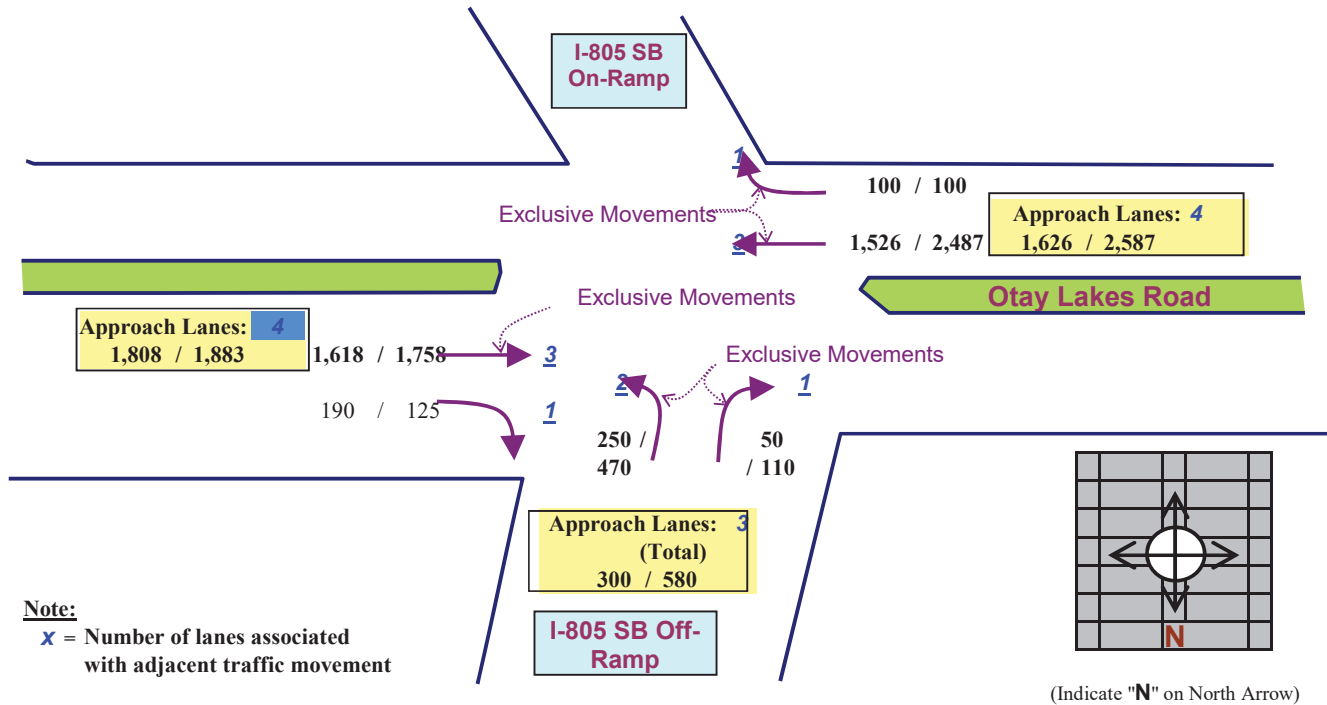
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

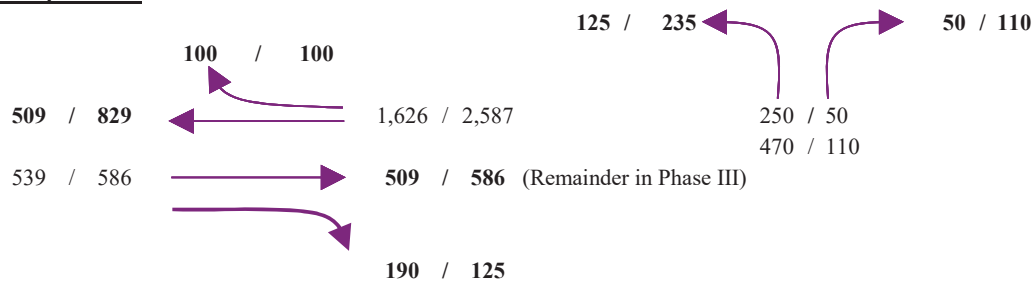
PROJECT: OVL

LOCATION: SR-125 SB / Otay Lakes Road

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 509 / 829 > 509 / 829

PHASE 2: 125 / 235 > 125 / 235

OPERATING LEVEL:

ILV/HR. = 634 in AM ==> ILV: <1,200M
and 1,064 in PM ==> ILV <1,200

TOTAL = 634 / 1,064 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

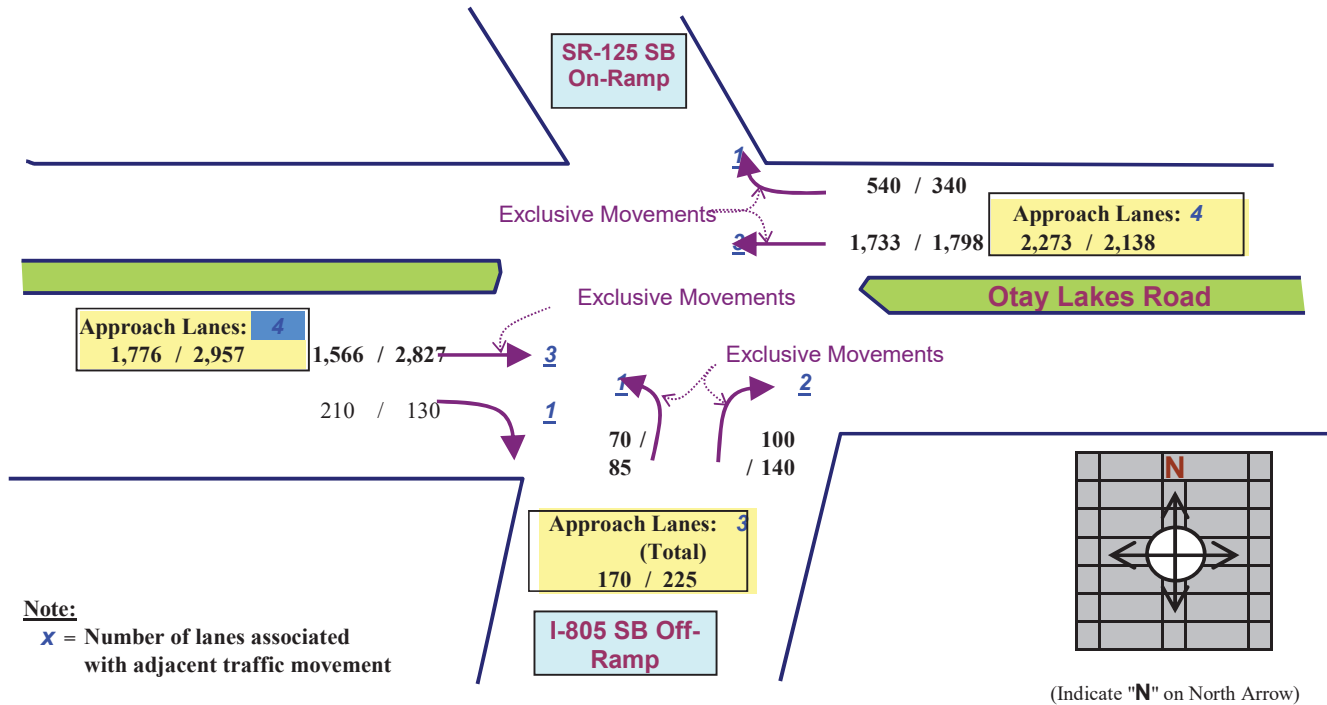
INTERSECTION LANE VEHICLES CALCULATION WORKSHEET

(BASED ON CALTRANS HIGHWAY DESIGN MANUAL FIGURE 406A)

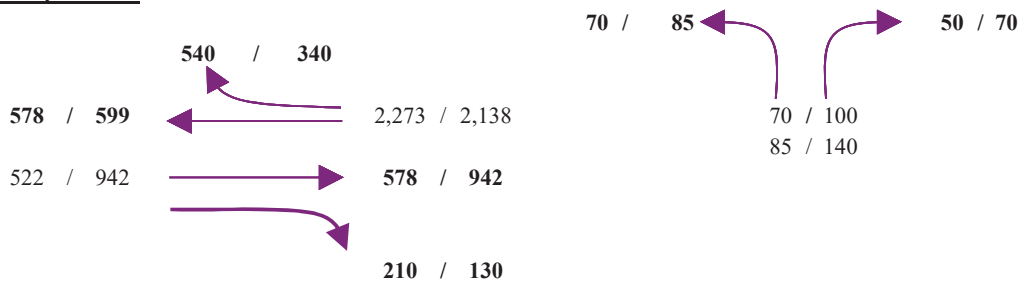
PROJECT: OVL

LOCATION: SR-125 NB / OTAY LAKES ROAD

Scenario: Existing
(AM/PM Peak)



ILV per Lane:



PHASE 1: 578 / 599 > 578 / 942

PHASE 2: 70 / 85 > 70 / 85

OPERATING LEVEL:

ILV/HR. = 648 in AM ==> ILV: <1,200M
and 1,027 in PM ==> ILV <1,200

TOTAL = 648 / 1,027 ILV/HR. in the AM / PM peak hours

THEREFORE, INTERSECTION OPERATES : UNDER CAPACITY (in AM)
& UNDER CAPACITY (in PM)

Appendix O

Analysis Worksheets –

Year 2030 With Cumulative Units Conditions - Mitigation

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	5	35	38	15	335	45	1042	47	155	728	50
Future Volume (veh/h)	15	5	35	38	15	335	45	1042	47	155	728	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	16	5	26	40	16	248	47	1097	38	163	766	42
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	47	133	230	82	258	60	1074	37	181	1169	64
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.60	0.60	0.10	0.67	0.67
Sat Flow, veh/h	368	289	813	1030	503	1583	1774	1790	62	1774	1750	96
Grp Volume(v), veh/h	47	0	0	56	0	248	47	0	1135	163	0	808
Grp Sat Flow(s),veh/h/ln	1470	0	0	1533	0	1583	1774	0	1852	1774	0	1846
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	15.5	2.6	0.0	60.0	9.1	0.0	25.8
Cycle Q Clear(g_c), s	2.4	0.0	0.0	2.7	0.0	15.5	2.6	0.0	60.0	9.1	0.0	25.8
Prop In Lane	0.34		0.55	0.71		1.00	1.00		0.03	1.00		0.05
Lane Grp Cap(c), veh/h	288	0	0	312	0	258	60	0	1111	181	0	1233
V/C Ratio(X)	0.16	0.00	0.00	0.18	0.00	0.96	0.78	0.00	1.02	0.90	0.00	0.66
Avail Cap(c_a), veh/h	288	0	0	312	0	258	122	0	1111	181	0	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	0.0	36.1	0.0	41.5	47.9	0.0	20.0	44.4	0.0	9.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	45.1	19.5	0.0	32.6	40.2	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.4	0.0	10.0	1.6	0.0	40.3	6.5	0.0	13.5
LnGrp Delay(d),s/veh	36.3	0.0	0.0	36.4	0.0	86.7	67.4	0.0	52.6	84.6	0.0	11.1
LnGrp LOS	D			D		F	E		F	F		B
Approach Vol, veh/h		47			304			1182			971	
Approach Delay, s/veh		36.3			77.4			53.2			23.4	
Approach LOS		D			E			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.7	64.5		20.8	7.9	71.3		20.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.2	60.0		16.3	6.9	63.3		16.3				
Max Q Clear Time (g_c+I1), s	11.1	62.0		4.4	4.6	27.8		17.5				
Green Ext Time (p_c), s	0.0	0.0		1.1	0.0	20.6		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				44.2								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1448	210	331	1328	140	490	450	482	160	195	240
Future Volume (veh/h)	250	1448	210	331	1328	140	490	450	482	160	195	240
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	263	1524	158	348	1398	79	516	474	423	168	205	185
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	1550	483	350	1556	88	505	564	503	200	265	227
Arrive On Green	0.09	0.30	0.30	0.10	0.32	0.32	0.28	0.32	0.32	0.11	0.15	0.15
Sat Flow, veh/h	3442	5085	1583	3442	4925	278	1774	1773	1581	1774	1810	1549
Grp Volume(v), veh/h	263	1524	158	348	962	515	516	473	424	168	200	190
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1814	1774	1770	1584	1774	1770	1589
Q Serve(g_s), s	7.4	29.3	7.6	9.9	26.7	26.7	28.0	24.5	24.5	9.1	10.7	11.4
Cycle Q Clear(g_c), s	7.4	29.3	7.6	9.9	26.7	26.7	28.0	24.5	24.5	9.1	10.7	11.4
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		0.97
Lane Grp Cap(c), veh/h	312	1550	483	350	1071	573	505	563	504	200	259	233
V/C Ratio(X)	0.84	0.98	0.33	1.00	0.90	0.90	1.02	0.84	0.84	0.84	0.77	0.82
Avail Cap(c_a), veh/h	312	1550	483	350	1102	590	505	563	504	234	288	258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	34.0	26.4	44.2	32.2	32.2	35.2	31.2	31.2	42.8	40.4	40.7
Incr Delay (d2), s/veh	18.5	18.9	0.4	46.7	9.8	16.4	45.8	10.9	12.1	20.4	11.1	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	16.4	3.4	7.0	13.9	15.9	20.0	13.7	12.4	5.6	6.0	6.1
LnGrp Delay(d),s/veh	62.6	52.8	26.8	90.9	42.0	48.6	81.0	42.2	43.4	63.2	51.6	57.4
LnGrp LOS	E	D	C	F	D	D	F	D	D	E	D	E
Approach Vol, veh/h	1945			1825			1413			558		
Approach Delay, s/veh	52.0			53.2			56.7			57.0		
Approach LOS	D			D			E			E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	34.0	32.0	18.4	12.9	35.1	15.1	35.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	28.0	16.0	8.0	32.0	13.0	31.0				
Max Q Clear Time (g_c+1), s	31.3	31.3	30.0	13.4	9.4	28.7	11.1	26.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	2.4	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay	54.0											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲	↰ ↱ ↲		↰ ↱ ↲	↰ ↱ ↲		↰	↱	↲	↰	↱	↲
Traffic Volume (veh/h)	220	965	445	606	1436	58	185	80	195	83	80	135
Future Volume (veh/h)	220	965	445	606	1436	58	185	80	195	83	80	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	232	1016	279	638	1512	50	195	84	194	87	84	131
Adj No. of Lanes	1	3	0	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	1133	311	649	1651	55	271	285	242	274	102	158
Arrive On Green	0.15	0.29	0.29	0.19	0.33	0.33	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1774	3971	1089	3442	5056	167	1774	1863	1583	1774	657	1025
Grp Volume(v), veh/h	232	867	428	638	1014	548	195	84	194	87	0	215
Grp Sat Flow(s),veh/h/ln	1774	1695	1671	1721	1695	1833	1774	1863	1583	1774	0	1682
Q Serve(g_s), s	10.5	20.2	20.2	15.2	23.6	23.6	8.6	3.3	9.7	3.6	0.0	10.2
Cycle Q Clear(g_c), s	10.5	20.2	20.2	15.2	23.6	23.6	8.6	3.3	9.7	3.6	0.0	10.2
Prop In Lane	1.00		0.65	1.00		0.09	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	261	967	477	649	1107	599	271	285	242	274	0	260
V/C Ratio(X)	0.89	0.90	0.90	0.98	0.92	0.92	0.72	0.30	0.80	0.32	0.00	0.83
Avail Cap(c_a), veh/h	261	969	478	649	1109	600	367	385	327	345	0	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.4	28.2	28.2	33.2	26.6	26.6	33.2	30.9	33.6	30.9	0.0	33.7
Incr Delay (d2), s/veh	28.8	10.9	19.5	31.0	11.7	18.9	4.4	0.6	9.8	0.7	0.0	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	10.9	11.9	10.0	12.8	15.0	4.6	1.7	4.9	1.8	0.0	5.7
LnGrp Delay(d),s/veh	63.2	39.1	47.7	64.2	38.3	45.4	37.5	31.5	43.4	31.6	0.0	46.8
LnGrp LOS	E	D	D	E	D	D	D	C	D	C		D
Approach Vol, veh/h	1527			2200			473			302		
Approach Delay, s/veh	45.2			47.6			38.9			42.4		
Approach LOS	D			D			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.1	20.0	27.9		17.2	16.6	31.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.0	15.5	23.5		16.0	12.1	26.9				
Max Q Clear Time (g_c+I1), s		11.7	17.2	22.2		12.2	12.5	25.6				
Green Ext Time (p_c), s		0.8	0.0	1.2		0.5	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay	45.5											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	629	75	605	1001	50	65	50	68	10	50	110
Future Volume (veh/h)	310	629	75	605	1001	50	65	50	68	10	50	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	326	662	68	637	1054	42	68	53	61	11	53	79
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	794	355	681	1393	56	87	119	137	19	76	113
Arrive On Green	0.21	0.22	0.22	0.38	0.40	0.40	0.05	0.15	0.15	0.01	0.11	0.11
Sat Flow, veh/h	1774	3539	1583	1774	3470	138	1774	791	911	1774	676	1008
Grp Volume(v), veh/h	326	662	68	637	538	558	68	0	114	11	0	132
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1838	1774	0	1702	1774	0	1685
Q Serve(g_s), s	13.9	13.9	2.7	26.9	20.4	20.4	3.0	0.0	4.8	0.5	0.0	5.9
Cycle Q Clear(g_c), s	13.9	13.9	2.7	26.9	20.4	20.4	3.0	0.0	4.8	0.5	0.0	5.9
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.54	1.00		0.60
Lane Grp Cap(c), veh/h	367	794	355	681	711	738	87	0	255	19	0	189
V/C Ratio(X)	0.89	0.83	0.19	0.93	0.76	0.76	0.78	0.00	0.45	0.57	0.00	0.70
Avail Cap(c_a), veh/h	411	807	361	761	753	782	102	0	364	91	0	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	28.9	24.5	23.1	20.1	20.1	36.7	0.0	30.2	38.4	0.0	33.4
Incr Delay (d2), s/veh	19.1	7.4	0.3	17.6	4.2	4.0	27.6	0.0	1.2	23.8	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	7.6	1.2	16.4	10.7	11.1	2.1	0.0	2.3	0.4	0.0	3.0
LnGrp Delay(d),s/veh	49.1	36.3	24.8	40.7	24.3	24.1	64.3	0.0	31.4	62.2	0.0	38.0
LnGrp LOS	D	D	C	D	C	C	E		C	E		D
Approach Vol, veh/h	1056					1733		182		143		
Approach Delay, s/veh	39.5					30.3		43.7		39.9		
Approach LOS	D					C		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	16.2	34.5	22.0	8.3	13.2	20.6	35.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.0	16.7	33.5	17.8	4.5	16.2	18.1	33.2				
Max Q Clear Time (g_c+12.5), s	12.5	6.8	28.9	15.9	5.0	7.9	15.9	22.4				
Green Ext Time (p_c), s	0.0	1.0	1.1	1.6	0.0	0.8	0.2	7.5				
Intersection Summary												
HCM 2010 Ctrl Delay			34.6									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

