

**TRACY HILLS SPECIFIC PLAN
RECIRCULATED
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT
VOLUME III
OCTOBER 2015**

APPENDIX H-2A

TRAFFIC CONDITIONS ANALYSIS (SYNCHRO) – TRACY, DATED FALL
2014

HCM 2010 TWSC
 1: CORRAL HOLLOW RD & I-580 EB OFF RAMP/I-580 EB ON RAMP

Existing Conditions
 Timing Plan: AM PEAK

Intersection												
Intersection Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	45	2	11	0	0	0	0	8	4	35	230	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	100	100	100	75	75	75	65	65	65
Heavy Vehicles, %	19	19	19	0	0	0	17	17	17	4	4	4
Mvmt Flow	65	3	16	0	0	0	0	11	5	54	354	0
Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	475	478	354				354	0	0	16	0	0
Stage 1	462	462	-				-	-	-	-	-	-
Stage 2	13	16	-				-	-	-	-	-	-
Follow-up Headway	3.671	4.171	3.471				2.353	-	-	2.236	-	-
Pot Capacity-1 Maneuver	519	462	653				1126	-	-	1589	-	-
Stage 1	600	537	-				-	-	-	-	-	-
Stage 2	967	849	-				-	-	-	-	-	-
Time blocked-Platoon, %												
Mov Capacity-1 Maneuver	497	# 0	653				1126	-	-	1589	-	-
Mov Capacity-2 Maneuver	497	# 0	-				-	-	-	-	-	-
Stage 1	575	# 0	-				-	-	-	-	-	-
Stage 2	967	# 0	-				-	-	-	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s	13			0			1					
HCM LOS	B											
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR				
Capacity (veh/h)	1126	-	-	506	653	1589	-	-				
HCM Lane V/C Ratio	-	-	-	0.145	0.016	0.034	-	-				
HCM Control Delay (s)	0	-	-	13.3	10.6	7.345	0	-				
HCM Lane LOS	A			B	B	A	A					
HCM 95th %tile Q(veh)	0	-	-	0.505	0.05	0.105	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection												
Intersection Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	116	0	80	4	49	0	0	149	320
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	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	77	77	77	60	60	60	84	84	84
Heavy Vehicles, %	0	0	0	14	14	14	21	21	21	4	4	4
Mvmt Flow	0	0	0	151	0	104	7	82	0	0	177	381
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All	463			653			82			558		
Stage 1	95			95			-			-		
Stage 2	368			558			-			-		
Follow-up Headway	3.626			4.126			3.426			2.389		
Pot Capacity-1 Maneuver	536			372			945			924		
Stage 1	899			794			-			-		
Stage 2	674			493			-			-		
Time blocked-Platoon, %	-			-			-			-		
Mov Capacity-1 Maneuver	532			0			945			924		
Mov Capacity-2 Maneuver	532			0			-			-		
Stage 1	892			0			-			-		
Stage 2	674			0			-			-		
Approach	WB			NB			SB					
HCM Control Delay, s	12.7			0.7			0					
HCM LOS	B											
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR				
Capacity (veh/h)	924	-	-	579	945	1503	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.32	0.073	-	-	-				
HCM Control Delay (s)	8.924	0	-	14.1	9.1	0	-	-				
HCM Lane LOS	A	A	-	B	A	A	-	-				
HCM 95th %tile Q(veh)	0.022	-	-	1.373	0.237	0	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection						
Intersection Delay, s/veh	10.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	224	51	68	61	46	245
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	79	79	67	67	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	284	65	101	91	55	295
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	553	147	0	0	193	0
Stage 1	147	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Follow-up Headway	3.536	3.336	-	-	2.236	-
Pot Capacity-1 Maneuver	491	895	-	-	1368	-
Stage 1	876	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	467	895	-	-	1368	-
Mov Capacity-2 Maneuver	467	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	25.7	0		1.2		
HCM LOS	D					
Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	512	1368	-	
HCM Lane V/C Ratio	-	-	0.68	0.041	-	
HCM Control Delay (s)	-	-	25.7	7.743	0	
HCM Lane LOS			D	A	A	
HCM 95th %tile Q(veh)	-	-	5.101	0.127	-	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

Intersection												
Intersection Delay, s/veh	14.6											
Intersection LOS	B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	61	10	21	128	165	14	12	16	142	26	121
Peak Hour Factor	0.95	0.95	0.95	0.79	0.79	0.79	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	29	64	11	27	162	209	20	17	23	203	37	173
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	14.9	9.6	16.2
HCM LOS	B	B	A	C
























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	28%	7%	49%
Vol Thru, %	29%	62%	41%	9%
Vol Right, %	38%	10%	53%	42%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	99	314	289
LT Vol	12	61	128	26
Through Vol	16	10	165	121
RT Vol	14	28	21	142
Lane Flow Rate	60	104	397	413
Geometry Grp	1	1	1	1
Degree of Util (X)	0.098	0.172	0.57	0.606
Departure Headway (Hd)	5.883	5.927	5.164	5.281
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	606	603	696	681
Service Time	3.949	3.986	3.207	3.323
HCM Lane V/C Ratio	0.099	0.172	0.57	0.606
HCM Control Delay	9.6	10.2	14.9	16.2
HCM Lane LOS	A	B	B	C
HCM 95th-tile Q	0.3	0.6	3.6	4.1

Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing Conditions
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	129	221	48	171	237	222	98	357	100	175	241	80
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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	183	798	172	303	944	401	153	786	334	257	726	236
Arrive On Green	0.10	0.27	0.27	0.09	0.26	0.26	0.09	0.22	0.22	0.15	0.27	0.27
Sat Flow, veh/h	1740	2916	627	3375	3654	1553	1740	3654	1553	1740	2642	860
Grp Volume(v), veh/h	147	156	150	214	296	278	121	441	123	216	204	193
Grp Sat Flow(s),veh/h/ln	1740	1827	1716	1688	1827	1553	1740	1827	1553	1740	1827	1675
Q Serve(g_s), s	5.7	4.7	4.8	4.3	4.5	11.2	4.7	7.5	4.7	8.4	6.3	6.5
Cycle Q Clear(g_c), s	5.7	4.7	4.8	4.3	4.5	11.2	4.7	7.5	4.7	8.4	6.3	6.5
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	183	500	470	303	944	401	153	786	334	257	502	461
V/C Ratio(X)	0.80	0.31	0.32	0.71	0.31	0.69	0.79	0.56	0.37	0.84	0.41	0.42
Avail Cap(c_a), veh/h	213	1005	944	404	2000	850	288	1947	828	313	1000	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	30.4	20.0	20.1	30.7	20.8	23.3	31.0	24.3	23.2	28.8	20.5	20.6
Incr Delay (d2), s/veh	14.9	0.4	0.5	1.9	0.2	2.6	3.4	0.8	0.8	13.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.1	2.0	2.0	1.8	1.9	4.3	2.1	3.3	0.1	4.4	2.8	2.6
Lane Grp Delay (d), s/veh	45.3	20.4	20.5	32.6	21.0	25.8	34.4	25.1	24.0	42.0	21.2	21.4
Lane Grp LOS	D	C	C	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h		453			788			685			613	
Approach Delay, s/veh		28.5			25.9			26.6			28.6	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	11.8	24.0		10.7	22.9		10.6	19.9		14.8	24.1	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	8.5	38.2		8.3	38.0		11.5	37.0		12.5	38.0	
Max Q Clear Time (g_c+l1), s	7.7	6.8		6.3	13.2		6.7	9.5		10.4	8.5	
Green Ext Time (p_c), s	0.0	4.9		0.1	4.7		0.0	5.4		0.0	5.5	
Intersection Summary												
HCM 2010 Ctrl Delay	27.2											
HCM 2010 LOS	C											
Notes												

Intersection												
Intersection Delay, s/veh	52											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	83	74	64	228	130	157	185	20	81	131	42
Peak Hour Factor	0.76	0.76	0.76	0.87	0.87	0.87	0.81	0.81	0.81	0.88	0.88	0.88
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	29	109	97	74	262	149	194	228	25	92	149	48
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	21.6	70	64.7	27
HCM LOS	C	F	F	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	43%	12%	15%	32%
Vol Thru, %	51%	46%	54%	52%
Vol Right, %	6%	41%	31%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	362	179	422	254
LT Vol	185	83	228	131
Through Vol	20	74	130	42
RT Vol	157	22	64	81
Lane Flow Rate	447	236	485	289
Geometry Grp	1	1	1	1
Degree of Util (X)	0.976	0.554	1	0.671
Departure Headway (Hd)	7.858	8.469	7.705	8.363
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	460	424	471	430
Service Time	5.912	6.543	5.793	6.428
HCM Lane V/C Ratio	0.972	0.557	1.03	0.672
HCM Control Delay	64.7	21.6	70	27
HCM Lane LOS	F	C	F	D
HCM 95th-tile Q	12.2	3.3	13.2	4.8

Notes

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

Intersection

Intersection Delay, s/veh 11

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	7	472	7	8	138	8
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	82	82	75	75	70	70
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	9	576	9	11	197	11

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	421	15	0
Stage 1	15	-	-
Stage 2	406	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	585	1059	-
Stage 1	1003	-	-
Stage 2	668	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	512	1059	-
Mov Capacity-2 Maneuver	512	-	-
Stage 1	1003	-	-
Stage 2	585	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	7.2
HCM LOS	B		























Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1043	1583	-
HCM Lane V/C Ratio	-	-	0.56	0.125	-
HCM Control Delay (s)	-	-	12.8	7.597	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	3.594	0.426	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing Conditions
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	176	72	14	157	82	464	17	563	71	236	388	115
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	187	1291	549	214	674	573	42	820	103	299	873	259
Arrive On Green	0.11	0.35	0.35	0.12	0.37	0.37	0.02	0.26	0.26	0.09	0.32	0.32
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3182	401	3375	2709	803
Grp Volume(v), veh/h	212	87	17	185	96	546	19	359	346	352	390	361
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1756	1688	1827	1685
Q Serve(g_s), s	11.5	1.7	0.8	11.2	3.7	36.7	1.2	19.4	19.5	9.5	19.7	19.8
Cycle Q Clear(g_c), s	11.5	1.7	0.8	11.2	3.7	36.7	1.2	19.4	19.5	9.5	19.7	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23	1.00		0.48
Lane Grp Cap(c), veh/h	187	1291	549	214	674	573	42	471	453	299	589	543
V/C Ratio(X)	1.14	0.07	0.03	0.87	0.14	0.95	0.45	0.76	0.76	1.18	0.66	0.66
Avail Cap(c_a), veh/h	187	1296	551	252	716	609	97	648	623	299	708	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	22.9	22.6	46.1	22.5	32.9	51.6	36.7	36.8	48.8	31.3	31.3
Incr Delay (d2), s/veh	106.8	0.0	0.0	20.7	0.0	24.2	2.8	3.6	3.8	108.5	1.8	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 Back of Q (50%), veh/ln	10.7	0.8	0.3	6.1	1.7	17.5	0.6	9.4	9.1	8.6	9.3	8.6
Lane Grp Delay (d), s/veh	154.6	23.0	22.7	66.8	22.6	57.1	54.4	40.3	40.5	157.3	33.0	33.3
Lane Grp LOS	F	C	C	E	C	E	D	D	D	F	C	C
Approach Vol, veh/h		316			827			724			1103	
Approach Delay, s/veh		111.3			55.2			40.8			72.8	
Approach LOS		F			E			D			E	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	16.0	42.9		17.7	44.5		7.1	32.6		14.0	39.5	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	11.5	38.0		15.5	42.0		6.0	38.0		9.5	41.5	
Max Q Clear Time (g_c+l1), s	13.5	3.7		13.2	38.7		3.2	21.5		11.5	21.8	
Green Ext Time (p_c), s	0.0	2.1		0.0	0.8		0.0	6.1		0.0	6.5	
Intersection Summary												
HCM 2010 Ctrl Delay	64.2											
HCM 2010 LOS	E											
Notes												

Intersection

Intersection Delay, s/veh 1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	72	2	13	0	0	0	0	20	11	72	685	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	100	100	100	78	78	78	85	85	85
Heavy Vehicles, %	29	29	29	0	0	0	23	23	23	5	5	5
Mvmt Flow	89	2	16	0	0	0	0	26	14	85	806	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1008	1015	806	806	0	0	40	0	0
Stage 1	975	975	-	-	-	-	-	-	-
Stage 2	33	40	-	-	-	-	-	-	-
Follow-up Headway	3.761	4.261	3.561	2.407	-	-	2.245	-	-
Pot Capacity-1 Maneuver	238	214	343	734	-	-	1550	-	-
Stage 1	327	297	-	-	-	-	-	-	-
Stage 2	924	811	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	214	# 0	343	734	-	-	1550	-	-
Mov Capacity-2 Maneuver	214	# 0	-	-	-	-	-	-	-
Stage 1	295	# 0	-	-	-	-	-	-	-
Stage 2	924	# 0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	6.6	0	0.7
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	734	-	-	2295	1550	-	-
HCM Lane V/C Ratio	-	-	-	0.047	0.055	-	-
HCM Control Delay (s)	0	-	-	6.6	7.457	0	-
HCM Lane LOS	A			A	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.147	0.173	-	-

























Notes

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

Intersection												
Intersection Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	163	2	166	5	90	0	0	591	185
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	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76
Heavy Vehicles, %	0	0	0	13	13	13	26	26	26	9	9	9
Mvmt Flow	0	0	0	217	3	221	6	107	0	0	778	243
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All	897			897			107			778		
Stage 1	119			119			-			-		
Stage 2	778			778			-			-		
Follow-up Headway	3.617			4.117			3.417			2.434		
Pot Capacity-1 Maneuver	297			268			918			741		
Stage 1	880			776			-			-		
Stage 2	434			391			-			-		
Time blocked-Platoon, %	-			-			-			-		
Mov Capacity-1 Maneuver	294			# 0			918			741		
Mov Capacity-2 Maneuver	294			# 0			-			-		
Stage 1	872			# 0			-			-		
Stage 2	434			# 0			-			-		
Approach	WB			NB			SB					
HCM Control Delay, s	7.6			0.5			0					
HCM LOS	A											
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	741	-	-	1830	1441	-	-					
HCM Lane V/C Ratio	0.008	-	-	0.241	-	-	-					
HCM Control Delay (s)	9.898	0	-	7.6	0	-	-					
HCM Lane LOS	A	A	-	A	A	-	-					
HCM 95th %tile Q(veh)	0.024	-	-	0.948	0	-	-					
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												






















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Existing Conditions
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	193	449	237	164	650	213	548	807	202	262	492	122
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7
Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	340	1541	430	312	1495	422	672	1245	528	410	962	408
Arrive On Green	0.10	0.28	0.28	0.09	0.27	0.27	0.20	0.34	0.34	0.12	0.26	0.26
Sat Flow, veh/h	3375	5481	1528	3375	5481	1548	3375	3654	1550	3375	3654	1549
Grp Volume(v), veh/h	193	449	237	164	650	213	548	807	202	262	492	122
Grp Sat Flow(s),veh/h/ln	1688	1827	1528	1688	1827	1548	1688	1827	1550	1688	1827	1549
Q Serve(g_s), s	4.7	5.5	11.3	4.0	8.4	9.9	13.3	16.0	8.4	6.3	9.8	5.4
Cycle Q Clear(g_c), s	4.7	5.5	11.3	4.0	8.4	9.9	13.3	16.0	8.4	6.3	9.8	5.4
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	340	1541	430	312	1495	422	672	1245	528	410	962	408
V/C Ratio(X)	0.57	0.29	0.55	0.53	0.43	0.50	0.82	0.65	0.38	0.64	0.51	0.30
Avail Cap(c_a), veh/h	356	2567	716	356	2567	725	672	1754	744	435	1497	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	36.6	24.0	26.1	37.0	25.6	26.2	32.7	23.8	21.3	35.7	26.8	25.2
Incr Delay (d2), s/veh	1.9	0.1	1.1	1.4	0.2	0.9	7.7	0.6	0.5	2.9	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 Back of Q (50%), veh/ln	2.0	2.4	4.3	1.7	3.7	3.8	6.1	6.9	3.2	2.9	4.4	2.1
Lane Grp Delay (d), s/veh	38.6	24.1	27.2	38.3	25.8	27.1	40.4	24.4	21.8	38.6	27.2	25.6
Lane Grp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		879			1027			1557			876	
Approach Delay, s/veh		28.1			28.1			29.7			30.4	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		7	4		3	8	
Phs Duration (G+Y+Rc), s	11.6	28.0		10.9	27.3		20.0	33.1		13.4	26.5	
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Max Green Setting (Gmax), s	7.0	38.0		7.0	38.0		15.0	39.0		9.0	33.0	
Max Q Clear Time (g_c+l1), s	6.7	13.3		6.0	11.9		15.3	18.0		8.3	11.8	
Green Ext Time (p_c), s	0.0	7.8		0.1	8.0		0.0	8.2		0.1	8.2	
Intersection Summary												
HCM 2010 Ctrl Delay				29.1								
HCM 2010 LOS				C								
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & W CENTRAL AVE

Existing Conditions
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	42	16	139	56	130	12	571	125	41	341	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	110	160	61	183	82	191	33	1048	229	93	1361	76
Arrive On Green	0.06	0.13	0.13	0.10	0.17	0.17	0.02	0.36	0.36	0.05	0.39	0.39
Sat Flow, veh/h	1774	1280	488	1774	494	1146	1774	2948	643	1774	3496	194
Grp Volume(v), veh/h	52	0	58	139	0	186	12	360	336	41	181	179
Grp Sat Flow(s),veh/h/ln	1774	0	1767	1774	0	1640	1774	1863	1729	1774	1863	1827
Q Serve(g_s), s	1.4	0.0	1.5	3.8	0.0	5.3	0.3	7.6	7.7	1.1	3.3	3.3
Cycle Q Clear(g_c), s	1.4	0.0	1.5	3.8	0.0	5.3	0.3	7.6	7.7	1.1	3.3	3.3
Prop In Lane	1.00		0.28	1.00		0.70	1.00		0.37	1.00		0.11
Lane Grp Cap(c), veh/h	110	0	222	183	0	273	33	662	615	93	725	712
V/C Ratio(X)	0.47	0.00	0.26	0.76	0.00	0.68	0.37	0.54	0.55	0.44	0.25	0.25
Avail Cap(c_a), veh/h	233	0	1000	340	0	1027	233	865	803	233	865	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	19.6	21.6	0.0	19.4	24.0	12.7	12.8	22.8	10.2	10.2
Incr Delay (d2), s/veh	1.2	0.0	0.2	2.4	0.0	1.1	2.5	1.2	1.3	1.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	0.6	1.7	0.0	2.1	0.2	3.2	3.1	0.5	1.3	1.3
Lane Grp Delay (d), s/veh	23.6	0.0	19.8	24.0	0.0	20.5	26.5	13.9	14.1	24.0	10.5	10.5
Lane Grp LOS	C		B	C		C	C	B	B	C	B	B
Approach Vol, veh/h		110			325			708			401	
Approach Delay, s/veh		21.6			22.0			14.2			11.9	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.6	10.7		9.6	12.8		5.4	22.1		7.1	23.8	
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	6.5	28.0		9.5	31.0		6.5	23.0		6.5	23.0	
Max Q Clear Time (g_c+l1), s	3.4	3.5		5.8	7.3		2.3	9.7		3.1	5.3	
Green Ext Time (p_c), s	0.0	0.5		0.0	0.5		0.0	7.7		0.0	9.3	
Intersection Summary												
HCM 2010 Ctrl Delay				15.8								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Existing Conditions
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	165	571	182	215	514	120	272	703	245	98	464	152
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		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	313	1082	458	367	1140	483	427	1204	509	227	988	417
Arrive On Green	0.09	0.29	0.29	0.11	0.31	0.31	0.12	0.32	0.32	0.07	0.27	0.27
Sat Flow, veh/h	3442	3725	1577	3442	3725	1577	3442	3725	1576	3442	3725	1574
Grp Volume(v), veh/h	165	571	182	215	514	120	272	703	245	98	464	152
Grp Sat Flow(s),veh/h/ln	1721	1863	1577	1721	1863	1577	1721	1863	1576	1721	1863	1574
Q Serve(g_s), s	3.0	8.4	6.1	3.9	7.3	3.7	4.9	10.3	8.2	1.8	6.9	5.1
Cycle Q Clear(g_c), s	3.0	8.4	6.1	3.9	7.3	3.7	4.9	10.3	8.2	1.8	6.9	5.1
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	313	1082	458	367	1140	483	427	1204	509	227	988	417
V/C Ratio(X)	0.53	0.53	0.40	0.59	0.45	0.25	0.64	0.58	0.48	0.43	0.47	0.36
Avail Cap(c_a), veh/h	709	2159	914	604	2046	866	604	2216	938	394	1989	841
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	19.5	18.7	27.9	18.3	17.1	27.3	18.5	17.8	29.4	20.2	19.6
Incr Delay (d2), s/veh	0.5	0.3	0.4	0.6	0.2	0.2	0.6	0.2	0.3	0.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	3.8	2.3	1.6	3.0	1.4	2.1	4.5	3.0	0.8	3.0	1.9
Lane Grp Delay (d), s/veh	29.0	19.8	19.1	28.5	18.5	17.3	27.9	18.7	18.0	29.9	20.4	19.8
Lane Grp LOS	C	B	B	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		918			849			1220			714	
Approach Delay, s/veh		21.3			20.9			20.6			21.5	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	9.5	22.5		10.5	23.6		11.6	24.7		7.8	20.9	
Change Period (Y+Rc), s	4.5	5.5		4.5	5.5		4.5	5.5		4.5	5.5	
Max Green Setting (Gmax), s	12.5	36.0		10.5	34.0		10.5	37.0		6.5	33.0	
Max Q Clear Time (g_c+l1), s	5.0	10.4		5.9	9.3		6.9	12.3		3.8	8.9	
Green Ext Time (p_c), s	0.2	5.4		0.2	5.4		0.3	4.8		0.0	4.8	
Intersection Summary												
HCM 2010 Ctrl Delay			21.0									
HCM 2010 LOS			C									
Notes												























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE

Existing Conditions
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	172	43	5	235	76	67	85	5	100	54	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	171.0	167.6	167.6	171.0	167.6	167.6	171.0	167.6	171.0	171.0	167.6	171.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	229	478	436	201	506	436	400	262	13	464	149	62
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	65	1562	1425	14	1654	1425	472	986	48	627	562	231
Grp Volume(v), veh/h	188	0	43	240	0	76	157	0	0	184	0	0
Grp Sat Flow(s),veh/h/ln	1627	0	1425	1668	0	1425	1507	0	0	1420	0	0
Q Serve(g_s), s	0.0	0.0	0.4	0.0	0.0	0.7	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.4	2.2	0.0	0.7	1.4	0.0	0.0	1.8	0.0	0.0
Prop In Lane	0.09		1.00	0.02		1.00	0.43		0.03	0.54		0.16
Lane Grp Cap(c), veh/h	707	0	436	707	0	436	676	0	0	675	0	0
V/C Ratio(X)	0.27	0.00	0.10	0.34	0.00	0.17	0.23	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	1742	0	1372	1795	0	1372	1736	0	0	1671	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	5.1	0.0	4.6	5.3	0.0	4.8	5.6	0.0	0.0	5.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.3	0.0	0.2	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 Back of Q (50%), veh/ln	0.4	0.0	0.1	0.5	0.0	0.1	0.3	0.0	0.0	0.4	0.0	0.0
Lane Grp Delay (d), s/veh	5.3	0.0	4.7	5.5	0.0	4.9	5.7	0.0	0.0	5.9	0.0	0.0
Lane Grp LOS	A		A	A		A	A			A		
Approach Vol, veh/h		231			316			157			184	
Approach Delay, s/veh		5.2			5.4			5.7			5.9	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		9.7			9.7			9.0			9.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			19.0			19.0	
Max Q Clear Time (g_c+l1), s		3.6			4.2			3.4			3.8	
Green Ext Time (p_c), s		1.9			1.9			1.2			1.2	
Intersection Summary												
HCM 2010 Ctrl Delay			5.5									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Existing Conditions
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	269	84	335	472	14	207	24	479	4	15	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	1	2	1	0	1	1	0	1	1
Cap, veh/h	67	517	220	435	1289	548	509	37	783	173	413	395
Arrive On Green	0.04	0.14	0.14	0.25	0.35	0.35	0.25	0.25	0.00	0.25	0.25	0.25
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1203	148	1583	159	1656	1583
Grp Volume(v), veh/h	41	269	84	335	472	14	231	0	0	19	0	38
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1352	0	1583	1816	0	1583
Q Serve(g_s), s	0.7	2.2	1.6	5.8	3.1	0.2	4.9	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	0.7	2.2	1.6	5.8	3.1	0.2	5.2	0.0	0.0	0.3	0.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	0.90		1.00	0.21		1.00
Lane Grp Cap(c), veh/h	67	517	220	435	1289	548	546	0	783	586	0	395
V/C Ratio(X)	0.61	0.52	0.38	0.77	0.37	0.03	0.42	0.00	0.00	0.03	0.00	0.10
Avail Cap(c_a), veh/h	271	569	242	758	1592	677	1427	0	1790	1690	0	1402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	13.1	12.8	11.5	8.0	7.1	11.2	0.0	0.0	9.3	0.0	9.4
Incr Delay (d2), s/veh	8.5	0.8	1.1	2.9	0.2	0.0	0.5	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.8	0.6	2.1	0.9	0.1	1.3	0.0	0.0	0.1	0.0	0.2
Lane Grp Delay (d), s/veh	24.0	13.9	13.9	14.4	8.2	7.1	11.8	0.0	0.0	9.3	0.0	9.6
Lane Grp LOS	C	B	B	B	A	A	B			A		A
Approach Vol, veh/h		394			821			231			57	
Approach Delay, s/veh		15.0			10.7			11.8			9.5	
Approach LOS		B			B			B			A	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.2	8.5		12.0	15.3			12.2			12.2	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	5.0	5.0		14.0	14.0			29.0			29.0	
Max Q Clear Time (g_c+l1), s	2.7	4.2		7.8	5.1			7.2			2.6	
Green Ext Time (p_c), s	0.0	0.4		0.7	2.5			1.0			1.1	
Intersection Summary												
HCM 2010 Ctrl Delay				11.9								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	10.5											
Intersection LOS	B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	186	21	43	246	58	8	11	21	71	22	74
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	186	21	43	246	58	8	11	21	71	22	74
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	11.5	8.7	9.8
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	5%	12%	43%
Vol Thru, %	27%	85%	71%	13%
Vol Right, %	53%	10%	17%	44%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	219	347	167
LT Vol	11	186	246	22
Through Vol	21	21	58	74
RT Vol	8	12	43	71
Lane Flow Rate	40	219	347	167
Geometry Grp	1	1	1	1
Degree of Util (X)	0.059	0.293	0.448	0.237
Departure Headway (Hd)	5.321	4.823	4.65	5.107
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	738	770	696
Service Time	3.321	2.895	2.714	3.189
HCM Lane V/C Ratio	0.059	0.297	0.451	0.24
HCM Control Delay	8.7	9.9	11.5	9.8
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.2	1.2	2.3	0.9

Notes

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

Intersection

Intersection Delay, s/veh 7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	9	21	8	3	112	6	1238	37	115	714	25
Conflicting Peds, #/hr	0	0	1	1	0	0	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	250	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	9	21	8	3	112	6	1238	37	115	714	25

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1592	2246	376	1863	2240	644	740	0	0	1276	0	0
Stage 1	958	958	-	1270	1270	-	-	-	-	-	-	-
Stage 2	634	1288	-	593	970	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	72	41	622	45	42	416	862	-	-	540	-	-
Stage 1	276	334	-	178	237	-	-	-	-	-	-	-
Stage 2	434	233	-	459	330	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	41	32	619	28	33	414	858	-	-	538	-	-
Mov Capacity-2 Maneuver	41	32	-	28	33	-	-	-	-	-	-	-
Stage 1	274	262	-	177	235	-	-	-	-	-	-	-
Stage 2	309	231	-	335	259	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	184.9		53.3			0		1.8		
HCM LOS	F		F							

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	858	-	-	61	190	538	-	-
HCM Lane V/C Ratio	0.007	-	-	0.852	0.647	0.214	-	-
HCM Control Delay (s)	9.225	-	-	184.9	53.3	13.501	-	-
HCM Lane LOS	A		F		F		B	
HCM 95th %tile Q(veh)	0.021	-	-	3.889	3.791	0.803	-	-

Notes
























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

HCM 2010 Signalized Intersection Summary

Existing Conditions

37: PATTERSON PASS RD/MOUNTAIN HOUSE PKWY & SCHULTE RD

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	18	58	349	40	81	45	95	116	149	369	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	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	351	400	170	412	191	386	414	763	323	309	1543	654
Arrive On Green	0.11	0.11	0.11	0.12	0.35	0.35	0.20	0.20	0.20	0.09	0.41	0.41
Sat Flow, veh/h	1262	3725	1579	3442	550	1115	971	3725	1579	3442	3725	1580
Grp Volume(v), veh/h	17	18	58	349	0	121	45	95	116	149	369	39
Grp Sat Flow(s),veh/h/ln	1262	1863	1579	1721	0	1665	971	1863	1579	1721	1863	1580
Q Serve(g_s), s	0.4	0.1	1.1	3.3	0.0	1.7	1.3	0.7	2.1	1.4	2.2	0.5
Cycle Q Clear(g_c), s	0.4	0.1	1.1	3.3	0.0	1.7	1.3	0.7	2.1	1.4	2.2	0.5
Prop In Lane	1.00		1.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	400	170	412	0	577	414	763	323	309	1543	654
V/C Ratio(X)	0.05	0.05	0.34	0.85	0.00	0.21	0.11	0.12	0.36	0.48	0.24	0.06
Avail Cap(c_a), veh/h	895	2006	850	412	0	1295	738	2006	850	412	2897	1228
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	13.5	13.4	13.8	14.4	0.0	7.7	11.1	10.8	11.4	14.5	6.4	5.9
Incr Delay (d2), s/veh	0.1	0.0	1.2	15.1	0.0	0.2	0.1	0.1	0.7	1.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.1	0.4	2.1	0.0	0.6	0.3	0.3	0.7	0.6	0.7	0.1
Lane Grp Delay (d), s/veh	13.6	13.4	15.0	29.6	0.0	7.9	11.2	10.9	12.1	15.7	6.4	5.9
Lane Grp LOS	B	B	B	C		A	B	B	B	B	A	A
Approach Vol, veh/h		93			470			256			557	
Approach Delay, s/veh		14.4			24.0			11.5			8.9	
Approach LOS		B			C			B			A	
Timer												
Assigned Phs		4		3	8			2		1		6
Phs Duration (G+Y+Rc), s		7.6		8.0	15.6			10.8		7.0		17.8
Change Period (Y+Rc), s		4.0		4.0	4.0			4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		4.0	26.0			18.0		4.0		26.0
Max Q Clear Time (g_c+l1), s		3.1		5.3	3.7			4.1		3.4		4.2
Green Ext Time (p_c), s		0.8		0.0	1.0			2.5		0.0		2.9
Intersection Summary												
HCM 2010 Ctrl Delay				14.9								
HCM 2010 LOS				B								
Notes												

HCM 2010 TWSC
 1: CORRAL HOLLOW RD & I-580 EB OFF RAMP/I-580 EB ON RAMP

Existing Conditions
 Timing Plan: PM PEAK

Intersection												
Intersection Delay, s/veh	10.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	257	2	4	0	0	0	0	185	243	88	13	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	100	100	100	88	88	88	84	84	84
Heavy Vehicles, %	8	8	8	0	0	0	2	2	2	10	10	10
Mvmt Flow	282	2	4	0	0	0	0	210	276	105	15	0
Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	573	711	15				15	0	0	486	0	0
Stage 1	225	225	-				-	-	-	-	-	-
Stage 2	348	486	-				-	-	-	-	-	-
Follow-up Headway	3.572	4.072	3.372				2.218	-	-	2.29	-	-
Pot Capacity-1 Maneuver	471	351	1047				1603	-	-	1037	-	-
Stage 1	798	707	-				-	-	-	-	-	-
Stage 2	702	541	-				-	-	-	-	-	-
Time blocked-Platoon, %												
Mov Capacity-1 Maneuver	423	# 0	1047				1603	-	-	1037	-	-
Mov Capacity-2 Maneuver	423	# 0	-				-	-	-	-	-	-
Stage 1	717	# 0	-				-	-	-	-	-	-
Stage 2	702	# 0	-				-	-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	29.2						0			7.7		
HCM LOS	D											
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR				
Capacity (veh/h)	1603	-	-	424	1047	1037	-	-				
HCM Lane V/C Ratio	-	-	-	0.675	0.003	0.101	-	-				
HCM Control Delay (s)	0	-	-	29.4	8.4	8.861	0	-				
HCM Lane LOS	A			D	A	A	A					
HCM 95th %tile Q(veh)	0	-	-	4.855	0.008	0.336	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection															
Intersection Delay, s/veh	1.1														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Vol, veh/h	0	0	0	6	1	45	17	425	0	0	95	68			
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	-	-	Free	-	-	None	-	-	None			
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-			
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-			
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-			
Peak Hour Factor	100	100	100	93	93	93	85	85	85	80	80	80			
Heavy Vehicles, %	0	0	0	4	4	4	2	2	2	7	7	7			
Mvmt Flow	0	0	0	6	1	48	20	500	0	0	119	85			
Major/Minor	Minor1			Major1			Major2								
Conflicting Flow All	701			744			500			204			0		
Stage 1	540			540			-			-			-		
Stage 2	161			204			-			-			-		
Follow-up Headway	3.536			4.036			3.336			2.218			-		
Pot Capacity-1 Maneuver	402			340			567			1368			-		
Stage 1	580			518			-			-			-		
Stage 2	863			729			-			-			-		
Time blocked-Platoon, %	-			-			-			-			-		
Mov Capacity-1 Maneuver	394			# 0			567			1368			-		
Mov Capacity-2 Maneuver	394			# 0			-			-			-		
Stage 1	568			# 0			-			-			-		
Stage 2	863			# 0			-			-			-		
Approach	WB			NB			SB								
HCM Control Delay, s	12			0.3			0								
HCM LOS	B														
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR							
Capacity (veh/h)	1368	-	-	504	567	1039	-	-							
HCM Lane V/C Ratio	0.015	-	-	0.047	0.057	-	-	-							
HCM Control Delay (s)	7.671	0	-	12.5	11.7	0	-	-							
HCM Lane LOS	A	A	-	B	B	A	-	-							
HCM 95th %tile Q(veh)	0.044	-	-	0.147	0.18	0	-	-							
Notes															
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined															

Intersection

Intersection Delay, s/veh 3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	61	53	253	217	52	102
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	77	77	87	87	88	88
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	79	69	291	249	59	116

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	650	416	0
Stage 1	416	-	-
Stage 2	234	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	431	632	-
Stage 1	661	-	-
Stage 2	800	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	404	632	-
Mov Capacity-2 Maneuver	404	-	-
Stage 1	661	-	-
Stage 2	750	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	3
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	485	1018	-
HCM Lane V/C Ratio	-	-	0.305	0.058	-
HCM Control Delay (s)	-	-	15.7	8.754	0
HCM Lane LOS			C	A	A
HCM 95th %tile Q(veh)	-	-	1.279	0.185	-

Notes

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

Intersection												
Intersection Delay, s/veh	10.3											
Intersection LOS	B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	136	133	18	3	52	71	12	30	16	93	21	48
Peak Hour Factor	0.93	0.93	0.93	0.75	0.75	0.75	0.69	0.69	0.69	0.90	0.90	0.90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	146	143	19	4	69	95	17	43	23	103	23	53
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.5	9.1	9.1	10.1
HCM LOS	B	A	A	B





























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	47%	2%	57%
Vol Thru, %	52%	46%	41%	13%
Vol Right, %	28%	6%	56%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	58	287	126	162
LT Vol	30	133	52	21
Through Vol	16	18	71	48
RT Vol	12	136	3	93
Lane Flow Rate	84	309	168	180
Geometry Grp	1	1	1	1
Degree of Util (X)	0.125	0.42	0.219	0.258
Departure Headway (Hd)	5.342	4.901	4.702	5.155
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	675	728	754	689
Service Time	3.342	2.98	2.793	3.244
HCM Lane V/C Ratio	0.124	0.424	0.223	0.261
HCM Control Delay	9.1	11.5	9.1	10.1
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0.4	2.1	0.8	1

Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing Conditions
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	103	322	72	169	241	162	128	474	146	192	358	71
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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	149	628	139	288	790	336	192	990	421	255	912	179
Arrive On Green	0.09	0.22	0.22	0.09	0.22	0.22	0.11	0.27	0.27	0.15	0.31	0.31
Sat Flow, veh/h	1740	2898	643	3375	3654	1553	1740	3654	1553	1740	2967	584
Grp Volume(v), veh/h	118	232	221	178	254	171	154	571	176	213	244	233
Grp Sat Flow(s),veh/h/ln	1740	1827	1713	1688	1827	1553	1740	1827	1553	1740	1827	1724
Q Serve(g_s), s	4.5	7.7	7.9	3.5	4.0	6.6	5.9	9.2	6.3	8.1	7.2	7.4
Cycle Q Clear(g_c), s	4.5	7.7	7.9	3.5	4.0	6.6	5.9	9.2	6.3	8.1	7.2	7.4
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	149	396	371	288	790	336	192	990	421	255	561	530
V/C Ratio(X)	0.79	0.59	0.60	0.62	0.32	0.51	0.80	0.58	0.42	0.83	0.43	0.44
Avail Cap(c_a), veh/h	205	1008	945	393	2010	854	352	1994	848	352	997	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	30.4	23.8	23.9	29.9	22.4	23.4	29.4	21.4	20.3	28.1	18.8	18.8
Incr Delay (d2), s/veh	9.0	1.7	1.8	0.8	0.3	1.4	2.9	0.6	0.8	8.7	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	3.5	3.3	1.4	1.7	2.5	2.6	3.9	2.3	3.9	3.0	2.9
Lane Grp Delay (d), s/veh	39.4	25.5	25.7	30.7	22.7	24.8	32.4	22.0	21.1	36.8	19.4	19.5
Lane Grp LOS	D	C	C	C	C	C	C	C	C	D	B	B
Approach Vol, veh/h		571			603			901			690	
Approach Delay, s/veh		28.5			25.7			23.6			24.8	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.3	19.7		10.3	19.7		12.0	23.4		14.5	25.8	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	8.0	37.4		7.9	37.3		13.7	37.0		13.7	37.0	
Max Q Clear Time (g_c+l1), s	6.5	9.9		5.5	8.6		7.9	11.2		10.1	9.4	
Green Ext Time (p_c), s	0.0	4.8		0.1	4.9		0.1	7.2		0.1	7.3	
Intersection Summary												
HCM 2010 Ctrl Delay				25.4								
HCM 2010 LOS				C								
Notes												

Intersection												
Intersection Delay, s/veh	55.8											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	254	61	40	95	133	30	212	67	169	196	7
Peak Hour Factor	0.86	0.86	0.86	0.80	0.80	0.80	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	6	295	71	50	119	166	33	236	74	190	220	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	55.3	42.1	46.1	75.3
HCM LOS	F	E	E	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	2%	15%	45%
Vol Thru, %	69%	79%	35%	53%
Vol Right, %	22%	19%	50%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	309	320	268	372
LT Vol	212	254	95	196
Through Vol	67	61	133	7
RT Vol	30	5	40	169
Lane Flow Rate	343	372	335	418
Geometry Grp	1	1	1	1
Degree of Util (X)	0.854	0.913	0.827	1
Departure Headway (Hd)	8.957	8.838	8.883	8.919
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	409	417	412	410
Service Time	6.901	6.766	6.816	6.919
HCM Lane V/C Ratio	0.839	0.892	0.813	1.02
HCM Control Delay	46.1	55.3	42.1	75.3
HCM Lane LOS	E	F	E	F
HCM 95th-tile Q	8.3	9.8	7.7	12.3

Notes

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

Intersection

Intersection Delay, s/veh 8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	123	12	2	314	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	58	58	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	6	158	21	3	378	12

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	791	22	0
Stage 1	22	-	-
Stage 2	769	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	356	1049	-
Stage 1	995	-	-
Stage 2	454	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	270	1049	-
Mov Capacity-2 Maneuver	270	-	-
Stage 1	995	-	-
Stage 2	345	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	7.8
HCM LOS	A		























Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	943	1578	-
HCM Lane V/C Ratio	-	-	0.174	0.24	-
HCM Control Delay (s)	-	-	9.6	7.999	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	0.628	0.94	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing Conditions
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	34	15	50	56	326	23	474	82	508	619	85
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	110	989	420	93	476	405	54	733	126	639	1256	171
Arrive On Green	0.06	0.27	0.27	0.05	0.26	0.26	0.03	0.24	0.24	0.19	0.40	0.40
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3039	522	3375	3148	430
Grp Volume(v), veh/h	79	42	19	54	61	354	24	302	289	564	399	383
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1735	1688	1827	1751
Q Serve(g_s), s	3.4	0.7	0.7	2.3	2.0	16.9	1.0	11.6	11.7	12.6	13.0	13.0
Cycle Q Clear(g_c), s	3.4	0.7	0.7	2.3	2.0	16.9	1.0	11.6	11.7	12.6	13.0	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.25
Lane Grp Cap(c), veh/h	110	989	420	93	476	405	54	440	418	639	729	699
V/C Ratio(X)	0.72	0.04	0.05	0.58	0.13	0.87	0.44	0.69	0.69	0.88	0.55	0.55
Avail Cap(c_a), veh/h	337	1937	823	337	968	823	562	945	897	655	729	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(l)	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	35.5	20.8	20.8	35.8	21.9	27.4	36.8	26.7	26.7	30.5	17.9	17.9
Incr Delay (d2), s/veh	3.2	0.0	0.0	2.1	0.0	2.4	2.1	1.9	2.0	12.8	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 Back of Q (50%), veh/ln	1.6	0.3	0.3	1.1	0.9	6.5	0.5	5.2	5.0	6.1	5.5	5.3
Lane Grp Delay (d), s/veh	38.8	20.8	20.9	37.9	21.9	29.8	38.9	28.6	28.8	43.3	18.7	18.8
Lane Grp LOS	D	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h		140			469			615			1346	
Approach Delay, s/veh		30.9			29.7			29.1			29.0	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	9.4	25.9		8.6	25.2		6.9	23.6		19.1	35.9	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	15.0	41.0		15.0	41.0		25.0	40.0		15.0	30.0	
Max Q Clear Time (g_c+l1), s	5.4	2.7		4.3	18.9		3.0	13.7		14.6	15.0	
Green Ext Time (p_c), s	0.0	1.3		0.0	1.3		0.0	4.9		0.1	5.1	
Intersection Summary												
HCM 2010 Ctrl Delay	29.3											
HCM 2010 LOS	C											
Notes												

Intersection						
Intersection Delay, s/veh	13.9					
Intersection LOS	B					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	105	336	71	105	149	13
Peak Hour Factor	0.86	0.86	0.88	0.88	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	391	81	119	196	17
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.1	11.3	11.2
HCM LOS	C	B	B

























Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	24%	0%
Vol Thru, %	60%	0%	92%
Vol Right, %	0%	76%	8%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	176	441	162
LT Vol	105	0	149
Through Vol	0	336	13
RT Vol	71	105	0
Lane Flow Rate	200	513	213
Geometry Grp	1	1	1
Degree of Util (X)	0.315	0.654	0.327
Departure Headway (Hd)	5.661	4.704	5.517
Convergence, Y/N	Yes	Yes	Yes
Cap	638	774	654
Service Time	3.67	2.704	3.526
HCM Lane V/C Ratio	0.313	0.663	0.326
HCM Control Delay	11.3	16.1	11.2
HCM Lane LOS	B	C	B
HCM 95th-tile Q	1.3	4.9	1.4

Notes

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

HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Existing Conditions
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	96	1075	90	166	397	65	43	80	301	57	68	33
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	1	3	1	2	2	1	2	1	1
Cap, veh/h	342	2288	648	278	2685	761	266	404	172	385	266	226
Arrive On Green	0.10	0.41	0.00	0.16	0.48	0.00	0.08	0.11	0.00	0.11	0.14	0.00
Sat Flow, veh/h	3442	5588	1583	1774	5588	1583	3442	3725	1583	3442	1863	1583
Grp Volume(v), veh/h	102	1144	0	193	462	0	45	84	0	72	86	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	2.0	11.3	0.0	7.6	3.5	0.0	0.9	1.5	0.0	1.4	3.1	0.0
Cycle Q Clear(g_c), s	2.0	11.3	0.0	7.6	3.5	0.0	0.9	1.5	0.0	1.4	3.1	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	342	2288	648	278	2685	761	266	404	172	385	266	226
V/C Ratio(X)	0.30	0.50	0.00	0.69	0.17	0.00	0.17	0.21	0.00	0.19	0.32	0.00
Avail Cap(c_a), veh/h	795	3932	1114	338	3932	1114	795	2118	900	655	1059	900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	16.2	0.0	29.5	10.9	0.0	31.9	30.1	0.0	29.8	28.5	0.0
Incr Delay (d2), s/veh	0.5	0.2	0.0	3.0	0.0	0.0	0.3	0.3	0.0	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	4.7	0.0	3.5	1.4	0.0	0.4	0.7	0.0	0.6	1.4	0.0
Lane Grp Delay (d), s/veh	31.4	16.5	0.0	32.5	10.9	0.0	32.2	30.4	0.0	30.1	29.2	0.0
Lane Grp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		1246			655			129			158	
Approach Delay, s/veh		17.7			17.3			31.0			29.6	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.8	34.3		16.0	39.6		9.1	12.0		11.7	14.6	
Change Period (Y+Rc), s	5.5	6.1		6.5	6.1		5.5	6.1		5.5	6.1	
Max Green Setting (Gmax), s	15.0	50.0		12.0	50.0		15.0	40.0		12.0	40.0	
Max Q Clear Time (g_c+l1), s	4.0	13.3		9.6	5.5		2.9	3.5		3.4	5.1	
Green Ext Time (p_c), s	0.2	15.0		0.1	15.9		0.1	0.6		0.1	0.6	
Intersection Summary												
HCM 2010 Ctrl Delay				19.2								
HCM 2010 LOS				B								
Notes												

Intersection

Intersection Delay, s/veh 62.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	186	4	64	0	0	0	0	467	240	195	31	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	100	100	100	85	85	85	80	80	80
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	9	9	9
Mvmt Flow	209	4	72	0	0	0	0	549	282	244	39	0

Major/Minor

	Minor2			Major1			Major2		
Conflicting Flow All	1217	1358	39	39	0	0	832	0	0
Stage 1	526	526	-	-	-	-	-	-	-
Stage 2	691	832	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	2.218	-	-	2.281	-	-
Pot Capacity-1 Maneuver	# 200	149	1033	1571	-	-	771	-	-
Stage 1	593	529	-	-	-	-	-	-	-
Stage 2	497	384	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	# 135	# 0	1033	1571	-	-	771	-	-
Mov Capacity-2 Maneuver	# 135	# 0	-	-	-	-	-	-	-
Stage 1	401	# 0	-	-	-	-	-	-	-
Stage 2	497	# 0	-	-	-	-	-	-	-

Approach

	EB	NB	SB
HCM Control Delay, s	297	0	10.2
HCM LOS	F		

Minor Lane / Major Mvmt

	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	148	1033	771	-	-
HCM Lane V/C Ratio	-	-	-	1.604	0.046	0.316	-	-
HCM Control Delay (s)	0	-	-	\$ 355.2	8.7	11.813	0	-
HCM Lane LOS	A			F	A	B	A	
HCM 95th %tile Q(veh)	0	-	-	16.559	0.146	1.359	-	-

























Notes

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

Intersection													
Intersection Delay, s/veh	1.7												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Vol, veh/h	0	0	0	7	3	89	4	651	0	0	217	136	
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	-	-	Free	-	-	None	-	-	Free	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76	
Heavy Vehicles, %	0	0	0	23	23	23	2	2	2	11	11	11	
Mvmt Flow	0	0	0	9	4	119	5	775	0	0	286	179	
Major/Minor	Minor1			Major1			Major2						
Conflicting Flow All	1071			1071			775			286			0
Stage 1	785			785			-			-			-
Stage 2	286			286			-			-			-
Follow-up Headway	3.707			4.207			3.507			2.218			-
Pot Capacity-1 Maneuver	223			203			366			1276			-
Stage 1	415			375			-			-			-
Stage 2	717			639			-			-			-
Time blocked-Platoon, %	-			-			-			-			-
Mov Capacity-1 Maneuver	221			# 0			366			1276			-
Mov Capacity-2 Maneuver	221			# 0			-			-			-
Stage 1	412			# 0			-			-			-
Stage 2	717			# 0			-			-			-
Approach	WB			NB			SB						
HCM Control Delay, s	18			0			0						
HCM LOS	C												
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	1276	-	-	407	802	-	-						
HCM Lane V/C Ratio	0.004	-	-	0.324	-	-	-						
HCM Control Delay (s)	7.832	0	-	18	0	-	-						
HCM Lane LOS	A	A	-	C	A	-	-						
HCM 95th %tile Q(veh)	0.011	-	-	1.384	0	-	-						
Notes													
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined													






















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Existing Conditions
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	278	698	509	307	438	289	258	698	102	322	738	129
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	357	1575	446	436	1704	480	418	1173	491	396	1150	487
Arrive On Green	0.10	0.28	0.00	0.13	0.30	0.30	0.12	0.31	0.31	0.12	0.31	0.31
Sat Flow, veh/h	3442	5588	1583	3442	5588	1572	3442	3725	1558	3442	3725	1579
Grp Volume(v), veh/h	278	698	0	307	438	289	258	698	102	322	738	129
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1572	1721	1863	1558	1721	1863	1579
Q Serve(g_s), s	6.8	8.9	0.0	7.4	5.1	13.6	6.2	13.7	4.2	7.9	14.8	5.3
Cycle Q Clear(g_c), s	6.8	8.9	0.0	7.4	5.1	13.6	6.2	13.7	4.2	7.9	14.8	5.3
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	357	1575	446	436	1704	480	418	1173	491	396	1150	487
V/C Ratio(X)	0.78	0.44	0.00	0.70	0.26	0.60	0.62	0.59	0.21	0.81	0.64	0.26
Avail Cap(c_a), veh/h	357	2317	657	436	2446	688	555	1674	700	396	1502	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	25.6	0.0	36.3	22.8	25.7	36.2	25.1	21.8	37.5	25.9	22.6
Incr Delay (d2), s/veh	10.5	0.2	0.0	5.1	0.1	1.2	1.5	0.5	0.2	12.1	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.4	4.0	0.0	3.4	2.3	5.4	2.7	6.1	1.6	4.1	7.0	2.1
Lane Grp Delay (d), s/veh	48.5	25.8	0.0	41.4	22.8	26.9	37.7	25.6	22.0	49.6	26.5	22.9
Lane Grp LOS	D	C		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		976			1034			1058			1189	
Approach Delay, s/veh		32.2			29.5			28.2			32.3	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		7	4		3	8	
Phs Duration (G+Y+Rc), s	12.0	28.5		14.0	30.5		13.5	31.3		13.0	30.8	
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Max Green Setting (Gmax), s	7.0	34.0		9.0	36.0		12.0	37.0		8.0	33.0	
Max Q Clear Time (g_c+l1), s	8.8	10.9		9.4	15.6		8.2	15.7		9.9	16.8	
Green Ext Time (p_c), s	0.0	7.0		0.0	6.7		0.4	8.5		0.0	7.5	
Intersection Summary												
HCM 2010 Ctrl Delay			30.6									
HCM 2010 LOS			C									
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & W CENTRAL AVE

Existing Conditions
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	52	15	166	40	53	33	565	174	63	478	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	51	190	55	209	164	217	76	969	297	119	1296	100
Arrive On Green	0.03	0.14	0.14	0.12	0.23	0.23	0.04	0.36	0.36	0.07	0.38	0.38
Sat Flow, veh/h	1774	1386	400	1774	724	960	1774	2722	835	1774	3410	263
Grp Volume(v), veh/h	20	0	67	166	0	93	33	386	353	63	260	255
Grp Sat Flow(s),veh/h/ln	1774	0	1786	1774	0	1684	1774	1863	1694	1774	1863	1810
Q Serve(g_s), s	0.6	0.0	1.9	5.1	0.0	2.5	1.0	9.4	9.5	1.9	5.6	5.7
Cycle Q Clear(g_c), s	0.6	0.0	1.9	5.1	0.0	2.5	1.0	9.4	9.5	1.9	5.6	5.7
Prop In Lane	1.00		0.22	1.00		0.57	1.00		0.49	1.00		0.15
Lane Grp Cap(c), veh/h	51	0	245	209	0	381	76	663	603	119	708	688
V/C Ratio(X)	0.39	0.00	0.27	0.80	0.00	0.24	0.43	0.58	0.59	0.53	0.37	0.37
Avail Cap(c_a), veh/h	206	0	895	302	0	935	206	767	698	206	767	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	26.7	0.0	21.6	24.0	0.0	17.7	26.1	14.6	14.6	25.2	12.5	12.5
Incr Delay (d2), s/veh	1.8	0.0	0.2	5.5	0.0	0.1	1.4	1.4	1.6	1.4	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.8	2.5	0.0	1.0	0.5	4.1	3.8	0.8	2.3	2.2
Lane Grp Delay (d), s/veh	28.5	0.0	21.8	29.5	0.0	17.8	27.5	16.0	16.2	26.6	13.0	13.1
Lane Grp LOS	C		C	C		B	C	B	B	C	B	B
Approach Vol, veh/h		87			259			772			578	
Approach Delay, s/veh		23.4			25.3			16.6			14.5	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.1	12.2		11.1	17.1		6.9	24.4		8.2	25.7	
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	6.5	28.0		9.5	31.0		6.5	23.0		6.5	23.0	
Max Q Clear Time (g_c+l1), s	2.6	3.9		7.1	4.5		3.0	11.5		3.9	7.7	
Green Ext Time (p_c), s	0.0	0.3		0.0	0.3		0.0	7.9		0.0	9.8	
Intersection Summary												
HCM 2010 Ctrl Delay				17.6								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Existing Conditions
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	227	645	303	183	625	189	264	579	141	142	586	207
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		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	359	1286	539	308	1231	515	392	1159	482	261	1017	423
Arrive On Green	0.10	0.35	0.35	0.09	0.33	0.33	0.11	0.31	0.31	0.08	0.27	0.27
Sat Flow, veh/h	3442	3725	1561	3442	3725	1560	3442	3725	1551	3442	3725	1550
Grp Volume(v), veh/h	227	645	303	183	625	189	264	579	141	142	586	207
Grp Sat Flow(s),veh/h/ln	1721	1863	1561	1721	1863	1560	1721	1863	1551	1721	1863	1550
Q Serve(g_s), s	5.0	10.8	12.4	4.0	10.6	7.2	5.8	10.0	5.4	3.1	10.7	8.8
Cycle Q Clear(g_c), s	5.0	10.8	12.4	4.0	10.6	7.2	5.8	10.0	5.4	3.1	10.7	8.8
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	359	1286	539	308	1231	515	392	1159	482	261	1017	423
V/C Ratio(X)	0.63	0.50	0.56	0.59	0.51	0.37	0.67	0.50	0.29	0.54	0.58	0.49
Avail Cap(c_a), veh/h	592	1850	775	460	1708	715	504	1803	750	372	1660	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	33.7	20.4	20.9	34.4	21.2	20.0	33.4	22.1	20.5	35.0	24.6	24.0
Incr Delay (d2), s/veh	0.7	0.2	0.7	0.7	0.2	0.3	1.2	0.1	0.1	0.7	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 Back of Q (50%), veh/ln	2.2	4.9	4.7	1.7	4.6	2.7	2.6	4.5	2.0	1.4	4.9	3.3
Lane Grp Delay (d), s/veh	34.4	20.6	21.6	35.1	21.4	20.4	34.5	22.2	20.6	35.6	24.8	24.3
Lane Grp LOS	C	C	C	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1175			997			984			935	
Approach Delay, s/veh		23.5			23.7			25.3			26.3	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	11.7	30.6		10.5	29.4		12.5	27.9		9.5	24.9	
Change Period (Y+Rc), s	4.5	5.5		4.5	5.5		4.5	5.5		4.5	5.5	
Max Green Setting (Gmax), s	12.5	37.0		9.5	34.0		10.5	36.0		7.5	33.0	
Max Q Clear Time (g_c+l1), s	7.0	14.4		6.0	12.6		7.8	12.0		5.1	12.7	
Green Ext Time (p_c), s	0.3	7.2		0.1	7.0		0.2	4.6		0.1	4.5	
Intersection Summary												
HCM 2010 Ctrl Delay			24.6									
HCM 2010 LOS			C									
Notes												























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE

Existing Conditions
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	166	73	12	116	73	33	59	13	88	77	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		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	264	453	426	251	465	426	363	304	56	467	218	46
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	120	1674	1575	88	1718	1575	336	1133	208	600	813	171
Grp Volume(v), veh/h	188	0	73	128	0	73	105	0	0	185	0	0
Grp Sat Flow(s),veh/h/ln	1794	0	1575	1806	0	1575	1676	0	0	1584	0	0
Q Serve(g_s), s	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.6	0.9	0.0	0.6	0.8	0.0	0.0	1.6	0.0	0.0
Prop In Lane	0.12		1.00	0.09		1.00	0.31		0.12	0.48		0.11
Lane Grp Cap(c), veh/h	717	0	426	716	0	426	723	0	0	731	0	0
V/C Ratio(X)	0.26	0.00	0.17	0.18	0.00	0.17	0.15	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	2054	0	1632	2061	0	1632	2046	0	0	1996	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(l)	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	5.1	0.0	4.8	5.0	0.0	4.8	4.9	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.1	0.0	0.2	0.1	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 Back of Q (50%), veh/ln	0.4	0.0	0.1	0.2	0.0	0.1	0.2	0.0	0.0	0.3	0.0	0.0
Lane Grp Delay (d), s/veh	5.3	0.0	5.0	5.1	0.0	5.0	5.0	0.0	0.0	5.4	0.0	0.0
Lane Grp LOS	A		A	A		A	A			A		
Approach Vol, veh/h		261			201			105			185	
Approach Delay, s/veh		5.2			5.1			5.0			5.4	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		8.7			8.7			8.7			8.7	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			19.0			19.0	
Max Q Clear Time (g_c+l1), s		3.4			2.9			2.8			3.6	
Green Ext Time (p_c), s		1.6			1.6			1.0			1.0	
Intersection Summary												
HCM 2010 Ctrl Delay			5.2									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Existing Conditions
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	551	88	368	373	3	75	11	343	11	27	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	1	2	1	0	1	1	0	1	1
Cap, veh/h	39	917	390	467	1816	772	343	37	638	176	208	221
Arrive On Green	0.02	0.25	0.25	0.26	0.49	0.49	0.14	0.14	0.00	0.14	0.14	0.14
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1042	266	1583	286	1488	1583
Grp Volume(v), veh/h	22	551	88	368	373	3	86	0	0	38	0	48
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1308	0	1583	1774	0	1583
Q Serve(g_s), s	0.4	4.5	1.5	6.6	2.0	0.0	1.6	0.0	0.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.4	4.5	1.5	6.6	2.0	0.0	2.2	0.0	0.0	0.6	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	0.87		1.00	0.29		1.00
Lane Grp Cap(c), veh/h	39	917	390	467	1816	772	380	0	638	384	0	221
V/C Ratio(X)	0.56	0.60	0.23	0.79	0.21	0.00	0.23	0.00	0.00	0.10	0.00	0.22
Avail Cap(c_a), veh/h	207	1198	509	726	2286	972	1310	0	1713	1537	0	1296
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	11.4	10.3	11.7	5.0	4.5	13.7	0.0	0.0	12.9	0.0	13.1
Incr Delay (d2), s/veh	12.0	0.6	0.3	3.1	0.1	0.0	0.3	0.0	0.0	0.1	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	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	1.5	0.5	2.6	0.5	0.0	0.6	0.0	0.0	0.2	0.0	0.3
Lane Grp Delay (d), s/veh	28.6	12.0	10.6	14.9	5.0	4.5	14.0	0.0	0.0	13.0	0.0	13.5
Lane Grp LOS	C	B	B	B	A	A	B			B		B
Approach Vol, veh/h		661			744			86			86	
Approach Delay, s/veh		12.4			9.9			14.0			13.3	
Approach LOS		B			A			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	4.8	12.4		13.0	20.7			8.8				8.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	11.0		14.0	21.0			28.0				28.0
Max Q Clear Time (g_c+l1), s	2.4	6.5		8.6	4.0			4.2				2.9
Green Ext Time (p_c), s	0.0	1.9		0.7	4.2			0.6				0.6
Intersection Summary												
HCM 2010 Ctrl Delay				11.4								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	9.1											
Intersection LOS	A											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	54	210	6	5	83	48	10	24	20	65	4	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	210	6	5	83	48	10	24	20	65	4	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	8.3	8.2	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	20%	4%	64%
Vol Thru, %	44%	78%	61%	4%
Vol Right, %	37%	2%	35%	32%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	270	136	102
LT Vol	24	210	83	4
Through Vol	20	6	48	33
RT Vol	10	54	5	65
Lane Flow Rate	54	270	136	102
Geometry Grp	1	1	1	1
Degree of Util (X)	0.072	0.337	0.167	0.138
Departure Headway (Hd)	4.802	4.49	4.412	4.854
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	743	799	812	736
Service Time	2.849	2.522	2.448	2.896
HCM Lane V/C Ratio	0.073	0.338	0.167	0.139
HCM Control Delay	8.2	9.8	8.3	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1.5	0.6	0.5

Notes

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

Intersection

Intersection Delay, s/veh 12.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	7	12	1	6	52	16	871	18	154	1207	50
Conflicting Peds, #/hr	2	0	0	0	0	2	21	0	4	4	0	21
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	248	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	7	12	1	6	52	16	871	18	154	1207	50

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	2015	2465	652	1831	2481	468	1259	0	0	891	0	0
Stage 1	1542	1542	-	914	914	-	-	-	-	-	-	-
Stage 2	473	923	-	917	1567	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	34	30	411	47	29	542	548	-	-	757	-	-
Stage 1	120	175	-	294	350	-	-	-	-	-	-	-
Stage 2	541	347	-	293	170	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	# 20	23	403	28	22	532	538	-	-	744	-	-
Mov Capacity-2 Maneuver	# 20	23	-	28	22	-	-	-	-	-	-	-
Stage 1	116	139	-	285	339	-	-	-	-	-	-	-
Stage 2	457	336	-	210	135	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	\$ 575.6		45.9			0.2			1.2		
HCM LOS	F		E								

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	538	-	-	28	145	744	-	-
HCM Lane V/C Ratio	0.03	-	-	1.536	0.407	0.207	-	-
HCM Control Delay (s)	11.896	-	-	\$ 575.6	45.9	11.097	-	-
HCM Lane LOS	B			F	E	B		
HCM 95th %tile Q(veh)	0.092	-	-	5.061	1.768	0.775	-	-

Notes
























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

HCM 2010 Signalized Intersection Summary

Existing Conditions

37: PATTERSON PASS RD/MOUNTAIN HOUSE PKWY & SCHULTE RD

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	41	93	116	41	125	71	295	374	103	144	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	346	513	218	249	126	383	574	1206	513	234	1831	778
Arrive On Green	0.14	0.14	0.14	0.07	0.31	0.31	0.32	0.32	0.32	0.07	0.49	0.49
Sat Flow, veh/h	1215	3725	1583	3442	406	1238	1220	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	65	41	93	116	0	166	71	295	374	103	144	17
Grp Sat Flow(s),veh/h/ln	1215	1863	1583	1721	0	1644	1220	1863	1583	1721	1863	1583
Q Serve(g_s), s	2.0	0.4	2.2	1.3	0.0	3.1	1.7	2.3	8.4	1.2	0.8	0.2
Cycle Q Clear(g_c), s	2.0	0.4	2.2	1.3	0.0	3.1	1.7	2.3	8.4	1.2	0.8	0.2
Prop In Lane	1.00		1.00	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	513	218	249	0	509	574	1206	513	234	1831	778
V/C Ratio(X)	0.19	0.08	0.43	0.47	0.00	0.33	0.12	0.24	0.73	0.44	0.08	0.02
Avail Cap(c_a), veh/h	723	1669	709	343	0	1064	726	1669	709	343	2411	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	15.8	15.1	15.9	17.9	0.0	10.7	9.8	10.0	12.0	18.0	5.4	5.3
Incr Delay (d2), s/veh	0.3	0.1	1.3	1.4	0.0	0.4	0.1	0.1	2.4	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.2	0.8	0.6	0.0	1.1	0.4	0.9	3.0	0.5	0.3	0.1
Lane Grp Delay (d), s/veh	16.0	15.2	17.2	19.3	0.0	11.0	9.8	10.1	14.4	19.3	5.4	5.3
Lane Grp LOS	B	B	B	B		B	A	B	B	B	A	A
Approach Vol, veh/h		199			282			740			264	
Approach Delay, s/veh		16.4			14.4			12.3			10.8	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		4		3	8			2		1		6
Phs Duration (G+Y+Rc), s		9.5		6.9	16.4			17.0		6.7		23.7
Change Period (Y+Rc), s		4.0		4.0	4.0			4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		4.0	26.0			18.0		4.0		26.0
Max Q Clear Time (g_c+l1), s		4.2		3.3	5.1			10.4		3.2		2.8
Green Ext Time (p_c), s		1.5		0.0	1.7			2.6		0.0		4.2
Intersection Summary												
HCM 2010 Ctrl Delay				13.0								
HCM 2010 LOS				B								
Notes												

Intersection

Intersection Delay, s/veh 568.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	130	2	110	0	0	0	0	1390	130	89	590	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	100	100	100	75	75	75	65	65	65
Heavy Vehicles, %	19	19	19	0	0	0	17	17	17	4	4	4
Mvmt Flow	188	3	159	0	0	0	0	1853	173	137	908	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	3122	3209	908	908	0	0	2027	0	0
Stage 1	1182	1182	-	-	-	-	-	-	-
Stage 2	1940	2027	-	-	-	-	-	-	-
Follow-up Headway	3.671	4.171	3.471	2.353	-	-	2.236	-	-
Pot Capacity-1 Maneuver	# 11	8	311	691	-	-	275	-	-
Stage 1	269	245	-	-	-	-	-	-	-
Stage 2	# 111	91	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	# 11	# 0	311	691	-	-	275	-	-
Mov Capacity-2 Maneuver	# 11	# 0	-	-	-	-	-	-	-
Stage 1	269	# 0	-	-	-	-	-	-	-
Stage 2	# 111	# 0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	\$ 5535.7	0	4
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	691	-	-	14	311	275	-	-
HCM Lane V/C Ratio	-	-	-	17.46	0.342	0.498	-	-
HCM Control Delay (s)	0	-	-\$ 7932.7	22.5	30.402	0	-	-
HCM Lane LOS	A			F	C	D	A	
HCM 95th %tile Q(veh)	0	-	-	31.697	1.473	2.587	-	-

Notes

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

Intersection

Intersection Delay, s/veh 7942.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	160	0	110	750	770	0	0	519	420
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	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	77	77	77	60	60	60	84	84	84
Heavy Vehicles, %	0	0	0	14	14	14	21	21	21	4	4	4
Mvmt Flow	0	0	0	208	0	143	1250	1283	0	0	618	500

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	4651	4901	1283	1118	0	0	1283	0	0
Stage 1	3783	3783	-	-	-	-	-	-	-
Stage 2	868	1118	-	-	-	-	-	-	-
Follow-up Headway	3.626	4.126	3.426	2.389	-	-	2.236	-	-
Pot Capacity-1 Maneuver	# 1	1	190	# 560	-	-	534	-	-
Stage 1	# 11	10	-	-	-	-	-	-	-
Stage 2	392	269	-	-	-	-	-	-	-
Time blocked-Platoon, %					-	-	-	-	-
Mov Capacity-1 Maneuver	# 1	0	190	# 560	-	-	534	-	-
Mov Capacity-2 Maneuver	# 1	0	-	-	-	-	-	-	-
Stage 1	# 11	0	-	-	-	-	-	-	-
Stage 2	392	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 88581.8	284.9	0
HCM LOS	F		






















Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	# 560	-	-	1	190	534	-	-
HCM Lane V/C Ratio	2.232	-	-	255.411	0.501	-	-	-
HCM Control Delay (s)	\$ 577.304	0		\$-121596.8	41.6	0	-	-
HCM Lane LOS	F	A		F	E	A		
HCM 95th %tile Q(veh)	91.38	-	-	34.572	2.491	0	-	-

Notes

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

HCM 2010 Signalized Intersection Summary
3: CORRAL HOLLOW RD & SPINE RD

Existing+Proj AM
7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	40	440	30	20	30	320	480	80	90	469	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	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	186.3
Lanes	1	1	1	1	1	0	1	1	0	0	1	1
Cap, veh/h	565	593	504	565	215	322	275	819	136	160	680	833
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	1774	1863	1583	1774	674	1011	671	1557	260	150	1294	1583
Grp Volume(v), veh/h	230	40	440	30	0	50	320	0	560	559	0	340
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1684	671	0	1817	1444	0	1583
Q Serve(g_s), s	5.2	0.8	13.5	0.6	0.0	1.1	10.3	0.0	10.8	5.9	0.0	6.7
Cycle Q Clear(g_c), s	5.2	0.8	13.5	0.6	0.0	1.1	27.0	0.0	10.8	16.7	0.0	6.7
Prop In Lane	1.00		1.00	1.00		0.60	1.00		0.14	0.16		1.00
Lane Grp Cap(c), veh/h	565	593	504	565	0	536	275	0	955	841	0	833
V/C Ratio(X)	0.41	0.07	0.87	0.05	0.00	0.09	1.17	0.00	0.59	0.66	0.00	0.41
Avail Cap(c_a), veh/h	622	653	555	622	0	590	275	0	955	841	0	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	12.2	16.5	12.1	0.0	12.3	23.2	0.0	8.3	9.2	0.0	7.4
Incr Delay (d2), s/veh	0.5	0.0	13.4	0.0	0.0	0.1	106.7	0.0	0.9	2.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.1	0.3	6.5	0.2	0.0	0.4	11.4	0.0	4.3	5.4	0.0	2.2
Lane Grp Delay (d), s/veh	14.2	12.2	29.9	12.2	0.0	12.4	129.9	0.0	9.3	11.2	0.0	7.7
Lane Grp LOS	B	B	C	B		B	F		A	B		A
Approach Vol, veh/h		710			80			880			899	
Approach Delay, s/veh		23.8			12.3			53.1			9.9	
Approach LOS		C			B			D			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		20.3			20.3			31.0			31.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			27.0			27.0	
Max Q Clear Time (g_c+l1), s		15.5			3.1			29.0			18.7	
Green Ext Time (p_c), s		0.9			2.7			0.0			5.6	
Intersection Summary												
HCM 2010 Ctrl Delay			28.6									
HCM 2010 LOS			C									
Notes												

Intersection

Intersection Delay, s/veh 226.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	244	51	362	381	46	655
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	79	79	67	67	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	309	65	540	569	55	789

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1725	825	0
Stage 1	825	-	-
Stage 2	900	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	# 97	369	-
Stage 1	427	-	-
Stage 2	394	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	# 82	369	-
Mov Capacity-2 Maneuver	# 82	-	-
Stage 1	427	-	-
Stage 2	332	-	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 1410.7	0	0.7
HCM LOS	F		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	95	622	-
HCM Lane V/C Ratio	-	-	3.931	0.089	-
HCM Control Delay (s)	-	-\$ 1410.7	11.353	0	
HCM Lane LOS			F	B	A
HCM 95th %tile Q(veh)	-	-	38.445	0.292	-

Notes

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

Intersection												
Intersection Delay, s/veh	32.8											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	100	300	20	21	150	165	20	12	16	142	26	140
Peak Hour Factor	0.95	0.95	0.95	0.79	0.79	0.79	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	105	316	21	27	190	209	29	17	23	203	37	200
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	37.2	30.1	13	34.2
HCM LOS	E	D	B	D
























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	42%	24%	6%	46%
Vol Thru, %	25%	71%	45%	8%
Vol Right, %	33%	5%	49%	45%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	420	336	308
LT Vol	12	300	150	26
Through Vol	16	20	165	140
RT Vol	20	100	21	142
Lane Flow Rate	69	442	425	440
Geometry Grp	1	1	1	1
Degree of Util (X)	0.159	0.846	0.787	0.822
Departure Headway (Hd)	8.322	6.886	6.658	6.872
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	431	526	544	532
Service Time	6.384	4.913	4.685	4.872
HCM Lane V/C Ratio	0.16	0.84	0.781	0.827
HCM Control Delay	13	37.2	30.1	34.2
HCM Lane LOS	B	E	D	D
HCM 95th-tile Q	0.6	8.8	7.3	8.2

Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing+Proj AM
7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	230	50	180	290	222	100	390	120	175	250	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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	195	813	175	309	945	401	155	828	352	255	712	277
Arrive On Green	0.11	0.28	0.28	0.09	0.26	0.26	0.09	0.23	0.23	0.15	0.28	0.28
Sat Flow, veh/h	1740	2917	626	3375	3654	1553	1740	3654	1553	1740	2505	976
Grp Volume(v), veh/h	159	162	156	225	362	278	123	481	148	216	223	209
Grp Sat Flow(s),veh/h/ln	1740	1827	1716	1688	1827	1553	1740	1827	1553	1740	1827	1655
Q Serve(g_s), s	6.6	5.2	5.4	4.8	6.0	12.0	5.1	8.7	6.0	9.0	7.4	7.6
Cycle Q Clear(g_c), s	6.6	5.2	5.4	4.8	6.0	12.0	5.1	8.7	6.0	9.0	7.4	7.6
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	195	509	479	309	945	401	155	828	352	255	519	470
V/C Ratio(X)	0.82	0.32	0.33	0.73	0.38	0.69	0.79	0.58	0.42	0.85	0.43	0.44
Avail Cap(c_a), veh/h	200	939	882	383	1874	796	289	1824	775	293	917	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	21.1	21.2	32.8	22.6	24.8	33.1	25.5	24.5	30.8	21.6	21.7
Incr Delay (d2), s/veh	20.6	0.4	0.5	3.7	0.3	2.6	3.4	0.8	1.0	16.2	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.9	2.3	2.2	2.1	2.6	4.6	2.3	3.8	2.3	4.9	3.3	3.1
Lane Grp Delay (d), s/veh	52.8	21.6	21.7	36.4	22.9	27.4	36.5	26.3	25.5	47.0	22.3	22.5
Lane Grp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		477			865			752			648	
Approach Delay, s/veh		32.0			27.9			27.8			30.6	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	12.8	25.7		11.3	24.2		11.1	21.8		15.4	26.1	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	8.5	38.1		8.4	38.0		12.3	37.0		12.5	37.2	
Max Q Clear Time (g_c+l1), s	8.6	7.4		6.8	14.0		7.1	10.7		11.0	9.6	
Green Ext Time (p_c), s	0.0	5.4		0.0	5.2		0.0	6.1		0.0	6.2	
Intersection Summary												
HCM 2010 Ctrl Delay			29.2									
HCM 2010 LOS			C									
Notes												