34: Proctor Valley Rd & Project Drw #1

03/27/2017



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	184	7	1002	60	6	1418		
Future Volume (veh/h)	184	7	1002	60	6	1418		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863		
Adj Flow Rate, veh/h	194	7	1055	63	6	1493		
Adj No. of Lanes	0	0	2	0	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	2	2	2	2		
Cap, veh/h	232	8	2565	153	410	2675		
Arrive On Green	0.14	0.14	0.76	0.76	0.76	0.76		
Sat Flow, veh/h	1697	61	3487	203	502	3632		
Grp Volume(v), veh/h	202	0	550	568	6	1493		
Grp Sat Flow(s),veh/h/ln	1767	0	1770	1827	502	1770		
Q Serve(g_s), s	9.3	0.0	9.2	9.2	0.4	14.9		
Cycle Q Clear(g_c), s	9.3	0.0	9.2	9.2	9.6	14.9		
Prop In Lane	0.96	0.03		0.11	1.00			
Lane Grp Cap(c), veh/h	242	0	1337	1381	410	2675		
V/C Ratio(X)	0.84	0.00	0.41	0.41	0.01	0.56		
Avail Cap(c_a), veh/h	338	0	2219	2291	660	4437		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	35.2	0.0	3.6	3.6	5.3	4.3		
Incr Delay (d2), s/veh	12.0	0.0	0.2	0.2	0.0	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.4	0.0	4.5	4.7	0.1	7.1		
LnGrp Delay(d),s/veh	47.3	0.0	3.8	3.8	5.3	4.5		
LnGrp LOS	D		A	A	A	A		
Approach Vol, veh/h	202		1118			1499		
Approach Delay, s/veh	47.3		3.8			4.5		
Approach LOS	D		A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		67.8				67.8		16.0
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		105.0				105.0		16.0
Max Q Clear Time (g_c+I1), s		11.2				16.9		11.3
Green Ext Time (p_c), s		47.7				46.4		0.2
Intersection Summary								
HCM 2010 Ctrl Delay			7.3					
HCM 2010 LOS			A					
Notes								

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	989	20	0	1424
Future Vol, veh/h	0	7	989	20	0	1424
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	1041	21	0	1499
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	531	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	493	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	493	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.4	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	- 493	-			
HCM Lane V/C Ratio	-	- 0.015	-			
HCM Control Delay (s)	-	- 12.4	-			
HCM Lane LOS	-	- B	-			
HCM 95th %tile Q(veh)	-	- 0	-			

HCM 2010 Signalized Intersection Summary

36: Proctor Valley Rd & Project Drw #3

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	3	95	10	9	2	812	47	2	1203	5
Future Volume (veh/h)	5	5	3	95	10	9	2	812	47	2	1203	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	5	5	3	100	11	9	2	855	49	2	1266	5
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	91	41	201	14	11	4	1292	74	4	1373	5
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.74	0.74	0.00	0.74	0.74
Sat Flow, veh/h	458	899	407	1224	135	110	1774	1745	100	1774	1854	7
Grp Volume(v), veh/h	13	0	0	120	0	0	2	0	904	2	0	1271
Grp Sat Flow(s),veh/h/ln	1764	0	0	1469	0	0	1774	0	1845	1774	0	1861
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	0.0	0.1	0.0	21.6	0.1	0.0	48.4
Cycle Q Clear(g_c), s	0.6	0.0	0.0	6.9	0.0	0.0	0.1	0.0	21.6	0.1	0.0	48.4
Prop In Lane	0.38		0.23	0.83		0.07	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	237	0	0	225	0	0	4	0	1366	4	0	1378
V/C Ratio(X)	0.05	0.00	0.00	0.53	0.00	0.00	0.52	0.00	0.66	0.52	0.00	0.92
Avail Cap(c_a), veh/h	369	0	0	346	0	0	82	0	1416	82	0	1429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	0.0	38.0	0.0	0.0	43.2	0.0	5.7	43.2	0.0	9.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.9	0.0	0.0	79.8	0.0	1.1	79.8	0.0	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	2.9	0.0	0.0	0.1	0.0	11.2	0.1	0.0	27.8
LnGrp Delay(d),s/veh	35.3	0.0	0.0	39.9	0.0	0.0	123.0	0.0	6.8	123.0	0.0	19.2
LnGrp LOS	D			D			F		A	F		B
Approach Vol, veh/h		13			120			906			1273	
Approach Delay, s/veh		35.3			39.9			7.1			19.3	
Approach LOS		D			D			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	68.6		13.3	4.7	68.6		13.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.0	66.5		16.0	4.0	66.5		16.0				
Max Q Clear Time (g_c+I1), s	2.1	23.6		2.6	2.1	50.4		8.9				
Green Ext Time (p_c), s	0.0	30.3		0.4	0.0	13.7		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay				15.7								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary

37: Proctor Valley Rd & Project Drw #4

03/27/2017



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	108	8	760	66	5	1102		
Future Volume (veh/h)	108	8	760	66	5	1102		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863		
Adj Flow Rate, veh/h	114	8	800	69	5	1160		
Adj No. of Lanes	0	0	1	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	2	2	2	2		
Cap, veh/h	145	10	1245	107	457	1371		
Arrive On Green	0.09	0.09	0.74	0.74	0.74	0.74		
Sat Flow, veh/h	1632	115	1691	146	635	1863		
Grp Volume(v), veh/h	123	0	0	869	5	1160		
Grp Sat Flow(s),veh/h/ln	1761	0	0	1837	635	1863		
Q Serve(g_s), s	3.5	0.0	0.0	12.2	0.2	22.4		
Cycle Q Clear(g_c), s	3.5	0.0	0.0	12.2	12.4	22.4		
Prop In Lane	0.93	0.07		0.08	1.00			
Lane Grp Cap(c), veh/h	156	0	0	1352	457	1371		
V/C Ratio(X)	0.79	0.00	0.00	0.64	0.01	0.85		
Avail Cap(c_a), veh/h	161	0	0	1475	499	1496		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	23.0	0.0	0.0	3.4	6.5	4.7		
Incr Delay (d2), s/veh	21.8	0.0	0.0	0.8	0.0	4.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	6.1	0.0	12.6		
LnGrp Delay(d),s/veh	44.7	0.0	0.0	4.2	6.5	9.1		
LnGrp LOS	D			A	A	A		
Approach Vol, veh/h	123		869			1165		
Approach Delay, s/veh	44.7		4.2			9.1		
Approach LOS	D		A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		42.4				42.4		9.1
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		41.3				41.3		4.7
Max Q Clear Time (g_c+I1), s		14.2				24.4		5.5
Green Ext Time (p_c), s		19.6				13.5		0.0
Intersection Summary								
HCM 2010 Ctrl Delay			9.2					
HCM 2010 LOS			A					
Notes								

HCM 2010 Signalized Intersection Summary

38: Proctor Valley Rd/East H Street & Project Drw #5

03/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	5	25	5	5	4	11	752	5	2	1077	1
Future Volume (veh/h)	2	5	25	5	5	4	11	752	5	2	1077	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	2	5	26	5	5	4	12	792	5	2	1134	1
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	9	49	115	23	18	367	1465	9	568	1474	1
Arrive On Green	0.04	0.04	0.04	0.04	0.04	0.04	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	100	251	1305	610	610	488	494	1849	12	679	1861	2
Grp Volume(v), veh/h	33	0	0	14	0	0	12	0	797	2	0	1135
Grp Sat Flow(s),veh/h/ln	1656	0	0	1707	0	0	494	0	1861	679	0	1862
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	8.2	0.1	0.0	17.2
Cycle Q Clear(g_c), s	1.0	0.0	0.0	0.4	0.0	0.0	17.9	0.0	8.2	8.3	0.0	17.2
Prop In Lane	0.06		0.79	0.36		0.29	1.00		0.01	1.00		0.00
Lane Grp Cap(c), veh/h	135	0	0	157	0	0	367	0	1474	568	0	1476
V/C Ratio(X)	0.25	0.00	0.00	0.09	0.00	0.00	0.03	0.00	0.54	0.00	0.00	0.77
Avail Cap(c_a), veh/h	560	0	0	575	0	0	489	0	1933	736	0	1935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	0.0	24.7	0.0	0.0	7.7	0.0	2.0	3.5	0.0	2.9
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.2	0.0	0.0	0.1	0.0	4.1	0.0	0.0	8.8
LnGrp Delay(d),s/veh	25.9	0.0	0.0	24.9	0.0	0.0	7.7	0.0	2.3	3.5	0.0	4.3
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h	33				14		809				1137	
Approach Delay, s/veh	25.9				24.9		2.4				4.3	
Approach LOS	C				C		A				A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	46.4		6.5		46.4		6.5					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	55.0		16.0		55.0		16.0					
Max Q Clear Time (g_c+I1), s	19.9		3.0		19.2		2.4					
Green Ext Time (p_c), s	22.1		0.1		22.4		0.1					
Intersection Summary												
HCM 2010 Ctrl Delay			4.0									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary

1: SR-94 & Lyons Valley Road

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	5	20	74	10	205	25	864	64	390	1219	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	5	21	78	11	216	26	909	67	411	1283	21
Adj No. of Lanes	0	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	29	51	152	18	196	33	908	67	430	1377	23
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.02	0.53	0.53	0.24	0.75	0.75
Sat Flow, veh/h	77	238	414	804	146	1583	1774	1714	126	1774	1828	30
Grp Volume(v), veh/h	37	0	0	89	0	216	26	0	976	411	0	1304
Grp Sat Flow(s),veh/h/ln	729	0	0	950	0	1583	1774	0	1840	1774	0	1857
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	16.1	1.9	0.0	68.9	29.7	0.0	75.5
Cycle Q Clear(g_c), s	13.4	0.0	0.0	13.3	0.0	16.1	1.9	0.0	68.9	29.7	0.0	75.5
Prop In Lane	0.30		0.57	0.88		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	126	0	0	170	0	196	33	0	975	430	0	1400
V/C Ratio(X)	0.29	0.00	0.00	0.52	0.00	1.10	0.78	0.00	1.00	0.96	0.00	0.93
Avail Cap(c_a), veh/h	126	0	0	170	0	196	56	0	975	430	0	1400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	0.0	55.6	0.0	57.0	63.5	0.0	30.6	48.6	0.0	13.2
Incr Delay (d2), s/veh	1.3	0.0	0.0	2.9	0.0	94.1	31.7	0.0	29.0	32.3	0.0	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	3.3	0.0	12.1	1.2	0.0	42.5	18.4	0.0	42.5
LnGrp Delay(d),s/veh	52.6	0.0	0.0	58.5	0.0	151.0	95.3	0.0	59.5	80.8	0.0	24.7
LnGrp LOS	D			E		F	F		F	F		C
Approach Vol, veh/h	37			305			1002			1715		
Approach Delay, s/veh	52.6			124.0			60.4			38.1		
Approach LOS	D			F			E			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.0	73.4		20.6	6.9	102.5		20.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	31.5	68.9		16.1	4.1	96.3		16.1				
Max Q Clear Time (g_c+l1), s	31.7	70.9		15.4	3.9	77.5		18.1				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	15.8		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay	54.2											
HCM 2010 LOS	D											

HCM 2010 Signalized Intersection Summary

13: Paseo Ranchero & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			 			 	
Volume (veh/h)	360	1875	485	266	1356	120	360	265	329	100	210	210
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	379	1974	300	280	1427	84	379	279	293	105	221	105
Adj No. of Lanes	2	3	1	2	3	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	477	1954	608	281	1608	95	372	482	431	134	326	150
Arrive On Green	0.14	0.38	0.38	0.08	0.33	0.33	0.21	0.27	0.27	0.08	0.14	0.14
Sat Flow, veh/h	3442	5085	1583	3442	4913	289	1774	1770	1583	1774	2359	1083
Grp Volume(v), veh/h	379	1974	300	280	985	526	379	279	293	105	164	162
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1812	1774	1770	1583	1774	1770	1672
Q Serve(g_s), s	9.2	33.0	12.4	7.0	23.7	23.7	18.0	11.7	14.2	5.0	7.6	7.9
Cycle Q Clear(g_c), s	9.2	33.0	12.4	7.0	23.7	23.7	18.0	11.7	14.2	5.0	7.6	7.9
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	477	1954	608	281	1110	593	372	482	431	134	245	231
V/C Ratio(X)	0.80	1.01	0.49	1.00	0.89	0.89	1.02	0.58	0.68	0.78	0.67	0.70
Avail Cap(c_a), veh/h	477	1954	608	281	1145	612	372	482	431	227	330	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	26.4	20.1	39.4	27.4	27.4	33.9	27.0	27.9	39.0	35.1	35.3
Incr Delay (d2), s/veh	9.1	22.9	0.6	53.2	8.6	14.5	51.7	1.7	4.3	9.5	3.1	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	19.3	5.5	5.3	12.4	14.2	14.0	6.0	6.7	2.8	3.9	3.9
LnGrp Delay(d),s/veh	44.9	49.3	20.7	92.6	35.9	41.9	85.6	28.7	32.2	48.5	38.3	39.7
LnGrp LOS	D	F	C	F	D	D	F	C	C	D	D	D
Approach Vol, veh/h	2653					1791		951		431		
Approach Delay, s/veh	45.5					46.6		52.5		41.3		
Approach LOS	D					D		D		D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	37.0	22.0	15.9	15.9	32.1	10.5	27.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	33.0	18.0	16.0	11.0	29.0	11.0	23.0					
Max Q Clear Time (g_c+I), s	35.0	20.0	9.9	11.2	25.7	7.0	16.2					
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	2.5	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay			46.6									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

17: Mt Miguel Road / San Miguel Ranch Rd & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	1568	250	106	1006	487	180	130	159	499	190	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	232	1651	263	112	1059	513	189	137	164	525	200	147
Adj No. of Lanes	2	3	1	2	3	1	1	2	0	1	2	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	1689	727	147	1462	455	225	228	204	547	1098	1108
Arrive On Green	0.09	0.33	0.33	0.04	0.29	0.29	0.13	0.13	0.13	0.31	0.31	0.31
Sat Flow, veh/h	3442	5085	1583	3442	5085	1583	1774	1770	1583	1774	3539	2787
Grp Volume(v), veh/h	232	1651	263	112	1059	513	189	137	164	525	200	147
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1695	1583	1774	1770	1583	1774	1770	1393
Q Serve(g_s), s	6.3	30.7	10.3	3.1	17.9	27.5	10.0	7.0	9.6	27.9	4.0	3.2
Cycle Q Clear(g_c), s	6.3	30.7	10.3	3.1	17.9	27.5	10.0	7.0	9.6	27.9	4.0	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	301	1689	727	147	1462	455	225	228	204	547	1098	1108
V/C Ratio(X)	0.77	0.98	0.36	0.76	0.72	1.13	0.84	0.60	0.80	0.96	0.18	0.13
Avail Cap(c_a), veh/h	334	1689	727	147	1462	455	350	307	274	547	1098	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	31.6	16.8	45.3	30.7	34.1	40.9	39.4	40.5	32.6	24.1	18.3
Incr Delay (d2), s/veh	9.6	16.8	0.3	20.3	1.8	81.8	10.2	2.5	11.7	28.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	17.0	4.6	1.9	8.7	22.4	5.5	3.6	4.9	17.9	1.9	1.2
LnGrp Delay(d),s/veh	52.3	48.5	17.1	65.7	32.5	115.9	51.1	41.9	52.2	61.3	24.2	18.4
LnGrp LOS	D	D	B	E	C	F	D	D	D	E	C	B
Approach Vol, veh/h	2146				1684		490				872	
Approach Delay, s/veh	45.0				60.1		48.9				45.6	
Approach LOS	D				E		D				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	16.9	8.6	36.3	16.7	34.2	12.9	32.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	29.5	16.6	4.1	31.8	18.9	27.2	9.3	26.6				
Max Q Clear Time (g_c+29.5), s	29.5	11.6	5.1	32.7	12.0	6.0	8.3	29.5				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.0	0.3	3.3	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			50.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

18: Lane Ave & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	1715	330	322	1164	119	380	175	442	59	90	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	189	1805	232	339	1225	93	400	184	376	62	95	31
Adj No. of Lanes	1	3	0	2	3	0	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1904	243	376	1944	148	426	448	380	156	119	39
Arrive On Green	0.12	0.42	0.42	0.11	0.40	0.40	0.24	0.24	0.24	0.09	0.09	0.09
Sat Flow, veh/h	1774	4567	583	3442	4822	366	1774	1863	1583	1774	1346	439
Grp Volume(v), veh/h	189	1337	700	339	861	457	400	184	376	62	0	126
Grp Sat Flow(s),veh/h/ln	1774	1695	1760	1721	1695	1798	1774	1863	1583	1774	0	1785
Q Serve(g_s), s	12.9	46.9	47.6	12.0	25.1	25.1	27.3	10.3	29.3	4.1	0.0	8.6
Cycle Q Clear(g_c), s	12.9	46.9	47.6	12.0	25.1	25.1	27.3	10.3	29.3	4.1	0.0	8.6
Prop In Lane	1.00		0.33	1.00		0.20	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	218	1413	734	376	1367	725	426	448	380	156	0	157
V/C Ratio(X)	0.87	0.95	0.95	0.90	0.63	0.63	0.94	0.41	0.99	0.40	0.00	0.80
Avail Cap(c_a), veh/h	334	1448	752	376	1367	725	426	448	380	230	0	231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.2	34.7	34.9	54.4	29.5	29.5	46.1	39.6	46.8	53.3	0.0	55.3
Incr Delay (d2), s/veh	13.8	12.8	22.0	24.1	0.9	1.8	28.6	0.6	42.9	1.6	0.0	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	24.4	27.6	7.0	11.9	12.8	16.8	5.4	17.3	2.1	0.0	4.7
LnGrp Delay(d),s/veh	67.0	47.5	56.9	78.5	30.5	31.3	74.7	40.2	89.7	54.9	0.0	67.0
LnGrp LOS	E	D	E	E	C	C	E	D	F	D		E
Approach Vol, veh/h	2226					1657		960		188		
Approach Delay, s/veh	52.1					40.5		74.0		63.0		
Approach LOS	D					D		E		E		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		34.2	18.0	56.0		15.4	19.7	54.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.7	13.5	52.8		16.0	23.3	43.0				
Max Q Clear Time (g_c+I1), s		31.3	14.0	49.6		10.6	14.9	27.1				
Green Ext Time (p_c), s		0.0	0.0	1.9		0.3	0.3	14.6				
Intersection Summary												
HCM 2010 Ctrl Delay			52.9									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

20: Aqua Vista & East H Street

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	1771	40	74	1098	65	45	45	176	45	30	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	116	1864	31	78	1156	47	47	47	90	47	32	53
Adj No. of Lanes	1	2	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	2448	1095	74	2267	92	54	57	109	54	63	104
Arrive On Green	0.08	0.69	0.69	0.04	0.65	0.65	0.03	0.10	0.10	0.03	0.10	0.10
Sat Flow, veh/h	1774	3539	1583	1774	3467	141	1774	573	1097	1774	632	1046
Grp Volume(v), veh/h	116	1864	31	78	590	613	47	0	137	47	0	85
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1838	1774	0	1669	1774	0	1678
Q Serve(g_s), s	8.5	45.2	0.8	5.5	22.8	22.8	3.5	0.0	10.6	3.5	0.0	6.3
Cycle Q Clear(g_c), s	8.5	45.2	0.8	5.5	22.8	22.8	3.5	0.0	10.6	3.5	0.0	6.3
Prop In Lane	1.00		1.00	1.00		0.08	1.00		0.66	1.00		0.62
Lane Grp Cap(c), veh/h	141	2448	1095	74	1157	1202	54	0	167	54	0	167
V/C Ratio(X)	0.82	0.76	0.03	1.05	0.51	0.51	0.87	0.00	0.82	0.87	0.00	0.51
Avail Cap(c_a), veh/h	241	2806	1255	74	1237	1284	54	0	228	54	0	229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.8	13.2	6.4	63.2	11.8	11.9	63.6	0.0	58.2	63.6	0.0	56.3
Incr Delay (d2), s/veh	11.2	1.1	0.0	120.1	0.3	0.3	77.9	0.0	15.7	77.9	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	22.1	0.4	5.1	11.3	11.7	2.9	0.0	5.6	2.9	0.0	3.0
LnGrp Delay(d),s/veh	71.0	14.3	6.4	184.5	12.2	12.2	141.5	0.0	73.8	141.5	0.0	58.6
LnGrp LOS	E	B	A	F	B	B	F		E	F		E
Approach Vol, veh/h	2011				1281				184		132	
Approach Delay, s/veh	17.5				22.7				91.1		88.1	
Approach LOS	B				C				F		F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	17.7	10.0	95.7	8.5	17.7	15.0	90.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.0	18.0	5.5	104.5	4.0	18.0	17.9	92.1				
Max Q Clear Time (g_c+1.5), s	12.6	12.6	7.5	47.2	5.5	8.3	10.5	24.8				
Green Ext Time (p_c), s	0.0	0.5	0.0	43.9	0.0	0.8	0.1	49.5				
Intersection Summary												
HCM 2010 Ctrl Delay			25.7									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary

34: Proctor Valley Rd & Project Drw #1

3/27/2017



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	100	4	1819	173	17	1115		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863		
Adj Flow Rate, veh/h	105	4	1915	182	18	1174		
Adj No. of Lanes	0	0	2	0	1	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	2	2	2	2		
Cap, veh/h	138	5	2493	233	205	2697		
Arrive On Green	0.08	0.08	0.76	0.76	0.76	0.76		
Sat Flow, veh/h	1687	64	3365	306	195	3632		
Grp Volume(v), veh/h	110	0	1022	1075	18	1174		
Grp Sat Flow(s),veh/h/ln	1767	0	1770	1809	195	1770		
Q Serve(g_s), s	3.5	0.0	18.7	20.1	3.4	6.8		
Cycle Q Clear(g_c), s	3.5	0.0	18.7	20.1	23.5	6.8		
Prop In Lane	0.95	0.04		0.17	1.00			
Lane Grp Cap(c), veh/h	144	0	1348	1378	205	2697		
V/C Ratio(X)	0.76	0.00	0.76	0.78	0.09	0.44		
Avail Cap(c_a), veh/h	494	0	1379	1410	209	2759		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	25.9	0.0	3.9	4.0	10.9	2.4		
Incr Delay (d2), s/veh	8.0	0.0	2.4	2.8	0.2	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.0	0.0	9.7	10.6	0.2	3.3		
LnGrp Delay(d),s/veh	33.9	0.0	6.3	6.9	11.1	2.6		
LnGrp LOS	C		A	A	B	A		
Approach Vol, veh/h	110		2097			1192		
Approach Delay, s/veh	33.9		6.6			2.7		
Approach LOS	C		A			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		48.4				48.4		9.2
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		44.9				44.9		16.1
Max Q Clear Time (g_c+I1), s		22.1				25.5		5.5
Green Ext Time (p_c), s		21.4				18.3		0.2
Intersection Summary								
HCM 2010 Ctrl Delay			6.1					
HCM 2010 LOS			A					
Notes								
User approved volume balancing among the lanes for turning movement.								

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	4	1765	58	0	1127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	1858	61	0	1186
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2481	959	0	0	1919	0
Stage 1	1888	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	24	257	-	-	304	-
Stage 1	105	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	24	257	-	-	304	-
Mov Cap-2 Maneuver	24	-	-	-	-	-
Stage 1	105	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	19.2		0		0	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 257	304	-		
HCM Lane V/C Ratio	-	- 0.016	-	-		
HCM Control Delay (s)	-	- 19.2	0	-		
HCM Lane LOS	-	- C	A	-		
HCM 95th %tile Q(veh)	-	- 0.1	0	-		

HCM 2010 Signalized Intersection Summary

36: Proctor Valley Rd & Project Drw #3

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	5	2	71	5	3	4	1432	134	5	1074	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	5	5	2	75	5	3	4	1507	141	5	1131	5
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	65	20	140	6	4	7	1392	130	9	1539	7
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	0.00	0.83	0.83	0.01	0.83	0.83
Sat Flow, veh/h	536	938	295	1321	88	53	1774	1678	157	1774	1853	8
Grp Volume(v), veh/h	12	0	0	83	0	0	4	0	1648	5	0	1136
Grp Sat Flow(s),veh/h/ln	1768	0	0	1462	0	0	1774	0	1835	1774	0	1861
Q Serve(g_s), s	0.0	0.0	0.0	7.0	0.0	0.0	0.3	0.0	116.5	0.4	0.0	37.3
Cycle Q Clear(g_c), s	0.9	0.0	0.0	7.8	0.0	0.0	0.3	0.0	116.5	0.4	0.0	37.3
Prop In Lane	0.42		0.17	0.90		0.04	1.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	159	0	0	150	0	0	7	0	1522	9	0	1546
V/C Ratio(X)	0.08	0.00	0.00	0.55	0.00	0.00	0.55	0.00	1.08	0.56	0.00	0.73
Avail Cap(c_a), veh/h	230	0	0	214	0	0	51	0	1522	51	0	1546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	61.2	0.0	0.0	64.4	0.0	0.0	69.8	0.0	12.0	69.7	0.0	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	3.2	0.0	0.0	51.5	0.0	49.0	44.8	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	3.3	0.0	0.0	0.3	0.0	77.8	0.3	0.0	19.4
LnGrp Delay(d),s/veh	61.4	0.0	0.0	67.5	0.0	0.0	121.3	0.0	60.9	114.5	0.0	7.0
LnGrp LOS	E			E			F		F	F		A
Approach Vol, veh/h		12			83			1652			1141	
Approach Delay, s/veh		61.4			67.5			61.1			7.5	
Approach LOS		E			E			E			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	121.0		14.2	5.1	121.1		14.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.0	116.5		16.0	4.0	116.5		16.0				
Max Q Clear Time (g_c+l1), s	2.4	118.5		2.9	2.3	39.3		9.8				
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	70.6		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			40.1									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary

37: Proctor Valley Rd & Project Drw #4

3/27/2017



Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	LT	RT	LT	LT	LT	RT		
Volume (veh/h)	118	9	1260	180	18	966		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863		
Adj Flow Rate, veh/h	124	9	1326	126	19	1017		
Adj No. of Lanes	0	0	1	0	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	2	2	2	2		
Cap, veh/h	132	10	1361	129	26	1598		
Arrive On Green	0.08	0.08	0.81	0.81	0.01	0.86		
Sat Flow, veh/h	1629	118	1675	159	1774	1863		
Grp Volume(v), veh/h	134	0	0	1452	19	1017		
Grp Sat Flow(s),veh/h/ln	1760	0	0	1835	1774	1863		
Q Serve(g_s), s	11.1	0.0	0.0	104.6	1.6	25.1		
Cycle Q Clear(g_c), s	11.1	0.0	0.0	104.6	1.6	25.1		
Prop In Lane	0.93	0.07		0.09	1.00			
Lane Grp Cap(c), veh/h	142	0	0	1491	26	1598		
V/C Ratio(X)	0.94	0.00	0.00	0.97	0.73	0.64		
Avail Cap(c_a), veh/h	142	0	0	1501	52	1636		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	67.2	0.0	0.0	12.4	72.1	3.3		
Incr Delay (d2), s/veh	57.5	0.0	0.0	17.3	31.9	0.8		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	7.7	0.0	0.0	58.8	1.0	12.8		
LnGrp Delay(d),s/veh	124.7	0.0	0.0	29.7	104.0	4.1		
LnGrp LOS	F			C	F	A		
Approach Vol, veh/h	134		1452			1036		
Approach Delay, s/veh	124.7		29.7			5.9		
Approach LOS	F		C			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.7	124.0				130.6		16.4
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5
Max Green Setting (Gmax), s	4.3	120.3				129.1		11.9
Max Q Clear Time (g_c+1.3), s	13.6	106.6				27.1		13.1
Green Ext Time (p_c), s	0.0	12.9				71.5		0.0
Intersection Summary								
HCM 2010 Ctrl Delay		25.1						
HCM 2010 LOS		C						
Notes								
User approved volume balancing among the lanes for turning movement.								