Intersection												
Intersection Delay, s/veh	68.9											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	83	80	80	228	130	230	420	40	81	340	42
Peak Hour Factor	0.76	0.76	0.76	0.87	0.87	0.87	0.81	0.81	0.81	0.88	0.88	0.88
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	29	109	105	92	262	149	284	519	49	92	386	48
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	27.6	73.7	74.5	74.3
HCM LOS	D	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	12%	18%	17%
Vol Thru, %	61%	45%	52%	73%
Vol Right, %	6%	43%	30%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	690	185	438	463
LT Vol	420	83	228	340
Through Vol	40	80	130	42
RT Vol	230	22	80	81
Lane Flow Rate	852	243	503	526
Geometry Grp	1	1	1	1
Degree of Util (X)	1	0.638	1	1
Departure Headway (Hd)	8.66	9.43	8.487	8.609
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	426	385	428	421
Service Time	6.756	7.43	6.583	6.705
HCM Lane V/C Ratio	2	0.631	1.175	1.249
HCM Control Delay	74.5	27.6	73.7	74.3
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	12.4	4.2	12.5	12.5

Notes

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

Intersection

Intersection Delay, s/veh 13.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	580	10	10	140	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	75	75	70	70
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	12	707	13	13	200	14

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	434	20	0
Stage 1	20	-	-
Stage 2	414	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	575	1052	-
Stage 1	998	-	-
Stage 2	663	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	501	1052	-
Mov Capacity-2 Maneuver	501	-	-
Stage 1	998	-	-
Stage 2	578	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	7.1
HCM LOS	C		























Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1033	1574	-
HCM Lane V/C Ratio	-	-	0.697	0.127	-
HCM Control Delay (s)	-	-	16.1	7.62	0
HCM Lane LOS			C	A	A
HCM 95th %tile Q(veh)	-	-	5.975	0.436	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing+Proj AM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	176	72	20	160	82	464	20	780	80	236	580	115
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	234	1164	495	211	557	474	42	1012	104	399	1197	238
Arrive On Green	0.13	0.32	0.32	0.12	0.30	0.30	0.02	0.31	0.31	0.12	0.40	0.40
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3260	335	3375	2962	588
Grp Volume(v), veh/h	212	87	24	188	96	546	22	486	470	352	534	504
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1768	1688	1827	1723
Q Serve(g_s), s	17.3	2.4	1.5	15.4	5.6	44.0	1.8	36.0	36.0	14.8	35.5	35.5
Cycle Q Clear(g_c), s	17.3	2.4	1.5	15.4	5.6	44.0	1.8	36.0	36.0	14.8	35.5	35.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.34
Lane Grp Cap(c), veh/h	234	1164	495	211	557	474	42	567	549	399	739	697
V/C Ratio(X)	0.90	0.07	0.05	0.89	0.17	1.15	0.52	0.86	0.86	0.88	0.72	0.72
Avail Cap(c_a), veh/h	320	1164	495	334	557	474	76	620	600	503	813	767
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	61.5	34.3	34.0	62.5	36.8	50.1	69.5	46.7	46.7	62.6	36.2	36.2
Incr Delay (d2), s/veh	19.1	0.0	0.0	11.3	0.1	90.6	3.6	10.7	11.1	12.3	2.9	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 Back of Q (50%), veh/ln	9.1	1.1	0.6	7.6	2.6	29.3	0.9	18.7	18.1	7.3	17.1	16.1
Lane Grp Delay (d), s/veh	80.6	34.3	34.1	73.8	36.8	140.7	73.2	57.5	57.8	74.9	39.1	39.2
Lane Grp LOS	F	C	C	E	D	F	E	E	E	E	D	D
Approach Vol, veh/h		323			830			978			1390	
Approach Delay, s/veh		64.7			113.6			58.0			48.2	
Approach LOS		E			F			E			D	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	23.9	51.0		22.0	49.0		8.0	49.8		21.6	63.3	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	26.5	42.8		27.7	44.0		6.3	49.0		21.5	64.2	
Max Q Clear Time (g_c+l1), s	19.3	4.4		17.4	46.0		3.8	38.0		16.8	37.5	
Green Ext Time (p_c), s	0.1	2.2		0.1	0.0		0.0	6.7		0.2	11.1	
Intersection Summary												
HCM 2010 Ctrl Delay				67.8								
HCM 2010 LOS				E								
Notes												

Intersection

Intersection Delay, s/veh	39.5
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	80	40	270	540	240	68
Peak Hour Factor	0.69	0.69	0.96	0.96	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	58	281	563	296	84
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12.3	56.3	14.7
HCM LOS	B	F	B

























Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	33%	67%	0%
Vol Thru, %	67%	0%	78%
Vol Right, %	0%	33%	22%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	810	120	308
LT Vol	540	0	240
Through Vol	0	40	68
RT Vol	270	80	0
Lane Flow Rate	844	174	380
Geometry Grp	1	1	1
Degree of Util (X)	1	0.308	0.554
Departure Headway (Hd)	5.143	6.368	5.246
Convergence, Y/N	Yes	Yes	Yes
Cap	709	563	684
Service Time	3.143	4.427	3.309
HCM Lane V/C Ratio	1.19	0.309	0.556
HCM Control Delay	56.3	12.3	14.7
HCM Lane LOS	F	B	B
HCM 95th-tile Q	16.2	1.3	3.4

Notes

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

HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Existing+Proj AM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	310	170	360	859	86	120	80	400	79	130	73
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	1	3	1	2	2	1	2	1	1
Cap, veh/h	235	1372	389	513	2680	759	352	520	221	417	294	250
Arrive On Green	0.07	0.25	0.00	0.29	0.48	0.00	0.10	0.14	0.00	0.12	0.16	0.00
Sat Flow, veh/h	3442	5588	1583	1774	5588	1583	3442	3725	1583	3442	1863	1583
Grp Volume(v), veh/h	35	360	0	429	1023	0	160	107	0	110	181	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.7	4.0	0.0	17.5	9.0	0.0	3.4	2.0	0.0	2.2	7.0	0.0
Cycle Q Clear(g_c), s	0.7	4.0	0.0	17.5	9.0	0.0	3.4	2.0	0.0	2.2	7.0	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	235	1372	389	513	2680	759	352	520	221	417	294	250
V/C Ratio(X)	0.15	0.26	0.00	0.84	0.38	0.00	0.45	0.21	0.00	0.26	0.61	0.00
Avail Cap(c_a), veh/h	361	2490	706	749	4336	1229	383	2032	863	450	1052	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.9	23.5	0.0	25.7	12.8	0.0	32.6	29.4	0.0	30.8	30.3	0.0
Incr Delay (d2), s/veh	0.3	0.1	0.0	3.6	0.1	0.0	0.9	0.2	0.0	0.3	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	1.8	0.0	7.7	3.7	0.0	1.4	0.9	0.0	0.9	3.3	0.0
Lane Grp Delay (d), s/veh	34.1	23.6	0.0	29.4	12.9	0.0	33.5	29.6	0.0	31.1	32.4	0.0
Lane Grp LOS	C	C		C	B		C	C		C	C	
Approach Vol, veh/h		395			1452			267			291	
Approach Delay, s/veh		24.6			17.8			32.0			31.9	
Approach LOS		C			B			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	8.7	23.0		26.7	41.0		11.3	14.8		12.7	16.2	
Change Period (Y+Rc), s	5.5	6.1		6.5	6.1		5.5	6.1		5.5	6.1	
Max Green Setting (Gmax), s	6.0	32.3		30.5	57.8		6.5	40.0		8.0	41.5	
Max Q Clear Time (g_c+l1), s	2.7	6.0		19.5	11.0		5.4	4.0		4.2	9.0	
Green Ext Time (p_c), s	0.0	10.8		0.7	13.0		0.1	1.1		0.1	1.1	
Intersection Summary												
HCM 2010 Ctrl Delay				22.2								
HCM 2010 LOS				C								
Notes												

Intersection

Intersection Delay, s/veh 4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	74	2	22	0	0	0	0	31	19	89	686	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	100	100	100	78	78	78	85	85	85
Heavy Vehicles, %	29	29	29	0	0	0	23	23	23	5	5	5
Mvmt Flow	91	2	27	0	0	0	0	40	24	105	807	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1068	1080	807	807	0	0	64	0	0
Stage 1	1016	1016	-	-	-	-	-	-	-
Stage 2	52	64	-	-	-	-	-	-	-
Follow-up Headway	3.761	4.261	3.561	2.407	-	-	2.245	-	-
Pot Capacity-1 Maneuver	218	195	343	733	-	-	1519	-	-
Stage 1	312	283	-	-	-	-	-	-	-
Stage 2	906	791	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	191	# 0	343	733	-	-	1519	-	-
Mov Capacity-2 Maneuver	191	# 0	-	-	-	-	-	-	-
Stage 1	273	# 0	-	-	-	-	-	-	-
Stage 2	906	# 0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37.3	0	0.9
HCM LOS	E		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	733	-	-	199	343	1519	-	-
HCM Lane V/C Ratio	-	-	-	0.517	0.053	0.069	-	-
HCM Control Delay (s)	0	-	-	41	16.1	7.545	0	-
HCM Lane LOS	A			E	C	A	A	
HCM 95th %tile Q(veh)	0	-	-	2.634	0.167	0.222	-	-

Notes

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

Intersection

Intersection Delay, s/veh 13.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	170	2	227	10	95	0	0	605	310
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	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76
Heavy Vehicles, %	0	0	0	13	13	13	26	26	26	9	9	9
Mvmt Flow	0	0	0	227	3	303	12	113	0	0	796	408

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	933	933	113
Stage 1	137	137	-
Stage 2	796	796	-
Follow-up Headway	3.617	4.117	3.417
Pot Capacity-1 Maneuver	282	255	911
Stage 1	863	763	-
Stage 2	426	384	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	277	# 0	911
Mov Capacity-2 Maneuver	277	# 0	-
Stage 1	847	# 0	-
Stage 2	426	# 0	-

Approach	WB	NB	SB
HCM Control Delay, s	45.9	1	0
HCM LOS	E		

Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	729	-	-	353	911	1434	-	-
HCM Lane V/C Ratio	0.016	-	-	0.935	0.221	-	-	-
HCM Control Delay (s)	10.02	0	-	67.8	10.1	0	-	-
HCM Lane LOS	B	A	-	F	B	A	-	-
HCM 95th %tile Q(veh)	0.05	-	-	9.795	0.845	0	-	-

Notes

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1500	180	1	20	254	446
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	1	1	1
Cap, veh/h	1666	767	205	670	523	445
Arrive On Green	0.48	0.48	0.00	0.36	0.28	0.28
Sat Flow, veh/h	3442	1583	1774	1863	1863	1583
Grp Volume(v), veh/h	1500	180	1	20	398	350
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1863	1863	1583
Q Serve(g_s), s	20.4	3.4	0.0	0.4	10.0	10.5
Cycle Q Clear(g_c), s	20.4	3.4	0.0	0.4	10.0	10.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1666	767	205	670	523	445
V/C Ratio(X)	0.90	0.23	0.00	0.03	0.76	0.79
Avail Cap(c_a), veh/h	1744	802	339	944	654	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	7.7	13.2	10.6	16.9	17.0
Incr Delay (d2), s/veh	6.6	0.2	0.0	0.0	4.1	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	8.8	1.1	0.0	0.1	4.8	4.4
Lane Grp Delay (d), s/veh	18.7	7.9	13.2	10.6	20.9	22.9
Lane Grp LOS	B	A	B	B	C	C
Approach Vol, veh/h	1680			21	748	
Approach Delay, s/veh	17.6			10.8	21.9	
Approach LOS	B			B	C	

Timer

Assigned Phs		3	8	4
Phs Duration (G+Y+Rc), s		4.1	22.5	18.4
Change Period (Y+Rc), s		4.0	4.0	4.0
Max Green Setting (Gmax), s		4.0	26.0	18.0
Max Q Clear Time (g_c+l1), s		2.0	2.4	12.5
Green Ext Time (p_c), s		0.0	4.0	1.9

Intersection Summary





















HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
 21: SPINE RD & BP1/SCHOOL ACCESS

Existing+Proj AM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	660	30	180	400	100	0	0	20	30	0	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Cap, veh/h	716	2102	95	619	1715	424	243	0	214	415	0	214
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.00	0.00	0.14	0.14	0.00	0.14
Sat Flow, veh/h	894	3537	161	750	2886	714	1399	0	1583	1386	0	1583
Grp Volume(v), veh/h	20	347	343	180	257	243	0	0	20	30	0	10
Grp Sat Flow(s),veh/h/ln	894	1863	1834	750	1863	1737	1399	0	1583	1386	0	1583
Q Serve(g_s), s	0.3	2.8	2.8	4.7	1.9	2.0	0.0	0.0	0.3	0.6	0.0	0.2
Cycle Q Clear(g_c), s	2.3	2.8	2.8	7.4	1.9	2.0	0.0	0.0	0.3	0.9	0.0	0.2
Prop In Lane	1.00		0.09	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	716	1107	1090	619	1107	1032	243	0	214	415	0	214
V/C Ratio(X)	0.03	0.31	0.31	0.29	0.23	0.24	0.00	0.00	0.09	0.07	0.00	0.05
Avail Cap(c_a), veh/h	1061	1826	1798	909	1826	1702	905	0	963	1072	0	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.4	3.0	3.0	4.8	2.8	2.8	0.0	0.0	11.2	11.6	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.3	0.1	0.1	0.0	0.0	0.2	0.1	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 Back of Q (50%), veh/ln	0.0	0.6	0.6	0.5	0.4	0.4	0.0	0.0	0.1	0.2	0.0	0.1
Lane Grp Delay (d), s/veh	3.4	3.2	3.2	5.1	2.9	2.9	0.0	0.0	11.4	11.7	0.0	11.2
Lane Grp LOS	A	A	A	A	A	A			B	B		B
Approach Vol, veh/h		710			680			20				40
Approach Delay, s/veh		3.2			3.5			11.4				11.6
Approach LOS		A			A			B				B
Timer												
Assigned Phs		4			8			2				6
Phs Duration (G+Y+Rc), s		21.6			21.6			8.0				8.0
Change Period (Y+Rc), s		4.0			4.0			4.0				4.0
Max Green Setting (Gmax), s		29.0			29.0			18.0				18.0
Max Q Clear Time (g_c+l1), s		4.8			9.4			2.3				2.9
Green Ext Time (p_c), s		9.0			8.2			0.1				0.1
Intersection Summary												
HCM 2010 Ctrl Delay				3.7								
HCM 2010 LOS				A								
Notes												

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	360	70	0	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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	360	70	0	1	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	70	0	430
Stage 1	-	-	70
Stage 2	-	-	360
Follow-up Headway	2.218	-	3.518
Pot Capacity-1 Maneuver	1531	-	993
Stage 1	-	-	953
Stage 2	-	-	706
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	1531	-	993
Mov Capacity-2 Maneuver	-	-	582
Stage 1	-	-	953
Stage 2	-	-	706

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1531	-	-	-	582
HCM Lane V/C Ratio	-	-	-	-	0.002
HCM Control Delay (s)	0	-	-	-	11.2
HCM Lane LOS	A				B
HCM 95th %tile Q(veh)	0	-	-	-	0.005

Notes

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

Intersection												
Intersection Delay, s/veh	60.9											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	360	0	90	70	90	0	0	500	500	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	360	0	90	70	90	0	0	500	500	0	0
Number of Lanes	1	1	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	2
HCM Control Delay	59.2	15.2	70.1	75.7
HCM LOS	F	C	F	F

























Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	0%	0%	0%	100%	0%	0%	100%
Vol Thru, %	0%	100%	100%	0%	100%	21%	0%
Vol Right, %	100%	0%	0%	0%	0%	79%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	500	0	360	90	47	113	500
LT Vol	0	0	360	0	47	23	0
Through Vol	500	0	0	0	0	90	0
RT Vol	0	0	0	90	0	0	500
Lane Flow Rate	500	0	360	90	47	113	500
Geometry Grp	7	8	8	7	7	7	7
Degree of Util (X)	1	0	0.924	0.251	0.124	0.283	1
Departure Headway (Hd)	7.818	9.241	9.241	10.04	9.541	8.985	9.071
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	0	392	359	377	401	405
Service Time	5.57	6.962	6.962	7.772	7.272	6.716	6.771
HCM Lane V/C Ratio	1.075	0	0.918	0.251	0.125	0.282	1.235
HCM Control Delay	70.1	12	59.2	16.1	13.6	15.2	75.7
HCM Lane LOS	F	N	F	C	B	C	F
HCM 95th-tile Q	13.1	0	9.9	1	0.4	1.1	12.2

Notes

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






















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Existing+Proj AM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	193	450	240	200	650	213	550	960	260	262	610	122
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7
Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	341	1289	365	348	1300	368	737	1391	591	420	1048	445
Arrive On Green	0.10	0.24	0.00	0.10	0.24	0.24	0.22	0.38	0.38	0.12	0.29	0.29
Sat Flow, veh/h	3375	5481	1553	3375	5481	1553	3375	3654	1553	3375	3654	1553
Grp Volume(v), veh/h	193	450	0	200	650	213	550	960	260	262	610	122
Grp Sat Flow(s),veh/h/ln	1688	1827	1553	1688	1827	1553	1688	1827	1553	1688	1827	1553
Q Serve(g_s), s	4.9	6.1	0.0	5.0	9.2	10.8	13.6	19.7	11.1	6.6	12.8	5.4
Cycle Q Clear(g_c), s	4.9	6.1	0.0	5.0	9.2	10.8	13.6	19.7	11.1	6.6	12.8	5.4
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	341	1289	365	348	1300	368	737	1391	591	420	1048	445
V/C Ratio(X)	0.57	0.35	0.00	0.58	0.50	0.58	0.75	0.69	0.44	0.62	0.58	0.27
Avail Cap(c_a), veh/h	454	2333	661	454	2333	661	1058	1841	783	605	1350	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(l)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	28.5	0.0	38.2	29.5	30.1	32.6	23.2	20.6	37.1	27.3	24.7
Incr Delay (d2), s/veh	1.5	0.2	0.0	1.5	0.3	1.4	1.7	0.7	0.5	1.5	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.1	2.7	0.0	2.2	4.1	4.3	5.7	8.5	4.2	2.9	5.8	2.1
Lane Grp Delay (d), s/veh	39.8	28.6	0.0	39.7	29.8	31.5	34.3	23.9	21.1	38.6	27.8	25.0
Lane Grp LOS	D	C		D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		643			1063			1770			994	
Approach Delay, s/veh		32.0			32.0			26.7			30.3	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		7	4		3	8	
Phs Duration (G+Y+Rc), s	12.0	25.0		12.2	25.2		22.5	38.0		14.1	29.6	
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Max Green Setting (Gmax), s	10.0	36.0		10.0	36.0		26.0	43.0		14.0	31.0	
Max Q Clear Time (g_c+l1), s	6.9	8.1		7.0	12.8		15.6	21.7		8.6	14.8	
Green Ext Time (p_c), s	0.2	6.6		0.2	6.4		1.9	10.2		0.5	8.8	
Intersection Summary												
HCM 2010 Ctrl Delay				29.5								
HCM 2010 LOS				C								
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & CENTRAL AVE

Existing+Proj AM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	42	20	150	56	130	20	590	150	41	360	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	109	146	70	199	87	201	51	1041	264	92	1353	71
Arrive On Green	0.06	0.12	0.12	0.11	0.17	0.17	0.03	0.36	0.36	0.05	0.39	0.39
Sat Flow, veh/h	1774	1194	569	1774	499	1159	1774	2869	728	1774	3508	185
Grp Volume(v), veh/h	52	0	62	150	0	186	20	382	358	41	191	188
Grp Sat Flow(s),veh/h/ln	1774	0	1762	1774	0	1658	1774	1863	1734	1774	1863	1830
Q Serve(g_s), s	1.5	0.0	1.6	4.2	0.0	5.4	0.6	8.5	8.5	1.2	3.6	3.6
Cycle Q Clear(g_c), s	1.5	0.0	1.6	4.2	0.0	5.4	0.6	8.5	8.5	1.2	3.6	3.6
Prop In Lane	1.00		0.32	1.00		0.70	1.00		0.42	1.00		0.10
Lane Grp Cap(c), veh/h	109	0	216	199	0	288	51	676	629	92	718	706
V/C Ratio(X)	0.48	0.00	0.29	0.75	0.00	0.65	0.39	0.57	0.57	0.45	0.27	0.27
Avail Cap(c_a), veh/h	398	0	979	709	0	1212	225	1579	1470	328	1688	1658
HCM Platoon Ratio	1.00	1.00	1.00	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	23.3	0.0	20.5	22.1	0.0	19.7	24.5	13.1	13.1	23.6	10.8	10.8
Incr Delay (d2), s/veh	3.2	0.0	0.7	5.7	0.0	2.4	4.7	0.7	0.8	3.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	0.7	2.1	0.0	2.3	0.3	3.5	3.3	0.5	1.4	1.3
Lane Grp Delay (d), s/veh	26.5	0.0	21.2	27.8	0.0	22.2	29.2	13.9	13.9	27.0	11.0	11.0
Lane Grp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		114			336			760			420	
Approach Delay, s/veh		23.6			24.7			14.3			12.6	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.6	10.8		10.3	13.4		6.0	23.1		7.2	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	11.5	28.5		20.5	37.5		6.5	43.5		9.5	46.5	
Max Q Clear Time (g_c+l1), s	3.5	3.6		6.2	7.4		2.6	10.5		3.2	5.6	
Green Ext Time (p_c), s	0.0	1.5		0.3	1.6		0.0	8.1		0.0	8.4	
Intersection Summary												
HCM 2010 Ctrl Delay			16.6									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Existing+Proj AM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	580	182	220	530	120	300	710	250	98	470	160
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	337	1056	449	378	1101	468	462	1178	500	234	931	396
Arrive On Green	0.10	0.28	0.28	0.11	0.30	0.30	0.13	0.32	0.32	0.07	0.25	0.25
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	180	580	182	220	530	120	300	710	250	98	470	160
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	3.1	8.3	5.9	3.8	7.4	3.6	5.2	10.1	8.1	1.7	6.8	5.3
Cycle Q Clear(g_c), s	3.1	8.3	5.9	3.8	7.4	3.6	5.2	10.1	8.1	1.7	6.8	5.3
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	337	1056	449	378	1101	468	462	1178	500	234	931	396
V/C Ratio(X)	0.53	0.55	0.41	0.58	0.48	0.26	0.65	0.60	0.50	0.42	0.50	0.40
Avail Cap(c_a), veh/h	739	2250	956	629	2132	906	629	2310	982	410	2073	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	19.1	18.2	26.6	18.2	16.9	25.8	18.2	17.5	28.1	20.3	19.7
Incr Delay (d2), s/veh	0.5	0.3	0.4	0.5	0.2	0.2	0.6	0.2	0.3	0.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	3.8	2.2	1.6	3.1	1.4	2.2	4.5	3.0	0.7	3.0	2.0
Lane Grp Delay (d), s/veh	27.5	19.5	18.7	27.2	18.4	17.1	26.4	18.4	17.8	28.6	20.4	19.9
Lane Grp LOS	C	B	B	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		942			870			1260			728	
Approach Delay, s/veh		20.8			20.5			20.2			21.4	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	9.7	21.3		10.4	22.1		11.9	23.4		7.8	19.2	
Change Period (Y+Rc), s	4.5	5.5		4.5	5.5		4.5	5.5		4.5	5.5	
Max Green Setting (Gmax), s	12.5	36.0		10.5	34.0		10.5	37.0		6.5	33.0	
Max Q Clear Time (g_c+l1), s	5.1	10.3		5.8	9.4		7.2	12.1		3.7	8.8	
Green Ext Time (p_c), s	0.3	5.5		0.2	5.5		0.3	4.9		0.0	4.9	
Intersection Summary												
HCM 2010 Ctrl Delay				20.6								
HCM 2010 LOS				C								
Notes												























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE

Existing Plus Project AM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	170	200	50	5	240	76	70	85	5	100	54	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	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	411	359	633	154	738	633	350	306	14	334	130	168
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	491	897	1583	10	1845	1583	506	1123	53	474	477	617
Grp Volume(v), veh/h	370	0	50	245	0	76	160	0	0	254	0	0
Grp Sat Flow(s),veh/h/ln	1388	0	1583	1856	0	1583	1681	0	0	1568	0	0
Q Serve(g_s), s	3.1	0.0	0.5	0.0	0.0	0.7	0.0	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	0.5	2.2	0.0	0.7	1.7	0.0	0.0	3.3	0.0	0.0
Prop In Lane	0.46		1.00	0.02		1.00	0.44		0.03	0.39		0.39
Lane Grp Cap(c), veh/h	770	0	633	893	0	633	670	0	0	633	0	0
V/C Ratio(X)	0.48	0.00	0.08	0.27	0.00	0.12	0.24	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	1291	0	1231	1586	0	1231	1371	0	0	1330	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(l)	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	5.9	0.0	4.5	5.1	0.0	4.6	7.1	0.0	0.0	7.6	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.2	0.0	0.1	0.2	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	0.0	0.1	0.7	0.0	0.2	0.6	0.0	0.0	0.9	0.0	0.0
Lane Grp Delay (d), s/veh	6.4	0.0	4.6	5.2	0.0	4.7	7.3	0.0	0.0	8.0	0.0	0.0
Lane Grp LOS	A		A	A		A	A			A		
Approach Vol, veh/h		420			321			160			254	
Approach Delay, s/veh		6.1			5.1			7.3			8.0	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		13.8			13.8			10.7			10.7	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		19.0			19.0			18.0			18.0	
Max Q Clear Time (g_c+l1), s		7.3			4.2			3.7			5.3	
Green Ext Time (p_c), s		2.5			2.8			1.5			1.4	
Intersection Summary												
HCM 2010 Ctrl Delay			6.4									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Existing+Proj AM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	300	90	390	480	14	210	30	650	4	20	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	1	2	1	0	1	1	0	1	1
Cap, veh/h	74	776	330	487	1644	699	435	40	816	126	412	381
Arrive On Green	0.04	0.21	0.21	0.27	0.44	0.44	0.24	0.24	0.00	0.24	0.24	0.24
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1163	166	1583	123	1710	1583
Grp Volume(v), veh/h	50	300	90	390	480	14	240	0	0	24	0	40
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1329	0	1583	1833	0	1583
Q Serve(g_s), s	1.2	3.0	2.1	8.9	3.6	0.2	7.0	0.0	0.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	1.2	3.0	2.1	8.9	3.6	0.2	7.4	0.0	0.0	0.4	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	0.87		1.00	0.17		1.00
Lane Grp Cap(c), veh/h	74	776	330	487	1644	699	475	0	816	538	0	381
V/C Ratio(X)	0.68	0.39	0.27	0.80	0.29	0.02	0.50	0.00	0.00	0.04	0.00	0.10
Avail Cap(c_a), veh/h	653	3259	1385	898	3773	1604	1035	0	1455	1248	0	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.5	14.8	14.4	14.6	7.8	6.8	15.5	0.0	0.0	12.7	0.0	12.8
Incr Delay (d2), s/veh	10.2	0.3	0.4	3.1	0.1	0.0	0.8	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	1.2	0.7	3.6	1.2	0.1	2.1	0.0	0.0	0.2	0.0	0.3
Lane Grp Delay (d), s/veh	30.8	15.1	14.9	17.7	7.9	6.9	16.4	0.0	0.0	12.7	0.0	13.0
Lane Grp LOS	C	B	B	B	A	A	B			B		B
Approach Vol, veh/h		440			884			240			64	
Approach Delay, s/veh		16.8			12.2			16.4			12.9	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	5.8	13.1		15.9	23.2			14.5			14.5	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	16.0	38.0		22.0	44.0			28.0			28.0	
Max Q Clear Time (g_c+l1), s	3.2	5.0		10.9	5.6			9.4			2.9	
Green Ext Time (p_c), s	0.1	4.0		1.2	4.1			1.0			1.1	
Intersection Summary												
HCM 2010 Ctrl Delay				14.1								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	15.1											
Intersection LOS	C											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	360	30	43	294	58	10	20	21	71	22	80
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	360	30	43	294	58	10	20	21	71	22	80
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	17.3	15	10	11.4
HCM LOS	C	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	13%	11%	41%
Vol Thru, %	39%	80%	74%	13%
Vol Right, %	41%	7%	15%	46%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	51	450	395	173
LT Vol	20	360	294	22
Through Vol	21	30	58	80
RT Vol	10	60	43	71
Lane Flow Rate	51	450	395	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.089	0.648	0.571	0.287
Departure Headway (Hd)	6.273	5.181	5.204	5.963
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	568	698	691	600
Service Time	4.349	3.223	3.248	4.022
HCM Lane V/C Ratio	0.09	0.645	0.572	0.288
HCM Control Delay	10	17.3	15	11.4
HCM Lane LOS	A	C	B	B
HCM 95th-tile Q	0.3	4.8	3.6	1.2

Notes

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

Intersection

Intersection Delay, s/veh 46.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	9	30	20	3	112	10	1448	50	115	894	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	-	-	-	-	-	-	250	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	9	30	20	3	112	10	1448	50	115	894	25
























Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1883	2655	460	2175	2642	749	919	0	0	1498	0	0
Stage 1	1137	1137	-	1493	1493	-	-	-	-	-	-	-
Stage 2	746	1518	-	682	1149	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	43	23	548	26	23	354	738	-	-	444	-	-
Stage 1	215	275	-	129	185	-	-	-	-	-	-	-
Stage 2	372	180	-	406	271	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	# 20	17	548	# 12	17	354	738	-	-	444	-	-
Mov Capacity-2 Maneuver	# 20	17	-	# 12	17	-	-	-	-	-	-	-
Stage 1	212	204	-	127	182	-	-	-	-	-	-	-
Stage 2	247	178	-	272	201	-	-	-	-	-	-	-


















Approach	EB		WB			NB		SB		
HCM Control Delay, s	\$ 578.5		\$ 667.5			0.1		1.8		
HCM LOS	F		F							



















Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	738	-	-	36	63	444	-	-
HCM Lane V/C Ratio	0.014	-	-	1.694	2.143	0.259	-	-
HCM Control Delay (s)	9.945	-	-	\$ 578.5	\$ 667.5	15.919	-	-
HCM Lane LOS	A			F	F	C		
HCM 95th %tile Q(veh)	0.041	-	-	6.594	12.919	1.023	-	-












Notes

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	20	60	475	50	90	50	100	172	150	380	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	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	311	382	162	659	237	426	391	803	341	283	1489	633
Arrive On Green	0.10	0.10	0.10	0.19	0.40	0.40	0.22	0.22	0.22	0.08	0.40	0.40
Sat Flow, veh/h	1244	3725	1583	3442	597	1075	964	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	17	20	60	475	0	140	50	100	172	150	380	39
Grp Sat Flow(s),veh/h/ln	1244	1863	1583	1721	0	1673	964	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.5	0.2	1.4	5.1	0.0	2.2	1.7	0.8	3.7	1.6	2.7	0.6
Cycle Q Clear(g_c), s	0.5	0.2	1.4	5.1	0.0	2.2	1.7	0.8	3.7	1.6	2.7	0.6
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	382	162	659	0	663	391	803	341	283	1489	633
V/C Ratio(X)	0.05	0.05	0.37	0.72	0.00	0.21	0.13	0.12	0.50	0.53	0.26	0.06
Avail Cap(c_a), veh/h	755	1711	727	790	0	1323	626	1711	727	351	2471	1050
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	15.9	16.4	14.9	0.0	7.8	12.7	12.4	13.5	17.3	7.9	7.2
Incr Delay (d2), s/veh	0.1	0.1	1.4	2.6	0.0	0.2	0.1	0.1	1.2	1.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.1	0.6	2.1	0.0	0.7	0.4	0.3	1.3	0.7	1.0	0.2
Lane Grp Delay (d), s/veh	16.1	15.9	17.8	17.4	0.0	8.0	12.9	12.5	14.7	18.8	8.0	7.3
Lane Grp LOS	B	B	B	B		A	B	B	B	B	A	A
Approach Vol, veh/h		97			615			322			569	
Approach Delay, s/veh		17.1			15.3			13.7			10.8	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		4		3	8			2		1		6
Phs Duration (G+Y+Rc), s		8.0		11.5	19.5			12.5		7.2		19.7
Change Period (Y+Rc), s		4.0		4.0	4.0			4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		9.0	31.0			18.0		4.0		26.0
Max Q Clear Time (g_c+l1), s		3.4		7.1	4.2			5.7		3.6		4.7
Green Ext Time (p_c), s		1.0		0.5	1.2			2.7		0.0		3.3
Intersection Summary												
HCM 2010 Ctrl Delay				13.5								
HCM 2010 LOS				B								
Notes												



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	2	110	0	0	0	0	1390	130	89	590	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	182.7	182.7	190.0				0.0	182.7	182.7	182.7	182.7	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	222	233	0				0	2402	1021	170	1451	0
Arrive On Green	0.13	0.13	0.00				0.00	0.66	0.66	0.10	0.79	0.00
Sat Flow, veh/h	1740	1827	0				0	3654	1553	1740	1827	0
Grp Volume(v), veh/h	188	3	0				0	1853	173	137	908	0
Grp Sat Flow(s),veh/h/ln	1740	1827	0				0	1827	1553	1740	1827	0
Q Serve(g_s), s	10.8	0.1	0.0				0.0	36.0	4.4	7.9	20.8	0.0
Cycle Q Clear(g_c), s	10.8	0.1	0.0				0.0	36.0	4.4	7.9	20.8	0.0
Prop In Lane	1.00		0.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	222	233	0				0	2402	1021	170	1451	0
V/C Ratio(X)	0.85	0.01	0.00				0.00	0.77	0.17	0.81	0.63	0.00
Avail Cap(c_a), veh/h	306	322	0				0	3574	1519	340	1451	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.6	39.0	0.0				0.0	12.2	6.8	45.2	4.3	0.0
Incr Delay (d2), s/veh	14.6	0.0	0.0				0.0	0.6	0.1	8.7	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.8	0.1	0.0				0.0	15.1	1.6	3.9	7.7	0.0
Lane Grp Delay (d), s/veh	58.2	39.0	0.0				0.0	12.8	6.8	53.9	5.2	0.0
Lane Grp LOS	E	D						B	A	D	A	
Approach Vol, veh/h		191						2026			1045	
Approach Delay, s/veh		57.9						12.3			11.5	
Approach LOS		E						B			B	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		17.0						71.2		14.0	85.2	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		18.0						100.0		20.0	69.0	
Max Q Clear Time (g_c+l1), s		12.8						38.0		9.9	22.8	
Green Ext Time (p_c), s		0.3						29.2		0.3	29.7	
Intersection Summary												
HCM 2010 Ctrl Delay			14.7									
HCM 2010 LOS			B									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	160	0	110	750	770	0	0	519	420
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	182.7	182.7	182.7	182.7	0.0	0.0	182.7	182.7
Lanes				0	1	1	1	1	0	0	2	1
Cap, veh/h				209	0	186	1102	1510	0	0	609	259
Arrive On Green				0.12	0.00	0.00	0.63	0.83	0.00	0.00	0.17	0.17
Sat Flow, veh/h				1740	0	1553	1740	1827	0	0	3654	1553
Grp Volume(v), veh/h				208	0	0	1250	1283	0	0	618	500
Grp Sat Flow(s),veh/h/ln				1740	0	1553	1740	1827	0	0	1827	1553
Q Serve(g_s), s				17.9	0.0	0.0	95.0	61.3	0.0	0.0	25.0	25.0
Cycle Q Clear(g_c), s				17.9	0.0	0.0	95.0	61.3	0.0	0.0	25.0	25.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				209	0	186	1102	1510	0	0	609	259
V/C Ratio(X)				1.00	0.00	0.00	1.13	0.85	0.00	0.00	1.01	1.93
Avail Cap(c_a), veh/h				209	0	186	1102	1510	0	0	609	259
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				66.0	0.0	0.0	27.5	7.6	0.0	0.0	62.5	62.5
Incr Delay (d2), s/veh				61.1	0.0	0.0	72.0	4.8	0.0	0.0	40.2	433.3
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 Back of Q (50%), veh/ln				11.7	0.0	0.0	61.8	24.5	0.0	0.0	15.3	41.3
Lane Grp Delay (d), s/veh				127.1	0.0	0.0	99.5	12.4	0.0	0.0	102.7	495.8
Lane Grp LOS				F			F	B			F	F
Approach Vol, veh/h					208			2533			1118	
Approach Delay, s/veh					127.1			55.4			278.5	
Approach LOS					F			E			F	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					22.0		99.0	128.0			29.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					18.0		95.0	124.0			25.0	
Max Q Clear Time (g_c+l1), s					19.9		97.0	63.3			27.0	
Green Ext Time (p_c), s					0.0		0.0	27.7			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay				123.9								
HCM 2010 LOS				F								
Notes												

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	244	51	362	381	46	655
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	182.7	190.0	182.7	182.7	182.7	182.7
Lanes	1	0	1	1	1	1
Cap, veh/h	0	0	1221	1038	86	1569
Arrive On Green	0.00	0.00	0.67	0.67	0.05	0.86
Sat Flow, veh/h	0	0	1827	1553	1740	1827
Grp Volume(v), veh/h	0	0	540	569	55	789
Grp Sat Flow(s),veh/h/ln	0	0	1827	1553	1740	1827
Q Serve(g_s), s	0.0	0.0	3.9	5.4	0.9	3.0
Cycle Q Clear(g_c), s	0.0	0.0	3.9	5.4	0.9	3.0
Prop In Lane	0.00	0.00		1.00	1.00	
Lane Grp Cap(c), veh/h	0	0	1221	1038	86	1569
V/C Ratio(X)	0.00	0.00	0.44	0.55	0.64	0.50
Avail Cap(c_a), veh/h	0	0	2961	2517	245	3476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	2.2	2.5	13.2	0.5
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.5	7.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.2	0.3	0.5	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	2.5	2.9	20.8	0.7
Lane Grp LOS			A	A	C	A
Approach Vol, veh/h	0		1109			844
Approach Delay, s/veh	0.0		2.7			2.1
Approach LOS			A			A
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			23.0		5.4	28.4
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			46.0		4.0	54.0
Max Q Clear Time (g_c+l1), s			7.4		2.9	5.0
Green Ext Time (p_c), s			11.5		0.0	12.0
Intersection Summary						
HCM 2010 Ctrl Delay			2.4			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						























HCM 2010 Signalized Intersection Summary
5: TRACY BLVD & LINNE

Existing Plus Project AM - Mitigated
TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	300	20	21	150	165	20	12	16	142	26	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	182.7	182.7	190.0	190.0	182.7	190.0	190.0	182.7	190.0	190.0	182.7	182.7
Lanes	1	1	0	0	1	0	0	1	0	0	1	1
Cap, veh/h	131	920	61	0	275	303	0	150	203	0	389	330
Arrive On Green	0.08	0.54	0.54	0.00	0.35	0.35	0.00	0.21	0.21	0.00	0.21	0.21
Sat Flow, veh/h	1740	1694	113	0	796	876	0	705	954	0	1827	1553
Grp Volume(v), veh/h	105	0	337	0	0	399	0	0	40	0	37	200
Grp Sat Flow(s),veh/h/ln	1740	0	1807	0	0	1672	0	0	1659	0	1827	1553
Q Serve(g_s), s	1.9	0.0	3.4	0.0	0.0	6.7	0.0	0.0	0.6	0.0	0.5	3.8
Cycle Q Clear(g_c), s	1.9	0.0	3.4	0.0	0.0	6.7	0.0	0.0	0.6	0.0	0.5	3.8
Prop In Lane	1.00		0.06	0.00		0.52	0.00		0.57	0.00		1.00
Lane Grp Cap(c), veh/h	131	0	981	0	0	578	0	0	353	0	389	330
V/C Ratio(X)	0.80	0.00	0.34	0.00	0.00	0.69	0.00	0.00	0.11	0.00	0.10	0.61
Avail Cap(c_a), veh/h	372	0	1269	0	0	1175	0	0	1013	0	1618	1375
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	0.0	4.2	0.0	0.0	9.2	0.0	0.0	10.4	0.0	10.4	11.7
Incr Delay (d2), s/veh	10.6	0.0	0.2	0.0	0.0	1.5	0.0	0.0	0.1	0.0	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 Back of Q (50%), veh/ln	1.1	0.0	0.7	0.0	0.0	2.1	0.0	0.0	0.2	0.0	0.2	1.2
Lane Grp Delay (d), s/veh	25.5	0.0	4.4	0.0	0.0	10.7	0.0	0.0	10.5	0.0	10.5	13.4
Lane Grp LOS	C		A			B			B		B	B
Approach Vol, veh/h		442			399			40			237	
Approach Delay, s/veh		9.4			10.7			10.5			13.0	
Approach LOS		A			B			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.5	21.8		0.0	15.3		0.0	11.0		0.0	11.0	
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	7.0	23.0		7.0	23.0		5.0	20.0		14.0	29.0	
Max Q Clear Time (g_c+l1), s	3.9	5.4		0.0	8.7		0.0	2.6		0.0	5.8	
Green Ext Time (p_c), s	0.1	2.8		0.0	2.6		0.0	1.1		0.0	1.2	
Intersection Summary												
HCM 2010 Ctrl Delay			10.7									
HCM 2010 LOS			B									
Notes												
























HCM 2010 Signalized Intersection Summary
7: CORRAL HOLLOW RD & VALPICO RD.












Existing Plus Project AM - Mitigated
TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	83	80	80	228	130	230	420	40	81	340	42
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	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	283	222	214	115	327	186	704	739	628	704	645	80
Arrive On Green	0.03	0.26	0.26	0.07	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1740	856	825	1740	1095	622	1740	1827	1553	1740	1594	198
Grp Volume(v), veh/h	29	0	214	92	0	411	284	519	49	92	0	434
Grp Sat Flow(s),veh/h/ln	1740	0	1681	1740	0	1717	1740	1827	1553	1740	0	1792
Q Serve(g_s), s	0.5	0.0	4.8	2.3	0.0	9.8	5.2	10.5	0.9	1.5	0.0	8.5
Cycle Q Clear(g_c), s	0.5	0.0	4.8	2.3	0.0	9.8	5.2	10.5	0.9	1.5	0.0	8.5
Prop In Lane	1.00		0.49	1.00		0.36	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	283	0	437	115	0	513	704	739	628	704	0	725
V/C Ratio(X)	0.10	0.00	0.49	0.80	0.00	0.80	0.40	0.70	0.08	0.13	0.00	0.60
Avail Cap(c_a), veh/h	392	0	680	156	0	695	1134	1191	1012	1134	0	1168
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	14.0	20.5	0.0	14.4	9.4	11.0	8.1	8.3	0.0	10.4
Incr Delay (d2), s/veh	0.2	0.0	0.9	18.6	0.0	4.8	0.4	1.2	0.1	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	1.7	1.5	0.0	4.1	1.7	3.9	0.2	0.6	0.0	3.3
Lane Grp Delay (d), s/veh	12.4	0.0	14.8	39.1	0.0	19.2	9.8	12.2	8.2	8.4	0.0	11.2
Lane Grp LOS	B		B	D		B	A	B	A	A		B
Approach Vol, veh/h		243			503			852			526	
Approach Delay, s/veh		14.5			22.9			11.2			10.7	
Approach LOS		B			C			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	5.2	15.6		6.9	17.3			22.0				22.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	18.0		4.0	18.0			29.0				29.0
Max Q Clear Time (g_c+1), s	2.5	6.8		4.3	11.8			12.5				10.5
Green Ext Time (p_c), s	0.0	2.1		0.0	1.5			5.5				5.7
Intersection Summary												
HCM 2010 Ctrl Delay				14.2								
HCM 2010 LOS				B								
Notes												

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

















Existing Plus Project AM - Mitigated
 TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	176	72	20	160	82	464	20	780	80	236	580	115
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	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	0	2	1	2	0	2	2	0
Cap, veh/h	160	728	309	220	0	727	49	1123	115	421	1307	260
Arrive On Green	0.09	0.20	0.20	0.13	0.00	0.23	0.03	0.34	0.34	0.12	0.44	0.44
Sat Flow, veh/h	1740	3654	1553	1740	0	3106	1740	3260	335	3375	2962	588
Grp Volume(v), veh/h	212	87	24	188	0	610	22	486	470	352	534	504
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	0	1553	1740	1827	1768	1688	1827	1723
Q Serve(g_s), s	8.5	1.8	1.2	9.8	0.0	17.4	1.2	22.0	22.0	9.4	21.4	21.4
Cycle Q Clear(g_c), s	8.5	1.8	1.2	9.8	0.0	17.4	1.2	22.0	22.0	9.4	21.4	21.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.34
Lane Grp Cap(c), veh/h	160	728	309	220	0	727	49	629	609	421	806	760
V/C Ratio(X)	1.33	0.12	0.08	0.85	0.00	0.84	0.45	0.77	0.77	0.84	0.66	0.66
Avail Cap(c_a), veh/h	160	1435	610	253	0	1387	113	749	725	477	889	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	30.4	30.2	39.6	0.0	33.8	44.3	27.1	27.1	39.6	20.4	20.5
Incr Delay (d2), s/veh	184.5	0.1	0.1	19.3	0.0	1.0	2.4	4.2	4.3	10.0	1.6	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 Back of Q (50%), veh/ln	11.9	0.8	0.5	5.4	0.0	6.8	0.5	10.6	10.3	4.6	9.7	9.2
Lane Grp Delay (d), s/veh	226.6	30.5	30.3	58.9	0.0	34.9	46.8	31.3	31.4	49.6	22.1	22.2
Lane Grp LOS	F	C	C	E		C	D	C	C	D	C	C
Approach Vol, veh/h		323			798			978			1390	
Approach Delay, s/veh		159.2			40.5			31.7			29.1	
Approach LOS		F			D			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	13.0	23.5		16.2	26.7		7.1	36.9		16.1	45.9	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	8.5	36.4		13.5	41.4		6.0	38.0		13.1	45.1	
Max Q Clear Time (g_c+l1), s	10.5	3.8		11.8	19.4		3.2	24.0		11.4	23.4	
Green Ext Time (p_c), s	0.0	2.4		0.0	2.3		0.0	7.9		0.1	10.1	
Intersection Summary												
HCM 2010 Ctrl Delay	44.5											
HCM 2010 LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	80	40	270	540	240	68
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	186.3
Lanes	1	0	1	1	1	1
Cap, veh/h	0	0	1174	1331	1331	1131
Arrive On Green	0.00	0.00	0.71	0.71	0.71	0.71
Sat Flow, veh/h	0	0	999	1863	1863	1583
Grp Volume(v), veh/h	0	0	281	562	296	84
Grp Sat Flow(s),veh/h/ln	0	0	999	1863	1863	1583
Q Serve(g_s), s	0.0	0.0	1.9	1.7	0.8	0.2
Cycle Q Clear(g_c), s	0.0	0.0	2.6	1.7	0.8	0.2
Prop In Lane	0.00	0.00	1.00			1.00
Lane Grp Cap(c), veh/h	0	0	1174	1331	1331	1131
V/C Ratio(X)	0.00	0.00	0.24	0.42	0.22	0.07
Avail Cap(c_a), veh/h	0	0	2172	3192	3192	2713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.1	0.8	0.7	0.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	1.2	1.0	0.8	0.6
Lane Grp LOS			A	A	A	A
Approach Vol, veh/h	0			843	380	
Approach Delay, s/veh	0.0			1.1	0.7	
Approach LOS				A	A	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				14.0	14.0	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				24.0	24.0	
Max Q Clear Time (g_c+l1), s				4.6	2.8	
Green Ext Time (p_c), s				5.4	5.5	
Intersection Summary						
HCM 2010 Ctrl Delay			1.0			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						


















HCM 2010 Signalized Intersection Summary
 13: PATTERSON PASS RD & I-580 SOUTH OFF RAMP

Existing Plus Project AM - Mitigated
 TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	74	2	22	0	0	0	0	31	19	89	686	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	135	3	123				0	634	381	0	1082	0
Arrive On Green	0.08	0.08	0.00				0.00	0.58	0.58	0.00	0.58	0.00
Sat Flow, veh/h	1738	38	1583				0	1092	655	0	1863	0
Grp Volume(v), veh/h	93	0	0				0	0	64	0	807	0
Grp Sat Flow(s),veh/h/ln	1776	0	1583				0	0	1747	0	1863	0
Q Serve(g_s), s	1.2	0.0	0.0				0.0	0.0	0.4	0.0	7.5	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0				0.0	0.0	0.4	0.0	7.5	0.0
Prop In Lane	0.98		1.00				0.00		0.37	0.00		0.00
Lane Grp Cap(c), veh/h	138	0	123				0	0	1015	0	1082	0
V/C Ratio(X)	0.68	0.00	0.00				0.00	0.00	0.06	0.00	0.75	0.00
Avail Cap(c_a), veh/h	1516	0	1352				0	0	1417	0	2147	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	10.5	0.0	0.0				0.0	0.0	2.1	0.0	3.6	0.0
Incr Delay (d2), s/veh	5.7	0.0	0.0				0.0	0.0	0.0	0.0	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	0.0				0.0	0.0	0.1	0.0	1.4	0.0
Lane Grp Delay (d), s/veh	16.2	0.0	0.0				0.0	0.0	2.2	0.0	4.7	0.0
Lane Grp LOS	B								A		A	
Approach Vol, veh/h		93						64			807	
Approach Delay, s/veh		16.2						2.2			4.7	
Approach LOS		B						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		5.8						17.6		0.0	17.6	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		20.0						19.0		4.0	27.0	
Max Q Clear Time (g_c+l1), s		3.2						2.4		0.0	9.5	
Green Ext Time (p_c), s		0.2						4.0		0.0	4.1	
Intersection Summary												
HCM 2010 Ctrl Delay			5.6									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 14: PATTERSON PASS RD & I-580 NORTH OFF RAMP

Existing Plus Project AM - Mitigated
 TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	170	2	227	10	95	0	0	605	310
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	0	1	0	0	1	1
Cap, veh/h				315	4	285	160	955	0	0	1040	884
Arrive On Green				0.18	0.18	0.00	0.56	0.56	0.00	0.00	0.56	0.00
Sat Flow, veh/h				1752	23	1583	56	1710	0	0	1863	1583
Grp Volume(v), veh/h				230	0	0	125	0	0	0	796	0
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1766	0	0	0	1863	1583
Q Serve(g_s), s				3.7	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0
Cycle Q Clear(g_c), s				3.7	0.0	0.0	1.0	0.0	0.0	0.0	10.1	0.0
Prop In Lane				0.99		1.00	0.10		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				319	0	285	1115	0	0	0	1040	884
V/C Ratio(X)				0.72	0.00	0.00	0.11	0.00	0.00	0.00	0.77	0.00
Avail Cap(c_a), veh/h				1044	0	932	3041	0	0	0	3288	2795
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.8	0.0	0.0	3.2	0.0	0.0	0.0	5.2	0.0
Incr Delay (d2), s/veh				3.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				1.6	0.0	0.0	0.3	0.0	0.0	0.0	3.0	0.0
Lane Grp Delay (d), s/veh				14.9	0.0	0.0	3.2	0.0	0.0	0.0	6.4	0.0
Lane Grp LOS				B			A				A	
Approach Vol, veh/h					230			125			796	
Approach Delay, s/veh					14.9			3.2			6.4	
Approach LOS					B			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					9.5			21.1			21.1	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					18.0			54.0			54.0	
Max Q Clear Time (g_c+l1), s					5.7			3.0			12.1	
Green Ext Time (p_c), s					0.7			5.0			5.0	
Intersection Summary												
HCM 2010 Ctrl Delay				7.8								
HCM 2010 LOS				A								
Notes												

HCM Signalized Intersection Capacity Analysis

Existing Plus Project AM - Mitigated

2: CORRAL HOLLOW RD & I-580 WB ON RAMP/I-580 WB ON/OFF RAMP

Beyond TMP



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗		↕	↗		↕	↗
Volume (vph)	0	0	0	160	0	110	0	770	750	0	519	420
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		0.95	0.88		0.95	1.00
Frt					1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)					1583	1417		2983	2349		3471	1553
Flt Permitted					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)					1583	1417		2983	2349		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	0.77	0.77	0.77	0.60	0.60	0.60	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	208	0	143	0	1283	1250	0	618	500
RTOR Reduction (vph)	0	0	0	0	0	118	0	0	491	0	0	133
Lane Group Flow (vph)	0	0	0	0	208	25	0	1283	759	0	618	367
Heavy Vehicles (%)	0%	0%	0%	14%	14%	14%	21%	21%	21%	4%	4%	4%
Turn Type				Split	NA	Perm		NA	Perm		NA	Perm
Protected Phases				8	8			2			6	
Permitted Phases						8			2			6
Actuated Green, G (s)					15.3	15.3		53.1	53.1		64.1	64.1
Effective Green, g (s)					15.3	15.3		53.1	53.1		64.1	64.1
Actuated g/C Ratio					0.18	0.18		0.61	0.61		0.73	0.73
Clearance Time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)					3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)					277	248		1812	1427		2545	1138
v/s Ratio Prot					c0.13			c0.43			0.18	
v/s Ratio Perm						0.02			0.32			c0.24
v/c Ratio					0.75	0.10		0.71	0.53		0.24	0.32
Uniform Delay, d1					34.2	30.3		11.8	9.9		3.8	4.1
Progression Factor					1.00	1.00		0.74	1.40		1.00	1.00
Incremental Delay, d2					10.9	0.2		0.8	0.2		0.0	0.2
Delay (s)					45.1	30.5		9.5	14.1		3.8	4.2
Level of Service					D	C		A	B		A	A
Approach Delay (s)		0.0			39.2			11.8			4.0	
Approach LOS		A			D			B			A	

























Intersection Summary






















HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	87.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD

Existing Plus Project AM - Mitigated
 Beyond TMP

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	40	440	30	20	30	320	480	80	90	469	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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	1	1	1	2	1	2	2	1
Cap, veh/h	279	582	495	86	336	285	368	1498	636	156	895	380
Arrive On Green	0.16	0.31	0.31	0.02	0.18	0.18	0.21	0.40	0.40	0.05	0.24	0.24
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	230	40	440	30	20	30	320	480	80	90	469	340
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	9.3	1.1	19.7	0.6	0.7	1.2	13.0	6.6	2.4	1.9	8.1	15.5
Cycle Q Clear(g_c), s	9.3	1.1	19.7	0.6	0.7	1.2	13.0	6.6	2.4	1.9	8.1	15.5
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	279	582	495	86	336	285	368	1498	636	156	895	380
V/C Ratio(X)	0.82	0.07	0.89	0.35	0.06	0.11	0.87	0.32	0.13	0.58	0.52	0.89
Avail Cap(c_a), veh/h	429	802	681	185	451	383	477	1653	703	231	902	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	30.3	18.0	24.3	35.7	25.3	25.5	28.5	15.3	14.0	34.8	24.6	27.3
Incr Delay (d2), s/veh	7.5	0.0	10.7	2.4	0.1	0.2	13.0	0.1	0.1	3.3	0.5	22.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.7	0.5	8.8	0.3	0.3	0.5	6.9	2.9	0.9	0.9	3.8	8.3
Lane Grp Delay (d), s/veh	37.9	18.0	35.0	38.1	25.3	25.6	41.5	15.4	14.1	38.1	25.1	49.7
Lane Grp LOS	D	B	C	D	C	C	D	B	B	D	C	D
Approach Vol, veh/h		710			80			880			899	
Approach Delay, s/veh		35.0			30.2			24.8			35.7	
Approach LOS		C			C			C			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1		6
Phs Duration (G+Y+Rc), s	15.7	27.2		5.8	17.4		19.4	33.9		7.4		21.9
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	18.0	32.0		4.0	18.0		20.0	33.0		5.0		18.0
Max Q Clear Time (g_c+l1), s	11.3	21.7		2.6	3.2		15.0	8.6		3.9		17.5
Green Ext Time (p_c), s	0.4	1.6		0.0	1.8		0.5	8.8		0.0		0.4
Intersection Summary												
HCM 2010 Ctrl Delay				31.6								
HCM 2010 LOS				C								
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	360	0	90	70	90	0	0	500	500	0	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	2	1	0	1	1	2	1	0
Cap, veh/h	242	574	0	125	1912	813	36	6	5	749	6	0
Arrive On Green	0.00	0.31	0.00	0.07	0.51	0.51	0.00	0.00	0.00	0.22	0.00	0.00
Sat Flow, veh/h	1221	1863	0	1774	3725	1583	0	-72647	1583	3442	1863	0
Grp Volume(v), veh/h	0	360	0	90	70	90	0	0	0	500	0	0
Grp Sat Flow(s),veh/h/ln	1221	1863	0	1774	1863	1583	0	1863	1583	1721	1863	0
Q Serve(g_s), s	0.0	4.9	0.0	1.5	0.3	0.9	0.0	0.0	0.0	4.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.9	0.0	1.5	0.3	0.9	0.0	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	242	574	0	125	1912	813	0	6	5	749	6	0
V/C Ratio(X)	0.00	0.63	0.00	0.72	0.04	0.11	0.00	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	605	1128	0	239	3259	1385	0	1128	959	1042	1943	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(l)	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	8.8	0.0	13.5	3.6	3.7	0.0	0.0	0.0	10.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	7.5	0.0	0.1	0.0	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 Back of Q (50%), veh/ln	0.0	1.9	0.0	0.8	0.1	0.2	0.0	0.0	0.0	1.4	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	9.9	0.0	21.0	3.6	3.8	0.0	0.0	0.0	11.7	0.0	0.0
Lane Grp LOS		A		C	A	A				B		
Approach Vol, veh/h		360			250			0			500	
Approach Delay, s/veh		9.9			9.9			0.0			11.7	
Approach LOS		A			A						B	
Timer												
Assigned Phs		6		5	2		7	4		3		8
Phs Duration (G+Y+Rc), s		13.2		6.1	19.3		8.0	0.0		10.5		2.5
Change Period (Y+Rc), s		4.0		4.0	4.0		4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		4.0	26.0		31.0	18.0		9.0		31.0
Max Q Clear Time (g_c+l1), s		6.9		3.5	2.9		0.0	0.0		6.0		0.0
Green Ext Time (p_c), s		2.2		0.0	3.0		0.0	0.0		0.6		0.0
Intersection Summary												
HCM 2010 Ctrl Delay				10.7								
HCM 2010 LOS				B								
Notes												

Intersection

Intersection Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	30	0	0	112	10	1448	50	115	894	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	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	30	0	0	112	10	1448	50	115	894	25

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	1881	2655	460	2170	2642	749	919	0	0	1498	0	0
Stage 1	1137	1137	-	1493	1493	-	-	-	-	-	-	-
Stage 2	744	1518	-	677	1149	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	44	23	548	26	23	354	738	-	-	444	-	-
Stage 1	215	275	-	129	185	-	-	-	-	-	-	-
Stage 2	373	180	-	409	271	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	16	10	548	13	10	354	738	-	-	444	-	-
Mov Capacity-2 Maneuver	16	10	-	13	10	-	-	-	-	-	-	-
Stage 1	197	129	-	118	169	-	-	-	-	-	-	-
Stage 2	234	165	-	181	127	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	11.9		19.8			0.5		4.7		
HCM LOS	B		C							

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	738	-	-	548	354	444	-	-
HCM Lane V/C Ratio	0.014	-	-	0.055	0.316	0.259	-	-
HCM Control Delay (s)	9.945	0.4	-	11.9	19.8	15.919	3.4	-
HCM Lane LOS	A	A	-	B	C	C	A	-
HCM 95th %tile Q(veh)	0.041	-	-	0.173	1.33	1.023	-	-

Notes

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

Intersection

Intersection Delay, s/veh 1839.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	390	2	630	0	0	0	0	880	300	147	1081	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	100	100	100	88	88	88	84	84	84
Heavy Vehicles, %	8	8	8	0	0	0	2	2	2	10	10	10
Mvmt Flow	429	2	692	0	0	0	0	1000	341	175	1287	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	2807	2978	1287	1287	0	0	1341	0	0
Stage 1	1637	1637	-	-	-	-	-	-	-
Stage 2	1170	1341	-	-	-	-	-	-	-
Follow-up Headway	3.572	4.072	3.372	2.218	-	-	2.29	-	-
Pot Capacity-1 Maneuver	# 19	13	# 195	539	-	-	489	-	-
Stage 1	# 169	154	-	-	-	-	-	-	-
Stage 2	# 287	215	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	# 19	# 0	# 195	539	-	-	489	-	-
Mov Capacity-2 Maneuver	# 19	# 0	-	-	-	-	-	-	-
Stage 1	# 169	# 0	-	-	-	-	-	-	-
Stage 2	# 287	# 0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	\$ 6429.2	0	2
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	539	-	-	28	195	489	-	-
HCM Lane V/C Ratio	-	-	-	23.626	2.367	0.358	-	-
HCM Control Delay (s)	0	-	-	\$ 10448	\$ 669	16.408	0	-
HCM Lane LOS	A			F	F	C	A	
HCM 95th %tile Q(veh)	0	-	-	82.21	37.886	1.606	-	-






















Notes

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

Intersection												
Intersection Delay, s/veh	238.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	120	1	90	120	1150	0	0	1108	205
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	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	93	93	93	85	85	85	80	80	80
Heavy Vehicles, %	0	0	0	4	4	4	2	2	2	7	7	7
Mvmt Flow	0	0	0	129	1	97	141	1353	0	0	1385	256
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All	3148			3276			1353			1641		
Stage 1	1635			1635			-			-		
Stage 2	1513			1641			-			-		
Follow-up Headway	3.536			4.036			3.336			2.218		
Pot Capacity-1 Maneuver	# 12			9			181			394		
Stage 1	173			157			-			-		
Stage 2	199			156			-			-		
Time blocked-Platoon, %	-			-			-			-		
Mov Capacity-1 Maneuver	# 12			# 0			181			394		
Mov Capacity-2 Maneuver	# 12			# 0			-			-		
Stage 1	173			# 0			-			-		
Stage 2	199			# 0			-			-		
Approach	WB			NB			SB					
HCM Control Delay, s	\$ 3528.3			1.8			0					
HCM LOS	F											
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR				
Capacity (veh/h)	394	-	-	15	181	493	-	-				
HCM Lane V/C Ratio	0.358	-	-	10.824	0.356	-	-	-				
HCM Control Delay (s)	19.152	0	-	\$ 4916.2	35.5	0	-	-				
HCM Lane LOS	C	A	-	F	E	A	-	-				
HCM 95th %tile Q(veh)	1.595	-	-	21.282	1.506	0	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	480	160	480	240	180	250	540	520	180	200	593	450
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	186.3
Lanes	1	1	1	1	1	0	1	1	0	0	1	1
Cap, veh/h	412	432	367	412	164	228	58	932	323	211	526	1115
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1774	1863	1583	1774	707	982	539	1324	458	248	747	1583
Grp Volume(v), veh/h	480	160	480	240	0	430	540	0	700	793	0	450
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1689	539	0	1782	994	0	1583
Q Serve(g_s), s	29.0	9.0	29.0	15.0	0.0	29.0	0.0	0.0	23.9	64.1	0.0	14.7
Cycle Q Clear(g_c), s	29.0	9.0	29.0	15.0	0.0	29.0	88.0	0.0	23.9	88.0	0.0	14.7
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.26	0.25		1.00
Lane Grp Cap(c), veh/h	412	432	367	412	0	392	58	0	1254	736	0	1115
V/C Ratio(X)	1.17	0.37	1.31	0.58	0.00	1.10	9.37	0.00	0.56	1.08	0.00	0.40
Avail Cap(c_a), veh/h	412	432	367	412	0	392	58	0	1254	736	0	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.0	40.3	48.0	42.6	0.0	48.0	62.5	0.0	9.0	31.4	0.0	7.7
Incr Delay (d2), s/veh	98.2	0.5	156.4	2.1	0.0	74.2	3803.4	0.0	0.6	56.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	24.4	4.4	27.7	7.0	0.0	20.6	62.7	0.0	9.7	35.0	0.0	5.2
Lane Grp Delay (d), s/veh	146.2	40.9	204.4	44.7	0.0	122.2	3865.9	0.0	9.6	87.4	0.0	7.9
Lane Grp LOS	F	D	F	D		F	F		A	F		A
Approach Vol, veh/h		1120			670			1240			1243	
Approach Delay, s/veh		156.1			94.5			1688.9			58.6	
Approach LOS		F			F			F			E	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		33.0			33.0			92.0			92.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		29.0			21.0			88.0			88.0	
Max Q Clear Time (g_c+l1), s		31.0			31.0			90.0			90.0	
Green Ext Time (p_c), s		0.0			0.0			0.0			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			562.9									
HCM 2010 LOS			F									
Notes												

Intersection

Intersection Delay, s/veh 1804.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	530	53	825	435	52	700
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	77	77	87	87	88	88
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	688	69	948	500	59	795

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2112	1198	0 0 1448 0
Stage 1	1198	-	- - - -
Stage 2	914	-	- - - -
Follow-up Headway	3.536	3.336	- - 2.236 -
Pot Capacity-1 Maneuver	# 55	224	- - 462 -
Stage 1	# 283	-	- - - -
Stage 2	# 388	-	- - - -
Time blocked-Platoon, %			- - - -
Mov Capacity-1 Maneuver	# 42	224	- - 462 -
Mov Capacity-2 Maneuver	# 42	-	- - - -
Stage 1	# 283	-	- - - -
Stage 2	# 299	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	\$ 7290.5	0	1
HCM LOS	F		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	45	462	-
HCM Lane V/C Ratio	-	-	16.825	0.128	-
HCM Control Delay (s)	-	-\$ 7290.5	13.932	0	
HCM Lane LOS			F	B	A
HCM 95th %tile Q(veh)	-	-	92.101	0.436	-

Notes

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

Intersection												
Intersection Delay, s/veh	56											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	240	250	20	3	300	71	20	30	16	93	21	260
Peak Hour Factor	0.93	0.93	0.93	0.75	0.75	0.75	0.69	0.69	0.69	0.90	0.90	0.90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	258	269	22	4	400	95	29	43	23	103	23	289
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	68.6	65.2	15	37.9
HCM LOS	F	F	B	E
























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	47%	1%	25%
Vol Thru, %	45%	49%	80%	6%
Vol Right, %	24%	4%	19%	70%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	510	374	374
LT Vol	30	250	300	21
Through Vol	16	20	71	260
RT Vol	20	240	3	93
Lane Flow Rate	96	548	499	416
Geometry Grp	1	1	1	1
Degree of Util (X)	0.241	1	0.992	0.839
Departure Headway (Hd)	9.067	7.425	7.159	7.265
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	395	488	509	499
Service Time	7.151	5.506	5.208	5.315
HCM Lane V/C Ratio	0.243	1.123	0.98	0.834
HCM Control Delay	15	68.6	65.2	37.9
HCM Lane LOS	B	F	F	E
HCM 95th-tile Q	0.9	13.4	13.4	8.4

Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing+Project PM
7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	400	80	200	250	162	130	550	150	192	500	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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	157	697	138	289	843	358	192	1076	457	250	971	193
Arrive On Green	0.09	0.24	0.24	0.09	0.23	0.23	0.11	0.29	0.29	0.14	0.33	0.33
Sat Flow, veh/h	1740	2962	588	3375	3654	1553	1740	3654	1553	1740	2961	589
Grp Volume(v), veh/h	126	283	269	211	263	171	157	663	181	213	342	325
Grp Sat Flow(s),veh/h/ln	1740	1827	1723	1688	1827	1553	1740	1827	1553	1740	1827	1723
Q Serve(g_s), s	5.6	11.0	11.2	4.8	4.7	7.5	7.0	12.4	7.4	9.4	12.2	12.3
Cycle Q Clear(g_c), s	5.6	11.0	11.2	4.8	4.7	7.5	7.0	12.4	7.4	9.4	12.2	12.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	157	430	406	289	843	358	192	1076	457	250	599	565
V/C Ratio(X)	0.80	0.66	0.66	0.73	0.31	0.48	0.82	0.62	0.40	0.85	0.57	0.57
Avail Cap(c_a), veh/h	165	879	829	321	1758	747	289	1712	728	297	865	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	35.2	27.3	27.4	35.2	25.2	26.3	34.3	24.0	22.2	33.0	22.0	22.0
Incr Delay (d2), s/veh	21.1	2.1	2.3	5.9	0.3	1.2	6.2	0.7	0.7	15.8	1.0	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 Back of Q (50%), veh/ln	3.3	5.0	4.8	2.2	2.1	2.9	3.3	5.4	2.7	5.1	5.4	5.1
Lane Grp Delay (d), s/veh	56.4	29.4	29.6	41.1	25.4	27.4	40.6	24.7	22.9	48.8	23.0	23.1
Lane Grp LOS	E	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		678			645			1001			880	
Approach Delay, s/veh		34.5			31.1			26.9			29.3	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	11.6	23.6		11.3	23.2		13.2	28.2		15.9	30.9	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	7.5	38.0		7.5	38.0		13.1	37.0		13.5	37.4	
Max Q Clear Time (g_c+l1), s	7.6	13.2		6.8	9.5		9.0	14.4		11.4	14.3	
Green Ext Time (p_c), s	0.0	5.4		0.0	5.5		0.0	8.9		0.0	9.0	
Intersection Summary												
HCM 2010 Ctrl Delay			30.0									
HCM 2010 LOS			C									
Notes												

Intersection												
Intersection Delay, s/veh	78.3											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	254	100	110	95	133	50	700	130	169	660	7
Peak Hour Factor	0.86	0.86	0.86	0.80	0.80	0.80	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	6	295	116	137	119	166	56	778	144	190	742	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	77.9	77.9	78.3	78.8
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	1%	33%	20%
Vol Thru, %	80%	71%	28%	79%
Vol Right, %	15%	28%	39%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	880	359	338	836
LT Vol	700	254	95	660
Through Vol	130	100	133	7
RT Vol	50	5	110	169
Lane Flow Rate	978	417	422	939
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	1	1
Departure Headway (Hd)	9.588	9.501	9.494	9.701
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	391	384	384	385
Service Time	7.588	7.501	7.494	7.701
HCM Lane V/C Ratio	2.501	1.086	1.099	2.439
HCM Control Delay	78.3	77.9	77.9	78.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.9	11.9	11.9	11.8

Notes

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

Intersection

Intersection Delay, s/veh 8.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	140	20	10	410	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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	58	58	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	13	179	34	17	494	24

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1055	43	0
Stage 1	43	-	-
Stage 2	1012	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	248	1022	-
Stage 1	974	-	-
Stage 2	348	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	167	1022	-
Mov Capacity-2 Maneuver	167	-	-
Stage 1	974	-	-
Stage 2	235	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	8
HCM LOS	B		






















Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	762	1541	-
HCM Lane V/C Ratio	-	-	0.252	0.321	-
HCM Control Delay (s)	-	-	11.3	8.434	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	0.999	1.4	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	34	20	60	56	326	30	880	90	508	1010	85
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	100	952	404	83	458	389	59	1083	111	626	1608	135
Arrive On Green	0.06	0.26	0.26	0.05	0.25	0.25	0.03	0.33	0.33	0.19	0.48	0.48
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3260	334	3375	3326	278
Grp Volume(v), veh/h	79	42	25	65	61	354	32	524	508	564	616	600
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1768	1688	1827	1778
Q Serve(g_s), s	4.9	0.9	1.3	4.0	2.8	24.1	2.0	29.3	29.3	17.8	28.6	28.7
Cycle Q Clear(g_c), s	4.9	0.9	1.3	4.0	2.8	24.1	2.0	29.3	29.3	17.8	28.6	28.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.16
Lane Grp Cap(c), veh/h	100	952	404	83	458	389	59	607	587	626	883	860
V/C Ratio(X)	0.79	0.04	0.06	0.78	0.13	0.91	0.54	0.86	0.86	0.90	0.70	0.70
Avail Cap(c_a), veh/h	104	1300	553	155	704	598	118	637	616	758	923	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	30.2	30.3	51.4	31.7	39.6	51.8	34.1	34.1	43.4	21.9	22.0
Incr Delay (d2), s/veh	29.2	0.0	0.1	5.9	0.0	9.4	2.8	11.5	11.9	11.0	2.2	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 Back of Q (50%), veh/ln	3.0	0.4	0.5	1.9	1.3	10.3	0.9	14.9	14.5	8.5	12.9	12.6
Lane Grp Delay (d), s/veh	80.0	30.2	30.4	57.3	31.7	49.0	54.6	45.6	46.0	54.5	24.1	24.2
Lane Grp LOS	E	C	C	E	C	D	D	D	D	D	C	C
Approach Vol, veh/h		146			480			1064			1780	
Approach Delay, s/veh		57.2			47.9			46.1			33.8	
Approach LOS		E			D			D			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.8	33.4		9.7	32.3		8.2	41.2		24.7	57.7	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	6.5	38.8		9.7	42.0		7.4	38.0		24.5	55.1	
Max Q Clear Time (g_c+l1), s	6.9	3.3		6.0	26.1		4.0	31.3		19.8	30.7	
Green Ext Time (p_c), s	0.0	1.3		0.0	1.2		0.0	4.9		0.4	11.7	
Intersection Summary												
HCM 2010 Ctrl Delay				40.5								
HCM 2010 LOS				D								
Notes												

Intersection

Intersection Delay, s/veh	20.1
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	105	410	80	120	180	13
Peak Hour Factor	0.86	0.86	0.88	0.88	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	477	91	136	237	17
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	25.8	12.8	13.1
HCM LOS	D	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	40%	20%	0%
Vol Thru, %	60%	0%	93%
Vol Right, %	0%	80%	7%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	200	515	193
LT Vol	120	0	180
Through Vol	0	410	13
RT Vol	80	105	0
Lane Flow Rate	227	599	254
Geometry Grp	1	1	1
Degree of Util (X)	0.382	0.814	0.416
Departure Headway (Hd)	6.052	4.895	5.892
Convergence, Y/N	Yes	Yes	Yes
Cap	593	737	609
Service Time	4.113	2.942	3.95
HCM Lane V/C Ratio	0.383	0.813	0.417
HCM Control Delay	12.8	25.8	13.1
HCM Lane LOS	B	D	B
HCM 95th-tile Q	1.8	8.7	2

