HCM 2010 Signalized Intersection Summary

38: Proctor Valley Rd/East H Street & Project Drw #5

3/27/2017

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↖	↗		↖	↗	
Volume (veh/h)	1	5	14	5	5	3	32	922	5	5	955	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	1	5	15	5	5	3	34	971	5	5	1005	2
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	75	12	36	115	19	12	53	1306	7	10	1266	3
Arrive On Green	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.71	0.71	0.01	0.68	0.68
Sat Flow, veh/h	80	401	1203	647	647	388	1774	1852	10	1774	1858	4
Grp Volume(v), veh/h	21	0	0	13	0	0	34	0	976	5	0	1007
Grp Sat Flow(s),veh/h/ln	1684	0	0	1682	0	0	1774	0	1861	1774	0	1862
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	1.0	0.0	16.9	0.1	0.0	19.6
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.4	0.0	0.0	1.0	0.0	16.9	0.1	0.0	19.6
Prop In Lane	0.05		0.71	0.38		0.23	1.00		0.01	1.00		0.00
Lane Grp Cap(c), veh/h	123	0	0	146	0	0	53	0	1313	10	0	1268
V/C Ratio(X)	0.17	0.00	0.00	0.09	0.00	0.00	0.64	0.00	0.74	0.53	0.00	0.79
Avail Cap(c_a), veh/h	575	0	0	586	0	0	136	0	1429	136	0	1430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	0.0	24.7	0.0	0.0	25.0	0.0	4.7	25.8	0.0	5.8
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.3	0.0	0.0	12.3	0.0	2.0	38.4	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.2	0.0	0.0	0.7	0.0	9.1	0.2	0.0	10.8
LnGrp Delay(d),s/veh	25.5	0.0	0.0	24.9	0.0	0.0	37.2	0.0	6.7	64.3	0.0	8.6
LnGrp LOS	C			C			D		A	E		A
Approach Vol, veh/h	21			13			1010			1012		
Approach Delay, s/veh	25.5			24.9			7.7			8.9		
Approach LOS	C			C			A			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	41.3		6.1	6.1	40.0		6.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.0	40.0		16.0	4.0	40.0		16.0				
Max Q Clear Time (g_c+I), s	12.1	18.9		2.6	3.0	21.6		2.4				
Green Ext Time (p_c), s	0.0	15.5		0.1	0.0	13.9		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay	8.6											
HCM 2010 LOS	A											

**Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)**

Major St:	Proctor Valley Road	COUNT DATE:	Relative 2030 w/ Full GDP/SRP Bu
Minor St:	Project Driveway #1	# of Lanes:	2 or more
		# of Lanes:	1

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)

In built up area of isolated community of < 10,000 population.....

or

}

RURAL (R)

URBAN (U)

Major St ADT (Total):	17900	Roadway Type:	Rural
Minor Street ADT (Highest Direction):	2600		

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume			Minimum Requirements EADT			
Satisfied	X	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach						
Major Street		Minor Street	Urban	Rural	Urban	Rural
1		1	8000	5,600	2,400	1,680
2 or more		1	9,600	6,720	2,400	1,680
2 or more		2 or more	9,600	6,720	3,200	2,240
1		2 or more	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic			Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Staisfied	X	Not Satisfied				
Number of lanes for moving traffic on each approach						
Major Street		Minor Street	Urban	Rural	Urban	Rural
1		1	12,000	8,400	1,200	850
2 or more		1	14,400	10,080	1,200	850
2 or more		2 or more	14,400	10,080	1,600	1,120
1		2 or more	12,000	8,400	1,600	1,120
Combination of CONDITIONS A+B			2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	X	Not Satisfied				
<u>No one condition satisfied</u> , but following conditions						
fulfilled 80% or More						
		<u>155%</u>				
		A				
		<u>178%</u>				
		B				

Note: To be used only for NEW INTERSECTIONS or other locations wehre it is not reasonable to count actual traffic volumes.

**Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)**

Major St:	Froctor Galley Road	COUNT DATE:	12/20/2012
Minor St:	Project Drive #8	# of Lanes:	1
		# of Lanes:	1

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)	or	}	RURAL (R)
In built up area of isolated community of < 10,000 population.....			URBAN (U)

Major St ADT (Total):	14700	Roadway Type:	Rural
Minor Street ADT (Highest Direction):	1400		

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume				Minimum Requirements EADT			
Satisfied	Not Satisfied			Vehicles Per Day on Major Street (Total of 5th Approaches)		Vehicles Per Day on Minor Street Approach (One Direction Only)	
Number of lanes for motor vehicle traffic on each approach							
Major Street	Minor Street			Urban	Rural	Urban	Rural
1	1			7,000	6,600	4,400	1,670
X or more	1			6,600	6,600	4,400	1,670
X or more	X or more			6,600	6,600	8,800	3,340
1	X or more			7,000	6,600	8,800	3,340
CONDITION B - Interruption of Continuous Traffic				Vehicles Per Day on Major Street (Total of 5th Approaches)		Vehicles Per Day on Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied						
Number of lanes for motor vehicle traffic on each approach							
Major Street	Minor Street			Urban	Rural	Urban	Rural
1	1			14,000	7,400	1,100	700
X or more	1			14,400	10,070	1,100	700
X or more	X or more			14,400	10,070	1,600	1,100
1	X or more			14,000	7,400	1,600	1,100
Combination of CONDITIONS A+B				X CONDITIONS		X CONDITIONS	
Satisfied	Not Satisfied			70v		70v	
No one condition satisfied, but following conditions fulfilled 70v or More							
		78v	16v				
		A	5				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

**Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)**

Major St:	Proctor Valley Road	COUNT DATE:	Relative 2030 w/ Full GDP/SRP Bu
Minor St:	Project Driveway #4	# of Lanes:	1
		# of Lanes:	1
Speed limit or critical speed on major street traffic > 64 km/h (40 mph)		or	} RURAL (R) URBAN (U)
In built up area of isolated community of < 10,000 population.....			
Major St ADT (Total):	14700	Roadway Type: Rural	
Minor Street ADT (Highest Direction):	1500		

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume			Minimum Requirements EADT			
Satisfied	Not Satisfied	X	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach						
Major Street	Minor Street		Urban	Rural	Urban	Rural
1	1		8000	5,600	2,400	1,680
2 or more	1		9,600	6,720	2,400	1,680
2 or more	2 or more		9,600	6,720	3,200	2,240
1	2 or more		8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic			Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Staisfied	X	Not Satisfied				
Number of lanes for moving traffic on each approach						
Major Street	Minor Street		Urban	Rural	Urban	Rural
1	1		12,000	8,400	1,200	850
2 or more	1		14,400	10,080	1,200	850
2 or more	2 or more		14,400	10,080	1,600	1,120
1	2 or more		12,000	8,400	1,600	1,120
Combination of CONDITIONS A+B			2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	X	Not Satisfied				
<u>No one condition satisfied</u> , but following conditions fulfilled 80% or More						
	<u>89%</u> A	<u>175%</u> B				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

**Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)**

Major St:	Proctor Valley Road	COUNT DATE:	Relative 2030 w/ Full GDP/SRP Bu
Minor St:	Project Driveway #5	# of Lanes:	1
		# of Lanes:	1

Speed limit or critical speed on major street traffic > 64 km/h (40 mph)

In built up area of isolated community of < 10,000 population.....

or

}

RURAL (R)

URBAN (U)

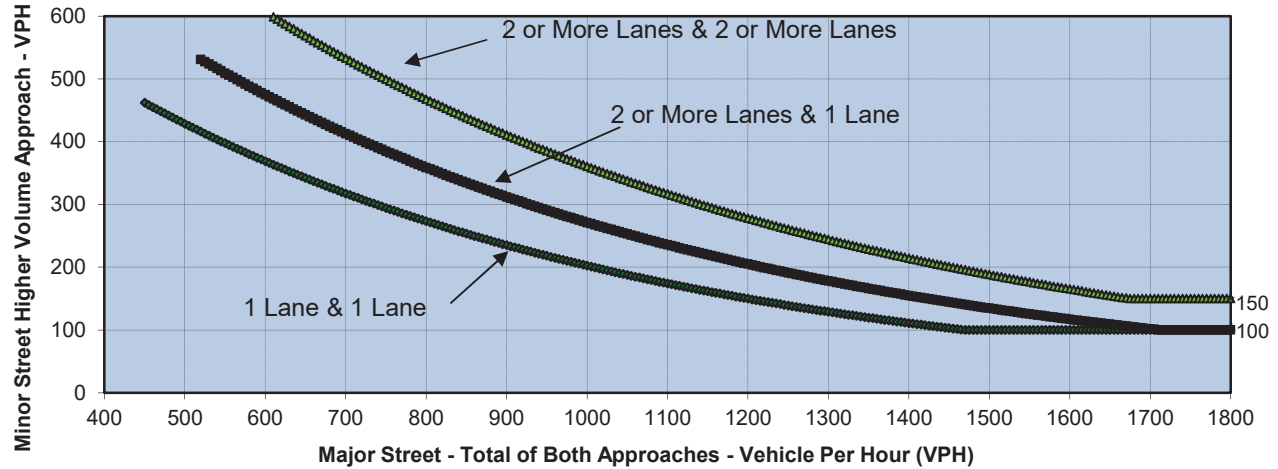
Major St ADT (Total):	8600	Roadway Type: Rural
Minor Street ADT (Highest Direction):	1350	

(Based on Estimated Average Daily Traffic - See Note)

CONDITION A - Minimum Vehicular Volume				Minimum Requirements EADT			
Satisfied	Not Satisfied	X		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach							
Major Street	Minor Street			Urban	Rural	Urban	Rural
1	1			8000	5,600	2,400	1,680
2 or more	1			9,600	6,720	2,400	1,680
2 or more	2 or more			9,600	6,720	3,200	2,240
1	2 or more			8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Staisfied	X	Not Satisfied					
Number of lanes for moving traffic on each approach							
Major Street	Minor Street			Urban	Rural	Urban	Rural
1	1			12,000	8,400	1,200	850
2 or more	1			14,400	10,080	1,200	850
2 or more	2 or more			14,400	10,080	1,600	1,120
1	2 or more			12,000	8,400	1,600	1,120
Combination of CONDITIONS A+B				2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	X	Not Satisfied					
<u>No one condition satisfied</u> , but following conditions fulfilled 80% or More							
		<u>80%</u>	<u>102%</u>				
		A	B				

Note: To be used only for NEW INTERSECTIONS or other locations wehre it is not reasonable to count actual traffic volumes.

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #1**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **AM**

Turn Movement Volumes

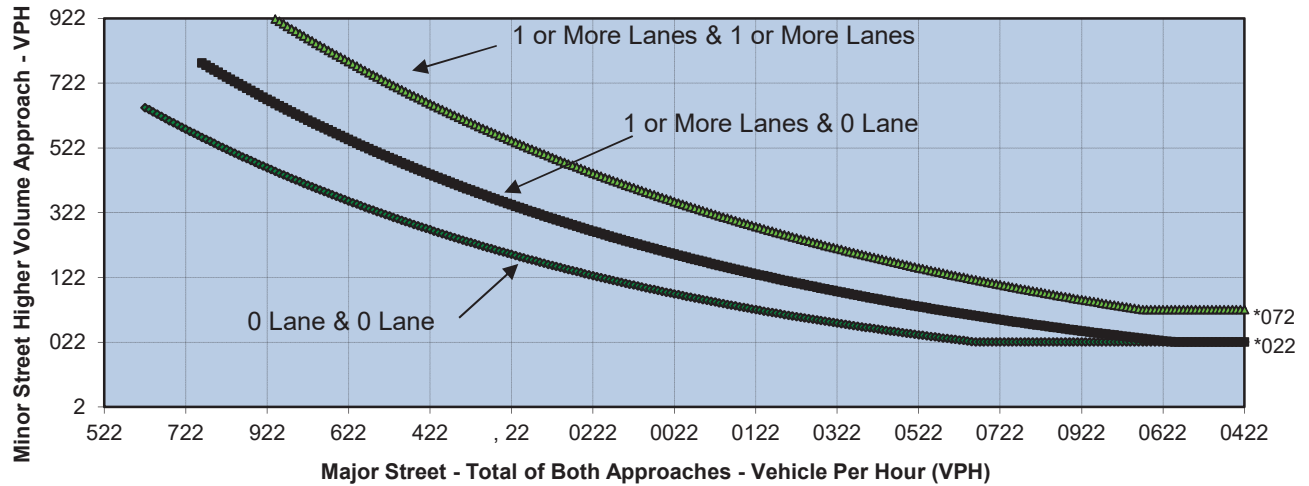
	NB	SB	EB	WB
Left	0	6	0	184
Through	1,002	1,418	0	0
Right	60	0	0	7
Total	1,062	1,424	0	191

Major Street Direction

X	North/South
	East/West

	Major Street Proctor Valley Road	Minor Street Project Driveway #1	Warrant Met
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	2,486	191	

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 072 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 022 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices* 8Caltrans81229

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #1**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **PM**

Turn Movement Volumes

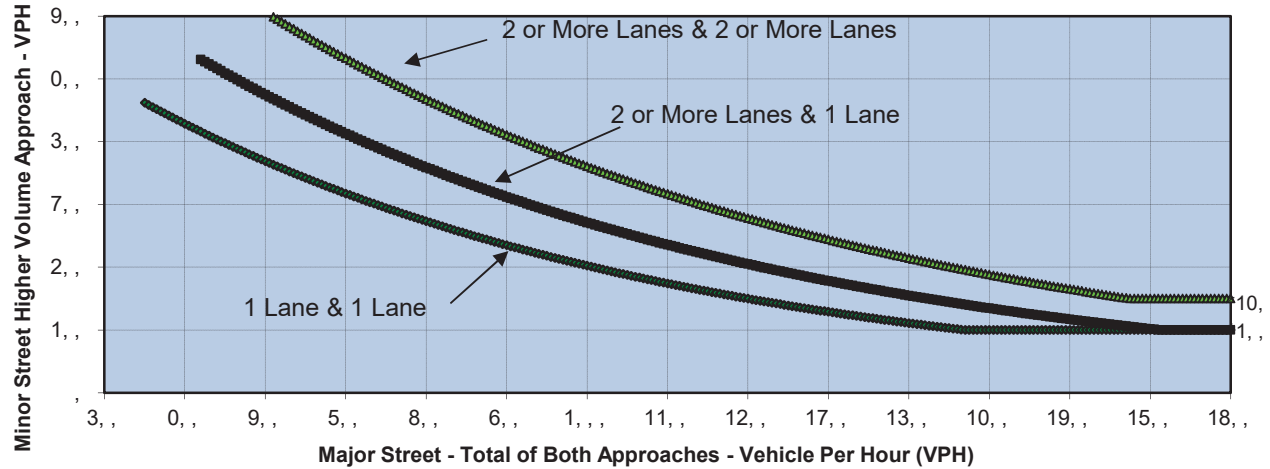
	NB	SB	EB	WB
Left	2	06	2	022
Through	0840	0807	2	2
Right	063	2	2	5
Total	1,992	1,132	0	104

Major Street Direction

X	North/South
	East/West

	Major Street	Minor Street	Warrant Met
	Proctor Valley Road	Project Driveway #1	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	3,124	104	

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: California Manual on Uniform Traffic Control Devices 4th Edition, 2003, 9

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #3**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **AM**

Turn Movement Volumes

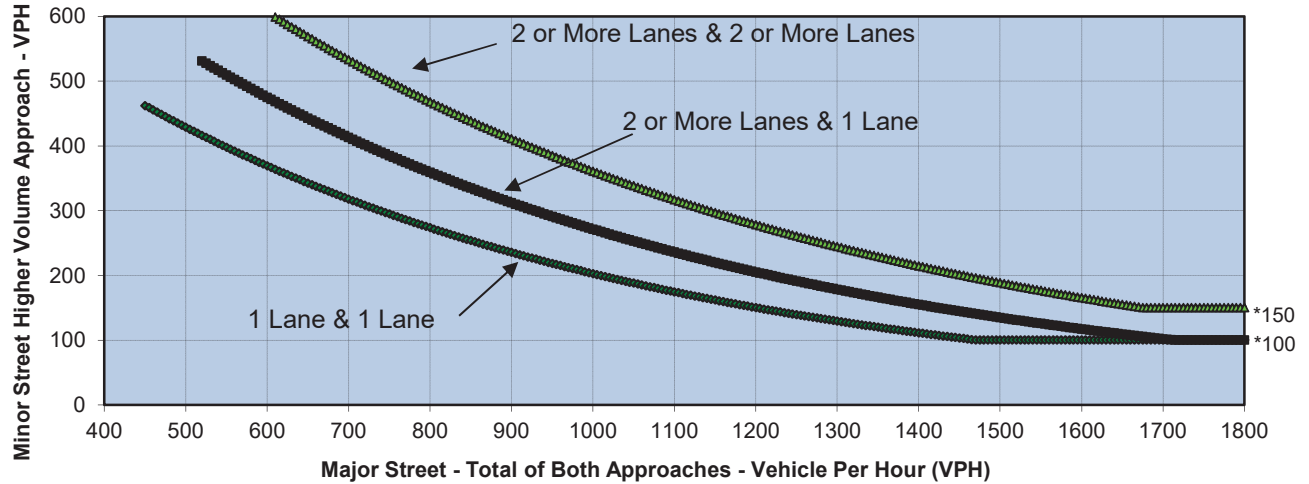
	NB	SB	EB	WB
Left	2	2	0	60
Through	812	142	0	1
Right	35	0	7	6
Total	861	1,210	13	114

Major Street Direction

X	North/South
	East/West

	Major Street Proctor Valley Road	Minor Street Project Driveway #3	Warrant Met
Number of Approach Lanes	1	1	YES
Traffic Volume (VPH) *	2,071	114	

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #3**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **PM**

Turn Movement Volumes

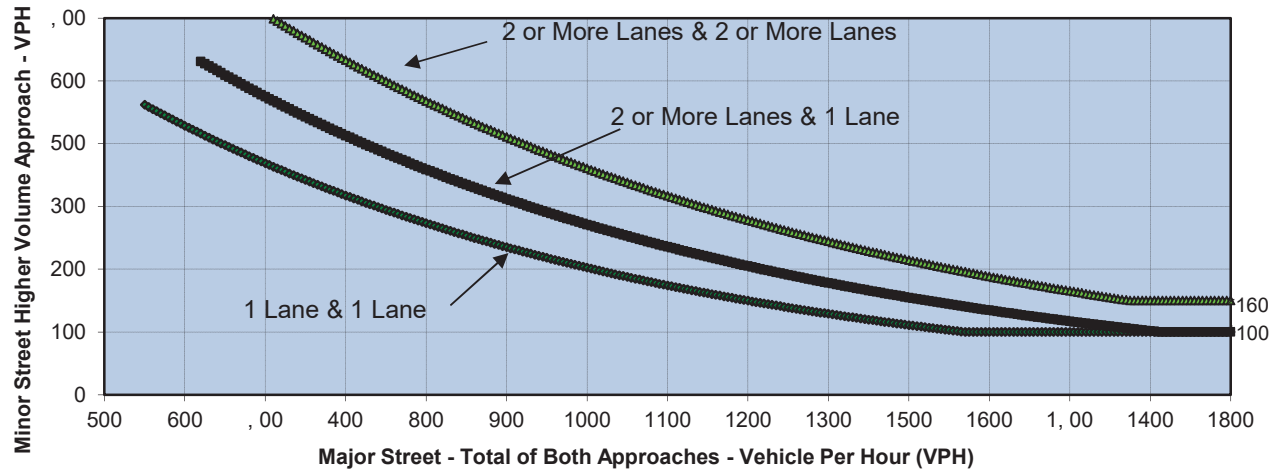
	NB	SB	EB	WB
Left	4	5	5	71
Through	1,432	1,074	5	5
Right	134	5	2	3
Total	1,570	1,084	12	79

Major Street Direction

X	North/South
	East/West

	Major Street	Minor Street	Warrant Met
	Proctor Valley Road	Project Driveway #3	
Number of Approach Lanes	1	1	NO
Traffic Volume (VPH) *	2,654	79	

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 160 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices* Caltrans 7200,

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #4**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **AM**

Turn Movement Volumes

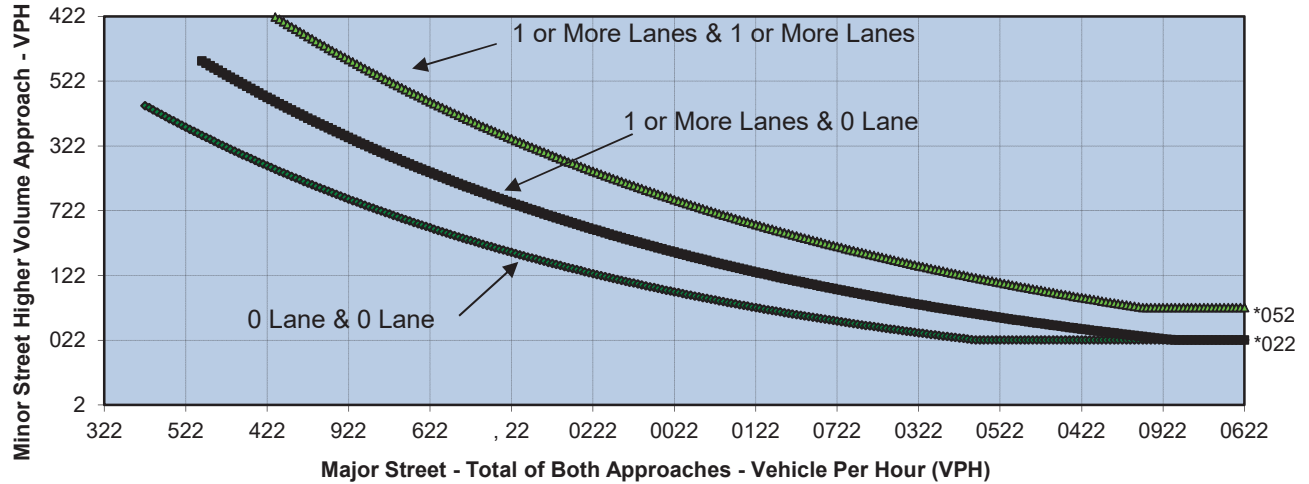
	NB	SB	EB	WB
Left	0	6	0	108
Through	4, 0	17102	0	0
Right	, ,	0	0	8
Total	826	1,107	0	116

Major Street Direction

X	North/South
	East/West

	Major Street Proctor Valley Road	Minor Street Project Driveway #4	Warrant Met
Number of Approach Lanes	1	1	YES
Traffic Volume (VPH) *	1,933	116	

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 052 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 022 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices* 8th Edition, 2012

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #4**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **PM**

Turn Movement Volumes

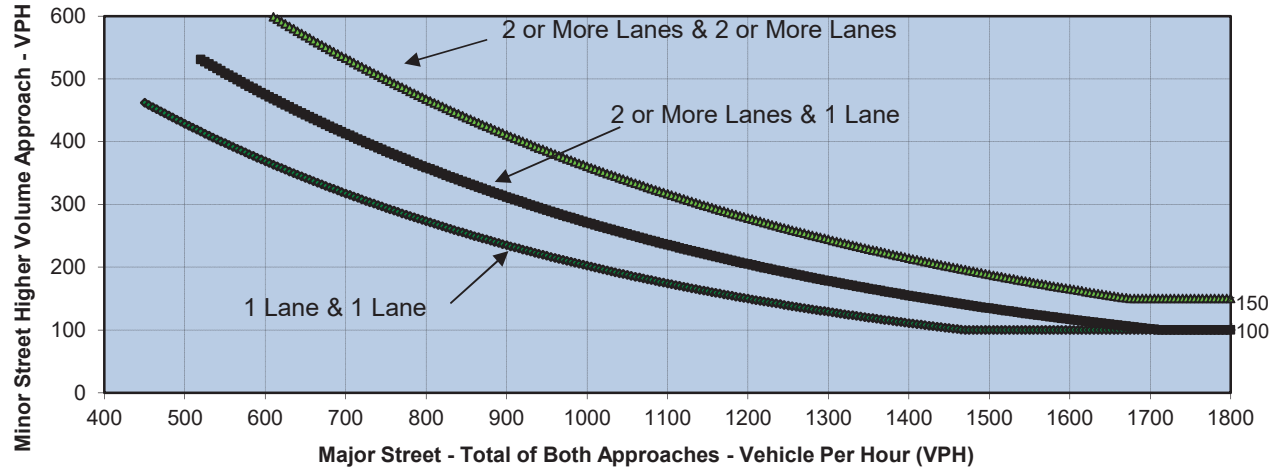
	NB	SB	EB	WB
Left	2	06	2	006
Through	08142	, 44	2	2
Right	062	2	2	,
Total	1,440	984	0	127

Major Street Direction

X	North/South
	East/West

	Major Street	Minor Street	Warrant Met
	Proctor Valley Road	Project Driveway #4	
Number of Approach Lanes	1	1	YES
Traffic Volume (VPH) *	2,424	127	

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #5**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **AM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	11	2	2	5
Through	752	1,077	5	5
Right	5	1	25	4
Total	768	1,080	32	14

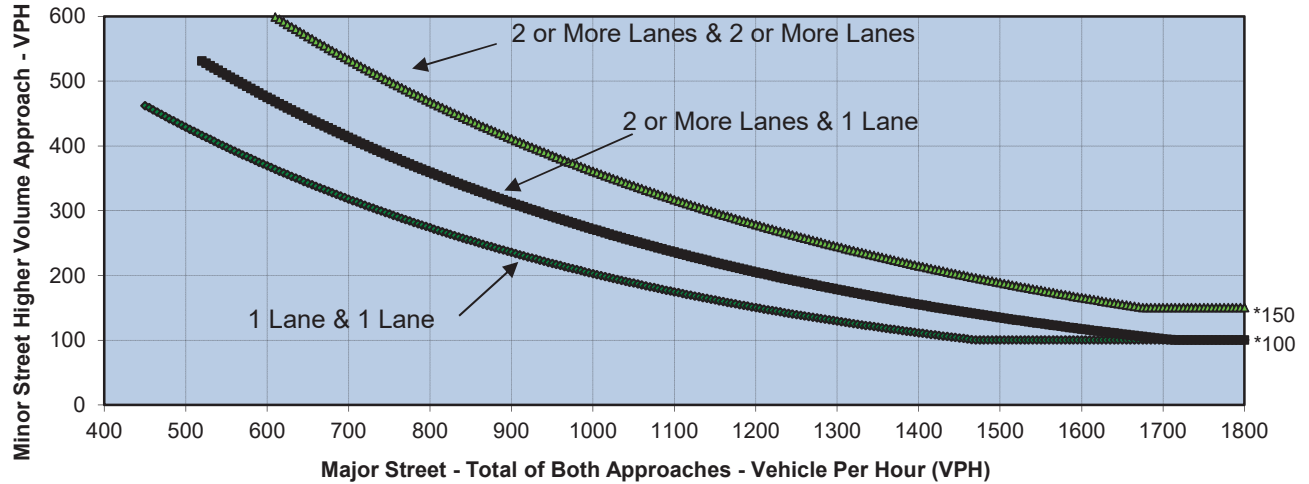
Major Street Direction

X	North/South
	East/West

Main Street Volumes Exceed Signal Warrant Threshold

	Major Street Proctor Valley Road	Minor Street Project Driveway #5	Warrant Met
Number of Approach Lanes	1	1	<u>NO</u>
Traffic Volume (VPH) *	1,848	32	

**Figure 4C-3
Warrant 3, Peak Hour**



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street **Proctor Valley Road**
Minor Street **Project Driveway #5**

Project **Village 14**
Scenario **Cumulative 2030 w/ Full GDP/SRP Buildout**
Peak Hour **PM**

Turn Movement Volumes

	NB	SB	EB	WB
Left	32	5	1	5
Through	922	955	5	5
Right	5	2	14	3
Total	959	962	20	13

Major Street Direction

X	North/South
	East/West

	Major Street	Minor Street	Warrant Met
	Proctor Valley Road	Project Driveway #5	
Number of Approach Lanes	1	1	NO
Traffic Volume (VPH) *	1,921	20	

Appendix P SB-743 Compliance and TDM Plan Evaluation Memo

TO: Rob Cameron, Jackson Pendo Development Company
FROM: Stephen Cook, PE Chen Ryan Associates
DATE: February 9, 2018
RE: **SB 743 Compliance– Otay Ranch Village 14 and Planning Areas 16 & 19**

This memorandum documents the results of the SB 743 compliance analysis conducted for the proposed Otay Ranch Village 14 and Planning Areas 16 & 19 development (Proposed Project). The analysis calculates the total VMT per capita (VMT per person) that is anticipated to be generated by the Proposed Project, and compares it to the average VMT per capita generated throughout the San Diego County region. This method is consistent with the SB-743 related methods recommended in the *Proposed Update to the CEQA Guidelines, November 2017*.

This memo is organized as follows:

1. **Project Description** – Provides a brief description of the land uses proposed as part of the Otay Ranch Village 14 and Planning Areas 16 & 19 Project.
2. **Transportation Demand Management (TDM) Plan** – Outlines the Proposed Project's TDM Plan.
3. **TDM Plan Evaluation** – Evaluates the VMT reduction strategies associated with the Proposed Project, and quantifies the anticipated VMT reductions.
4. **SB 743 Background** – Provides background information regarding the OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA* and the *Proposed Update to the CEQA Guidelines*, including current status.
5. **SB-743 Compliance Analysis** – Provides a comparison of the Proposed Project VMT per capita versus the San Diego County region and sub regional areas.
6. **Induced Vehicle Travel due to Roadway Capacity Expansion** – Provides an analysis of the potential increase in VMT due to Project-related roadway improvements identified as Project features.

1. Project Description

The Proposed Project is part of the overall Otay Ranch development, an approximately 23,000-acre master-planned community in southern San Diego County designed as a series of villages and planning areas. The Proposed Project addressed by this technical report is located within Otay Ranch Village 14 and Planning Areas 16 and 19 in the Proctor Valley area of Otay Ranch.

The Proposed Project is designed to be consistent with the Otay SRP's directive to provide a transitional community between the suburban densities and character of eastern Chula Vista and the more rural community of Jamul. The Proposed Project is divided into two separate areas, Village 14 and Planning Areas 16 & 19. Village 14 will be constructed as a suburban neighborhood, with an approximate density of three dwelling units to the acre, and will feature a Neighborhood Center, as described above. Planning Areas 16 & 19 will be developed in more of a rural setting with a density of one dwelling unit every three acres. **Figure 1** illustrates the Project site plan.

Village 14

Table 1 provides the proposed land uses contained within the Village 14 portion of the Project, as well as the projected daily trip generation or ADT (average daily trips).

Table 1 Village 14 Land Uses and Daily Trip Generation

Land Use	Units	Trip Rate	ADT
Single Family Detached Housing ¹	994 DU	10/DU	9,940
Neighborhood/County Park (Undeveloped)	13.9 AC	5/AC	70
Community Facility	4.4 AC	30/AC	132
Fire Station	3 Staff	5.33/Staff	16
Mixed Use: Commercial /Residential	10 KSF	110/KSF	1,100
Total ADT			11,258

Source: SANDAG's Guide to Vehicular Traffic Generation Rates for the San Diego Region (SANDAG, April 2002)

Note:

¹As a worst-case scenario, this analysis assumes that the 994 single family dwelling units include the 97 additional single family dwelling units that may be constructed instead of the proposed elementary school. This is a worst-case scenario since the 97 single-family dwelling units will generate more traffic than the proposed 8-acre school site (970 ADT vs 720 ADT). Additionally, the removal of the school site significantly limits the possibility for internal trip capture within the Proposed Project site.

As shown, the Village 14 component of the project will contain 994 single family dwelling units, as well as a Neighborhood Center with 10,000 sf of commercial uses, and a fire station. Village 14 is anticipated to generate 11,258 ADT.

Planning Areas 16 and 19

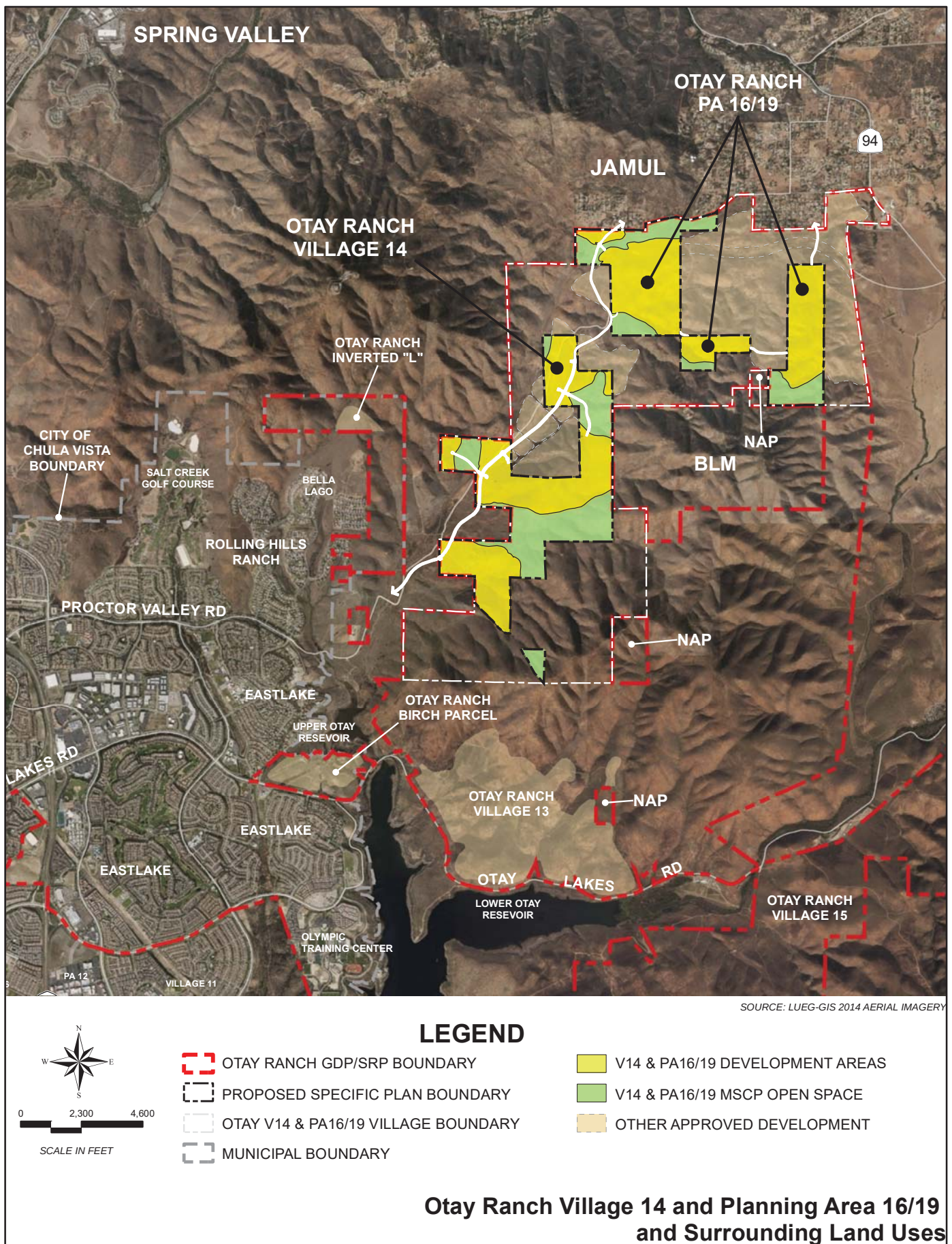
Table 2 provides the proposed land uses contained within Planning Areas 16 and 19, as well as their projected daily trip generation.