Notes

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

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	701	595	82	50
Demand Flow Rate, veh/h	715	607	83	51
Vehicles Circulating, veh/h	167	15	738	562
Vehicles Exiting, veh/h	446	806	144	60
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	18.0	9.9	8.7	6.6
Approach LOS	C	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	715	607	83	51
Cap Entry Lane, veh/h	956	1113	540	644
Entry HV Adj Factor	0.981	0.980	0.987	0.978
Flow Entry, veh/h	701	595	82	50
Cap Entry, veh/h	938	1091	533	630
V/C Ratio	0.748	0.545	0.154	0.079
Control Delay, s/veh	18.0	9.9	8.7	6.6
LOS	C	A	A	A
95th %tile Queue, veh	7	3	1	0

HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	96	1080	100	170	397	65	50	90	310	57	80	33
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	1	3	1	2	2	1	2	1	1
Cap, veh/h	361	2105	596	288	2506	710	295	433	184	402	275	233
Arrive On Green	0.10	0.38	0.00	0.16	0.45	0.00	0.09	0.12	0.00	0.12	0.15	0.00
Sat Flow, veh/h	3442	5588	1583	1774	5588	1583	3442	3725	1583	3442	1863	1583
Grp Volume(v), veh/h	102	1149	0	198	462	0	53	95	0	72	101	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.9	11.2	0.0	7.3	3.4	0.0	1.0	1.6	0.0	1.3	3.4	0.0
Cycle Q Clear(g_c), s	1.9	11.2	0.0	7.3	3.4	0.0	1.0	1.6	0.0	1.3	3.4	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	361	2105	596	288	2506	710	295	433	184	402	275	233
V/C Ratio(X)	0.28	0.55	0.00	0.69	0.18	0.00	0.18	0.22	0.00	0.18	0.37	0.00
Avail Cap(c_a), veh/h	402	2775	786	323	3219	912	402	2264	962	502	1186	1008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.6	16.9	0.0	27.4	11.5	0.0	29.4	27.8	0.0	27.6	26.6	0.0
Incr Delay (d2), s/veh	0.4	0.3	0.0	3.9	0.0	0.0	0.3	0.3	0.0	0.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	4.7	0.0	3.4	1.4	0.0	0.4	0.7	0.0	0.6	1.5	0.0
Lane Grp Delay (d), s/veh	29.0	17.3	0.0	31.3	11.5	0.0	29.7	28.0	0.0	27.8	27.4	0.0
Lane Grp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		1251			660			148			173	
Approach Delay, s/veh		18.2			17.5			28.6			27.6	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.7	30.1		15.6	35.1		9.3	12.1		11.5	14.2	
Change Period (Y+Rc), s	5.5	6.1		6.5	6.1		5.5	6.1		5.5	6.1	
Max Green Setting (Gmax), s	6.0	32.3		10.5	37.8		6.0	40.0		8.0	42.0	
Max Q Clear Time (g_c+l1), s	3.9	13.2		9.3	5.4		3.0	3.6		3.3	5.4	
Green Ext Time (p_c), s	0.1	10.8		0.0	14.3		0.0	0.8		0.1	0.8	
Intersection Summary												
HCM 2010 Ctrl Delay				19.4								
HCM 2010 LOS				B								
Notes												

Intersection

Intersection Delay, s/veh 149.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	218	10	66	0	0	0	0	472	248	239	38	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	100	100	100	85	85	85	80	80	80
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	9	9	9
Mvmt Flow	245	11	74	0	0	0	0	555	292	299	48	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1346	1492	48	48	0	0	847	0	0
Stage 1	645	645	-	-	-	-	-	-	-
Stage 2	701	847	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	2.218	-	-	2.281	-	-
Pot Capacity-1 Maneuver	# 167	123	1021	1559	-	-	761	-	-
Stage 1	522	467	-	-	-	-	-	-	-
Stage 2	492	378	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	# 100	# 0	1021	1559	-	-	761	-	-
Mov Capacity-2 Maneuver	# 100	# 0	-	-	-	-	-	-	-
Stage 1	311	# 0	-	-	-	-	-	-	-
Stage 2	492	# 0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	\$ 680	0	11
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1559	-	-	109	1021	761	-	-
HCM Lane V/C Ratio	-	-	-	2.577	0.048	0.393	-	-
HCM Control Delay (s)	0	-	-	\$ 798.1	8.7	12.755	0	-
HCM Lane LOS	A			F	A	B	A	
HCM 95th %tile Q(veh)	0	-	-	25.602	0.152	1.878	-	-

Notes

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

Intersection

Intersection Delay, s/veh 3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	11	3	156	6	684	0	0	266	146
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	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76
Heavy Vehicles, %	0	0	0	23	23	23	2	2	2	11	11	11
Mvmt Flow	0	0	0	15	4	208	7	814	0	0	350	192














Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	1179	1179	814	350	0	0	814	0	0
Stage 1	829	829	-	-	-	-	-	-	-
Stage 2	350	350	-	-	-	-	-	-	-
Follow-up Headway	3.707	4.207	3.507	2.218	-	-	2.299	-	-
Pot Capacity-1 Maneuver	191	174	347	1209	-	-	775	-	-
Stage 1	395	357	-	-	-	-	-	-	-
Stage 2	669	597	-	-	-	-	-	-	-
Time blocked-Platoon, %					-	-	-	-	-
Mov Capacity-1 Maneuver	189	# 0	347	1209	-	-	775	-	-
Mov Capacity-2 Maneuver	189	# 0	-	-	-	-	-	-	-
Stage 1	391	# 0	-	-	-	-	-	-	-
Stage 2	669	# 0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.9	0.1	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1209	-	-	303	347	775	-	-
HCM Lane V/C Ratio	0.006	-	-	0.29	0.4	-	-	-
HCM Control Delay (s)	7.995	0	-	21.7	22.1	0	-	-
HCM Lane LOS	A	A	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0.018	-	-	1.176	1.863	0	-	-





















Notes

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

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 					
Volume (veh/h)	750	1	70	430	21	1690
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	1	0	2
Cap, veh/h	1176	541	417	677	0	0
Arrive On Green	0.34	0.34	0.06	0.36	0.00	0.16
Sat Flow, veh/h	3442	1583	1774	1863	0	0
Grp Volume(v), veh/h	750	1	70	430	0	0
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1863	0	0
Q Serve(g_s), s	5.0	0.0	0.8	5.2	0.0	0.0
Cycle Q Clear(g_c), s	5.0	0.0	0.8	5.2	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	1176	541	417	677	0	0
V/C Ratio(X)	0.64	0.00	0.17	0.63	0.00	0.00
Avail Cap(c_a), veh/h	2281	1050	571	1989	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.5	5.9	7.2	7.2	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.2	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.6	0.0	0.3	1.9	0.0	0.0
Lane Grp Delay (d), s/veh	8.1	5.9	7.4	8.1	0.0	0.0
Lane Grp LOS	A	A	A	A		
Approach Vol, veh/h	751			500	0	
Approach Delay, s/veh	8.1			8.0	0.0	
Approach LOS	A			A		
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			5.6	13.9	8.2	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			4.0	29.0	21.0	
Max Q Clear Time (g_c+l1), s			2.8	7.2	0.0	
Green Ext Time (p_c), s			0.0	2.7	0.0	
Intersection Summary						
HCM 2010 Ctrl Delay			8.1			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 21: Business Park Driveway & SPINE RD

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	730	10	60	910	200	30	0	140	250	0	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Cap, veh/h	302	1827	25	430	1475	324	546	0	508	480	0	508
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.32	0.00	0.32	0.32	0.00	0.32
Sat Flow, veh/h	506	3666	50	716	2961	650	1325	0	1583	1244	0	1583
Grp Volume(v), veh/h	50	371	369	60	572	538	30	0	140	250	0	70
Grp Sat Flow(s),veh/h/ln	506	1863	1854	716	1863	1748	1325	0	1583	1244	0	1583
Q Serve(g_s), s	3.5	5.5	5.5	2.5	9.8	9.9	0.7	0.0	2.9	8.3	0.0	1.4
Cycle Q Clear(g_c), s	13.4	5.5	5.5	8.1	9.8	9.9	2.1	0.0	2.9	11.2	0.0	1.4
Prop In Lane	1.00		0.03	1.00		0.37	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	928	924	430	928	871	546	0	508	480	0	508
V/C Ratio(X)	0.17	0.40	0.40	0.14	0.62	0.62	0.05	0.00	0.28	0.52	0.00	0.14
Avail Cap(c_a), veh/h	325	1011	1006	462	1011	949	661	0	644	587	0	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	12.9	7.0	7.0	9.5	8.0	8.0	11.4	0.0	11.2	15.4	0.0	10.7
Incr Delay (d2), s/veh	0.3	0.3	0.3	0.1	1.0	1.1	0.0	0.0	0.3	0.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	2.0	2.0	0.4	3.9	3.7	0.2	0.0	1.1	2.3	0.0	0.5
Lane Grp Delay (d), s/veh	13.1	7.2	7.2	9.6	9.0	9.1	11.5	0.0	11.5	16.2	0.0	10.8
Lane Grp LOS	B	A	A	A	A	A	B		B	B		B
Approach Vol, veh/h		790			1170			170			320	
Approach Delay, s/veh		7.6			9.1			11.5			15.0	
Approach LOS		A			A			B			B	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		26.0			26.0			18.2			18.2	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		24.0			24.0			18.0			18.0	
Max Q Clear Time (g_c+l1), s		15.4			11.9			4.9			13.2	
Green Ext Time (p_c), s		6.7			8.8			1.8			1.0	
Intersection Summary												
HCM 2010 Ctrl Delay				9.6								
HCM 2010 LOS				A								
Notes												

Intersection

Intersection Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	160	390	0	30	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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	160	390	0	30	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	390	0	390
Stage 1	-	-	390
Stage 2	-	-	160
Follow-up Headway	2.218	-	3.318
Pot Capacity-1 Maneuver	1169	-	658
Stage 1	-	-	684
Stage 2	-	-	869
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	1169	-	658
Mov Capacity-2 Maneuver	-	-	496
Stage 1	-	-	684
Stage 2	-	-	869

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1169	-	-	-	496
HCM Lane V/C Ratio	-	-	-	-	0.06
HCM Control Delay (s)	0	-	-	-	12.7
HCM Lane LOS	A				B
HCM 95th %tile Q(veh)	0	-	-	-	0.192

Notes

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

Intersection												
Intersection Delay, s/veh	47.4											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	140	20	530	370	530	20	30	240	230	30	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	140	20	530	370	530	20	30	240	230	30	0
Number of Lanes	1	1	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	2
HCM Control Delay	19.7	59	24.1	26.8
HCM LOS	C	F	C	D

























Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	7%	0%	0%	100%	0%	0%	88%
Vol Thru, %	10%	100%	88%	0%	100%	19%	12%
Vol Right, %	83%	0%	12%	0%	0%	81%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	290	0	160	530	247	653	260
LT Vol	30	0	140	0	247	123	30
Through Vol	240	0	20	0	0	530	0
RT Vol	20	0	0	530	0	0	230
Lane Flow Rate	290	0	160	530	247	653	260
Geometry Grp	7	8	8	7	7	7	7
Degree of Util (X)	0.642	0	0.433	1	0.511	1	0.646
Departure Headway (Hd)	7.965	9.83	9.742	7.965	7.451	6.867	8.941
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	452	0	371	461	486	536	403
Service Time	5.759	7.535	7.447	5.673	5.159	4.575	6.74
HCM Lane V/C Ratio	0.642	0	0.431	1.15	0.508	1.218	0.645
HCM Control Delay	24.1	12.5	19.7	70.6	17.7	65.2	26.8
HCM Lane LOS	C	N	C	F	C	F	D
HCM 95th-tile Q	4.4	0	2.1	13	2.9	14	4.4

Notes

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






















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	278	720	510	320	438	289	280	930	190	322	1073	129
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	384	1688	478	423	1752	496	386	1247	530	429	1294	550
Arrive On Green	0.11	0.30	0.30	0.12	0.31	0.31	0.11	0.33	0.33	0.12	0.35	0.35
Sat Flow, veh/h	3442	5588	1583	3442	5588	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	278	720	408	320	438	289	280	930	190	322	1073	129
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	9.5	12.5	29.4	10.9	7.1	18.6	9.5	26.8	11.0	11.0	32.0	7.0
Cycle Q Clear(g_c), s	9.5	12.5	29.4	10.9	7.1	18.6	9.5	26.8	11.0	11.0	32.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	384	1688	478	423	1752	496	386	1247	530	429	1294	550
V/C Ratio(X)	0.72	0.43	0.85	0.76	0.25	0.58	0.73	0.75	0.36	0.75	0.83	0.23
Avail Cap(c_a), veh/h	397	1751	496	426	1797	509	397	1290	548	454	1352	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	52.1	33.9	39.8	51.4	31.0	35.0	52.0	35.8	30.5	51.3	36.3	28.1
Incr Delay (d2), s/veh	6.2	0.2	13.2	7.5	0.1	1.6	6.3	2.3	0.4	6.5	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 Back of Q (50%), veh/ln	4.5	5.8	13.5	5.2	3.3	7.7	4.5	12.7	4.5	5.3	16.0	2.8
Lane Grp Delay (d), s/veh	58.3	34.1	52.9	58.9	31.1	36.6	58.3	38.1	30.9	57.7	40.6	28.3
Lane Grp LOS	E	C	D	E	C	D	E	D	C	E	D	C
Approach Vol, veh/h		1406			1047			1400			1524	
Approach Delay, s/veh		44.3			41.1			41.2			43.2	
Approach LOS		D			D			D			D	
Timer												
Assigned Phs	5	2		1	6		7	4		3	8	
Phs Duration (G+Y+Rc), s	16.5	40.6		17.9	42.0		16.6	44.6		18.1	46.1	
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Max Green Setting (Gmax), s	12.0	36.0		13.0	37.0		12.0	40.0		14.0	42.0	
Max Q Clear Time (g_c+l1), s	11.5	31.4		12.9	20.6		11.5	28.8		13.0	34.0	
Green Ext Time (p_c), s	0.1	3.3		0.0	8.1		0.1	8.0		0.2	6.1	
Intersection Summary												
HCM 2010 Ctrl Delay			42.6									
HCM 2010 LOS			D									
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & CENTRAL AVE

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	52	20	230	40	53	40	610	200	63	570	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	49	112	43	275	156	207	84	1140	373	110	1519	98
Arrive On Green	0.03	0.09	0.09	0.16	0.21	0.21	0.05	0.42	0.42	0.06	0.44	0.44
Sat Flow, veh/h	1774	1282	493	1774	728	965	1774	2690	880	1774	3462	224
Grp Volume(v), veh/h	20	0	72	230	0	93	40	422	388	63	306	301
Grp Sat Flow(s),veh/h/ln	1774	0	1776	1774	0	1693	1774	1863	1707	1774	1863	1823
Q Serve(g_s), s	0.7	0.0	2.6	8.3	0.0	3.0	1.5	11.2	11.2	2.3	7.3	7.4
Cycle Q Clear(g_c), s	0.7	0.0	2.6	8.3	0.0	3.0	1.5	11.2	11.2	2.3	7.3	7.4
Prop In Lane	1.00		0.28	1.00		0.57	1.00		0.52	1.00		0.12
Lane Grp Cap(c), veh/h	49	0	155	275	0	363	84	790	724	110	818	800
V/C Ratio(X)	0.40	0.00	0.46	0.84	0.00	0.26	0.48	0.53	0.54	0.57	0.37	0.38
Avail Cap(c_a), veh/h	174	0	752	698	0	1217	190	1048	960	281	1143	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	31.7	0.0	28.8	27.2	0.0	21.6	30.8	14.2	14.2	30.2	12.5	12.5
Incr Delay (d2), s/veh	2.0	0.0	0.8	2.6	0.0	0.1	1.6	1.0	1.1	1.7	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 Back of Q (50%), veh/ln	0.3	0.0	1.2	3.8	0.0	1.3	0.7	5.0	4.6	1.0	3.0	3.0
Lane Grp Delay (d), s/veh	33.7	0.0	29.6	29.8	0.0	21.8	32.4	15.2	15.3	32.0	13.0	13.0
Lane Grp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		92			323			850			670	
Approach Delay, s/veh		30.5			27.5			16.1			14.8	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.3	10.3		14.8	18.7		7.6	32.6		8.6	33.6	
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	6.5	28.1		26.1	47.7		7.1	37.3		10.5	40.7	
Max Q Clear Time (g_c+l1), s	2.7	4.6		10.3	5.0		3.5	13.2		4.3	9.4	
Green Ext Time (p_c), s	0.0	0.3		0.1	0.4		0.0	14.9		0.0	17.6	
Intersection Summary												
HCM 2010 Ctrl Delay				18.2								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	240	730	303	190	630	189	280	590	150	142	650	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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	381	1202	511	323	1139	484	417	1177	500	268	1016	432
Arrive On Green	0.11	0.32	0.32	0.09	0.31	0.31	0.12	0.32	0.32	0.08	0.27	0.27
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	240	730	303	190	630	189	280	590	150	142	650	220
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	4.9	12.2	11.8	3.9	10.4	6.9	5.7	9.5	5.3	2.9	11.4	8.7
Cycle Q Clear(g_c), s	4.9	12.2	11.8	3.9	10.4	6.9	5.7	9.5	5.3	2.9	11.4	8.7
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	381	1202	511	323	1139	484	417	1177	500	268	1016	432
V/C Ratio(X)	0.63	0.61	0.59	0.59	0.55	0.39	0.67	0.50	0.30	0.53	0.64	0.51
Avail Cap(c_a), veh/h	629	1967	836	489	1816	772	536	1867	793	443	1766	750
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	21.1	20.9	32.1	21.4	20.2	31.0	20.5	19.1	32.7	23.7	22.7
Incr Delay (d2), s/veh	0.6	0.4	0.8	0.6	0.3	0.4	1.1	0.1	0.1	0.6	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.1	5.5	4.6	1.6	4.5	2.7	2.5	4.3	2.0	1.3	5.1	3.3
Lane Grp Delay (d), s/veh	32.0	21.4	21.8	32.7	21.7	20.6	32.1	20.7	19.2	33.3	23.9	23.0
Lane Grp LOS	C	C	C	C	C	C	C	C	B	C	C	C
Approach Vol, veh/h		1273			1009			1020			1012	
Approach Delay, s/veh		23.5			23.6			23.6			25.0	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	11.7	27.3		10.4	26.1		12.4	26.8		9.3	23.6	
Change Period (Y+Rc), s	4.5	5.5		4.5	5.5		4.5	5.5		4.5	5.5	
Max Green Setting (Gmax), s	12.5	37.0		9.5	34.0		10.5	35.0		8.5	33.0	
Max Q Clear Time (g_c+l1), s	6.9	14.2		5.9	12.4		7.7	11.5		4.9	13.4	
Green Ext Time (p_c), s	0.3	7.6		0.1	7.5		0.2	5.0		0.1	4.8	
Intersection Summary												
HCM 2010 Ctrl Delay			23.9									
HCM 2010 LOS			C									
Notes												























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE

Existing Plus Project PM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	180	80	12	140	73	40	59	13	88	77	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	353	373	492	197	548	492	331	367	62	313	168	244
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	414	1201	1583	59	1764	1583	331	1142	193	315	523	762
Grp Volume(v), veh/h	280	0	80	152	0	73	112	0	0	315	0	0
Grp Sat Flow(s),veh/h/ln	1614	0	1583	1823	0	1583	1666	0	0	1600	0	0
Q Serve(g_s), s	1.3	0.0	0.8	0.0	0.0	0.7	0.0	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.8	1.3	0.0	0.7	1.0	0.0	0.0	3.5	0.0	0.0
Prop In Lane	0.36		1.00	0.08		1.00	0.36		0.12	0.28		0.48
Lane Grp Cap(c), veh/h	727	0	492	745	0	492	760	0	0	725	0	0
V/C Ratio(X)	0.39	0.00	0.16	0.20	0.00	0.15	0.15	0.00	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	1521	0	1312	1662	0	1312	1521	0	0	1515	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(l)	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	6.1	0.0	5.4	5.6	0.0	5.4	5.3	0.0	0.0	6.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	0.2	0.4	0.0	0.2	0.3	0.0	0.0	0.9	0.0	0.0
Lane Grp Delay (d), s/veh	6.4	0.0	5.6	5.8	0.0	5.5	5.4	0.0	0.0	6.6	0.0	0.0
Lane Grp LOS	A		A	A		A	A			A		
Approach Vol, veh/h		360			225			112			315	
Approach Delay, s/veh		6.3			5.7			5.4			6.6	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		10.7			10.7			11.0			11.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			18.0			18.0	
Max Q Clear Time (g_c+l1), s		4.9			3.3			3.0			5.5	
Green Ext Time (p_c), s		2.0			2.1			1.6			1.5	
Intersection Summary												
HCM 2010 Ctrl Delay			6.1									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Existing+Project PM
 7/25/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	610	90	460	380	3	80	20	390	11	30	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	1	2	1	0	1	1	0	1	1
Cap, veh/h	49	1096	466	553	2155	916	267	50	702	132	204	208
Arrive On Green	0.03	0.29	0.29	0.31	0.58	0.58	0.13	0.13	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	950	381	1583	245	1549	1583
Grp Volume(v), veh/h	30	610	90	460	380	3	100	0	0	41	0	50
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1331	0	1583	1794	0	1583
Q Serve(g_s), s	0.8	6.3	1.9	11.0	2.2	0.0	2.5	0.0	0.0	0.0	0.0	1.3
Cycle Q Clear(g_c), s	0.8	6.3	1.9	11.0	2.2	0.0	3.4	0.0	0.0	0.9	0.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	0.80		1.00	0.27		1.00
Lane Grp Cap(c), veh/h	49	1096	466	553	2155	916	317	0	702	336	0	208
V/C Ratio(X)	0.61	0.56	0.19	0.83	0.18	0.00	0.32	0.00	0.00	0.12	0.00	0.24
Avail Cap(c_a), veh/h	621	3097	1316	854	3586	1524	988	0	1464	1156	0	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	13.6	12.1	14.6	4.5	4.1	18.8	0.0	0.0	17.6	0.0	17.8
Incr Delay (d2), s/veh	11.6	0.4	0.2	4.2	0.0	0.0	0.6	0.0	0.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	2.4	0.7	4.6	0.6	0.0	1.0	0.0	0.0	0.4	0.0	0.5
Lane Grp Delay (d), s/veh	33.6	14.1	12.3	18.8	4.6	4.1	19.3	0.0	0.0	17.8	0.0	18.4
Lane Grp LOS	C	B	B	B	A	A	B			B		B
Approach Vol, veh/h		730			843			100			91	
Approach Delay, s/veh		14.6			12.3			19.3			18.1	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	5.3	17.5		18.3	30.4			10.0				10.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	16.0	38.0		22.0	44.0			28.0				28.0
Max Q Clear Time (g_c+l1), s	2.8	8.3		13.0	4.2			5.4				3.3
Green Ext Time (p_c), s	0.0	5.1		1.3	5.3			0.6				0.7
Intersection Summary												
HCM 2010 Ctrl Delay				14.0								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	12.2											
Intersection LOS	B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	310	10	5	250	48	20	30	20	65	4	100
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	310	10	5	250	48	20	30	20	65	4	100
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.8	11.8	9.7	10.5
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	16%	2%	38%
Vol Thru, %	43%	82%	83%	2%
Vol Right, %	29%	3%	16%	59%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	380	303	169
LT Vol	30	310	250	4
Through Vol	20	10	48	100
RT Vol	20	60	5	65
Lane Flow Rate	70	380	303	169
Geometry Grp	1	1	1	1
Degree of Util (X)	0.114	0.535	0.426	0.258
Departure Headway (Hd)	5.878	5.067	5.067	5.506
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	609	711	712	652
Service Time	3.924	3.095	3.098	3.545
HCM Lane V/C Ratio	0.115	0.534	0.426	0.259
HCM Control Delay	9.7	13.8	11.8	10.5
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.4	3.2	2.1	1

Notes

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

Intersection

Intersection Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	7	20	48	6	52	20	1251	50	154	1550	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	-	-	-	-	-	-	250	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	7	20	48	6	52	20	1251	50	154	1550	50
























Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2552	3224	800	2403	3224	651	1600	0	0	1301	0	0
Stage 1	1883	1883	-	1316	1316	-	-	-	-	-	-	-
Stage 2	669	1341	-	1087	1908	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	# 13	9	328	# 17	9	411	405	-	-	528	-	-
Stage 1	73	118	-	166	226	-	-	-	-	-	-	-
Stage 2	413	219	-	231	115	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	-	# 6	328	-	6	411	405	-	-	528	-	-
Mov Capacity-2 Maneuver	-	# 6	-	-	6	-	-	-	-	-	-	-
Stage 1	69	84	-	158	215	-	-	-	-	-	-	-
Stage 2	333	208	-	141	81	-	-	-	-	-	-	-



















Approach	EB	WB	NB	SB
HCM Control Delay, s	+	+	0.2	1.3
HCM LOS	-	-		



















Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	405	-	-	+	+	528	-	-
HCM Lane V/C Ratio	0.049	-	-	+	+	0.292	-	-
HCM Control Delay (s)	14.35	-	-	+	+	14.601	-	-
HCM Lane LOS	B			+	+	B		
HCM 95th %tile Q(veh)	0.155	-	-	+	+	1.204	-	-












Notes

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	50	100	130	50	130	80	330	430	110	182	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	339	527	224	254	142	369	570	1266	538	236	1871	795
Arrive On Green	0.14	0.14	0.14	0.07	0.31	0.31	0.34	0.34	0.34	0.07	0.50	0.50
Sat Flow, veh/h	1199	3725	1583	3442	459	1193	1179	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	65	50	100	130	0	180	80	330	430	110	182	17
Grp Sat Flow(s),veh/h/ln	1199	1863	1583	1721	0	1652	1179	1863	1583	1721	1863	1583
Q Serve(g_s), s	2.1	0.5	2.5	1.5	0.0	3.6	2.0	2.7	10.5	1.3	1.1	0.2
Cycle Q Clear(g_c), s	2.1	0.5	2.5	1.5	0.0	3.6	2.0	2.7	10.5	1.3	1.1	0.2
Prop In Lane	1.00		1.00	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	527	224	254	0	511	570	1266	538	236	1871	795
V/C Ratio(X)	0.19	0.09	0.45	0.51	0.00	0.35	0.14	0.26	0.80	0.47	0.10	0.02
Avail Cap(c_a), veh/h	678	1578	671	324	0	700	669	1578	671	324	1871	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	15.9	16.7	18.9	0.0	11.4	9.9	10.2	12.7	19.0	5.5	5.3
Incr Delay (d2), s/veh	0.3	0.1	1.4	1.6	0.0	0.4	0.1	0.1	5.5	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.2	1.0	0.7	0.0	1.3	0.5	1.1	4.2	0.6	0.4	0.1
Lane Grp Delay (d), s/veh	16.8	16.0	18.1	20.5	0.0	11.8	10.0	10.3	18.2	20.5	5.6	5.3
Lane Grp LOS	B	B	B	C		B	B	B	B	C	A	A
Approach Vol, veh/h		215			310			840			309	
Approach Delay, s/veh		17.2			15.5			14.3			10.9	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		4		3	8			2		1		6
Phs Duration (G+Y+Rc), s		10.0		7.1	17.1			18.4		6.9		25.3
Change Period (Y+Rc), s		4.0		4.0	4.0			4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		4.0	18.0			18.0		4.0		18.0
Max Q Clear Time (g_c+l1), s		4.5		3.5	5.6			12.5		3.3		3.1
Green Ext Time (p_c), s		1.6		0.0	1.5			2.0		0.0		4.3
Intersection Summary												
HCM 2010 Ctrl Delay				14.3								
HCM 2010 LOS				B								
Notes												



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	390	2	630	0	0	0	0	880	300	147	1081	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	182.7	182.7	190.0				0.0	182.7	182.7	182.7	182.7	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	469	493	0				0	1836	780	208	1202	0
Arrive On Green	0.27	0.27	0.00				0.00	0.50	0.50	0.12	0.66	0.00
Sat Flow, veh/h	1740	1827	0				0	3654	1553	1740	1827	0
Grp Volume(v), veh/h	429	2	0				0	1000	341	175	1287	0
Grp Sat Flow(s),veh/h/ln	1740	1827	0				0	1827	1553	1740	1827	0
Q Serve(g_s), s	26.5	0.1	0.0				0.0	20.8	15.5	10.9	73.0	0.0
Cycle Q Clear(g_c), s	26.5	0.1	0.0				0.0	20.8	15.5	10.9	73.0	0.0
Prop In Lane	1.00		0.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	469	493	0				0	1836	780	208	1202	0
V/C Ratio(X)	0.91	0.00	0.00				0.00	0.54	0.44	0.84	1.07	0.00
Avail Cap(c_a), veh/h	612	642	0				0	1836	780	314	1202	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.3	29.6	0.0				0.0	18.9	17.6	47.8	19.0	0.0
Incr Delay (d2), s/veh	15.5	0.0	0.0				0.0	0.3	0.4	12.1	47.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	13.8	0.0	0.0				0.0	9.4	6.0	5.6	45.8	0.0
Lane Grp Delay (d), s/veh	54.8	29.6	0.0				0.0	19.2	18.0	59.9	65.9	0.0
Lane Grp LOS	D	C						B	B	E	F	
Approach Vol, veh/h		431						1341			1462	
Approach Delay, s/veh		54.6						18.9			65.2	
Approach LOS		D						B			E	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		33.9						59.7		17.3	77.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		39.0						49.0		20.0	73.0	
Max Q Clear Time (g_c+l1), s		28.5						22.8		12.9	75.0	
Green Ext Time (p_c), s		1.4						18.9		0.3	0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			44.6									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	120	1	90	120	1150	0	0	1108	205
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	182.7	182.7	182.7	182.7	0.0	0.0	182.7	182.7
Lanes				0	1	1	1	1	0	0	2	1
Cap, veh/h				167	1	150	179	1456	0	0	2340	995
Arrive On Green				0.10	0.10	0.00	0.10	0.80	0.00	0.00	0.64	0.64
Sat Flow, veh/h				1727	13	1553	1740	1827	0	0	3654	1553
Grp Volume(v), veh/h				130	0	0	141	1353	0	0	1385	256
Grp Sat Flow(s),veh/h/ln				1741	0	1553	1740	1827	0	0	1827	1553
Q Serve(g_s), s				5.5	0.0	0.0	5.9	43.5	0.0	0.0	16.5	5.3
Cycle Q Clear(g_c), s				5.5	0.0	0.0	5.9	43.5	0.0	0.0	16.5	5.3
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				168	0	150	179	1456	0	0	2340	995
V/C Ratio(X)				0.77	0.00	0.00	0.79	0.93	0.00	0.00	0.59	0.26
Avail Cap(c_a), veh/h				418	0	373	325	1560	0	0	2340	995
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.1	0.0	0.0	32.8	6.0	0.0	0.0	7.8	5.8
Incr Delay (d2), s/veh				7.4	0.0	0.0	7.5	9.9	0.0	0.0	0.4	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				2.7	0.0	0.0	3.0	16.8	0.0	0.0	6.3	1.7
Lane Grp Delay (d), s/veh				40.4	0.0	0.0	40.3	15.8	0.0	0.0	8.2	5.9
Lane Grp LOS				D			D	B			A	A
Approach Vol, veh/h					130			1494			1641	
Approach Delay, s/veh					40.4			18.1			7.9	
Approach LOS					D			B			A	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					11.2		11.7	63.7			52.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					18.0		14.0	64.0			46.0	
Max Q Clear Time (g_c+l1), s					7.5		7.9	45.5			18.5	
Green Ext Time (p_c), s					0.3		0.2	14.2			22.3	
Intersection Summary												
HCM 2010 Ctrl Delay				13.9								
HCM 2010 LOS				B								
Notes												

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	530	53	825	435	52	700
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	182.7	190.0	182.7	182.7	182.7	182.7
Lanes	1	0	1	1	1	1
Cap, veh/h	0	0	1336	1136	86	1627
Arrive On Green	0.00	0.00	0.73	0.73	0.05	0.89
Sat Flow, veh/h	0	0	1827	1553	1740	1827
Grp Volume(v), veh/h	0	0	948	500	59	795
Grp Sat Flow(s),veh/h/ln	0	0	1827	1553	1740	1827
Q Serve(g_s), s	0.0	0.0	10.6	4.7	1.2	3.1
Cycle Q Clear(g_c), s	0.0	0.0	10.6	4.7	1.2	3.1
Prop In Lane	0.00	0.00		1.00	1.00	
Lane Grp Cap(c), veh/h	0	0	1336	1136	86	1627
V/C Ratio(X)	0.00	0.00	0.71	0.44	0.69	0.49
Avail Cap(c_a), veh/h	0	0	2102	1787	381	2703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	2.7	1.9	17.1	0.4
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.3	9.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.8	0.2	0.6	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	3.4	2.2	26.4	0.6
Lane Grp LOS			A	A	C	A
Approach Vol, veh/h	0		1448			854
Approach Delay, s/veh	0.0		3.0			2.4
Approach LOS			A			A
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			30.7		5.8	36.5
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			42.0		8.0	54.0
Max Q Clear Time (g_c+l1), s			12.6		3.2	5.1
Green Ext Time (p_c), s			14.1		0.0	16.9
Intersection Summary						
HCM 2010 Ctrl Delay			2.8			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						























HCM 2010 Signalized Intersection Summary
5: TRACY BLVD & LINNE

Existing Plus Project PM - Mitigated
TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	240	250	20	3	300	71	20	30	16	93	21	260
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	182.7	182.7	190.0	190.0	182.7	190.0	190.0	182.7	190.0	190.0	182.7	182.7
Lanes	1	1	0	0	1	0	0	1	0	0	1	1
Cap, veh/h	325	1017	83	70	496	117	153	198	84	363	69	369
Arrive On Green	0.19	0.61	0.61	0.35	0.35	0.35	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1740	1667	136	3	1426	336	268	831	351	1004	289	1553
Grp Volume(v), veh/h	258	0	291	499	0	0	95	0	0	126	0	289
Grp Sat Flow(s),veh/h/ln	1740	0	1803	1765	0	0	1450	0	0	1293	0	1553
Q Serve(g_s), s	7.5	0.0	4.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	9.2
Cycle Q Clear(g_c), s	7.5	0.0	4.0	13.5	0.0	0.0	4.9	0.0	0.0	4.9	0.0	9.2
Prop In Lane	1.00		0.08	0.01		0.19	0.31		0.24	0.82		1.00
Lane Grp Cap(c), veh/h	325	0	1101	682	0	0	434	0	0	432	0	369
V/C Ratio(X)	0.79	0.00	0.26	0.73	0.00	0.00	0.22	0.00	0.00	0.29	0.00	0.78
Avail Cap(c_a), veh/h	627	0	1811	1071	0	0	609	0	0	600	0	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	4.8	15.6	0.0	0.0	16.2	0.0	0.0	17.1	0.0	18.8
Incr Delay (d2), s/veh	4.4	0.0	0.1	1.5	0.0	0.0	0.3	0.0	0.0	0.4	0.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.2	0.0	1.2	5.3	0.0	0.0	0.9	0.0	0.0	1.3	0.0	3.5
Lane Grp Delay (d), s/veh	24.8	0.0	4.9	17.2	0.0	0.0	16.5	0.0	0.0	17.4	0.0	22.9
Lane Grp LOS	C		A	B			B			B		C
Approach Vol, veh/h		549			499			95			415	
Approach Delay, s/veh		14.3			17.2			16.5			21.2	
Approach LOS		B			B			B			C	
Timer												
Assigned Phs	7	4			8			2				6
Phs Duration (G+Y+Rc), s	13.9	36.2			22.3			16.6				16.6
Change Period (Y+Rc), s	4.0	4.0			4.0			4.0				4.0
Max Green Setting (Gmax), s	19.0	53.0			30.0			19.0				19.0
Max Q Clear Time (g_c+l1), s	9.5	6.0			15.5			6.9				11.2
Green Ext Time (p_c), s	0.6	3.3			2.8			1.7				1.4
Intersection Summary												
HCM 2010 Ctrl Delay				17.2								
HCM 2010 LOS				B								
Notes												























HCM 2010 Signalized Intersection Summary
7: CORRAL HOLLOW RD & VALPICO RD.