Table 2 Planning Areas 16 and 19 Land Uses and Daily Trip Generation

Land Use	Units	Trip Rate	ADT
Estate Single Family Dwelling Units	125 DU	12/DU	1,500

Source: SANDAG's Guide to Vehicular Traffic Generation Rates for the San Diego Region (SANDAG, April 2002)

As shown, Planning Areas 16 and 19 would contain 125 estate style single family dwelling units, which are anticipated to generate 1,500 ADT.



Otay Ranch Village 14, 16 & 19

Figure 1

2. Transportation Demand Management Plan

The Project applicant proposes implementation of the TDM measures and strategies listed below in order to reduce vehicle trips in favor of alternative modes of transportation. The TDM program will facilitate increased opportunities for transit, bicycling, and pedestrian travel, as well as provide the resources, means and incentives for ridesharing and carpooling opportunities. The following measures are included in the TDM program:

1. A comprehensive trails network designed to provide safe bicycle and pedestrian access between the various Proposed Project phases, land uses, parks/open space, schools and the Village Core area. The trails network shall also provide connections to the various recreational trails and multi-modal facilities accessing the Proposed Project site.
2. The provision of bicycle racks along main travel corridors, adjacent to commercial developments, and at public parks and open spaces within the Proposed Project site.
3. Coordination with SANDAG's iCommute program for Carpool, Vanpool, and rideshare programs that are specific to the Proposed Project.
4. Promotion of available websites providing transportation options for residents and businesses.
5. Creation and distribution of a "new resident" information packet addressing alternative modes of transportation.
6. Coordination with the Metropolitan Transit System (MTS) and SANDAG regarding future sighting of transit stops/stations within the Proposed Project site.
7. Provision of a "School Pool" program to coordinate school-related carpool activities with the local school district and SANDAG. As part of the program, dedicated parking spaces for the School Pool program will be provided at the Village Core area.
8. Implementation of a "Walking School Bus" program, whereby neighborhood students are accompanied by a "chaperone" (e.g., parental supervision) to safely walk to and from the on-site elementary school. Relatedly, the Project applicants also shall coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.

3. TDM Plan Evaluation

To quantify the potential VMT reductions associated with the Proposed Project's TDM plan, the proposed TDM measures, listed above, were correlated with the appropriate measures contained in the *California Air Pollution Control Officers Associates (CAPCOA) resource document "Quantifying Greenhouse Gas Mitigation Measures", August 2010* (CAPCOA Report). The calculations and corresponding results of this analysis are contained in the Village 14 and Planning Area 16/19 TDM Plan Evaluation, prepared by Chen Ryan Associates, dated October 26, 2017. The Village 14 and Planning Area 16/19 TDM Plan Evaluation Memorandum is provided as **Attachment A**.

Based on the VMT reduction results, Village 14 would have the following overall VMT reduction:

Overall VMT Reduction (Village 14) = 4.7%

Based on the VMT reduction results, Planning Areas 16 & 19 would have the following overall VMT reduction:

Overall VMT Reduction (PA 16/19) = 2.0%

Overall, the combined VMT reduction would be 4.338% for the Proposed Project.

4. SB-743 Background

On September 27, 2013, Governor Edmund G. Brown, Jr. signed SB 743 into law, starting a process that is expected to fundamentally change the way transportation impact analysis is conducted under CEQA. Within the State's CEQA Guidelines, these changes will include elimination of auto delay, level of service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts.

DETERMINATION OF SIGNIFICANCE

In November 2017, the Governor's Office of Planning and Research (OPR) released the *Proposed Update to the CEQA Guidelines*, which provides recommendations to the California Natural Resources Agency for updating the State's CEQA Guidelines in response to SB 743, including recommended specifications for VMT analysis in an accompanying "Technical Advisory on Evaluating Transportation Impacts in CEQA" ("Technical Advisory"). On January 26, 2018, the Resources Agency released the proposed guidelines for public review and comment; the comment period closes March 15, 2018, after which additional revisions to the proposed guidelines may be made in response to the comments. Final approval of the proposed guidelines is expected sometime later this year, although based on the current draft, lead agencies will have until January 1, 2020 to comply with the proposed revisions. As such, preparation of an SB 743 compliant analysis consistent with the proposed guidelines is not required at this time.

The proposed guidance recommends use of automobile VMT, as the preferred CEQA transportation metric, along with the elimination of auto delay/LOS for CEQA purposes statewide. For land use projects, the Technical Advisory reports that research has shown that automobile VMT per capita at the project level should be fifteen percent (15%) below those of existing development.

In addition to the VMT directly generated by a project, the Proposed CEQA Guidelines would require the analysis of "induced VMT" that could result from transportation network capacity expansion projects, stating that:

Additional lane miles may induce automobile travel, and vehicle miles traveled, compared to existing conditions. Transportation projects that reduce, or have no impact on, vehicle miles traveled may be presumed to cause a less than significant transportation impact.

OPR's Technical Advisory contains recommended specifications for VMT analysis methodology and recommendations for significance thresholds. The Draft OPR Guidance contains sufficient information to

inform lead agencies about how to prepare for the upcoming transition to VMT. However, the final implementation steps for SB 743 have not yet been completed and, therefore, as noted above, compliance with the OPR Draft Guidance is not mandatory at this time.

In summary, while not required by CEQA, this memorandum presents an evaluation of the potential VMT-related impacts of the Proposed Project consistent with – and based on the OPR *Proposed Update to the CEQA Guideline* and the related *Technical Advisory*.

METHODOLOGY

The OPR Draft Guidance does not require that a specific methodology be used when calculating VMT. Instead, the Proposed CEQA Guidelines state that “a lead agency should not confine its evaluation to its own political boundary” and that “a lead agency may use models to estimate a project’s vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence”, and “any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project”. In essence, the Proposed CEQA Guidelines defer to a local agency’s professional judgment supported by substantial evidence when deciding how best to model VMT, stating that “a lead agency’s evaluation of the vehicle miles traveled with a project is subject to a rule of reason”.

Since the OPR Draft Guidance has not yet been approved and adopted by the Natural Resources Agency, the County of San Diego has not adopted methodologies for performing VMT analysis per SB 743. Accordingly, the analysis presented here is based on the suggested approach presented in the draft guidelines and related Technical Advisory.

5. SB-743 Compliance Analysis

VMT PER CAPITA ANALYSIS

As recommended in the OPR Draft Guidance, an analysis was conducted to compare the Proposed Project’s VMT per capita to that of the San Diego Region. In order to provide a comparison between the Proposed Project VMT per capita and the regional VMT, for purposes of this analysis, the home-based VMT per capita for the Unincorporated San Diego County Southwestern region, which includes the Project area, was used to represent the Proposed Project VMT; the Southwestern Region includes the communities of Ramona, Lakeside, Alpine, Crest-Dehesa, Valle De Oro, Spring Valley, Sweetwater, Jamul-Dulzura, and Otay. The southwest region is predominantly made up of suburban and rural densities and contains little to no urban areas. Due to the lower densities within the Southwest region and longer distances between land uses, the home-based trip lengths within these areas tend to be longer than the San Diego Regional as a whole. Since the Proposed Project is located within the County of San Diego’s Southwestern Region, the VMT per capita for the Proposed Project is more likely to be similar to the existing VMT per capita within this area, more so than the San Diego Region as a whole, since it contains more urban uses. Therefore, assuming the Southwestern Regional home-based trip lengths to represent the Proposed Project trip lengths is a conservative assumption. **Figure 2** displays the San Diego region as well as the County of San Diego’s Southwestern Region. The VMT per capita for the sub-region was calculated using the SANDAG Series 13 Year 2035 Regional Model using the VMT methodology developed by SANDAG.

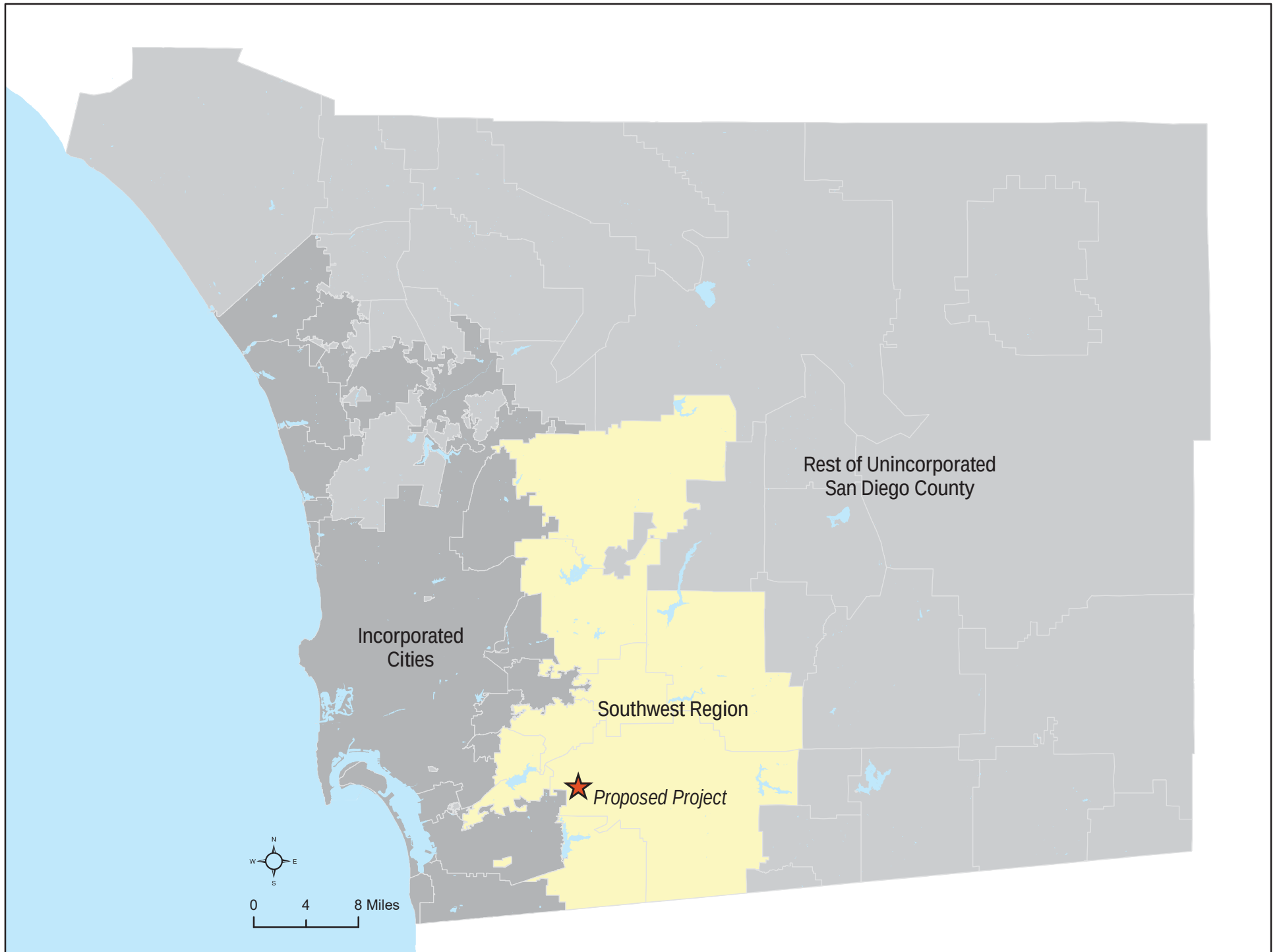


Table 1 Otay Ranch Village 14 and Planning Area 16 & 19 Vehicle Miles Traveled by Capita

Study area	# of Residents	Total Trips	Vehicle Miles Trips	Vehicle Miles Trips per Resident
Unincorporated San Diego County Southwestern Region	317,852	1,138,800	6,899,814	21.71

Source: SANDAG Series 13 Regional Model, January

As shown on Table 1, the existing automobile home-based VMT per capita for the sub-region is 21.71. Since the Proposed Project is located in the Unincorporated San Diego County Southwestern Region, for the limited purposes of this analysis, it is assumed that the Proposed Project VMT per capita would be 21.71.

According to the OPR Draft Guidance, local jurisdictions have the flexibility to utilize alternative VMT thresholds from those provided in the Draft Guidance. In this case, however, the County of San Diego has not yet adopted a VMT threshold. Therefore, for the purposes of this analysis, the OPR recommended 15% below existing VMT/capita is utilized. Furthermore, while the un-incorporated San Diego County Southwestern Region VMT per capita provides a more appropriate baseline against which to establish a threshold and assess project VMT per capita impacts, for the purposes of this analysis, the VMT per capita for the San Diego Region was utilized to determine the significance threshold. Accordingly, the corresponding threshold of significance, based on the San Diego Region VMT/capita and calculated based on the OPR Draft Guidance proposal of 15% below baseline, is used in the analysis, as presented below in **Table 2**.

Table 2 San Diego Region Vehicle Miles Traveled per Capita

Study area	# of Residents	Vehicle Miles Trips	Vehicle Miles Trips per Resident	Significance Threshold per Capita (15% below existing VMT)
San Diego Region	Obtained from SANDAG Regional Transportation Plan Year 2012 (RTP)		17.60	14.96*

Source: SANDAG Trip Generation Manual, Chen Ryan Associates; December 2017

Note: VMT threshold based on 85% of the San Diego Region VMT Year 2012. Data was obtained from SANDAG's RTP.

As shown in Table 2, the VMT per capita for the San Diego Region is 17.6 miles per capita, and, based on the OPR Draft Guidance, the corresponding significance threshold is 15 percent below that number, or 14.96. Thus, based on the data set presented here, the Proposed Project VMT per capita for the residential land use types would exceed the corresponding threshold for the VMT per capita within the San Diego Region. As a result, based on the thresholds suggested in the OPR Draft Guidance, the Proposed Project would result in a significant impact related to automobile home-based VMT per capita for all residential land use types when compared to the San Diego Region.

To reduce or mitigate the Project's VMT per capita, the Proposed Project would implement the TDM plan to be included as part of the project, and described in Attachment A, TDM Plan Evaluation Memo,

prepared by Chen Ryan, dated October 27, 2017. The TDM plan would result in a VMT reduction of 4.338%. Thus, for purposes of the analysis presented here, it is forecast that the Proposed Project would generate 20.77 VMT per capita ($21.71 \text{ VMT per Capital} * (1 - .04338)$) with implementation of the TDM Plan. However, since the Proposed Project VMT per capita with implementation of the TDM plan is still higher than the VMT per capita threshold, the Proposed Project would result in a significant unavoidable impact related to automobile home-based VMT per capita when compared to the San Diego Region.

6. INDUCED VEHICLE TRAVEL DUE TO ROADWAY INFRASTRUCTURE SB 743 VMT ANALYSIS METHODOLOGY

The OPR Draft Guidance recommends that a VMT analysis be conducted for major roadway capacity expansion projects and that the analysis address potential induced travel effects. Induced travel occurs when improvements to roadway facilities improve congested traffic operations and, thereby, stimulate additional travel due to the reduced congestion and improved operations.