Existing Plus Project PM - Mitigated
TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	254	100	110	95	133	50	700	130	169	660	7
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	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	326	321	126	173	242	338	871	915	778	871	903	10
Arrive On Green	0.01	0.26	0.26	0.10	0.35	0.35	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1740	1249	491	1740	692	965	1740	1827	1553	1740	1804	19
Grp Volume(v), veh/h	6	0	411	138	0	285	56	778	144	190	0	750
Grp Sat Flow(s),veh/h/ln	1740	0	1740	1740	0	1657	1740	1827	1553	1740	0	1823
Q Serve(g_s), s	0.2	0.0	19.3	6.5	0.0	11.3	1.4	31.0	4.3	5.1	0.0	29.2
Cycle Q Clear(g_c), s	0.2	0.0	19.3	6.5	0.0	11.3	1.4	31.0	4.3	5.1	0.0	29.2
Prop In Lane	1.00		0.28	1.00		0.58	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	326	0	447	173	0	580	871	915	778	871	0	913
V/C Ratio(X)	0.02	0.00	0.92	0.80	0.00	0.49	0.06	0.85	0.19	0.22	0.00	0.82
Avail Cap(c_a), veh/h	398	0	457	270	0	613	1079	1133	963	975	0	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	30.3	36.9	0.0	21.4	10.8	18.2	11.5	11.7	0.0	17.7
Incr Delay (d2), s/veh	0.0	0.0	23.5	8.9	0.0	0.6	0.0	5.3	0.1	0.1	0.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	10.9	3.2	0.0	4.5	0.5	13.7	0.0	2.0	0.0	12.9
Lane Grp Delay (d), s/veh	22.9	0.0	53.8	45.8	0.0	22.0	10.8	23.5	11.6	11.8	0.0	22.7
Lane Grp LOS	C		D	D		C	B	C	B	B		C
Approach Vol, veh/h		417			423			978			940	
Approach Delay, s/veh		53.4			29.8			21.0			20.5	
Approach LOS		D			C			C			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	4.5	25.5		12.3	33.3			46.0				46.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	22.0		13.0	31.0			52.0				47.0
Max Q Clear Time (g_c+l1), s	2.2	21.3		8.5	13.3			33.0				31.2
Green Ext Time (p_c), s	0.0	0.3		0.2	2.7			8.9				8.1
Intersection Summary												
HCM 2010 Ctrl Delay				27.1								
HCM 2010 LOS				C								
Notes												

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

















Existing Plus Project PM - Mitigated
 TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	34	20	60	56	326	30	880	90	508	1010	85
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	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	0	2	1	2	0	2	2	0
Cap, veh/h	103	611	260	96	0	507	65	1225	126	609	1727	145
Arrive On Green	0.06	0.17	0.17	0.06	0.00	0.16	0.04	0.38	0.38	0.18	0.52	0.52
Sat Flow, veh/h	1740	3654	1553	1740	0	3106	1740	3260	334	3375	3326	278
Grp Volume(v), veh/h	79	42	25	65	0	395	32	524	508	564	616	600
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	0	1553	1740	1827	1768	1688	1827	1778
Q Serve(g_s), s	3.8	0.8	1.2	3.1	0.0	10.5	1.5	21.6	21.6	14.1	21.0	21.1
Cycle Q Clear(g_c), s	3.8	0.8	1.2	3.1	0.0	10.5	1.5	21.6	21.6	14.1	21.0	21.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.16
Lane Grp Cap(c), veh/h	103	611	260	96	0	507	65	687	664	609	948	923
V/C Ratio(X)	0.77	0.07	0.10	0.68	0.00	0.78	0.49	0.76	0.76	0.93	0.65	0.65
Avail Cap(c_a), veh/h	122	1591	676	205	0	1501	132	808	782	609	1000	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(l)	1.00	1.00	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	39.8	30.1	30.3	39.8	0.0	34.5	40.5	23.5	23.5	34.6	15.0	15.0
Incr Delay (d2), s/veh	17.5	0.0	0.2	3.1	0.0	1.0	2.1	3.7	3.8	19.9	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.1	0.4	0.4	1.4	0.0	4.0	0.7	9.9	9.6	7.5	8.7	8.5
Lane Grp Delay (d), s/veh	57.3	30.2	30.4	42.9	0.0	35.5	42.7	27.1	27.3	54.5	16.4	16.4
Lane Grp LOS	E	C	C	D		D	D	C	C	D	B	B
Approach Vol, veh/h		146			460			1064			1780	
Approach Delay, s/veh		44.9			36.5			27.7			28.5	
Approach LOS		D			D			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	9.6	19.4		9.2	19.0		7.7	37.3		20.0	49.6	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	6.0	37.4		10.1	41.5		6.5	38.0		15.5	47.0	
Max Q Clear Time (g_c+l1), s	5.8	3.2		5.1	12.5		3.5	23.6		16.1	23.1	
Green Ext Time (p_c), s	0.0	1.6		0.0	1.5		0.0	8.7		0.0	11.6	
Intersection Summary												
HCM 2010 Ctrl Delay			30.0									
HCM 2010 LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	105	410	80	120	180	13
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	186.3
Lanes	0	1	1	1	1	1
Cap, veh/h	0	0	1359	1002	1002	851
Arrive On Green	0.00	0.00	0.54	0.54	0.54	0.54
Sat Flow, veh/h	0	0	1121	1863	1863	1583
Grp Volume(v), veh/h	0	0	91	136	237	17
Grp Sat Flow(s),veh/h/ln	0	0	1121	1863	1863	1583
Q Serve(g_s), s	0.0	0.0	0.4	0.3	0.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	0.3	0.6	0.0
Prop In Lane	0.00	0.00	1.00			1.00
Lane Grp Cap(c), veh/h	0	0	1359	1002	1002	851
V/C Ratio(X)	0.00	0.00	0.07	0.14	0.24	0.02
Avail Cap(c_a), veh/h	0	0	3088	3875	3875	3293
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.3	1.0	1.1	0.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	1.3	1.1	1.2	0.9
Lane Grp LOS			A	A	A	A
Approach Vol, veh/h	0			227	254	
Approach Delay, s/veh	0.0			1.2	1.2	
Approach LOS				A	A	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				8.7	8.7	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				18.0	18.0	
Max Q Clear Time (g_c+l1), s				3.0	2.6	
Green Ext Time (p_c), s				1.7	1.7	
Intersection Summary						
HCM 2010 Ctrl Delay			1.2			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

















HCM 2010 Signalized Intersection Summary
 13: PATTERSON PASS RD & I-580 SOUTH OFF RAMP

Existing Plus Project PM - Mitigated
 TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	218	10	66	0	0	0	0	472	248	239	38	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	335	15	312				0	652	343	0	1056	0
Arrive On Green	0.20	0.20	0.00				0.00	0.57	0.57	0.00	0.57	0.00
Sat Flow, veh/h	1701	76	1583				0	1151	605	0	1863	0
Grp Volume(v), veh/h	256	0	0				0	0	847	0	48	0
Grp Sat Flow(s),veh/h/ln	1778	0	1583				0	0	1756	0	1863	0
Q Serve(g_s), s	4.6	0.0	0.0				0.0	0.0	13.7	0.0	0.4	0.0
Cycle Q Clear(g_c), s	4.6	0.0	0.0				0.0	0.0	13.7	0.0	0.4	0.0
Prop In Lane	0.96		1.00				0.00		0.34	0.00		0.00
Lane Grp Cap(c), veh/h	350	0	312				0	0	996	0	1056	0
V/C Ratio(X)	0.73	0.00	0.00				0.00	0.00	0.85	0.00	0.05	0.00
Avail Cap(c_a), veh/h	944	0	841				0	0	1347	0	1869	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.8	0.0	0.0				0.0	0.0	6.1	0.0	3.3	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0				0.0	0.0	4.1	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
%ile Back of Q (50%), veh/ln	2.0	0.0	0.0				0.0	0.0	4.7	0.0	0.1	0.0
Lane Grp Delay (d), s/veh	15.7	0.0	0.0				0.0	0.0	10.2	0.0	3.3	0.0
Lane Grp LOS	B								B		A	
Approach Vol, veh/h		256						847			48	
Approach Delay, s/veh		15.7						10.2			3.3	
Approach LOS		B						B			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		10.7						23.2		0.0	23.2	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		18.0						26.0		4.0	34.0	
Max Q Clear Time (g_c+l1), s		6.6						15.7		0.0	2.4	
Green Ext Time (p_c), s		0.8						3.5		0.0	5.3	
Intersection Summary												
HCM 2010 Ctrl Delay			11.1									
HCM 2010 LOS			B									
Notes												

HCM 2010 Signalized Intersection Summary
 14: PATTERSON PASS RD & I-580 NORTH OFF RAMP

Existing Plus Project PM - Mitigated
 TMP Only

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	11	3	156	6	684	0	0	266	146
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				28	7	0	159	1181	0	0	1185	1007
Arrive On Green				0.02	0.02	0.00	0.64	0.64	0.00	0.00	0.64	0.00
Sat Flow, veh/h				1415	377	0	4	1856	0	0	1863	1583
Grp Volume(v), veh/h				19	0	0	821	0	0	0	350	0
Grp Sat Flow(s),veh/h/ln				1792	0	0	1860	0	0	0	1863	1583
Q Serve(g_s), s				0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Cycle Q Clear(g_c), s				0.2	0.0	0.0	6.7	0.0	0.0	0.0	2.0	0.0
Prop In Lane				0.79		0.00	0.01		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				36	0	0	1339	0	0	0	1185	1007
V/C Ratio(X)				0.53	0.00	0.00	0.61	0.00	0.00	0.00	0.30	0.00
Avail Cap(c_a), veh/h				1387	0	0	2866	0	0	0	2723	2314
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.3	0.0	0.0	2.8	0.0	0.0	0.0	1.9	0.0
Incr Delay (d2), s/veh				11.8	0.0	0.0	0.5	0.0	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.2	0.0	0.0	0.9	0.0	0.0	0.0	0.2	0.0
Lane Grp Delay (d), s/veh				23.1	0.0	0.0	3.2	0.0	0.0	0.0	2.0	0.0
Lane Grp LOS				C			A				A	
Approach Vol, veh/h					19			821			350	
Approach Delay, s/veh					23.1			3.2			2.0	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					4.5			18.8			18.8	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					18.0			34.0			34.0	
Max Q Clear Time (g_c+l1), s					2.2			8.7			4.0	
Green Ext Time (p_c), s					0.0			6.1			6.3	
Intersection Summary												
HCM 2010 Ctrl Delay				3.2								
HCM 2010 LOS				A								
Notes												

HCM Signalized Intersection Capacity Analysis

Existing Plus Project PM - Mitigated

2: CORRAL HOLLOW RD & I-580 WB ON RAMP/I-580 WB ON/OFF RAMP

Beyond TMP



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗		↕↕	↗↗		↕↕	↗
Volume (vph)	0	0	0	120	1	90	0	1150	120	0	1108	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		0.95	0.88		0.95	1.00
Frt					1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)					1741	1553		3539	2787		3374	1509
Flt Permitted					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)					1741	1553		3539	2787		3374	1509
Peak-hour factor, PHF	1.00	1.00	1.00	0.93	0.93	0.93	0.85	0.85	0.85	0.80	0.80	0.80
Adj. Flow (vph)	0	0	0	129	1	97	0	1353	141	0	1385	256
RTOR Reduction (vph)	0	0	0	0	0	61	0	0	70	0	0	111
Lane Group Flow (vph)	0	0	0	0	130	36	0	1353	71	0	1385	145
Heavy Vehicles (%)	0%	0%	0%	4%	4%	4%	2%	2%	2%	7%	7%	7%
Turn Type				Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8			2			6
Actuated Green, G (s)					40.0	40.0		40.1	40.1		59.4	59.4
Effective Green, g (s)					40.0	40.0		40.1	40.1		59.4	59.4
Actuated g/C Ratio					0.37	0.37		0.37	0.37		0.55	0.55
Clearance Time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)					3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)					648	578		1321	1040		1866	834
v/s Ratio Prot								c0.38			c0.41	
v/s Ratio Perm					0.07	0.02			0.03			0.10
v/c Ratio					0.20	0.06		1.02	0.07		0.74	0.17
Uniform Delay, d1					22.9	21.7		33.7	21.6		18.2	11.9
Progression Factor					1.00	1.00		0.72	0.96		1.00	1.00
Incremental Delay, d2					0.2	0.0		27.0	0.0		1.6	0.1
Delay (s)					23.0	21.7		51.3	20.8		19.8	12.0
Level of Service					C	C		D	C		B	B
Approach Delay (s)		0.0			22.4			48.5			18.6	
Approach LOS		A			C			D			B	

























Intersection Summary






















HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	107.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
3: CORRAL HOLLOW RD & SPINE RD

Existing Plus Project PM - Mitigated
Beyond TMP

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	480	160	480	240	180	250	540	520	180	200	593	450
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	1	1	1	2	1	2	2	1
Cap, veh/h	529	742	631	335	368	313	631	1325	563	1224	1325	563
Arrive On Green	0.30	0.40	0.40	0.10	0.20	0.20	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	480	160	480	240	180	250	540	520	180	200	593	450
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	21.0	4.6	21.2	5.5	6.9	12.2	22.8	8.5	6.7	3.2	9.9	20.7
Cycle Q Clear(g_c), s	21.0	4.6	21.2	5.5	6.9	12.2	22.8	8.5	6.7	3.2	9.9	20.7
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	529	742	631	335	368	313	631	1325	563	1224	1325	563
V/C Ratio(X)	0.91	0.22	0.76	0.72	0.49	0.80	0.86	0.39	0.32	0.16	0.45	0.80
Avail Cap(c_a), veh/h	680	806	685	596	415	353	768	1613	685	1224	1325	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(l)	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	16.0	21.0	35.4	28.8	30.9	24.1	19.5	18.9	17.8	20.0	23.4
Incr Delay (d2), s/veh	13.6	0.1	4.6	2.9	1.0	11.1	8.0	0.2	0.3	0.1	0.2	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	11.1	2.0	8.8	2.5	3.3	5.7	11.3	3.9	2.6	1.3	4.5	9.0
Lane Grp Delay (d), s/veh	40.9	16.1	25.6	38.3	29.8	42.0	32.2	19.7	19.3	17.9	20.2	31.4
Lane Grp LOS	D	B	C	D	C	D	C	B	B	B	C	C
Approach Vol, veh/h		1120			670			1240			1243	
Approach Delay, s/veh		30.8			37.4			25.1			23.9	
Approach LOS		C			D			C			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	28.1	36.2		11.9	20.0			32.8				32.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	31.0	35.0		14.0	18.0			35.0				20.0
Max Q Clear Time (g_c+l1), s	23.0	23.2		7.5	14.2			24.8				22.7
Green Ext Time (p_c), s	1.1	3.9		0.4	1.8			4.0				0.0
Intersection Summary												
HCM 2010 Ctrl Delay			28.2									
HCM 2010 LOS			C									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	140	20	530	370	530	20	30	240	230	30	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	2	1	0	1	1	2	1	0
Cap, veh/h	130	307	44	596	2238	951	144	117	146	311	206	0
Arrive On Green	0.00	0.19	0.19	0.34	0.60	0.60	0.09	0.09	0.00	0.09	0.11	0.00
Sat Flow, veh/h	616	1595	228	1774	3725	1583	571	1263	1583	3442	1863	0
Grp Volume(v), veh/h	0	0	160	530	370	530	50	0	0	230	30	0
Grp Sat Flow(s),veh/h/ln	616	0	1823	1774	1863	1583	1834	0	1583	1721	1863	0
Q Serve(g_s), s	0.0	0.0	4.3	15.7	2.4	11.1	2.9	0.0	0.0	3.6	0.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	4.3	15.7	2.4	11.1	2.9	0.0	0.0	3.6	0.8	0.0
Prop In Lane	1.00		0.13	1.00		1.00	0.40		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	130	0	351	596	2238	951	0	0	146	311	206	0
V/C Ratio(X)	0.00	0.00	0.46	0.89	0.17	0.56	0.00	0.00	0.00	0.74	0.15	0.00
Avail Cap(c_a), veh/h	212	0	592	737	3027	1287	0	0	515	311	908	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(l)	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.8	17.4	4.9	6.6	0.0	0.0	0.0	24.6	22.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.9	11.1	0.0	0.5	0.0	0.0	0.0	9.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	1.9	8.0	0.9	3.4	0.0	0.0	0.0	1.9	0.4	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	20.7	28.5	4.9	7.2	0.0	0.0	0.0	33.6	22.6	0.0
Lane Grp LOS			C	C	A	A				C	C	
Approach Vol, veh/h		160			1430			50			260	
Approach Delay, s/veh		20.7			14.5			0.0			32.4	
Approach LOS		C			B			A			C	
Timer												
Assigned Phs		6		5	2		7	4		3	8	
Phs Duration (G+Y+Rc), s		14.7		22.6	37.3		8.0	9.1		9.0	10.1	
Change Period (Y+Rc), s		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s		18.0		23.0	45.0		27.0	18.0		5.0	27.0	
Max Q Clear Time (g_c+l1), s		6.3		17.7	13.1		0.0	4.9		5.6	2.8	
Green Ext Time (p_c), s		4.4		0.9	6.2		0.0	0.2		0.0	0.3	
Intersection Summary												
HCM 2010 Ctrl Delay				17.1								
HCM 2010 LOS				B								
Notes												

Intersection

Intersection Delay, s/veh 4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	20	0	0	52	20	1251	50	154	1550	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	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	20	0	0	52	20	1251	50	154	1550	50

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	2549	3224	800	2399	3224	651	1600	0	0	1301	0	0
Stage 1	1883	1883	-	1316	1316	-	-	-	-	-	-	-
Stage 2	666	1341	-	1083	1908	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	13	9	328	17	9	411	405	-	-	528	-	-
Stage 1	73	118	-	166	226	-	-	-	-	-	-	-
Stage 2	415	219	-	232	115	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	10	7	328	14	7	411	405	-	-	528	-	-
Mov Capacity-2 Maneuver	10	7	-	14	7	-	-	-	-	-	-	-
Stage 1	60	118	-	136	185	-	-	-	-	-	-	-
Stage 2	297	179	-	218	115	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.7	15	1.4	6.7
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	405	-	-	328	411	528	-	-
HCM Lane V/C Ratio	0.049	-	-	0.061	0.127	0.292	-	-
HCM Control Delay (s)	14.35	1.3	-	16.7	15	14.601	6.1	-
HCM Lane LOS	B	A	-	C	C	B	A	-
HCM 95th %tile Q(veh)	0.155	-	-	0.194	0.43	1.204	-	-

Notes

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

Intersection

Intersection Delay, s/veh 2285.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	240	2	120	0	0	0	0	1460	140	137	557	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	100	100	100	75	75	75	65	65	65
Heavy Vehicles, %	19	19	19	0	0	0	17	17	17	4	4	4
Mvmt Flow	348	3	174	0	0	0	0	1947	187	211	857	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	3318	3411	857	857	0	0	2133	0	0
Stage 1	1278	1278	-	-	-	-	-	-	-
Stage 2	2040	2133	-	-	-	-	-	-	-
Follow-up Headway	3.671	4.171	3.471	2.353	-	-	2.236	-	-
Pot Capacity-1 Maneuver	# 8	6	333	723	-	-	250	-	-
Stage 1	# 241	219	-	-	-	-	-	-	-
Stage 2	# 98	80	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	# 8	# 0	333	723	-	-	250	-	-
Mov Capacity-2 Maneuver	# 8	# 0	-	-	-	-	-	-	-
Stage 1	# 241	# 0	-	-	-	-	-	-	-
Stage 2	# 98	# 0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	\$ 16200.8	0	13
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	723	-	-	9	333	250	-	-
HCM Lane V/C Ratio	-	-	-	45.411	0.348	0.843	-	-
HCM Control Delay (s)	0	-	\$ 20790.7	21.5	66.006	0	-	-
HCM Lane LOS	A		F	C	F	A		
HCM 95th %tile Q(veh)	0	-	-	52.861	1.518	6.77	-	-

Notes






















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

Intersection																	
Intersection Delay, s/veh	285.9																
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR					
Vol, veh/h	0	0	0	170	0	164	760	940	0	0	524	643					
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	-	-	Free	-	-	None	-	-	None					
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-					
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-					
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-					
Peak Hour Factor	100	100	100	77	77	77	60	60	60	84	84	84					
Heavy Vehicles, %	0	0	0	14	14	14	21	21	21	4	4	4					
Mvmt Flow	0	0	0	221	0	213	1267	1567	0	0	624	765					
Major/Minor	Minor1			Major1			Major2										
Conflicting Flow All	5107			5489			1567			1389			0	0	1567	0	0
Stage 1	4100			4100			-			-			-	-	-	-	-
Stage 2	1007			1389			-			-			-	-	-	-	-
Follow-up Headway	3.626			4.126			3.426			2.389			-	-	2.236	-	-
Pot Capacity-1 Maneuver	# 0			0			# 128			# 437			-	-	415	-	-
Stage 1	# 8			7			-			-			-	-	-	-	-
Stage 2	335			198			-			-			-	-	-	-	-
Time blocked-Platoon, %	-			-			-			-			-	-	-	-	-
Mov Capacity-1 Maneuver	# 0			0			# 128			# 437			-	-	415	-	-
Mov Capacity-2 Maneuver	# 0			0			-			-			-	-	-	-	-
Stage 1	# 8			0			-			-			-	-	-	-	-
Stage 2	335			0			-			-			-	-	-	-	-
Approach	WB			NB			SB										
HCM Control Delay, s	\$ 499.3			\$ 393.4			0										
HCM LOS	F																
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR									
Capacity (veh/h)	# 437	-	-	128	128	415	-	-									
HCM Lane V/C Ratio	2.899	-	-	2.279	1.109	-	-	-									
HCM Control Delay (s)	\$ 879.983	0	-	\$ 655.3	178.7	0	-	-									
HCM Lane LOS	F	A		F	F	A											
HCM 95th %tile Q(veh)	108.102	-	-	24.871	8.224	0	-	-									
Notes																	
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined																	

HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD

Existing+Buildout AM

7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	260	80	450	70	40	70	450	434	220	210	647	410
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	186.3
Lanes	1	1	1	1	1	0	1	1	0	0	1	1
Cap, veh/h	576	605	514	576	198	346	139	608	308	167	314	825
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1774	1863	1583	1774	609	1066	532	1167	591	155	603	1583
Grp Volume(v), veh/h	260	80	450	70	0	110	450	0	654	857	0	410
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1675	532	0	1758	758	0	1583
Q Serve(g_s), s	6.0	1.6	13.9	1.4	0.0	2.5	0.0	0.0	14.7	12.3	0.0	8.7
Cycle Q Clear(g_c), s	6.0	1.6	13.9	1.4	0.0	2.5	27.0	0.0	14.7	27.0	0.0	8.7
Prop In Lane	1.00		1.00	1.00		0.64	1.00		0.34	0.25		1.00
Lane Grp Cap(c), veh/h	576	605	514	576	0	544	139	0	916	481	0	825
V/C Ratio(X)	0.45	0.13	0.87	0.12	0.00	0.20	3.24	0.00	0.71	1.78	0.00	0.50
Avail Cap(c_a), veh/h	616	647	550	616	0	581	139	0	916	481	0	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	12.3	16.5	12.3	0.0	12.6	25.9	0.0	9.5	18.1	0.0	8.0
Incr Delay (d2), s/veh	0.6	0.1	14.0	0.1	0.0	0.2	1026.4	0.0	2.7	359.6	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 Back of Q (50%), veh/ln	2.4	0.7	6.9	0.6	0.0	0.9	41.3	0.0	5.8	54.0	0.0	2.8
Lane Grp Delay (d), s/veh	14.4	12.4	30.5	12.4	0.0	12.8	1052.3	0.0	12.1	377.7	0.0	8.5
Lane Grp LOS	B	B	C	B		B	F		B	F		A
Approach Vol, veh/h		790			180			1104			1267	
Approach Delay, s/veh		23.4			12.7			436.1			258.2	
Approach LOS		C			B			F			F	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		20.8			20.8			31.0			31.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			27.0			27.0	
Max Q Clear Time (g_c+l1), s		15.9			4.5			29.0			29.0	
Green Ext Time (p_c), s		0.9			3.4			0.0			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			248.2									
HCM 2010 LOS			F									
Notes												

Intersection

Intersection Delay, s/veh 1271

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	464	51	392	341	46	929
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	79	79	67	67	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	587	65	585	509	55	1119

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2070	840	0
Stage 1	840	-	-
Stage 2	1230	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	# 59	362	-
Stage 1	# 420	-	-
Stage 2	# 273	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	# 45	362	-
Mov Capacity-2 Maneuver	# 45	-	-
Stage 1	# 420	-	-
Stage 2	# 210	-	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 5693.6	0	0.5
HCM LOS	F		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	49	630	-
HCM Lane V/C Ratio	-	-	13.304	0.088	-
HCM Control Delay (s)	-	-	\$ 5693.6	11.265	0
HCM Lane LOS			F	B	A
HCM 95th %tile Q(veh)	-	-	78.477	0.288	-

Notes

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

Intersection												
Intersection Delay, s/veh	62.5											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	100	300	30	21	260	165	30	12	16	142	26	250
Peak Hour Factor	0.95	0.95	0.95	0.79	0.79	0.79	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	105	316	32	27	329	209	43	17	23	203	37	357
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	58	67.9	15.1	67.5
HCM LOS	F	F	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	23%	5%	34%
Vol Thru, %	21%	70%	58%	6%
Vol Right, %	28%	7%	37%	60%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	58	430	446	418
LT Vol	12	300	260	26
Through Vol	16	30	165	250
RT Vol	30	100	21	142
Lane Flow Rate	83	453	565	597
Geometry Grp	1	1	1	1
Degree of Util (X)	0.218	0.952	1	1
Departure Headway (Hd)	9.479	7.574	7.342	7.264
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	381	480	497	502
Service Time	7.479	5.637	5.35	5.271
HCM Lane V/C Ratio	0.218	0.944	1.137	1.189
HCM Control Delay	15.1	58	67.9	67.5
HCM Lane LOS	C	F	F	F
HCM 95th-tile Q	0.8	11.6	13.6	13.6
























Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing+Buildout AM

7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	240	60	190	300	222	110	400	130	175	320	110
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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	193	779	191	320	944	401	170	862	367	254	743	253
Arrive On Green	0.11	0.27	0.27	0.09	0.26	0.26	0.10	0.24	0.24	0.15	0.28	0.28
Sat Flow, veh/h	1740	2837	694	3375	3654	1553	1740	3654	1553	1740	2610	887
Grp Volume(v), veh/h	170	174	167	238	375	278	136	494	160	216	275	256
Grp Sat Flow(s),veh/h/ln	1740	1827	1704	1688	1827	1553	1740	1827	1553	1740	1827	1670
Q Serve(g_s), s	7.4	5.8	6.0	5.3	6.5	12.4	5.9	9.1	6.7	9.3	9.7	9.9
Cycle Q Clear(g_c), s	7.4	5.8	6.0	5.3	6.5	12.4	5.9	9.1	6.7	9.3	9.7	9.9
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	193	502	468	320	944	401	170	862	367	254	520	475
V/C Ratio(X)	0.88	0.35	0.36	0.74	0.40	0.69	0.80	0.57	0.44	0.85	0.53	0.54
Avail Cap(c_a), veh/h	193	910	849	371	1816	772	280	1768	751	284	889	813
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	33.5	22.2	22.3	33.7	23.4	25.6	33.8	25.8	24.9	31.8	23.0	23.1
Incr Delay (d2), s/veh	32.8	0.5	0.6	5.3	0.3	2.6	3.3	0.7	1.0	17.7	1.0	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 Back of Q (50%), veh/ln	4.8	2.5	2.5	2.4	2.8	4.7	2.6	4.0	2.5	5.2	4.3	4.0
Lane Grp Delay (d), s/veh	66.2	22.7	22.9	39.0	23.8	28.2	37.1	26.5	25.9	49.5	24.0	24.3
Lane Grp LOS	E	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		511			891			790			747	
Approach Delay, s/veh		37.2			29.2			28.2			31.5	
Approach LOS		D			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	13.0	26.0		11.7	24.7		12.0	23.0		15.7	26.8	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	8.5	38.1		8.4	38.0		12.3	37.0		12.5	37.2	
Max Q Clear Time (g_c+l1), s	9.4	8.0		7.3	14.4		7.9	11.1		11.3	11.9	
Green Ext Time (p_c), s	0.0	5.7		0.0	5.4		0.0	6.9		0.0	6.9	
Intersection Summary												
HCM 2010 Ctrl Delay			30.9									
HCM 2010 LOS			C									
Notes												

Intersection												
Intersection Delay, s/veh	72.1											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	83	130	150	228	130	240	430	50	81	600	42
Peak Hour Factor	0.76	0.76	0.76	0.87	0.87	0.87	0.81	0.81	0.81	0.88	0.88	0.88
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	29	109	171	172	262	149	296	531	62	92	682	48
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	41.1	75.9	76.4	76.3
HCM LOS	E	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	9%	30%	11%
Vol Thru, %	60%	35%	45%	83%
Vol Right, %	7%	55%	26%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	720	235	508	723
LT Vol	430	83	228	600
Through Vol	50	130	130	42
RT Vol	240	22	150	81
Lane Flow Rate	889	309	584	822
Geometry Grp	1	1	1	1
Degree of Util (X)	1	0.803	1	1
Departure Headway (Hd)	9.178	9.352	9.059	9.141
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	409	390	409	403
Service Time	7.178	7.352	7.059	7.141
HCM Lane V/C Ratio	2.174	0.792	1.428	2.04
HCM Control Delay	76.4	41.1	75.9	76.3
HCM Lane LOS	F	E	F	F
HCM 95th-tile Q	12.1	7	12.2	12.2

Notes

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

Intersection

Intersection Delay, s/veh 107.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	40	590	300	70	150	130
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	82	82	75	75	70	70
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	49	720	400	93	214	186

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1061	447	0
Stage 1	447	-	-
Stage 2	614	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	246	# 607	-
Stage 1	640	-	-
Stage 2	536	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	191	# 607	-
Mov Capacity-2 Maneuver	191	-	-
Stage 1	640	-	-
Stage 2	415	-	-

Approach	WB	NB	SB
HCM Control Delay, s	230.4	0	5
HCM LOS	F		























Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	533	1060	-
HCM Lane V/C Ratio	-	-	1.441	0.202	-
HCM Control Delay (s)	-	-	230.4	9.255	0
HCM Lane LOS			F	A	A
HCM 95th %tile Q(veh)	-	-	37.164	0.755	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing+Buildout AM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	176	72	30	170	82	464	30	790	90	236	830	115
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	233	1093	464	221	534	454	52	1063	121	397	1313	181
Arrive On Green	0.13	0.30	0.30	0.13	0.29	0.29	0.03	0.33	0.33	0.12	0.42	0.42
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3222	367	3375	3143	434
Grp Volume(v), veh/h	212	87	36	200	96	546	33	498	480	352	718	693
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1762	1688	1827	1750
Q Serve(g_s), s	18.1	2.6	2.5	17.1	5.9	44.0	2.8	37.8	37.8	15.5	56.7	57.5
Cycle Q Clear(g_c), s	18.1	2.6	2.5	17.1	5.9	44.0	2.8	37.8	37.8	15.5	56.7	57.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.25
Lane Grp Cap(c), veh/h	233	1093	464	221	534	454	52	603	582	397	763	731
V/C Ratio(X)	0.91	0.08	0.08	0.90	0.18	1.20	0.64	0.83	0.83	0.89	0.94	0.95
Avail Cap(c_a), veh/h	306	1093	464	320	534	454	73	603	582	482	779	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	64.3	37.9	37.9	64.8	39.8	53.3	72.2	46.5	46.5	65.5	42.0	42.3
Incr Delay (d2), s/veh	21.7	0.0	0.1	16.9	0.1	110.9	4.7	9.2	9.5	14.1	19.1	21.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	9.7	1.2	1.0	8.7	2.8	31.4	1.4	19.4	18.7	7.6	30.6	30.1
Lane Grp Delay (d), s/veh	86.0	37.9	37.9	81.7	39.9	164.3	77.0	55.7	56.0	79.6	61.1	63.4
Lane Grp LOS	F	D	D	F	D	F	E	E	E	E	E	E
Approach Vol, veh/h		335			842			1011			1763	
Approach Delay, s/veh		68.4			130.5			56.5			65.7	
Approach LOS		E			F			E			E	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	24.7	50.0		23.7	49.0		9.0	54.7		22.2	67.9	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	26.5	42.8		27.7	44.0		6.3	49.0		21.5	64.2	
Max Q Clear Time (g_c+l1), s	20.1	4.6		19.1	46.0		4.8	39.8		17.5	59.5	
Green Ext Time (p_c), s	0.1	2.2		0.1	0.0		0.0	6.9		0.2	3.4	
Intersection Summary												
HCM 2010 Ctrl Delay				77.4								
HCM 2010 LOS				E								
Notes												

Intersection

Intersection Delay, s/veh	40.6
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	80	50	280	600	290	68
Peak Hour Factor	0.69	0.69	0.96	0.96	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	72	292	625	358	84
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12.8	57.2	18
HCM LOS	B	F	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	32%	62%	0%
Vol Thru, %	68%	0%	81%
Vol Right, %	0%	38%	19%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	880	130	358
LT Vol	600	0	290
Through Vol	0	50	68
RT Vol	280	80	0
Lane Flow Rate	917	188	442
Geometry Grp	1	1	1
Degree of Util (X)	1	0.337	0.655
Departure Headway (Hd)	5.303	6.442	5.336
Convergence, Y/N	Yes	Yes	Yes
Cap	697	556	676
Service Time	3.303	4.509	3.394
HCM Lane V/C Ratio	1.316	0.338	0.654
HCM Control Delay	57.2	12.8	18
HCM Lane LOS	F	B	C
HCM 95th-tile Q	16	1.5	4.9

Notes

























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

Intersection				
Intersection Delay, s/veh	15.5			
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	724	652	114	123
Demand Flow Rate, veh/h	738	665	116	125
Vehicles Circulating, veh/h	155	124	814	655
Vehicles Exiting, veh/h	625	806	79	134
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	18.6	14.0	10.6	9.0
Approach LOS	C	B	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	738	665	116	125
Cap Entry Lane, veh/h	968	998	501	587
Entry HV Adj Factor	0.981	0.980	0.986	0.982
Flow Entry, veh/h	724	652	114	123
Cap Entry, veh/h	950	978	494	576
V/C Ratio	0.763	0.666	0.232	0.213
Control Delay, s/veh	18.6	14.0	10.6	9.0
LOS	C	B	B	A
95th %tile Queue, veh	8	5	1	1

HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Existing+Buildout AM

7/28/2014













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	320	190	370	859	86	130	130	410	79	140	73
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	1	3	1	2	2	1	2	1	1
Cap, veh/h	230	1352	383	521	2689	762	344	554	235	405	310	264
Arrive On Green	0.07	0.24	0.00	0.29	0.48	0.00	0.10	0.15	0.00	0.12	0.17	0.00
Sat Flow, veh/h	3442	5588	1583	1774	5588	1583	3442	3725	1583	3442	1863	1583
Grp Volume(v), veh/h	35	372	0	440	1023	0	173	173	0	110	194	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.8	4.3	0.0	18.6	9.3	0.0	3.8	3.3	0.0	2.3	7.7	0.0
Cycle Q Clear(g_c), s	0.8	4.3	0.0	18.6	9.3	0.0	3.8	3.3	0.0	2.3	7.7	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	230	1352	383	521	2689	762	344	554	235	405	310	264
V/C Ratio(X)	0.15	0.28	0.00	0.85	0.38	0.00	0.50	0.31	0.00	0.27	0.62	0.00
Avail Cap(c_a), veh/h	349	2409	683	725	4195	1189	371	1966	835	436	1018	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.1	24.6	0.0	26.5	13.1	0.0	34.0	30.3	0.0	32.1	30.9	0.0
Incr Delay (d2), s/veh	0.3	0.2	0.0	4.9	0.1	0.0	1.1	0.3	0.0	0.4	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	1.9	0.0	8.4	3.8	0.0	1.6	1.5	0.0	1.0	3.6	0.0
Lane Grp Delay (d), s/veh	35.4	24.7	0.0	31.4	13.3	0.0	35.2	30.6	0.0	32.4	33.0	0.0
Lane Grp LOS	D	C		C	B		D	C		C	C	
Approach Vol, veh/h		407			1463			346			304	
Approach Delay, s/veh		25.6			18.7			32.9			32.8	
Approach LOS		C			B			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	8.7	23.3		27.8	42.4		11.4	15.9		12.8	17.3	
Change Period (Y+Rc), s	5.5	6.1		6.5	6.1		5.5	6.1		5.5	6.1	
Max Green Setting (Gmax), s	6.0	32.3		30.5	57.8		6.5	40.0		8.0	41.5	
Max Q Clear Time (g_c+l1), s	2.8	6.3		20.6	11.3		5.8	5.3		4.3	9.7	
Green Ext Time (p_c), s	0.0	10.9		0.7	13.1		0.0	1.5		0.1	1.5	
Intersection Summary												
HCM 2010 Ctrl Delay				23.5								
HCM 2010 LOS				C								
Notes												

Intersection												
Intersection Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	84	2	32	0	0	0	0	41	29	109	696	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	100	100	100	78	78	78	85	85	85
Heavy Vehicles, %	29	29	29	0	0	0	23	23	23	5	5	5
Mvmt Flow	104	2	40	0	0	0	0	53	37	128	819	0
Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	1146	1165	819				819	0	0	90	0	0
Stage 1	1075	1075	-				-	-	-	-	-	-
Stage 2	71	90	-				-	-	-	-	-	-
Follow-up Headway	3.761	4.261	3.561				2.407	-	-	2.245	-	-
Pot Capacity-1 Maneuver	195	173	337				725	-	-	1486	-	-
Stage 1	291	265	-				-	-	-	-	-	-
Stage 2	888	771	-				-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	164	# 0	337				725	-	-	1486	-	-
Mov Capacity-2 Maneuver	164	# 0	-				-	-	-	-	-	-
Stage 1	245	# 0	-				-	-	-	-	-	-
Stage 2	888	# 0	-				-	-	-	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s	53.5			0			1					
HCM LOS	F											
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR				
Capacity (veh/h)	725	-	-	174	337	1486	-	-				
HCM Lane V/C Ratio	-	-	-	0.686	0.078	0.086	-	-				
HCM Control Delay (s)	0	-	-	61.7	16.6	7.651	0	-				
HCM Lane LOS	A			F	C	A	A					
HCM 95th %tile Q(veh)	0	-	-	4.095	0.253	0.283	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection												
Intersection Delay, s/veh	21.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	180	2	237	20	105	0	0	625	320
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	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76
Heavy Vehicles, %	0	0	0	13	13	13	26	26	26	9	9	9
Mvmt Flow	0	0	0	240	3	316	24	125	0	0	822	421
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All	995			995			125			822		
Stage 1	173			173			-			-		
Stage 2	822			822			-			-		
Follow-up Headway	3.617			4.117			3.417			2.434		
Pot Capacity-1 Maneuver	259			234			897			712		
Stage 1	831			735			-			-		
Stage 2	414			373			-			-		
Time blocked-Platoon, %	-			-			-			-		
Mov Capacity-1 Maneuver	250			# 0			897			712		
Mov Capacity-2 Maneuver	250			# 0			-			-		
Stage 1	801			# 0			-			-		
Stage 2	414			# 0			-			-		
Approach	WB			NB			SB					
HCM Control Delay, s	73.3			1.6			0					
HCM LOS	F											
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR				
Capacity (veh/h)	712	-	-	321	897	1419	-	-				
HCM Lane V/C Ratio	0.033	-	-	1.084	0.235	-	-	-				
HCM Control Delay (s)	10.231	0	-	111.5	10.2	0	-	-				
HCM Lane LOS	B	A	-	F	B	A	-	-				
HCM 95th %tile Q(veh)	0.104	-	-	13.235	0.911	0	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

HCM 2010 Signalized Intersection Summary
 19: CORRAL HOLLOW RD & N TRACY HILLS RD

Existing+Buildout AM
 8/1/2014

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	110	130	144	620	1137	256
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1
Cap, veh/h	181	162	278	1537	1537	1307
Arrive On Green	0.10	0.10	0.83	0.83	0.83	0.83
Sat Flow, veh/h	1774	1583	386	1863	1863	1583
Grp Volume(v), veh/h	110	130	144	620	1137	256
Grp Sat Flow(s),veh/h/ln	1774	1583	386	1863	1863	1583
Q Serve(g_s), s	6.5	8.9	29.4	9.6	30.2	3.7
Cycle Q Clear(g_c), s	6.5	8.9	59.6	9.6	30.2	3.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	181	162	278	1537	1537	1307
V/C Ratio(X)	0.61	0.80	0.52	0.40	0.74	0.20
Avail Cap(c_a), veh/h	290	258	394	2094	2094	1780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	48.4	17.7	2.5	4.3	2.0
Incr Delay (d2), s/veh	3.3	9.1	1.5	0.2	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.2	4.1	2.7	2.8	10.8	1.1
Lane Grp Delay (d), s/veh	50.7	57.6	19.2	2.7	5.3	2.1
Lane Grp LOS	D	E	B	A	A	A
Approach Vol, veh/h	240			764	1393	
Approach Delay, s/veh	54.4			5.8	4.7	
Approach LOS	D			A	A	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				95.0	95.0	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				124.0	124.0	
Max Q Clear Time (g_c+l1), s				61.6	32.2	
Green Ext Time (p_c), s				29.5	33.5	
Intersection Summary						
HCM 2010 Ctrl Delay			10.0			
HCM 2010 LOS			B			
Notes						



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	1510	190	0	90	317	360
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	1	1	1
Cap, veh/h	1853	852	253	536	536	455
Arrive On Green	0.54	0.54	0.00	0.29	0.29	0.29
Sat Flow, veh/h	3442	1583	1774	1863	1863	1583
Grp Volume(v), veh/h	1510	190	0	90	349	338
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1863	1863	1583
Q Serve(g_s), s	16.6	2.9	0.0	1.7	7.5	8.9
Cycle Q Clear(g_c), s	16.6	2.9	0.0	1.7	7.5	8.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1853	852	253	536	536	455
V/C Ratio(X)	0.81	0.22	0.00	0.17	0.65	0.74
Avail Cap(c_a), veh/h	2322	1068	404	1054	730	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	5.6	0.0	12.3	14.4	14.8
Incr Delay (d2), s/veh	1.9	0.1	0.0	0.1	1.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.9	0.8	0.0	0.7	3.2	3.5
Lane Grp Delay (d), s/veh	10.6	5.7	0.0	12.4	15.7	18.0
Lane Grp LOS	B	A		B	B	B
Approach Vol, veh/h	1700			90	687	
Approach Delay, s/veh	10.1			12.4	16.8	
Approach LOS	B			B	B	

Timer

Assigned Phs		3	8	4
Phs Duration (G+Y+Rc), s		0.0	17.2	17.2
Change Period (Y+Rc), s		4.0	4.0	4.0
Max Green Setting (Gmax), s		4.0	26.0	18.0
Max Q Clear Time (g_c+l1), s		0.0	3.7	10.9
Green Ext Time (p_c), s		0.0	4.0	2.3

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
21: SPINE RD

Existing+Buildout AM
7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	720	40	190	600	110	0	0	30	40	0	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Cap, veh/h	620	2207	123	598	1935	354	221	0	195	367	0	195
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.00	0.00	0.12	0.12	0.00	0.12
Sat Flow, veh/h	736	3497	194	703	3066	561	1386	0	1583	1374	0	1583
Grp Volume(v), veh/h	30	383	377	190	364	346	0	0	30	40	0	20
Grp Sat Flow(s),veh/h/ln	736	1863	1828	703	1863	1764	1386	0	1583	1374	0	1583
Q Serve(g_s), s	0.6	3.1	3.1	5.6	2.9	2.9	0.0	0.0	0.6	0.9	0.0	0.4
Cycle Q Clear(g_c), s	3.6	3.1	3.1	8.7	2.9	2.9	0.0	0.0	0.6	1.4	0.0	0.4
Prop In Lane	1.00		0.11	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	620	1176	1154	598	1176	1113	221	0	195	367	0	195
V/C Ratio(X)	0.05	0.33	0.33	0.32	0.31	0.31	0.00	0.00	0.15	0.11	0.00	0.10
Avail Cap(c_a), veh/h	811	1660	1630	780	1660	1572	818	0	876	958	0	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.6	2.8	2.8	4.8	2.7	2.8	0.0	0.0	12.8	13.4	0.0	12.7
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.3	0.1	0.2	0.0	0.0	0.4	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.7	0.7	0.7	0.7	0.6	0.0	0.0	0.2	0.3	0.0	0.1
Lane Grp Delay (d), s/veh	3.6	2.9	2.9	5.1	2.9	2.9	0.0	0.0	13.1	13.5	0.0	12.9
Lane Grp LOS	A	A	A	A	A	A			B	B		B
Approach Vol, veh/h		790			900			30				60
Approach Delay, s/veh		3.0			3.4			13.1				13.3
Approach LOS		A			A			B				B
Timer												
Assigned Phs		4			8			2				6
Phs Duration (G+Y+Rc), s		24.5			24.5			8.0				8.0
Change Period (Y+Rc), s		4.0			4.0			4.0				4.0
Max Green Setting (Gmax), s		29.0			29.0			18.0				18.0
Max Q Clear Time (g_c+l1), s		5.6			10.7			2.6				3.4
Green Ext Time (p_c), s		11.3			9.8			0.3				0.3
Intersection Summary												
HCM 2010 Ctrl Delay				3.7								
HCM 2010 LOS				A								
Notes												

Intersection						
Intersection Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	0	370	170	0	0	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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	370	170	0	0	30
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	170	0	-	0	540	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	370	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1407	-	-	-	503	874
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	699	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	1407	-	-	-	503	874
Mov Capacity-2 Maneuver	-	-	-	-	503	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	699	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9.3	
HCM LOS					A	
Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1407	-	-	-	874	
HCM Lane V/C Ratio	-	-	-	-	0.034	
HCM Control Delay (s)	0	-	-	-	9.3	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.107	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

Intersection

Intersection Delay, s/veh	63.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	370	0	100	150	100	20	0	510	510	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	370	0	100	150	100	20	0	510	510	0	0
Number of Lanes	1	1	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	2
HCM Control Delay	76.3	16.9	72.5	77.8
HCM LOS	F	C	F	F

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	4%	0%	0%	100%	0%	0%	100%
Vol Thru, %	0%	100%	100%	0%	100%	33%	0%
Vol Right, %	96%	0%	0%	0%	0%	67%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	530	0	370	100	100	150	510
LT Vol	0	0	370	0	100	50	0
Through Vol	510	0	0	0	0	100	0
RT Vol	20	0	0	100	0	0	510
Lane Flow Rate	530	0	370	100	100	150	510
Geometry Grp	7	8	8	7	7	7	7
Degree of Util (X)	1	0	0.992	0.283	0.269	0.384	1
Departure Headway (Hd)	8.357	9.652	9.652	10.192	9.692	9.225	9.514
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	435	0	377	354	372	392	383
Service Time	6.092	7.366	7.366	7.915	7.415	6.948	7.248
HCM Lane V/C Ratio	1.218	0	0.981	0.282	0.269	0.383	1.332
HCM Control Delay	72.5	12.4	76.3	16.9	16	17.6	77.8
HCM Lane LOS	F	N	F	C	C	C	F
HCM 95th-tile Q	12.7	0	11.6	1.1	1.1	1.8	11.9

























Notes

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

HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.





















Existing+Buildout AM

8/4/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	193	460	260	270	650	213	560	950	270	262	730	122
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7
Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	334	1157	328	405	1274	361	735	1454	618	411	1103	469
Arrive On Green	0.10	0.21	0.00	0.12	0.23	0.23	0.22	0.40	0.40	0.12	0.30	0.30
Sat Flow, veh/h	3375	5481	1553	3375	5481	1553	3375	3654	1553	3375	3654	1553
Grp Volume(v), veh/h	193	460	0	270	650	213	560	950	270	262	730	122
Grp Sat Flow(s),veh/h/ln	1688	1827	1553	1688	1827	1553	1688	1827	1553	1688	1827	1553
Q Serve(g_s), s	5.1	6.8	0.0	7.2	9.7	11.5	14.6	19.9	11.9	6.9	16.4	5.6
Cycle Q Clear(g_c), s	5.1	6.8	0.0	7.2	9.7	11.5	14.6	19.9	11.9	6.9	16.4	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	1157	328	405	1274	361	735	1454	618	411	1103	469
V/C Ratio(X)	0.58	0.40	0.00	0.67	0.51	0.59	0.76	0.65	0.44	0.64	0.66	0.26
Avail Cap(c_a), veh/h	432	2219	629	432	2219	629	1007	1752	745	575	1285	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	31.9	0.0	39.5	31.4	32.0	34.4	23.0	20.6	39.2	28.6	24.8
Incr Delay (d2), s/veh	1.6	0.2	0.0	3.6	0.3	1.5	2.3	0.7	0.5	1.6	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	3.1	0.0	3.2	4.4	4.6	6.2	8.6	4.5	3.1	7.6	2.2
Lane Grp Delay (d), s/veh	42.0	32.1	0.0	43.1	31.7	33.6	36.7	23.7	21.1	40.9	29.6	25.1
Lane Grp LOS	D	C		D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		653			1133			1780			1114	
Approach Delay, s/veh		35.0			34.8			27.4			31.8	
Approach LOS		D			C			C			C	
Timer												
Assigned Phs	5	2		1	6		7	4		3	8	
Phs Duration (G+Y+Rc), s	12.3	23.8		14.3	25.8		23.4	41.3		14.4	32.3	
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Max Green Setting (Gmax), s	10.0	36.0		10.0	36.0		26.0	43.0		14.0	31.0	
Max Q Clear Time (g_c+l1), s	7.1	8.8		9.2	13.5		16.6	21.9		8.9	18.4	
Green Ext Time (p_c), s	0.2	6.7		0.1	6.4		1.8	11.0		0.5	8.0	
Intersection Summary												
HCM 2010 Ctrl Delay				31.3								
HCM 2010 LOS				C								
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & CENTRAL AVE

Existing+Buildout AM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	42	30	180	56	130	30	600	160	41	400	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	107	112	80	235	92	213	72	1046	278	91	1339	63
Arrive On Green	0.06	0.11	0.11	0.13	0.18	0.18	0.04	0.37	0.37	0.05	0.38	0.38
Sat Flow, veh/h	1774	1012	723	1774	499	1159	1774	2837	755	1774	3529	167
Grp Volume(v), veh/h	52	0	72	180	0	186	30	393	367	41	211	208
Grp Sat Flow(s),veh/h/ln	1774	0	1735	1774	0	1658	1774	1863	1730	1774	1863	1833
Q Serve(g_s), s	1.5	0.0	2.1	5.2	0.0	5.5	0.9	9.0	9.1	1.2	4.2	4.3
Cycle Q Clear(g_c), s	1.5	0.0	2.1	5.2	0.0	5.5	0.9	9.0	9.1	1.2	4.2	4.3
Prop In Lane	1.00		0.42	1.00		0.70	1.00		0.44	1.00		0.09
Lane Grp Cap(c), veh/h	107	0	193	235	0	304	72	687	638	91	707	696
V/C Ratio(X)	0.49	0.00	0.37	0.76	0.00	0.61	0.42	0.57	0.57	0.45	0.30	0.30
Avail Cap(c_a), veh/h	381	0	924	680	0	1162	216	1514	1406	315	1619	1593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	24.3	0.0	22.1	22.4	0.0	20.1	25.1	13.5	13.5	24.7	11.6	11.6
Incr Delay (d2), s/veh	3.4	0.0	1.2	5.1	0.0	2.0	3.9	0.8	0.8	3.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	0.9	2.5	0.0	2.3	0.5	3.9	3.6	0.6	1.7	1.7
Lane Grp Delay (d), s/veh	27.7	0.0	23.3	27.5	0.0	22.1	28.9	14.3	14.4	28.1	11.8	11.9
Lane Grp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		124			366			790			460	
Approach Delay, s/veh		25.1			24.8			14.9			13.3	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.7	10.4		11.6	14.3		6.7	24.2		7.2	24.8	
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	11.5	28.5		20.5	37.5		6.5	43.5		9.5	46.5	
Max Q Clear Time (g_c+l1), s	3.5	4.1		7.2	7.5		2.9	11.1		3.2	6.3	
Green Ext Time (p_c), s	0.0	1.6		0.4	1.6		0.0	8.6		0.0	9.0	
Intersection Summary												
HCM 2010 Ctrl Delay				17.3								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Existing+Buildout AM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	590	182	230	570	120	310	720	260	98	480	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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	349	1052	447	394	1100	468	484	1209	514	227	930	395
Arrive On Green	0.10	0.28	0.28	0.11	0.30	0.30	0.14	0.32	0.32	0.07	0.25	0.25
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	190	590	182	230	570	120	310	720	260	98	480	170
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	3.5	8.9	6.1	4.2	8.4	3.8	5.6	10.6	8.7	1.8	7.3	5.9
Cycle Q Clear(g_c), s	3.5	8.9	6.1	4.2	8.4	3.8	5.6	10.6	8.7	1.8	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	349	1052	447	394	1100	468	484	1209	514	227	930	395
V/C Ratio(X)	0.54	0.56	0.41	0.58	0.52	0.26	0.64	0.60	0.51	0.43	0.52	0.43
Avail Cap(c_a), veh/h	1099	2096	891	1099	2096	891	1099	2096	891	1099	2096	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	28.1	20.1	19.1	27.6	19.3	17.7	26.7	18.6	18.0	29.5	21.3	20.7
Incr Delay (d2), s/veh	0.5	0.3	0.4	0.5	0.3	0.2	0.5	0.2	0.3	0.5	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 Back of Q (50%), veh/ln	1.5	4.0	2.3	1.7	3.5	1.4	2.4	4.7	3.3	0.8	3.3	2.2
Lane Grp Delay (d), s/veh	28.6	20.5	19.6	28.2	19.6	17.9	27.2	18.8	18.2	30.0	21.4	21.0
Lane Grp LOS	C	C	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		962			920			1290			748	
Approach Delay, s/veh		21.9			21.5			20.7			22.5	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.2	22.1		11.0	22.9		12.8	24.8		7.8	19.9	
Change Period (Y+Rc), s	4.5	5.5		4.5	5.5		4.5	5.5		4.5	5.5	
Max Green Setting (Gmax), s	20.0	35.0		20.0	35.0		20.0	35.0		20.0	35.0	
Max Q Clear Time (g_c+l1), s	5.5	10.9		6.2	10.4		7.6	12.6		3.8	9.3	
Green Ext Time (p_c), s	0.4	5.7		0.4	5.7		0.7	5.0		0.2	5.1	
Intersection Summary												
HCM 2010 Ctrl Delay				21.5								
HCM 2010 LOS				C								
Notes												























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE

Existing+Buildout AM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	180	210	60	5	250	76	80	85	5	100	54	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	397	351	648	141	756	648	358	309	14	296	124	217
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	488	858	1583	9	1847	1583	551	1061	49	396	424	746
Grp Volume(v), veh/h	390	0	60	255	0	76	170	0	0	294	0	0
Grp Sat Flow(s),veh/h/ln	1347	0	1583	1856	0	1583	1660	0	0	1566	0	0
Q Serve(g_s), s	4.1	0.0	0.6	0.0	0.0	0.8	0.0	0.0	0.0	2.3	0.0	0.0
Cycle Q Clear(g_c), s	6.6	0.0	0.6	2.5	0.0	0.8	1.9	0.0	0.0	4.2	0.0	0.0
Prop In Lane	0.46		1.00	0.02		1.00	0.47		0.03	0.34		0.48
Lane Grp Cap(c), veh/h	748	0	648	897	0	648	682	0	0	637	0	0
V/C Ratio(X)	0.52	0.00	0.09	0.28	0.00	0.12	0.25	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	1110	0	1066	1382	0	1066	1240	0	0	1214	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	6.5	0.0	4.8	5.4	0.0	4.9	7.4	0.0	0.0	8.2	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.2	0.0	0.1	0.2	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	0.2	0.8	0.0	0.2	0.6	0.0	0.0	1.2	0.0	0.0
Lane Grp Delay (d), s/veh	7.1	0.0	4.9	5.6	0.0	5.0	7.6	0.0	0.0	8.7	0.0	0.0
Lane Grp LOS	A		A	A		A	A			A		
Approach Vol, veh/h		450			331			170			294	
Approach Delay, s/veh		6.8			5.4			7.6			8.7	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		14.9			14.9			11.8			11.8	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			18.0			18.0	
Max Q Clear Time (g_c+l1), s		8.6			4.5			3.9			6.2	
Green Ext Time (p_c), s		2.4			2.9			1.7			1.6	
Intersection Summary												
HCM 2010 Ctrl Delay			7.0									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Existing+Buildout AM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	310	100	420	510	14	220	40	660	4	30	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	1	2	1	0	1	1	0	1	1
Cap, veh/h	82	762	324	509	1660	705	422	51	860	103	454	406
Arrive On Green	0.05	0.20	0.20	0.29	0.45	0.45	0.26	0.26	0.00	0.26	0.26	0.26
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1101	200	1583	73	1770	1583
Grp Volume(v), veh/h	60	310	100	420	510	14	260	0	0	34	0	50
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1302	0	1583	1843	0	1583
Q Serve(g_s), s	1.6	3.4	2.6	10.5	4.2	0.2	8.4	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear(g_c), s	1.6	3.4	2.6	10.5	4.2	0.2	9.1	0.0	0.0	0.7	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	0.85		1.00	0.12		1.00
Lane Grp Cap(c), veh/h	82	762	324	509	1660	705	474	0	860	557	0	406
V/C Ratio(X)	0.74	0.41	0.31	0.83	0.31	0.02	0.55	0.00	0.00	0.06	0.00	0.12
Avail Cap(c_a), veh/h	596	2972	1263	819	3441	1463	929	0	1385	1149	0	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	16.4	16.1	15.9	8.5	7.4	16.8	0.0	0.0	13.4	0.0	13.6
Incr Delay (d2), s/veh	12.0	0.3	0.5	3.8	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	1.4	0.9	4.3	1.4	0.1	2.6	0.0	0.0	0.3	0.0	0.4
Lane Grp Delay (d), s/veh	34.4	16.8	16.6	19.6	8.6	7.4	17.8	0.0	0.0	13.5	0.0	13.7
Lane Grp LOS	C	B	B	B	A	A	B			B		B
Approach Vol, veh/h		470			944			260				84
Approach Delay, s/veh		19.0			13.5			17.8				13.6
Approach LOS		B			B			B				B
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	6.2	13.7		17.7	25.2			16.2				16.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	16.0	38.0		22.0	44.0			28.0				28.0
Max Q Clear Time (g_c+l1), s	3.6	5.4		12.5	6.2			11.1				3.2
Green Ext Time (p_c), s	0.1	4.3		1.2	4.4			1.2				1.3
Intersection Summary												
HCM 2010 Ctrl Delay				15.6								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	21.1											
Intersection LOS	C											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	70	370	40	43	370	58	20	30	21	71	22	130
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	70	370	40	43	370	58	20	30	21	71	22	130
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	24.2	23	11.3	13.7
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	15%	9%	32%
Vol Thru, %	42%	77%	79%	10%
Vol Right, %	30%	8%	12%	58%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	480	471	223
LT Vol	30	370	370	22
Through Vol	21	40	58	130
RT Vol	20	70	43	71
Lane Flow Rate	71	480	471	223
Geometry Grp	1	1	1	1
Degree of Util (X)	0.141	0.753	0.736	0.4
Departure Headway (Hd)	7.137	5.761	5.745	6.455
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	505	634	636	560
Service Time	5.151	3.761	3.745	4.461
HCM Lane V/C Ratio	0.141	0.757	0.741	0.398
HCM Control Delay	11.3	24.2	23	13.7
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	0.5	6.8	6.4	1.9

Notes

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

Intersection

Intersection Delay, s/veh 281.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	9	40	50	3	112	20	1450	60	115	1090	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	-	-	-	-	-	-	250	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	9	40	50	3	112	20	1450	60	115	1090	25
























Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2100	2883	558	2300	2865	755	1115	0	0	1510	0	0
Stage 1	1333	1333	-	1520	1520	-	-	-	-	-	-	-
Stage 2	767	1550	-	780	1345	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	30	16	473	# 21	16	351	622	-	-	439	-	-
Stage 1	162	221	-	124	179	-	-	-	-	-	-	-
Stage 2	361	173	-	354	218	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	# 13	11	473	# 5	11	351	622	-	-	439	-	-
Mov Capacity-2 Maneuver	# 13	11	-	# 5	11	-	-	-	-	-	-	-
Stage 1	157	163	-	120	173	-	-	-	-	-	-	-
Stage 2	234	167	-	226	161	-	-	-	-	-	-	-



















Approach	EB			WB			NB			SB		
HCM Control Delay, s	\$ 1045.6			\$ 4656.5			0.1			1.5		
HCM LOS	F			F								



















Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	622	-	-	27	16	439	-	-
HCM Lane V/C Ratio	0.032	-	-	2.63	10.313	0.262	-	-
HCM Control Delay (s)	10.98	-	-	\$ 1045.6	\$ 4656.5	16.086	-	-
HCM Lane LOS	B			F	F	C		
HCM 95th %tile Q(veh)	0.1	-	-	8.597	21.503	1.038	-	-












Notes

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	30	70	470	60	100	60	112	170	170	405	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	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	318	425	181	648	253	421	382	803	341	291	1488	632
Arrive On Green	0.11	0.11	0.11	0.19	0.40	0.40	0.22	0.22	0.22	0.08	0.40	0.40
Sat Flow, veh/h	1221	3725	1583	3442	629	1049	942	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	17	30	70	470	0	160	60	112	170	170	405	39
Grp Sat Flow(s),veh/h/ln	1221	1863	1583	1721	0	1678	942	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.5	0.3	1.6	5.2	0.0	2.5	2.1	1.0	3.8	1.9	2.9	0.6
Cycle Q Clear(g_c), s	0.5	0.3	1.6	5.2	0.0	2.5	2.1	1.0	3.8	1.9	2.9	0.6
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	425	181	648	0	674	382	803	341	291	1488	632
V/C Ratio(X)	0.05	0.07	0.39	0.73	0.00	0.24	0.16	0.14	0.50	0.58	0.27	0.06
Avail Cap(c_a), veh/h	725	1666	708	770	0	1292	600	1666	708	342	2407	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	15.9	16.5	15.4	0.0	8.0	13.2	12.8	13.9	17.7	8.1	7.4
Incr Delay (d2), s/veh	0.1	0.1	1.4	2.8	0.0	0.2	0.2	0.1	1.1	1.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.1	0.7	2.2	0.0	0.9	0.5	0.4	1.3	0.8	1.1	0.2
Lane Grp Delay (d), s/veh	16.1	16.0	17.9	18.1	0.0	8.1	13.4	12.8	15.0	19.6	8.2	7.5
Lane Grp LOS	B	B	B	B		A	B	B	B	B	A	A
Approach Vol, veh/h		117			630			342			614	
Approach Delay, s/veh		17.1			15.6			14.0			11.3	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		4		3	8			2		1		6
Phs Duration (G+Y+Rc), s		8.6		11.6	20.2			12.7		7.4		20.1
Change Period (Y+Rc), s		4.0		4.0	4.0			4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		9.0	31.0			18.0		4.0		26.0
Max Q Clear Time (g_c+l1), s		3.6		7.2	4.5			5.8		3.9		4.9
Green Ext Time (p_c), s		1.2		0.4	1.4			2.9		0.0		3.5
Intersection Summary												
HCM 2010 Ctrl Delay				13.9								
HCM 2010 LOS				B								
Notes												



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	240	2	120	0	0	0	0	1460	140	137	557	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	159.7	159.7	190.0				0.0	162.4	162.4	182.7	182.7	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	315	331	0				0	1926	818	199	1344	0
Arrive On Green	0.21	0.21	0.00				0.00	0.59	0.59	0.11	0.74	0.00
Sat Flow, veh/h	1521	1597	0				0	3248	1380	1740	1827	0
Grp Volume(v), veh/h	348	3	0				0	1947	187	211	857	0
Grp Sat Flow(s),veh/h/ln	1521	1597	0				0	1624	1380	1740	1827	0
Q Serve(g_s), s	29.0	0.2	0.0				0.0	83.0	8.9	16.0	32.7	0.0
Cycle Q Clear(g_c), s	29.0	0.2	0.0				0.0	83.0	8.9	16.0	32.7	0.0
Prop In Lane	1.00		0.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	315	331	0				0	1926	818	199	1344	0
V/C Ratio(X)	1.10	0.01	0.00				0.00	1.01	0.23	1.06	0.64	0.00
Avail Cap(c_a), veh/h	315	331	0				0	1926	818	199	1344	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.5	44.1	0.0				0.0	28.5	13.4	62.0	9.2	0.0
Incr Delay (d2), s/veh	81.9	0.0	0.0				0.0	23.3	0.1	80.9	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	18.6	0.1	0.0				0.0	38.9	3.0	11.8	13.7	0.0
Lane Grp Delay (d), s/veh	137.4	44.1	0.0				0.0	51.8	13.6	142.9	10.2	0.0
Lane Grp LOS	F	D						F	B	F	B	
Approach Vol, veh/h		351						2134			1068	
Approach Delay, s/veh		136.6						48.4			36.4	
Approach LOS		F						D			D	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		33.0						87.0		20.0	107.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		29.0						83.0		16.0	103.0	
Max Q Clear Time (g_c+l1), s		31.0						85.0		18.0	34.7	
Green Ext Time (p_c), s		0.0						0.0		0.0	39.0	
Intersection Summary												
HCM 2010 Ctrl Delay			53.5									
HCM 2010 LOS			D									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	170	0	164	760	940	0	0	524	643
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	166.7	166.7	157.0	157.0	0.0	0.0	182.7	182.7
Lanes				0	1	1	1	1	0	0	2	1
Cap, veh/h				190	0	170	818	1298	0	0	926	393
Arrive On Green				0.12	0.00	0.00	0.55	0.83	0.00	0.00	0.25	0.25
Sat Flow, veh/h				1587	0	1417	1495	1570	0	0	3654	1553
Grp Volume(v), veh/h				221	0	0	1267	1567	0	0	624	765
Grp Sat Flow(s),veh/h/ln				1587	0	1417	1495	1570	0	0	1827	1553
Q Serve(g_s), s				18.0	0.0	0.0	82.0	124.0	0.0	0.0	23.1	38.0
Cycle Q Clear(g_c), s				18.0	0.0	0.0	82.0	124.0	0.0	0.0	23.1	38.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				190	0	170	818	1298	0	0	926	393
V/C Ratio(X)				1.16	0.00	0.00	1.55	1.21	0.00	0.00	0.67	1.94
Avail Cap(c_a), veh/h				190	0	170	818	1298	0	0	926	393
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				66.0	0.0	0.0	34.0	13.0	0.0	0.0	50.4	56.0
Incr Delay (d2), s/veh				115.0	0.0	0.0	253.5	100.7	0.0	0.0	1.9	434.3
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 Back of Q (50%), veh/ln				13.6	0.0	0.0	88.0	75.6	0.0	0.0	11.2	62.8
Lane Grp Delay (d), s/veh				181.0	0.0	0.0	287.5	113.7	0.0	0.0	52.4	490.3
Lane Grp LOS				F			F	F			D	F
Approach Vol, veh/h					221			2834			1389	
Approach Delay, s/veh					181.0			191.4			293.6	
Approach LOS					F			F			F	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					22.0		86.0	128.0			42.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					18.0		82.0	124.0			38.0	
Max Q Clear Time (g_c+l1), s					20.0		84.0	126.0			40.0	
Green Ext Time (p_c), s					0.0		0.0	0.0			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay				222.8								
HCM 2010 LOS				F								
Notes												

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	464	51	392	341	46	929
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	182.7	190.0	182.7	182.7	182.7	182.7
Lanes	1	0	1	1	1	1
Cap, veh/h	0	0	1303	1108	83	1609
Arrive On Green	0.00	0.00	0.71	0.71	0.05	0.88
Sat Flow, veh/h	0	0	1827	1553	1740	1827
Grp Volume(v), veh/h	0	0	585	509	55	1119
Grp Sat Flow(s),veh/h/ln	0	0	1827	1553	1740	1827
Q Serve(g_s), s	0.0	0.0	4.5	4.7	1.0	6.3
Cycle Q Clear(g_c), s	0.0	0.0	4.5	4.7	1.0	6.3
Prop In Lane	0.00	0.00		1.00	1.00	
Lane Grp Cap(c), veh/h	0	0	1303	1108	83	1609
V/C Ratio(X)	0.00	0.00	0.45	0.46	0.66	0.70
Avail Cap(c_a), veh/h	0	0	2837	2411	468	3546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	2.0	2.0	15.7	0.6
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.3	8.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.3	0.2	0.6	0.2
Lane Grp Delay (d), s/veh	0.0	0.0	2.3	2.3	24.3	1.2
Lane Grp LOS			A	A	C	A
Approach Vol, veh/h	0		1094			1174
Approach Delay, s/veh	0.0		2.3			2.3
Approach LOS			A			A
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			27.9		5.6	33.5
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			52.0		9.0	65.0
Max Q Clear Time (g_c+l1), s			6.7		3.0	8.3
Green Ext Time (p_c), s			17.2		0.0	18.2
Intersection Summary						
HCM 2010 Ctrl Delay			2.3			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 5: TRACY BLVD & LINNE





















Existing+Buildout AM Mitigated TMP
 9/3/2014










													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	100	300	30	21	260	165	30	12	16	142	26	250	
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	182.7	182.7	190.0	190.0	182.7	190.0	190.0	182.7	190.0	190.0	182.7	182.7	
Lanes	1	1	0	0	1	0	0	1	0	0	1	1	
Cap, veh/h	133	891	90	91	398	242	165	69	47	409	61	455	
Arrive On Green	0.08	0.55	0.55	0.39	0.39	0.39	0.29	0.29	0.29	0.29	0.29	0.29	
Sat Flow, veh/h	1740	1632	165	37	1025	624	187	235	162	940	209	1553	
Grp Volume(v), veh/h	105	0	348	565	0	0	83	0	0	240	0	357	
Grp Sat Flow(s),veh/h/ln	1740	0	1798	1686	0	0	584	0	0	1149	0	1553	
Q Serve(g_s), s	2.9	0.0	5.4	5.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	10.5	
Cycle Q Clear(g_c), s	2.9	0.0	5.4	15.1	0.0	0.0	10.8	0.0	0.0	10.2	0.0	10.5	
Prop In Lane	1.00		0.09	0.05		0.37	0.52		0.28	0.85		1.00	
Lane Grp Cap(c), veh/h	133	0	981	731	0	0	281	0	0	471	0	455	
V/C Ratio(X)	0.79	0.00	0.35	0.77	0.00	0.00	0.30	0.00	0.00	0.51	0.00	0.79	
Avail Cap(c_a), veh/h	211	0	1198	857	0	0	391	0	0	597	0	596	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh	22.5	0.0	6.3	13.8	0.0	0.0	13.8	0.0	0.0	15.9	0.0	16.1	
Incr Delay (d2), s/veh	9.8	0.0	0.2	3.8	0.0	0.0	0.6	0.0	0.0	0.9	0.0	5.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile Back of Q (50%), veh/ln	1.5	0.0	1.7	5.8	0.0	0.0	1.0	0.0	0.0	2.6	0.0	3.9	
Lane Grp Delay (d), s/veh	32.3	0.0	6.6	17.6	0.0	0.0	14.3	0.0	0.0	16.7	0.0	21.2	
Lane Grp LOS	C		A	B			B			B		C	
Approach Vol, veh/h		453			565			83			597		
Approach Delay, s/veh		12.5			17.6			14.3			19.4		
Approach LOS		B			B			B			B		
Timer													
Assigned Phs	7	4			8			2				6	
Phs Duration (G+Y+Rc), s	7.8	31.0			23.2			18.5				18.5	
Change Period (Y+Rc), s	4.0	4.0			4.0			4.0				4.0	
Max Green Setting (Gmax), s	6.0	33.0			23.0			19.0				19.0	
Max Q Clear Time (g_c+l1), s	4.9	7.4			17.1			12.8				12.5	
Green Ext Time (p_c), s	0.0	4.0			2.1			1.7				1.8	
Intersection Summary													
HCM 2010 Ctrl Delay				16.7									
HCM 2010 LOS				B									
Notes													

HCM 2010 Signalized Intersection Summary
7: CORRAL HOLLOW RD & VALPICO RD.