Primary local access to the Proposed Project would be provided via Proctor Valley Road, classified by the Mobility Element of the County General Plan as a two-lane (2.2E) Light Collector from the City of Chula Vista/County boundary to SR-94 (County of San Diego 2011a).

The Proposed Project would improve Proctor Valley Road from a 2-lane undivided, unpaved road to its ultimate County of San Diego Mobility Element classification as a 2-lane light collector with a raised median. The Proctor Valley Road improvements include upgrading the road to meet the County's Public Road Standards, constructing roundabouts and signals along the Proposed Project frontage, and constructing a 4.5-mile multi-purpose community pathway between the City of Chula Vista and the unincorporated community of Jamul that would facilitate bicycle and pedestrian travel.

Section F of OPR's Technical Advisory provides a comprehensive list of transportation projects that are not likely lead to a substantial or measurable increase in VMT and, therefore, should not require an induced travel analysis. Relevant to the Proposed Project improvements to Proctor Valley Road, Section F includes the following transportation improvements: Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit. (Relevant excerpts of the OPR Technical Advisory are provided in **Attachment B**).

The Proposed Project improvements to Proctor Valley Road would meet the above description. As explained above, in its improved condition, Proctor Valley Road would meet the Light Collector standard. Specifically, the Proposed Project would retain the Mobility Element's two-lane designation for Proctor Valley Road, but would modify the Mobility Element classification from 2.2E Light Collector (no median two-lane undivided) to 2.2A Light Collector (raised median two-lane divided) for the segment between the City of Chula Vista/County boundary and Village 14 Street "Y." The segment of Proctor Valley Road between Village 14 Streets "Y" and "AA" would remain consistent with the Mobility Element 2.2E Light Collector classification. The northern segment of Proctor Valley Road would be reclassified as a modified 2.2F Light Collector. Note also that the Proposed Project also includes an amendment to the Otay Ranch General Development Plan/Otay Subregional Plan, Volume II (Otay Ranch GDP/SRP), to reclassify Proctor Valley Road from a 4-lane Major Road to a 2-lane Collector, consistent with previous amendments to the County General Plan Mobility Element for Proctor Valley Road.

With regards to conditions for pedestrians and cyclists, as described above, the proposed improvements to Proctor Valley Road include a 4.5-mile, 10-foot wide pathway along the road, from

EastLake Woods (City of Chula Vista) to Jamul. The 10-foot pathway would be landscaped. Bike Lanes are proposed along the entire length of improved roadway, which would substantially improve conditions for both bicyclists and pedestrians; Proctor Valley Road is presently an unpaved dirt road with no facilities for bicyclists or pedestrians. Additionally, a future transit stop potentially would be located in the Village Core within Village 14 to accommodate future extension of bus transit, should service ultimately be extended to the Project Area.¹

In summary, the Proposed Project improvements to Proctor Valley Road would meet the criteria identified in Section F of the OPR's Technical Advisory for transportation projects that are not likely to lead to a substantial or measurable increase in VMT and, therefore, an induced travel analysis is not required. While the improvement to PVR may result in increase in traffic on PVR, the overall effect would likely result in reduced area wide VMT, since the improvements to PVR provides a shorter routes between Jamul and Chula Vista.

¹OPR's Technical Advisory Section F also includes the installation of roundabouts or traffic circles, the installation or reconfiguration of traffic calming devices, and the addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel, as transportation improvements not likely to lead to a substantial or measurable increase in VMT. The proposed improvements to Proctor Valley Road would include installation of roundabouts and a multi-use paths.

ATTACHMENT A

Village 14 and Planning Area 16/19 TDM Plan Evaluation Memorandum

TO: Rob Cameron, Jackson Pendo Development Company
FROM: Stephen Cook, PE Chen Ryan Associates
DATE: October 27, 2017
RE: **TDM Plan Evaluation – Otay Ranch Village 14 and Planning Area 16/19 - Land Exchange EIR Alternative**

The purpose of this memorandum is to document and quantify the potential reductions in project generated Vehicle Miles Traveled (VMT) for the proposed Otay Ranch Village 14 and Planning Areas 16/19 - Land Exchange EIR Alternative (Land Exchange Alternative). The potential reductions in the Land Exchange Alternative's project generated VMT are based upon the strategies and measures included in the project's Transportation Demand Management (TDM) plan, as well as other project features such as location and design. The quantification of the VMT reduction was analyzed using the methods and strategies contained in the *California Air Pollution Control Officers Associates (CAPCOA)* resource document "Quantifying Greenhouse Gas Mitigation Measures", August 2010 (CAPCOA Report).

This memo is organized as follows:

1. **Methodology** – Outlines the methodologies used to describe, evaluate, and quantify the potential reductions in project generated VMT.
2. **Project Description** – Provides a brief description of the land uses proposed as part of the Land Exchange EIR Alternative.
3. **Land Exchange Alternative Generated VMT – without Reductions** – Provides the Land Exchange Alternative's land use generated VMT as derived from the San Diego Association of Governments (SANDAG) Series 13 travel demand model.
4. **Transportation Demand Management (TDM) Plan** – Outlines the Land Exchange Alternative's TDM Plan.
5. **TDM Plan Evaluation** – Evaluates the VMT reduction strategies associated with the Land Exchange Alternative, and quantifies the anticipated VMT reductions.
6. **Land Exchange Alternative VMT – with Reductions** – Derives the quantified total project generated net VMT based on the calculated VMT reductions.
7. **Conclusion** – Summarizes the findings and conclusions of the TDM Plan Evaluation.

1. Methodology

The methods and strategies contained in the CAPCOA Report were used to quantify the reductions in Land Exchange Alternative generated VMT. The CAPCOA Report provides a series of strategies to reduce Greenhouse Gas (GHG) emissions at both the project and regional levels. The GHG reduction strategies outlined in the CAPCOA Report are divided into energy, transportation, water resources, landscaping, solid waste, vegetation construction, and other miscellaneous categories. The transportation strategies contained in the CAPCOA Report primarily target VMT reductions to reduce GHG emissions.

Chapter 7 of the CAPCOA Report provides a series of Fact Sheets that outline the relevant literature used to develop the strategy, how and where the strategy is applicable, the method to apply the strategy, and sample calculations. The CAPCOA Report provides caps limiting the total VMT reductions that are allowed for each individual strategy, or category of strategies, or as a total project site. To quantify the potential reduction in project generated VMT, the VMT based reduction strategies were applied to the relevant features contained in the Land Exchange Alternative’s design and TDM plan.

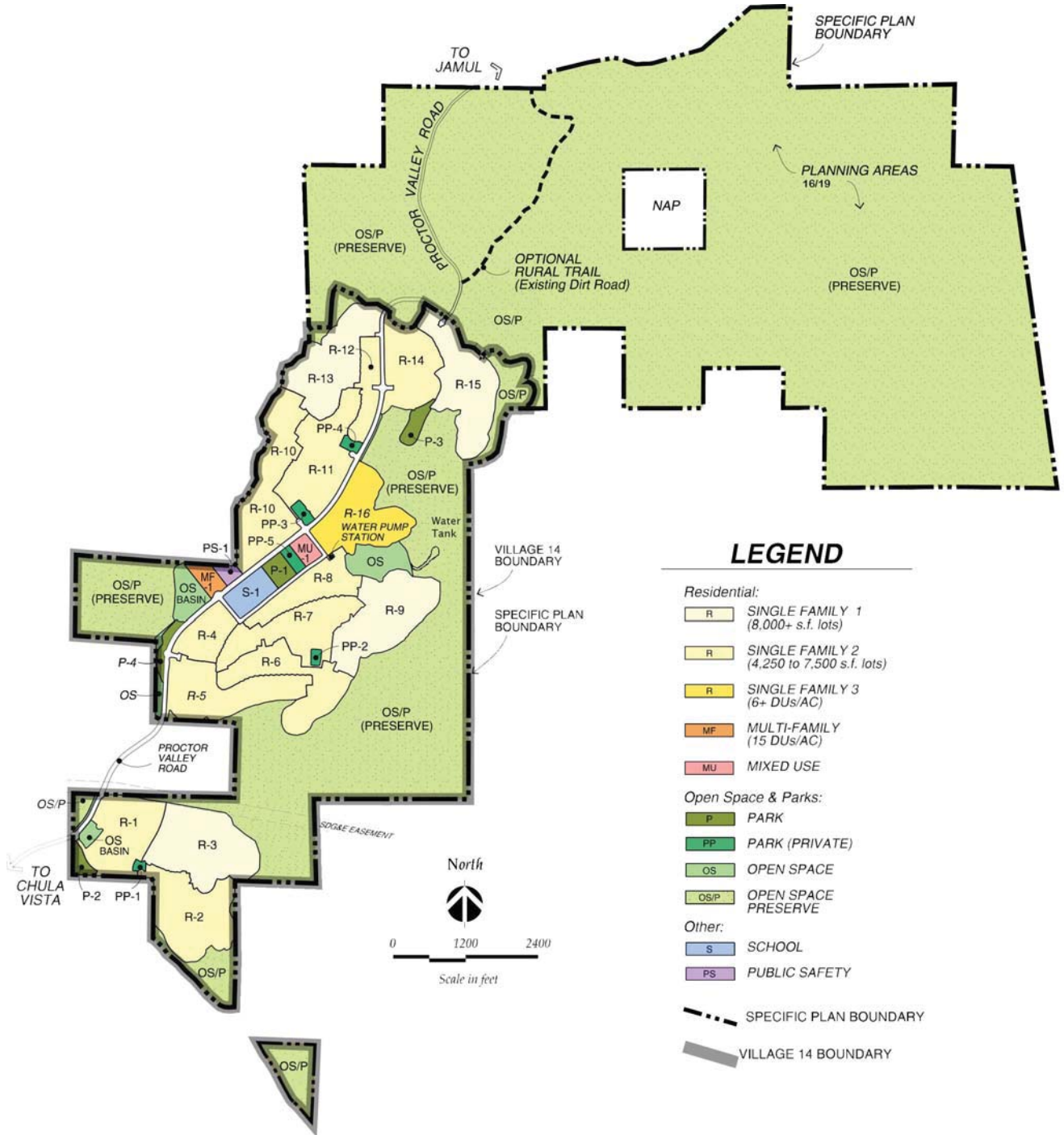
2. Project Description

The Land Exchange Alternative is located within Otay Ranch Village 14 and Planning Areas 16 and 19 in the Proctor Valley parcel of Otay Ranch. Village 14 and Planning Areas 16 and 19 are part of the larger Otay Ranch, an approximately 23,000-acre master-planned community in southern San Diego County designed as a series of villages and planning areas. The Land Exchange Alternative proposes to develop the Proctor Valley Village 14 parcel, as described below, and proposes no development within Planning Areas 16 and 19.

The Land Exchange Alternative includes approximately 517 acres designated for 1,530 homes, 1,124 of which would be traditional single-family homes, 283 would be single-family, age-restricted homes, and 123 would be multifamily homes. A total of 18 neighborhoods are planned, with approximate densities ranging from 1.5 to 15.0 dwelling units per acre. The age-restricted neighborhoods would be gated, as would four of the single-family neighborhoods situated on the largest lots.

The Land Exchange Alternative is planned around a Village Core, centrally located in the heart of the village. Higher density residential uses will be adjacent to the Village Core with single-family residential radiating out in decreasing density. The Village Core is comprised of the Neighborhood Center, which includes an 8-acre elementary school; a 4-acre Village Green (public park); a 3-acre Mixed Use Site with up to 15,000 square feet of commercial/retail uses and 54 multi-family homes; and a 2-acre Village Square Community Facility. The Village Core also includes a 2-acre public safety site for a fire station and satellite sheriff’s facility and 69 multi-family townhomes located adjacent to the public safety site. **Figure 1** illustrates the Land Exchange Alternative site plan.

Table 1 provides the proposed land uses contained within the Land Exchange Alternative, as well as the projected daily trip generation or ADT (average daily trips).



Land Exchange Alternative

Table 1 Land Exchange Alternative Land Uses and Daily Trip Generation

Land Use	Units	Trip Rate	ADT
Single-Family Detached Housing	1,124 DU	10/DU	11,240
Mixed Use: Commercial /Residential	54 DU	5/DU	270
Multi-Family (6-20 DU/Acre)	69 DU	8/DU	552
Retirement Community	283 DU	4/DU	1132
Mixed Use: Commercial /Retail	15,000 SF	110/KSF	1,650
Elementary	8 Acre	90/Acre	720
Neighborhood/County Park (Undeveloped)	13.1 Acre	5/Acre	66
Community Facilities	5.6 Acres	30/Acres	168
Fire Station	3 Staff	5.33/Staff	16
Total ADT			15,814
Internal Capture ¹ (-12%)			-1,989
External Total			13,916

Source: SANDAG's Guide to Vehicular Traffic Generation Rates for the San Diego Region (SANDAG, April 2002)

Note:

- Each trip generation rate includes a number of trip purposes, generally categorized as home-based work (HBW); home-based other (HBO), consisting of shopping, school, recreation; and non-home-based (NHB) trips. For developments with mixed land uses, many of the trips generated are served on-site. For example, shopping trips (reflected by HBO trips) would be satisfied by the commercial uses within the project site, as would school trips and recreational trips. The same logic would apply to the trip production/attraction interactions between office and commercial uses. It is a common practice, both nationwide and in the San Diego region, to allow for trip reductions reflecting the internal capture of trips associated with mixed-use developments resulting from the fact that complementary land uses (i.e. residential and commercial) help to serve each other's needs on-site.

As shown, the Land Exchange Alternative is anticipated to generate 13,916 external ADT.

3. Land Exchange Alternative Generated VMT – Without TDM Plan

The Land Exchange Alternative total VMT (without TDM Plan) was obtained using the Year 2035 SANDAG Series 13 Transportation Forecast, and derived from the select zone assignment conducted for the Project traffic analysis zones (TAZ), as updated to reflect the Land Exchange Alternative land uses. The VMT calculation for the Land Exchange Alternative was conducted using the following steps:

- Select zone assignment* – Select zone assignments are a tool within the transportation forecast model that can track the paths of the vehicle trips produced by one or multiple TAZs, on a daily basis. Select zone assignments allow users to determine the number of trips, generated within a specific group of TAZ(s), that will use a specific roadway segment over a daily period. The Land Exchange Alternative VMT calculation used a select zone assignment based on the TAZs in the SANDAG Series 13 model which house the Land Exchange Alternative land uses.

- *Calculate the VMT per roadway segment* – The Land Exchange Alternative VMT for each roadway segment within the San Diego Region was calculated by multiplying the number of average daily vehicles trips generated by the Land Exchange Alternative (as determined by the select zone assignment) by the length (in miles) of the specific roadway segments that they were utilizing.
- *Total VMT associated with the Land Exchange Alternative* – The total project generated VMT was determined by summing the Land Exchange Alternative segment VMTs along all of the roadways within the San Diego region.

The results of the select zone assignment are provided in **Attachment 1**. Based upon the results of the select zone assignment, the Land Exchange Alternative would generate approximately 156,782 VMT per day.

4. Transportation Demand Management Plan

The Project applicant proposes implementation of the TDM measures and strategies listed below in order to reduce vehicle trips in favor of alternative modes of transportation. The TDM program will facilitate increased opportunities for transit, bicycling, and pedestrian travel, as well as provide the resources, means and incentives for ridesharing and carpooling opportunities. The following measures are included in the TDM program¹:

1. A comprehensive trails network designed to provide safe bicycle and pedestrian access between the various Land Exchange Alternative phases, land uses, parks/open space, schools and the Village Core area. The trails network shall also provide connections to the various recreational trails and multi-modal facilities accessing the Land Exchange Alternative site.
2. The provision of bicycle racks along main travel corridors, adjacent to commercial developments, and at public parks and open spaces within the Land Exchange Alternative site.
3. Provide bicycle racks at the office, multi-family and live/work buildings within the Land Exchange Alternative site.
4. Coordination with SANDAG's iCommute program for Carpool, Vanpool, and rideshare programs that are specific to the Land Exchange Alternative.
5. Promotion of available websites providing transportation options for residents and businesses.
6. Creation and distribution of a "new resident" information packet addressing alternative modes of transportation.

¹ Please note that these TDM measures differ from those identified for the Proposed Project due to the additional multi-family and senior housing components that are included in the Land Exchange Alternative. These two components allow for two additional TDM measure, as shown with measures 3 and 8, respectively.

7. Coordination with the Metropolitan Transit System (MTS) and SANDAG regarding future sighting of transit stops/stations within the Land Exchange Alternative site.
8. Provide a communal shuttle system for the senior communities within the Land Exchange Alternative.
9. Provision of a “School Pool” program to coordinate school-related carpool activities with the local school district and SANDAG. As part of the program, dedicated parking spaces for the School Pool program will be provided at the Village Core area.
10. Implementation of a “Walking School Bus” program, whereby neighborhood students are accompanied by a “chaperone” (e.g., parental supervision) to safely walk to and from the on-site elementary school. Relatedly, the Project applicants also shall coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.

5. TDM Plan Evaluation

To quantify the potential VMT reductions associated with the Land Exchange Alternative’s TDM plan, Chen Ryan Associates correlated the proposed TDM measures, listed above, with the appropriate CAPCOA mitigation measures contained in the CAPCOA Report. The CAPCOA Fact Sheets for each applicable TDM measure are provided in **Attachment B**.

Each CAPCOA transportation strategy was reviewed and identified if it was applicable to the Project TDM plan or the design of the Land Exchange Alternative. **Table 3** provides a summary of the Project’s TDM Plan strategies, the corresponding CAPCOA transportation strategies, analysis of the VMT reduction associated with each, and the resulting VMT reduction.

Table 3 – Land Exchange Alternative TDM Evaluation and Corresponding VMT Reductions

TDM Plan Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
VMT Reductions Associated with the Land Exchange Alternative TDM Plan			
TDM #1: Provide a comprehensive trails network designed to provide safe bicycle and pedestrian access between the various Land Exchange Alternative phases, land uses, parks/open space, schools and the Village Core area. The trails network shall also provide connections to the various recreational trails and multi-modal facilities accessing the Land Exchange Alternative site. TDM #2: The provision of bicycle racks along main travel corridors, adjacent to commercial developments, and at public parks and open spaces within the Land Exchange Alternative site. TDM #3: Provide bicycle racks at the office, multi-family and live/work buildings within the Land Exchange Alternative site.	SDT-9: Dedicate Land for Bike Trails - Larger projects may be required to provide for, contribute to, or dedicate land for the provision of off-site bicycle trails linking the project to designated bicycle commuting routes in accordance with an adopted citywide or countywide bikeway plan. Refer to Improve Design of Development (LUT-9) strategy for ranges of effectiveness in this category. The benefits of Land Dedication for Bike Trails have not been quantified and should be grouped with the Improve Design of Development strategy to strengthen street network characteristics and improve connectivity to off-site bicycle networks.	Note: No specific methodology is provided in the CAPCOA Report for this strategy. The Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S., NITC-RR-583, June 2014 found that when protected bike facilities are implemented 11% of the riders on those facilities would have made the trip using another mode (10%) or would not have made the trip at all (1%). Based on WHERE WE RIDE Analysis of bicycle commuting in American cities, the San Diego Region has a bicycle commute mode share of 0.82%. http://bikeleague.org/sites/default/files/ACS_report_2014_forweb_edit.pdf Calculation: If the 11% growth is new ridership with protected bike facilities is applied to the 0.82% bike mode share, we would see the bicycle mode share increase to 0.92%, resulting in a 0.1% decrease in project vehicular trips. It is assumed that this 0.1% decrease can also be applied to the project generated VMT.	0.1%

Table 3 – Land Exchange Alternative TDM Evaluation and Corresponding VMT Reductions

TDM Plan Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
(TDM # 1, 2 and 3 Continued)	LUT-8: Locate Project Near Bike Path/Bike Lane - A Project that is designed around an existing or planned bicycle facility encourages alternative mode use. The project will be located within 1/2 mile of an existing Class I path or Class II bike lane. The project design should include a comparable network that connects the project uses to the existing offsite facilities. This measure is most effective when applied in combination of multiple design elements that encourage this use. Refer to Increase Destination Accessibility (LUT-4) strategy. The benefits of Proximity to Bike Path/Bike Lane are small as a standalone strategy. The strategy should be grouped with the Increase Destination Accessibility strategy to increase the opportunities for multi-modal travel.	As per page 181 of the CAPCOA Report: As a rule of thumb, <i>the Center for Clean Air Policy (CCAP) Guidebook</i> attributes a 1% to 5% reduction associated with comprehensive bicycle programs. Based on the CCAP guidebook, the TIAX report allots 2.5% reduction for all bicycle-related measures and a 1/4 of that for this measure alone. (This information is based on a TIAX review for (SMAQMD). Calculation: Therefore, the CAPCOA Report recommend a 0.625% reduction for this measure (2.5% reduction for bike improvements X 0.25 for the measure) = 0.625%	0.625%
TDM #4: Coordination with SANDAG's iCommute program for Carpool, Vanpool, and rideshare programs that are specific to the Land Exchange Alternative.	TRT-3: Provide Ride-Sharing Programs - Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. The project will include a ride-sharing program as well as a permanent transportation management association membership and funding requirement. Funding may be provided by Community Facilities, District, or County Service Area, or other non-revocable funding mechanism. The project will promote ride-sharing programs through a multi-faceted approach such as: - Designating a certain percentage of parking spaces for ride sharing vehicles - Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles Providing a web site or message board for coordinating rides	As per page 228 of the CAPCOA Report, the formula to derive the reduction for this measure is as follows: % VMT Reduction = Commute * Employee Commute = % reduction in commute VMT 5% (low density suburb) 10% (suburban center) 15% (urban) annual reduction in commute VMT Employee = % employees eligible Calculation: 5% Low density suburb * 100% of working residents * 15% Home-Work Trips (Based on NCHRP residential trip types) = 0.75%	0.75%

Table 3 – Land Exchange Alternative TDM Evaluation and Corresponding VMT Reductions

TDM Plan Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
TDM #5: Promotion of available websites providing transportation options for residents and businesses. TDM #6: Creation and distribution of a “new resident” information packet addressing alternative modes of transportation. TDM #7: Coordination with the Metropolitan Transit System (MTS) and SANDAG regarding future sighting of transit stops/stations within the Land Exchange Alternative site. TDM #8: Provide a communal shuttle system for the senior communities within the Land Exchange Alternative.	TRT-7: Implement Commute Trip Reduction Marketing - The project will implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include: New employee orientation of trip reduction and alternative mode options, Event promotions, or Publications. CTR marketing is often part of a CTR program, voluntary or mandatory. CTR marketing is discussed separately here to emphasis the importance of not only providing employees with the options and monetary incentives to use alternative forms of transportation, but to clearly and deliberately promote and educate employees of the various options. This will greatly improve the impact of the implemented trip reduction strategies.	As per page 241 of the CAPCOA Report, the formula to derive the reduction for this measure is as follows: % Commute VMT Reduction = 4% * Employees Eligible * 1 Calculation: % Commute VMT Reduction = 4% * 100% of working residents * 10% Home-Work Trips (Based on NCHRP residential trip type) = 0.4%	0.4%

Table 3 – Land Exchange Alternative TDM Evaluation and Corresponding VMT Reductions

TDM Plan Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
TDM #9: Provision of a “School Pool” program to coordinate school-related carpool activities with the local school district and SANDAG. As part of the program, dedicated parking spaces for the School Pool program will be provided at the Village Core area. TDM #10: Implementation of a “Walking School Bus” program, whereby neighborhood students are accompanied by a “chaperone” (e.g., parental supervision) to safely walk to and from the on-site elementary school. . Relatedly, the Project applicants also shall coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.	TRT-10: Implement a School Pool Program - This project will create a ridesharing program for school children. Most school districts provide bussing services to public schools only. School Pool helps match parents to transport students to private schools, or to schools where students cannot walk or bike but do not meet the requirements for bussing.	As per page 250 of the CAPCOA Report, the formula to derive the reduction for this measure is as follows: % VMT Reduction = Families * 45% Families: 16% (moderate implementation), 35% (aggressive implementation). Calculation: 16% (moderate implementation) * 45% * 3.3% home to school trips (based on outputs from the SANDAG Model) = 0.24%	0.24%
VMT Reduction Associates with Project Design Features			
Project Design Features: Multi-Use Path along Proctor Valley Road	SDT-1: Provide Pedestrian Network Improvements - Providing a pedestrian access network to link areas of the Project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT. The project will provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. The project will minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, landscaping, and slopes that impede pedestrian circulation will be eliminated.	The reduction factor for this measure was derived from the Mitigation Method table provided on page 187 of the CAPCOA Report. A 2% factor was selected since the Land Exchange Alternative will be located in a suburban context and will provide a multi-use path along Proctor Valley Road, connecting it to both Jamul and the City of Chula Vista.	2%

Table 3 – Land Exchange Alternative TDM Evaluation and Corresponding VMT Reductions

TDM Plan Strategies	Corresponding CAPCOA Strategies	Analysis	VMT Reduction
Project Design Features: Roundabouts	SDT-2: Provide Traffic Calming Measures - Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways will be designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips with traffic calming features. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.	The reduction factor for this measure was derived from the Mitigation Method table provided on page 191 of the CAPCOA Report. A 0.556% factor was developed based on an interpolation of the data included in the table. The Land Exchange Alternative will control 5 of its 9-project driveways along Proctor Valley road via roundabouts (55.6%).	0.556%

Source: CAPCOA 2010, Chen Ryan Associates 2017

The CAPCOA Report notes that when determining the overall VMT reduction associated with a project, the VMT reduction for each individual strategy should be dampened, that is adjusted to reflect the fact that some of the strategies may be redundant or applicable to the same populations. The CAPCOA Report provides the following dampening formula:

$$\text{Overall \% VMT Reduction} = 1 - (1 - \text{First Strategy}) * (1 - \text{Second Strategy}) * (1 - \text{Third Strategy}) \dots$$

Based on the VMT reduction results provided in Table 3, the Land Exchange Alternative would have the following overall VMT reduction:

$$1 - (1 - 0.00625) * (1 - 0.02) * (1 - 0.00556) * (1 - 0.001) * (1 - 0.0075) * (1 - 0.004) * (1 - 0.0024)$$

LUT-8 SDT-1 SDT-2 SDT-9 TRT-3 TRT-7 TRT-10

Overall VMT Reduction = 4.6%

6. Land Exchange Alternative VMT – With Reductions

To derive the VMT generated by the Land Exchange Alternative, the VMT reductions calculated in Table 3 and dampened using the methodology above (4.6%) were applied to the VMT outputs from the SANDAG Model provided in Section 3, Land Exchange Alternative VMT – Without TDM Plan. The calculations below show the Land Exchange Alternative generated VMT after reductions that would result with implementation of the TDM Plan:

- Pre-TDM Plan Land Exchange Alternative VMT = **156,783 VMT per day**
- Post-TDM Plan Land Exchange Alternative VMT = **156,783 x (1 – 4.6%)**
- **Total Post-TDM Plan VMT = 149,587 VMT per day**

7. Conclusion

The implementation of the Land Exchange Alternative's TDM Plan, as well as the Land Exchange Alternative's design features, is anticipated to decrease the VMT generated by the Land Exchange Alternative from 156,783, VMT per day to 149,587 VMT per day. This will result in an overall reduction of 7,196 VMT per day and a 4.6% total reduction.

ATTACHMENT B

OPR's Technical Advisory

Excerpt – Section F

destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network.

Increased demand throughout a region may, however, cause a cumulative impact by requiring new or additional transit infrastructure. Such impacts may be adequately addressed through a fee program that fairly allocates the cost of improvements not just to projects that happen to locate near transit, but rather across a region to all projects that impose burdens on the entire transportation system, since transit can broadly improve the function of the transportation system.

F. Considering the Effects of Transportation Projects on Vehicle Travel

Many transportation projects change travel patterns. A transportation project which leads to additional vehicle travel on the roadway network, commonly referred to as “induced vehicle travel,” must quantify the amount of additional vehicle travel in order to assess air quality impacts, greenhouse gas emissions impacts, energy impacts, and noise impacts. Transportation projects must also examine induced growth impacts under CEQA. (See generally, Pub. Resources Code, §§ 21065 [defining “project” under CEQA as an activity as causing either a direct or reasonably foreseeable indirect physical change], 21065.3 [defining “project-specific effect” to mean all direct or indirect environmental effects], 21100, subd. (b) [required contents of an EIR].) For any project that increases vehicle travel, explicit assessment and quantitative reporting of the amount of additional vehicle travel should not be omitted from the document; such information may be useful and necessary for a full understanding of a project’s environmental impacts. (See Pub. Resources Code, §§ 21000, 21001, 21001.1, 21002, 21002.1 [discussing the policies of CEQA].) A lead agency that uses the VMT metric to assess the transportation impacts of a transportation project may simply report that change in VMT as the impact. When the lead agency uses another metric to analyze the transportation impacts of a roadway project, changes in amount of vehicle travel added to the roadway network should still be analyzed and reported. (See, e.g., California Department of Transportation, [Guidance for Preparers of Growth-related, Indirect Impact Analyses](#) (2006).)

While CEQA does not require perfection, it is important to make a reasonably accurate estimate of transportation projects’ effects on vehicle travel in order to make reasonably accurate estimates of GHG emissions, air quality emissions, energy impacts, and noise impacts. (See, e.g., *California Clean Energy Com. v. City of Woodland* (2014) 225 Cal.App.4th 173, 210 [EIR failed to consider project’s transportation energy impacts]; *Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 266.) Appendix 2 describes in detail the causes of induced vehicle travel, the robust empirical evidence of induced vehicle travel, and how models and research can be used in conjunction to quantitatively assess induced vehicle travel with reasonable accuracy.

If a project would likely lead to a measurable and substantial increase in vehicle travel, the lead agency should conduct an analysis assessing the amount of vehicle travel the project will induce. Project types that would likely lead to a measurable and substantial increase in vehicle travel generally include:

- Addition of through lanes on existing or new highways, including general purpose lanes, HOV lanes, peak period lanes, auxiliary lanes, or lanes through grade-separated interchanges

Projects that would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis, include:

- Rehabilitation, maintenance, replacement and repair projects designed to improve the condition of existing transportation assets (e.g., highways, roadways, bridges, culverts, tunnels, transit systems, and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity
- Roadway shoulder enhancements to provide “breakdown space,” dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
- Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
- Traffic metering systems
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Installation or reconfiguration of traffic calming devices
- Adoption of or increase in tolls
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase
- Initiation of new transit service
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
- Removal or relocation of off-street or on-street parking spaces
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
- Addition of traffic wayfinding signage

- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes in rural areas that do not increase overall vehicle capacity along the corridor

1. Recommended Significance Threshold for Transportation Projects

As noted in Section 15064.3 of the CEQA Guidelines, lead agencies for roadway capacity projects have discretion, consistent with CEQA and planning requirements, to choose which metric to use to evaluate transportation impacts. This section recommends considerations for evaluating impacts using vehicle miles traveled. Lead agencies have discretion to choose a threshold of significance for transportation projects. As explained above, Public Resources Code section 21099, subdivision (b)(1), provides that criteria for evaluating transportation impacts must promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.

Whether adopting a threshold of significance, or evaluating transportation impacts on a case-by-case basis, a lead agency should ensure that the analysis addresses:

- Direct, indirect and cumulative effects of the transportation project (CEQA Guidelines, § 15064, subds. (d), (h))
- Near-term and long-term effects of the transportation project (CEQA Guidelines, §§ 15063, subd. (a)(1), 15126.2, subd. (a))
- The transportation project's consistency with state greenhouse gas reduction goals (Pub. Resources Code, § 21099)¹¹
- The impact of the transportation project on the development of multimodal transportation networks (Pub. Resources Code, § 21099)
- The impact of the transportation project on the development of a diversity of land uses (Pub. Resources Code, § 21099)

¹¹ The Air Resources Board has ascertained, in [The 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target](#) (p. 116) and [Mobile Source Strategy](#) (p. 37), the limits of VMT growth compatible with California containing greenhouse gas emissions to levels research shows would allow for climate stabilization. The [Staff Report on Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets](#) (Figure 1, p. 10, and Figure 2, p. 23), illustrates that Regional Transportation Plans and Sustainable Communities Strategies will fall short of achieving GHG reductions research says is needed to achieve climate stabilization, so OPR recommends not basing transportation project thresholds on those documents.