Existing+Buildout AM Mitigated TMP

8/5/2014























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	83	130	150	228	130	240	430	50	81	600	42
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	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	241	210	330	335	358	204	277	847	99	367	890	63
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	952	642	1007	1074	1095	622	709	1606	188	805	1687	119
Grp Volume(v), veh/h	29	0	280	172	0	411	296	0	593	92	0	730
Grp Sat Flow(s),veh/h/ln	952	0	1649	1074	0	1717	709	0	1794	805	0	1806
Q Serve(g_s), s	1.5	0.0	7.6	8.5	0.0	11.6	11.4	0.0	12.8	5.0	0.0	17.6
Cycle Q Clear(g_c), s	13.2	0.0	7.6	16.1	0.0	11.6	29.0	0.0	12.8	17.9	0.0	17.6
Prop In Lane	1.00		0.61	1.00		0.36	1.00		0.10	1.00		0.07
Lane Grp Cap(c), veh/h	241	0	540	335	0	562	277	0	946	367	0	952
V/C Ratio(X)	0.12	0.00	0.52	0.51	0.00	0.73	1.07	0.00	0.63	0.25	0.00	0.77
Avail Cap(c_a), veh/h	241	0	540	335	0	562	277	0	946	367	0	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	15.0	21.5	0.0	16.4	24.5	0.0	9.2	15.5	0.0	10.3
Incr Delay (d2), s/veh	0.2	0.0	0.9	1.3	0.0	4.9	73.0	0.0	1.3	0.4	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	2.7	2.1	0.0	4.9	9.1	0.0	4.5	1.0	0.0	7.3
Lane Grp Delay (d), s/veh	22.4	0.0	15.9	22.8	0.0	21.2	97.5	0.0	10.5	15.8	0.0	14.1
Lane Grp LOS	C		B	C		C	F		B	B		B
Approach Vol, veh/h		309			583			889			822	
Approach Delay, s/veh		16.5			21.7			39.5			14.3	
Approach LOS		B			C			D			B	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		22.0			22.0			33.0			33.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			29.0			29.0	
Max Q Clear Time (g_c+l1), s		15.2			18.1			31.0			19.9	
Green Ext Time (p_c), s		1.2			0.0			0.0			5.2	
Intersection Summary												
HCM 2010 Ctrl Delay				24.8								
HCM 2010 LOS				C								
Notes												

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	40	590	300	70	150	130
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	182.7	190.0	182.7	190.0	190.0	182.7
Lanes	0	1	1	0	0	1
Cap, veh/h	0	0	951	221	791	537
Arrive On Green	0.00	0.00	0.66	0.66	0.66	0.66
Sat Flow, veh/h	0	0	1435	334	491	810
Grp Volume(v), veh/h	0	0	0	493	400	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1768	1302	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	1.1	0.0
Prop In Lane	0.00	0.00		0.19	0.53	
Lane Grp Cap(c), veh/h	0	0	0	1173	1329	0
V/C Ratio(X)	0.00	0.00	0.00	0.42	0.30	0.00
Avail Cap(c_a), veh/h	0	0	0	6102	4569	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.9	0.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	1.2	1.0	0.0
Lane Grp LOS				A	A	
Approach Vol, veh/h	0		493			400
Approach Delay, s/veh	0.0		1.2			1.0
Approach LOS			A			A
Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			11.9			11.9
Change Period (Y+Rc), s			4.0			4.0
Max Green Setting (Gmax), s			41.0			41.0
Max Q Clear Time (g_c+l1), s			3.5			3.1
Green Ext Time (p_c), s			4.3			4.3
Intersection Summary						
HCM 2010 Ctrl Delay			1.1			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing+Buildout AM Mitigated TMP

8/5/2014












												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	176	72	30	170	82	464	30	790	90	236	830	115
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	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	0	2	1	2	0	2	2	0
Cap, veh/h	238	848	361	227	0	701	58	1148	131	408	1393	192
Arrive On Green	0.14	0.23	0.23	0.13	0.00	0.23	0.03	0.36	0.36	0.12	0.44	0.44
Sat Flow, veh/h	1740	3654	1553	1740	0	3106	1740	3222	367	3375	3143	434
Grp Volume(v), veh/h	212	87	36	200	0	610	33	498	480	352	718	693
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	0	1553	1740	1827	1762	1688	1827	1750
Q Serve(g_s), s	14.2	2.2	2.2	13.4	0.0	22.4	2.2	28.5	28.5	12.1	42.6	43.2
Cycle Q Clear(g_c), s	14.2	2.2	2.2	13.4	0.0	22.4	2.2	28.5	28.5	12.1	42.6	43.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.25
Lane Grp Cap(c), veh/h	238	848	361	227	0	701	58	651	628	408	810	776
V/C Ratio(X)	0.89	0.10	0.10	0.88	0.00	0.87	0.57	0.77	0.77	0.86	0.89	0.89
Avail Cap(c_a), veh/h	257	1204	512	307	0	1113	90	679	655	488	849	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	50.2	35.7	35.7	50.6	0.0	44.1	56.3	33.7	33.7	51.1	30.2	30.4
Incr Delay (d2), s/veh	26.9	0.1	0.1	16.2	0.0	2.8	3.2	5.0	5.2	11.5	10.8	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	8.2	1.0	0.9	6.9	0.0	9.1	1.1	14.2	13.7	6.0	21.8	21.3
Lane Grp Delay (d), s/veh	77.1	35.8	35.8	66.8	0.0	46.9	59.5	38.7	38.9	62.5	41.0	42.3
Lane Grp LOS	E	D	D	E		D	E	D	D	E	D	D
Approach Vol, veh/h		335			810			1011			1763	
Approach Delay, s/veh		61.9			51.8			39.5			45.8	
Approach LOS		E			D			D			D	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	20.7	32.5		19.9	31.7		8.5	47.1		18.8	57.5	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	17.5	39.0		20.9	42.4		6.1	44.0		17.1	55.0	
Max Q Clear Time (g_c+l1), s	16.2	4.2		15.4	24.4		4.2	30.5		14.1	45.2	
Green Ext Time (p_c), s	0.0	2.5		0.1	2.3		0.0	9.3		0.2	7.2	

Intersection Summary

HCM 2010 Ctrl Delay	46.8
HCM 2010 LOS	D

Notes

















User approved volume balancing among the lanes for turning movement.

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	80	50	280	600	290	68
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	186.3
Lanes	1	0	1	1	1	1
Cap, veh/h	0	0	1109	1375	1375	1169
Arrive On Green	0.00	0.00	0.74	0.74	0.74	0.74
Sat Flow, veh/h	0	0	944	1863	1863	1583
Grp Volume(v), veh/h	0	0	292	625	358	84
Grp Sat Flow(s),veh/h/ln	0	0	944	1863	1863	1583
Q Serve(g_s), s	0.0	0.0	2.2	2.0	1.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	3.2	2.0	1.0	0.2
Prop In Lane	0.00	0.00	1.00			1.00
Lane Grp Cap(c), veh/h	0	0	1109	1375	1375	1169
V/C Ratio(X)	0.00	0.00	0.26	0.45	0.26	0.07
Avail Cap(c_a), veh/h	0	0	1896	2927	2927	2488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.2	0.8	0.6	0.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	1.3	1.0	0.7	0.6
Lane Grp LOS			A	A	A	A
Approach Vol, veh/h	0			917	442	
Approach Delay, s/veh	0.0			1.1	0.7	
Approach LOS				A	A	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				15.3	15.3	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				24.0	24.0	
Max Q Clear Time (g_c+l1), s				5.2	3.0	
Green Ext Time (p_c), s				6.1	6.3	
Intersection Summary						
HCM 2010 Ctrl Delay			1.0			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 13: PATTERSON PASS RD & I-580 SOUTH OFF RAMP

Existing+Buildout AM Mitigated TMP


















8/5/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	84	2	32	0	0	0	0	41	29	109	696	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	147.3	147.3				0.0	154.5	190.0	190.0	181.0	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	119	2	108				0	502	351	0	1072	0
Arrive On Green	0.09	0.09	0.00				0.00	0.59	0.59	0.00	0.59	0.00
Sat Flow, veh/h	1378	26	1252				0	848	592	0	1810	0
Grp Volume(v), veh/h	106	0	0				0	0	90	0	819	0
Grp Sat Flow(s),veh/h/ln	1404	0	1252				0	0	1440	0	1810	0
Q Serve(g_s), s	1.9	0.0	0.0				0.0	0.0	0.7	0.0	8.4	0.0
Cycle Q Clear(g_c), s	1.9	0.0	0.0				0.0	0.0	0.7	0.0	8.4	0.0
Prop In Lane	0.98		1.00				0.00		0.41	0.00		0.00
Lane Grp Cap(c), veh/h	121	0	108				0	0	853	0	1072	0
V/C Ratio(X)	0.87	0.00	0.00				0.00	0.00	0.11	0.00	0.76	0.00
Avail Cap(c_a), veh/h	1071	0	955				0	0	1157	0	2034	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.2	0.0	0.0				0.0	0.0	2.2	0.0	3.8	0.0
Incr Delay (d2), s/veh	17.0	0.0	0.0				0.0	0.0	0.1	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	0.0				0.0	0.0	0.1	0.0	1.9	0.0
Lane Grp Delay (d), s/veh	28.2	0.0	0.0				0.0	0.0	2.3	0.0	4.9	0.0
Lane Grp LOS	C								A		A	
Approach Vol, veh/h		106						90			819	
Approach Delay, s/veh		28.2						2.3			4.9	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1		6
Phs Duration (G+Y+Rc), s		6.2						18.8		0.0		18.8
Change Period (Y+Rc), s		4.0						4.0		4.0		4.0
Max Green Setting (Gmax), s		19.0						20.0		4.0		28.0
Max Q Clear Time (g_c+l1), s		3.9						2.7		0.0		10.4
Green Ext Time (p_c), s		0.3						4.3		0.0		4.4
Intersection Summary												
HCM 2010 Ctrl Delay			7.1									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 14: PATTERSON PASS RD & I-580 NORTH OFF RAMP

Existing+Buildout AM Mitigated TMP

8/5/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	180	2	237	20	105	0	0	625	320
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	168.1	168.1	190.0	150.8	0.0	0.0	174.3	174.3
Lanes				0	1	1	0	1	0	0	1	1
Cap, veh/h				315	4	284	154	566	0	0	1010	858
Arrive On Green				0.20	0.20	0.00	0.58	0.58	0.00	0.00	0.58	0.00
Sat Flow, veh/h				1583	20	1429	66	977	0	0	1743	1482
Grp Volume(v), veh/h				243	0	0	149	0	0	0	822	0
Grp Sat Flow(s),veh/h/ln				1602	0	1429	1043	0	0	0	1743	1482
Q Serve(g_s), s				5.2	0.0	0.0	0.7	0.0	0.0	0.0	13.5	0.0
Cycle Q Clear(g_c), s				5.2	0.0	0.0	14.2	0.0	0.0	0.0	13.5	0.0
Prop In Lane				0.99		1.00	0.16		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				319	0	284	720	0	0	0	1010	858
V/C Ratio(X)				0.76	0.00	0.00	0.21	0.00	0.00	0.00	0.81	0.00
Avail Cap(c_a), veh/h				799	0	713	1144	0	0	0	1643	1396
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				13.6	0.0	0.0	3.9	0.0	0.0	0.0	6.0	0.0
Incr Delay (d2), s/veh				3.8	0.0	0.0	0.1	0.0	0.0	0.0	1.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				2.0	0.0	0.0	0.4	0.0	0.0	0.0	4.3	0.0
Lane Grp Delay (d), s/veh				17.4	0.0	0.0	4.0	0.0	0.0	0.0	7.7	0.0
Lane Grp LOS				B			A				A	
Approach Vol, veh/h					243			149			822	
Approach Delay, s/veh					17.4			4.0			7.7	
Approach LOS					B			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					11.2			24.9			24.9	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					18.0			34.0			34.0	
Max Q Clear Time (g_c+l1), s					7.2			16.2			15.5	
Green Ext Time (p_c), s					0.7			4.7			4.7	
Intersection Summary												
HCM 2010 Ctrl Delay				9.2								
HCM 2010 LOS				A								
Notes												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖↖					↗↗	↖	↖	↗↗	
Volume (vph)	240	2	120	0	0	0	0	1460	140	137	557	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95	0.88					0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1441	1446	2389					3085	1380	1736	3471	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1441	1446	2389					3085	1380	1736	3471	
Peak-hour factor, PHF	0.69	0.69	0.69	1.00	1.00	1.00	0.75	0.75	0.75	0.65	0.65	0.65
Adj. Flow (vph)	348	3	174	0	0	0	0	1947	187	211	857	0
RTOR Reduction (vph)	0	0	146	0	0	0	0	0	53	0	0	0
Lane Group Flow (vph)	174	177	28	0	0	0	0	1947	134	211	857	0
Heavy Vehicles (%)	19%	19%	19%	0%	0%	0%	17%	17%	17%	4%	4%	4%
Turn Type	Perm	NA	Perm					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	17.3	17.3	17.3					67.0	67.0	13.0	84.0	
Effective Green, g (s)	17.3	17.3	17.3					67.0	67.0	13.0	84.0	
Actuated g/C Ratio	0.16	0.16	0.16					0.61	0.61	0.12	0.77	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	228	228	378					1891	845	206	2667	
v/s Ratio Prot								c0.63		c0.12	0.25	
v/s Ratio Perm	0.12	0.12	0.01						0.10			
v/c Ratio	0.76	0.78	0.07					1.03	0.16	1.02	0.32	
Uniform Delay, d1	44.0	44.1	39.2					21.1	9.1	48.1	3.9	
Progression Factor	1.00	1.00	1.00					1.00	1.00	1.08	0.91	
Incremental Delay, d2	14.0	15.2	0.1					28.7	0.1	68.1	0.1	
Delay (s)	58.1	59.3	39.3					49.8	9.2	120.0	3.6	
Level of Service	E	E	D					D	A	F	A	
Approach Delay (s)		52.3			0.0			46.3			26.6	
Approach LOS		D			A			D			C	

Intersection Summary

HCM 2000 Control Delay	41.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	109.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗		↕↕	↗↗		↕↕	↗
Volume (vph)	0	0	0	170	0	164	0	940	760	0	524	643
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		0.95	0.88		0.95	1.00
Frt					1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)					1583	1417		2983	2349		3471	1553
Flt Permitted					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)					1583	1417		2983	2349		3471	1553
Peak-hour factor, PHF	1.00	1.00	1.00	0.77	0.77	0.77	0.60	0.60	0.60	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	221	0	213	0	1567	1267	0	624	765
RTOR Reduction (vph)	0	0	0	0	0	173	0	0	490	0	0	177
Lane Group Flow (vph)	0	0	0	0	221	40	0	1567	777	0	624	588
Heavy Vehicles (%)	0%	0%	0%	14%	14%	14%	21%	21%	21%	4%	4%	4%
Turn Type				Split	NA	Perm		NA	Perm		NA	Perm
Protected Phases				8	8			2			6	
Permitted Phases						8			2			6
Actuated Green, G (s)					17.3	17.3		67.0	67.0		84.0	84.0
Effective Green, g (s)					17.3	17.3		67.0	67.0		84.0	84.0
Actuated g/C Ratio					0.16	0.16		0.61	0.61		0.77	0.77
Clearance Time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)					3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)					250	224		1828	1439		2667	1193
v/s Ratio Prot					c0.14			c0.53			0.18	
v/s Ratio Perm						0.03			0.33			c0.38
v/c Ratio					0.88	0.18		0.86	0.54		0.23	0.49
Uniform Delay, d1					45.0	39.8		17.2	12.2		3.6	4.7
Progression Factor					1.00	1.00		0.74	1.53		1.00	1.00
Incremental Delay, d2					28.6	0.4		2.5	0.2		0.0	0.3
Delay (s)					73.6	40.2		15.3	18.9		3.6	5.0
Level of Service					E	D		B	B		A	A
Approach Delay (s)		0.0			57.2			16.9			4.4	
Approach LOS		A			E			B			A	

Intersection Summary

























HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	109.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		













c Critical Lane Group






















HCM 2010 Signalized Intersection Summary
3: CORRAL HOLLOW RD & SPINE RD

Ex+Buildout AM Mitigated Beyond TMP

9/3/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	260	80	450	70	40	70	450	434	220	210	647	410
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	2	1	1	2	2	1	2	2	1
Cap, veh/h	284	516	647	162	447	380	454	1203	583	313	1050	577
Arrive On Green	0.08	0.28	0.28	0.05	0.24	0.24	0.13	0.32	0.32	0.09	0.28	0.28
Sat Flow, veh/h	3442	1863	1583	3548	1863	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	260	80	450	70	62	55	450	434	220	210	647	410
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	4.5	2.0	14.2	1.2	1.6	1.7	7.9	5.4	6.2	3.6	9.2	13.5
Cycle Q Clear(g_c), s	4.5	2.0	14.2	1.2	1.6	1.7	7.9	5.4	6.2	3.6	9.2	13.5
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	284	516	647	162	447	380	454	1203	583	313	1050	577
V/C Ratio(X)	0.92	0.16	0.70	0.43	0.14	0.14	0.99	0.36	0.38	0.67	0.62	0.71
Avail Cap(c_a), veh/h	284	553	679	292	553	470	454	1203	583	397	1105	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	27.6	16.6	14.8	28.2	18.1	18.1	26.3	15.7	14.1	26.7	18.9	16.5
Incr Delay (d2), s/veh	32.5	0.1	2.9	1.8	0.1	0.2	39.9	0.2	0.4	3.0	1.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.2	0.9	5.5	0.5	0.7	0.6	5.8	2.4	2.2	1.6	4.1	5.4
Lane Grp Delay (d), s/veh	60.1	16.7	17.7	30.0	18.3	18.3	66.2	15.9	14.5	29.7	19.9	20.3
Lane Grp LOS	E	B	B	C	B	B	E	B	B	C	B	C
Approach Vol, veh/h		790			187			1104			1267	
Approach Delay, s/veh		31.6			22.7			36.1			21.6	
Approach LOS		C			C			D			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	9.0	20.8		6.8	18.6		12.0	23.6		9.5	21.1	
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	18.0		5.0	18.0		8.0	19.0		7.0	18.0	
Max Q Clear Time (g_c+l1), s	6.5	16.2		3.2	3.7		9.9	8.2		5.6	15.5	
Green Ext Time (p_c), s	0.0	0.6		0.0	2.4		0.0	6.8		0.1	1.6	
Intersection Summary												
HCM 2010 Ctrl Delay			28.8									
HCM 2010 LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	110	130	144	620	1137	256
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1
Cap, veh/h	229	205	183	2559	1833	779
Arrive On Green	0.13	0.13	0.10	0.69	0.49	0.49
Sat Flow, veh/h	1774	1583	1774	3725	3725	1583
Grp Volume(v), veh/h	110	130	144	620	1137	256
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	2.5	3.4	3.5	2.7	9.7	4.3
Cycle Q Clear(g_c), s	2.5	3.4	3.5	2.7	9.7	4.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	229	205	183	2559	1833	779
V/C Ratio(X)	0.48	0.63	0.79	0.24	0.62	0.33
Avail Cap(c_a), veh/h	733	654	204	2908	2138	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	18.0	19.1	2.6	8.1	6.7
Incr Delay (d2), s/veh	1.5	3.2	16.7	0.0	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.2	2.2	0.4	3.7	1.4
Lane Grp Delay (d), s/veh	19.1	21.2	35.7	2.6	8.5	7.0
Lane Grp LOS	B	C	D	A	A	A
Approach Vol, veh/h	240			764	1393	
Approach Delay, s/veh	20.3			8.9	8.2	
Approach LOS	C			A	A	
Timer						
Assigned Phs			5	2	6	
Phs Duration (G+Y+Rc), s			8.5	33.9	25.4	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			5.0	34.0	25.0	
Max Q Clear Time (g_c+l1), s			5.5	4.7	11.7	
Green Ext Time (p_c), s			0.0	16.8	9.7	
Intersection Summary						
HCM 2010 Ctrl Delay			9.6			
HCM 2010 LOS			A			
Notes						

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	370	0	100	150	100	20	0	510	510	0	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	2	1	0	1	1	2	1	0
Cap, veh/h	166	517	0	126	1642	698	329	0	146	658	356	0
Arrive On Green	0.00	0.28	0.00	0.07	0.44	0.44	0.09	0.00	0.00	0.19	0.00	0.00
Sat Flow, veh/h	1125	1863	0	1774	3725	1583	1774	0	1583	3442	1863	0
Grp Volume(v), veh/h	0	370	0	100	150	100	20	0	0	510	0	0
Grp Sat Flow(s),veh/h/ln	1125	1863	0	1774	1863	1583	1774	0	1583	1721	1863	0
Q Serve(g_s), s	0.0	7.8	0.0	2.4	1.0	1.6	1.1	0.0	0.0	6.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.8	0.0	2.4	1.0	1.6	1.1	0.0	0.0	6.1	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	166	517	0	126	1642	698	0	0	146	658	356	0
V/C Ratio(X)	0.00	0.72	0.00	0.79	0.09	0.14	0.00	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	319	771	0	163	2228	947	0	0	656	712	1328	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	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	14.2	0.0	19.9	7.1	7.3	0.0	0.0	0.0	16.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	17.9	0.0	0.1	0.0	0.0	0.0	5.0	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 Back of Q (50%), veh/ln	0.0	3.5	0.0	1.6	0.4	0.5	0.0	0.0	0.0	2.9	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	16.0	0.0	37.8	7.1	7.3	0.0	0.0	0.0	21.7	0.0	0.0
Lane Grp LOS		B		D	A	A				C		
Approach Vol, veh/h		370			350			20			510	
Approach Delay, s/veh		16.0			15.9			0.0			21.7	
Approach LOS		B			B			A			C	
Timer												
Assigned Phs		6		5	2		7	4		3		8
Phs Duration (G+Y+Rc), s		16.1		7.1	23.2		8.0	8.0		12.3		12.3
Change Period (Y+Rc), s		4.0		4.0	4.0		4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		4.0	26.0		31.0	18.0		9.0		31.0
Max Q Clear Time (g_c+l1), s		9.8		4.4	3.6		0.0	3.1		8.1		0.0
Green Ext Time (p_c), s		2.3		0.0	3.6		0.0	0.0		0.2		0.0
Intersection Summary												
HCM 2010 Ctrl Delay				18.1								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	40	0	0	112	20	1450	60	115	1090	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	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	40	0	0	112	20	1450	60	115	1090	25
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	2098	2883	558	2295	2865	755	1115	0	0	1510	0	0
Stage 1	1333	1333	-	1520	1520	-	-	-	-	-	-	-
Stage 2	765	1550	-	775	1345	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	30	16	473	21	16	351	622	-	-	439	-	-
Stage 1	162	221	-	124	179	-	-	-	-	-	-	-
Stage 2	362	173	-	357	218	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	8	4	473	7	4	351	622	-	-	439	-	-
Mov Capacity-2 Maneuver	8	4	-	7	4	-	-	-	-	-	-	-
Stage 1	128	68	-	98	142	-	-	-	-	-	-	-
Stage 2	195	137	-	100	67	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	13.3		20			1.2			5.6			
HCM LOS	B		C									
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	622	-	-	473	351	439	-	-				
HCM Lane V/C Ratio	0.032	-	-	0.085	0.319	0.262	-	-				
HCM Control Delay (s)	10.98	1.1	-	13.3	20	16.086	4.6	-				
HCM Lane LOS	B	A	-	B	C	C	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.276	1.345	1.038	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection

Intersection Delay, s/veh 7698.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	450	2	640	0	0	0	0	1040	320	377	1161	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	100	100	100	88	88	88	84	84	84
Heavy Vehicles, %	8	8	8	0	0	0	2	2	2	10	10	10
Mvmt Flow	495	2	703	0	0	0	0	1182	364	449	1382	0

Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	3644	3825	1382				1382	0	0	1545	0	0
Stage 1	2280	2280	-				-	-	-	-	-	-
Stage 2	1364	1545	-				-	-	-	-	-	-
Follow-up Headway	3.572	4.072	3.372				2.218	-	-	2.29	-	-
Pot Capacity-1 Maneuver	# 5	4	# 171				496	-	-	# 407	-	-
Stage 1	# 79	72	-				-	-	-	-	-	-
Stage 2	# 231	171	-				-	-	-	-	-	-
Time blocked-Platoon, %												
Mov Capacity-1 Maneuver	# 5	# 0	# 171				496	-	-	# 407	-	-
Mov Capacity-2 Maneuver	# 5	# 0	-				-	-	-	-	-	-
Stage 1	# 79	# 0	-				-	-	-	-	-	-
Stage 2	# 231	# 0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	\$ 29321.1	0	26.3
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	496	-	-	7	171	# 407	-	-
HCM Lane V/C Ratio	-	-	-	104.448	2.742	1.103	-	-
HCM Control Delay (s)	0	-	\$ 47584.4	\$ 841.8	107.126	0	-	-
HCM Lane LOS	A		F	F	F	A		
HCM 95th %tile Q(veh)	0	-	-	93.451	41.473	15.847	-	-

Notes

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

Intersection

Intersection Delay, s/veh 1017.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	130	1	150	160	1330	0	0	1408	525
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	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	93	93	93	85	85	85	80	80	80
Heavy Vehicles, %	0	0	0	4	4	4	2	2	2	7	7	7
Mvmt Flow	0	0	0	140	1	161	188	1565	0	0	1760	656

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	4029	4357	1565
Stage 1	1941	1941	-
Stage 2	2088	2416	-
Follow-up Headway	3.536	4.036	3.336
Pot Capacity-1 Maneuver	# 3	2	# 136
Stage 1	# 121	110	-
Stage 2	# 102	63	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	# 3	# 0	# 136
Mov Capacity-2 Maneuver	# 3	# 0	-
Stage 1	# 121	# 0	-
Stage 2	# 102	# 0	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 14997.6	11	0
HCM LOS	F		






















Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	197	-	-	4	136	408	-	-
HCM Lane V/C Ratio	0.956	-	-	48.656	0.791	-	-	-
HCM Control Delay (s)	102.47	0	\$ 23232.7	92.2	0	-	-	-
HCM Lane LOS	F	A	F	F	A			
HCM 95th %tile Q(veh)	7.872	-	-	26.574	4.815	0	-	-

Notes

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

HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD

Existing+Buildout PM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	490	180	610	670	360	510	550	530	400	440	653	480
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	186.3
Lanes	1	1	1	1	1	0	1	1	0	0	1	1
Cap, veh/h	412	432	367	412	162	230	58	695	524	187	217	1115
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1774	1863	1583	1774	699	990	495	987	745	208	308	1583
Grp Volume(v), veh/h	490	180	610	670	0	870	550	0	930	1093	0	480
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1688	495	0	1731	516	0	1583
Q Serve(g_s), s	29.0	10.3	29.0	29.0	0.0	29.0	0.0	0.0	42.9	45.1	0.0	16.1
Cycle Q Clear(g_c), s	29.0	10.3	29.0	29.0	0.0	29.0	88.0	0.0	42.9	88.0	0.0	16.1
Prop In Lane	1.00		1.00	1.00		0.59	1.00		0.43	0.40		1.00
Lane Grp Cap(c), veh/h	412	432	367	412	0	392	58	0	1219	404	0	1115
V/C Ratio(X)	1.19	0.42	1.66	1.63	0.00	2.22	9.55	0.00	0.76	2.71	0.00	0.43
Avail Cap(c_a), veh/h	412	432	367	412	0	392	58	0	1219	404	0	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.0	40.8	48.0	48.0	0.0	48.0	62.5	0.0	11.8	42.2	0.0	7.9
Incr Delay (d2), s/veh	107.5	0.6	309.1	293.5	0.0	557.9	3881.5	0.0	2.9	775.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	25.4	5.0	43.3	46.7	0.0	73.2	64.0	0.0	17.5	100.1	0.0	5.8
Lane Grp Delay (d), s/veh	155.5	41.4	357.1	341.5	0.0	605.9	3944.0	0.0	14.7	817.9	0.0	8.1
Lane Grp LOS	F	D	F	F		F	F		B	F		A
Approach Vol, veh/h		1280			1540			1480			1573	
Approach Delay, s/veh		235.6			490.8			1474.9			570.8	
Approach LOS		F			F			F			F	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		33.0			33.0			92.0			92.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		29.0			21.0			88.0			88.0	
Max Q Clear Time (g_c+l1), s		31.0			31.0			90.0			90.0	
Green Ext Time (p_c), s		0.0			0.0			0.0			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			704.6									
HCM 2010 LOS			F									
Notes												

Intersection

Intersection Delay, s/veh 5223.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	570	53	1065	635	52	830
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	77	77	87	87	88	88
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	740	69	1224	730	59	943

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2650	1589	0 0 1954 0
Stage 1	1589	-	- - - -
Stage 2	1061	-	- - - -
Follow-up Headway	3.536	3.336	- - 2.236 -
Pot Capacity-1 Maneuver	# 25	131	- - 294 -
Stage 1	# 182	-	- - - -
Stage 2	# 330	-	- - - -
Time blocked-Platoon, %			- - - -
Mov Capacity-1 Maneuver	# 14	131	- - 294 -
Mov Capacity-2 Maneuver	# 14	-	- - - -
Stage 1	# 182	-	- - - -
Stage 2	# 191	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	\$ 24309.8	0	1.2
HCM LOS	F		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	15	294	-
HCM Lane V/C Ratio	-	-	53.939	0.201	-
HCM Control Delay (s)	-	\$ 24309.8	20.299	0	
HCM Lane LOS		F	C	A	
HCM 95th %tile Q(veh)	-	-	102.229	0.736	-

Notes

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

Intersection												
Intersection Delay, s/veh	62.9											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	320	340	30	3	310	71	30	30	16	93	21	300
Peak Hour Factor	0.93	0.93	0.93	0.75	0.75	0.75	0.69	0.69	0.69	0.90	0.90	0.90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	344	366	32	4	413	95	43	43	23	103	23	333
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	69.9	69	16.3	56
HCM LOS	F	F	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	39%	46%	1%	22%
Vol Thru, %	39%	49%	81%	5%
Vol Right, %	21%	4%	18%	72%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	690	384	414
LT Vol	30	340	310	21
Through Vol	16	30	71	300
RT Vol	30	320	3	93
Lane Flow Rate	110	742	512	460
Geometry Grp	1	1	1	1
Degree of Util (X)	0.289	1	1	0.947
Departure Headway (Hd)	9.447	7.723	7.547	7.411
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	381	475	481	492
Service Time	7.48	5.77	5.593	5.427
HCM Lane V/C Ratio	0.289	1.562	1.064	0.935
HCM Control Delay	16.3	69.9	69	56
HCM Lane LOS	C	F	F	F
HCM 95th-tile Q	1.2	13.2	13.3	11.6
























Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing+Buildout PM

7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	410	90	210	260	162	160	620	160	192	510	110
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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	154	690	150	294	862	366	228	1130	480	248	936	201
Arrive On Green	0.09	0.24	0.24	0.09	0.24	0.24	0.13	0.31	0.31	0.14	0.32	0.32
Sat Flow, veh/h	1740	2910	632	3375	3654	1553	1740	3654	1553	1740	2918	626
Grp Volume(v), veh/h	138	295	279	221	274	171	193	747	193	213	354	335
Grp Sat Flow(s),veh/h/ln	1740	1827	1715	1688	1827	1553	1740	1827	1553	1740	1827	1716
Q Serve(g_s), s	6.7	12.4	12.6	5.4	5.3	8.0	9.2	15.1	8.3	10.2	13.9	14.0
Cycle Q Clear(g_c), s	6.7	12.4	12.6	5.4	5.3	8.0	9.2	15.1	8.3	10.2	13.9	14.0
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	154	433	407	294	862	366	228	1130	480	248	586	551
V/C Ratio(X)	0.90	0.68	0.69	0.75	0.32	0.47	0.85	0.66	0.40	0.86	0.60	0.61
Avail Cap(c_a), veh/h	154	818	768	298	1635	695	268	1592	677	277	805	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	29.4	29.5	37.9	26.8	27.8	36.1	25.4	23.1	35.6	24.3	24.3
Incr Delay (d2), s/veh	43.1	2.3	2.5	9.0	0.3	1.1	16.9	0.8	0.7	19.5	1.2	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 Back of Q (50%), veh/ln	4.7	5.7	5.4	2.6	2.3	3.1	5.0	6.6	3.1	5.6	6.1	5.8
Lane Grp Delay (d), s/veh	81.4	31.7	32.0	46.9	27.0	29.0	53.0	26.3	23.8	55.0	25.5	25.6
Lane Grp LOS	F	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		712			666			1133			902	
Approach Delay, s/veh		41.5			34.1			30.4			32.5	
Approach LOS		D			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	12.0	25.1		11.9	25.0		15.6	31.3		16.6	32.2	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	7.5	38.0		7.5	38.0		13.1	37.0		13.5	37.4	
Max Q Clear Time (g_c+l1), s	8.7	14.6		7.4	10.0		11.2	17.1		12.2	16.0	
Green Ext Time (p_c), s	0.0	5.5		0.0	5.8		0.0	9.2		0.0	9.5	
Intersection Summary												
HCM 2010 Ctrl Delay				34.0								
HCM 2010 LOS				C								
Notes												

Intersection												
Intersection Delay, s/veh	78.3											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	254	130	120	95	133	100	750	150	169	670	7
Peak Hour Factor	0.86	0.86	0.86	0.80	0.80	0.80	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	6	295	151	150	119	166	111	833	167	190	753	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	77.7	77.9	78.3	78.8
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	1%	34%	20%
Vol Thru, %	75%	65%	27%	79%
Vol Right, %	15%	33%	38%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1000	389	348	846
LT Vol	750	254	95	670
Through Vol	150	130	133	7
RT Vol	100	5	120	169
Lane Flow Rate	1111	452	435	951
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	1	1
Departure Headway (Hd)	9.595	9.467	9.427	9.7
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	389	389	387	390
Service Time	7.595	7.467	7.505	7.7
HCM Lane V/C Ratio	2.856	1.162	1.124	2.438
HCM Control Delay	78.3	77.7	77.9	78.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.9	11.9	11.9	11.8

Notes

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

Intersection

Intersection Delay, s/veh 224.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	80	150	200	70	420	360
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	58	58	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	103	192	345	121	506	434

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1851	405	0
Stage 1	405	-	-
Stage 2	1446	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	# 81	641	-
Stage 1	669	-	-
Stage 2	214	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	# 31	641	-
Mov Capacity-2 Maneuver	# 31	-	-
Stage 1	669	-	-
Stage 2	# 83	-	-

Approach	WB	NB	SB
HCM Control Delay, s	\$ 1275	0	6
HCM LOS	F		























Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	82	1085	-
HCM Lane V/C Ratio	-	-	3.596	0.466	-
HCM Control Delay (s)	-	-	\$ 1275	11.184	0
HCM Lane LOS			F	B	A
HCM 95th %tile Q(veh)	-	-	30.263	2.533	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing+Buildout PM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	34	30	80	56	326	40	950	100	508	1009	85
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	100	895	380	109	458	389	69	1096	115	624	1604	134
Arrive On Green	0.06	0.24	0.24	0.06	0.25	0.25	0.04	0.34	0.34	0.18	0.48	0.48
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3253	341	3375	3326	279
Grp Volume(v), veh/h	79	42	37	87	61	354	43	568	549	564	615	600
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1767	1688	1827	1778
Q Serve(g_s), s	5.0	1.0	2.1	5.5	2.9	24.7	2.7	33.3	33.4	18.2	29.3	29.4
Cycle Q Clear(g_c), s	5.0	1.0	2.1	5.5	2.9	24.7	2.7	33.3	33.4	18.2	29.3	29.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.16
Lane Grp Cap(c), veh/h	100	895	380	109	458	389	69	615	595	624	881	857
V/C Ratio(X)	0.79	0.05	0.10	0.80	0.13	0.91	0.62	0.92	0.92	0.90	0.70	0.70
Avail Cap(c_a), veh/h	101	1272	540	151	688	585	115	623	602	742	903	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	51.9	32.1	32.6	51.5	32.4	40.6	52.7	35.6	35.6	44.5	22.5	22.6
Incr Delay (d2), s/veh	30.7	0.0	0.1	12.3	0.0	10.2	3.4	19.3	19.9	11.8	2.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.1	0.4	0.8	2.8	1.3	10.6	1.3	18.1	17.6	8.7	13.0	12.7
Lane Grp Delay (d), s/veh	82.6	32.2	32.7	63.9	32.4	50.8	56.1	54.9	55.5	56.3	24.9	25.0
Lane Grp LOS	F	C	C	E	C	D	E	D	E	E	C	C
Approach Vol, veh/h		158			502			1160			1779	
Approach Delay, s/veh		57.5			50.8			55.2			34.9	
Approach LOS		E			D			E			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.9	32.3		11.5	32.9		8.9	42.6		25.1	58.8	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	6.5	38.8		9.7	42.0		7.4	38.0		24.5	55.1	
Max Q Clear Time (g_c+l1), s	7.0	4.1		7.5	26.7		4.7	35.4		20.2	31.4	
Green Ext Time (p_c), s	0.0	1.4		0.0	1.3		0.0	2.2		0.4	12.1	
Intersection Summary												
HCM 2010 Ctrl Delay	44.6											
HCM 2010 LOS	D											
Notes												

Intersection						
Intersection Delay, s/veh	40.1					
Intersection LOS	E					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	105	530	110	180	250	13
Peak Hour Factor	0.86	0.86	0.88	0.88	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	616	125	205	329	17
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	58.8	19.4	19.8
HCM LOS	F	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	38%	17%	0%
Vol Thru, %	62%	0%	95%
Vol Right, %	0%	83%	5%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	290	635	263
LT Vol	180	0	250
Through Vol	0	530	13
RT Vol	110	105	0
Lane Flow Rate	330	738	346
Geometry Grp	1	1	1
Degree of Util (X)	0.608	1	0.626
Departure Headway (Hd)	6.643	5.573	6.516
Convergence, Y/N	Yes	Yes	Yes
Cap	547	650	557
Service Time	4.657	3.608	4.53
HCM Lane V/C Ratio	0.603	1.135	0.621
HCM Control Delay	19.4	58.8	19.8
HCM Lane LOS	C	F	C
HCM 95th-tile Q	4	15.5	4.3

























Notes

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

Intersection				
Intersection Delay, s/veh	17.7			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	721	615	172	140
Demand Flow Rate, veh/h	735	627	175	143
Vehicles Circulating, veh/h	258	45	819	582
Vehicles Exiting, veh/h	467	949	174	90
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	26.3	10.9	13.1	8.7
Approach LOS	D	B	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	735	627	175	143
Cap Entry Lane, veh/h	873	1080	498	631
Entry HV Adj Factor	0.981	0.980	0.981	0.977
Flow Entry, veh/h	721	615	172	140
Cap Entry, veh/h	857	1059	489	617
V/C Ratio	0.842	0.580	0.351	0.226
Control Delay, s/veh	26.3	10.9	13.1	8.7
LOS	D	B	B	A
95th %tile Queue, veh	10	4	2	1

HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Existing+Buildout PM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	96	1090	110	190	397	65	60	130	320	57	120	33
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	1	3	1	2	2	1	2	1	1
Cap, veh/h	350	2067	586	307	2543	721	306	459	195	392	277	235
Arrive On Green	0.10	0.37	0.00	0.17	0.46	0.00	0.09	0.12	0.00	0.11	0.15	0.00
Sat Flow, veh/h	3442	5588	1583	1774	5588	1583	3442	3725	1583	3442	1863	1583
Grp Volume(v), veh/h	102	1160	0	221	462	0	63	137	0	72	152	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	2.0	11.9	0.0	8.5	3.5	0.0	1.2	2.4	0.0	1.4	5.4	0.0
Cycle Q Clear(g_c), s	2.0	11.9	0.0	8.5	3.5	0.0	1.2	2.4	0.0	1.4	5.4	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	350	2067	586	307	2543	721	306	459	195	392	277	235
V/C Ratio(X)	0.29	0.56	0.00	0.72	0.18	0.00	0.21	0.30	0.00	0.18	0.55	0.00
Avail Cap(c_a), veh/h	388	2673	757	311	3100	878	388	2181	927	483	1142	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.9	18.0	0.0	28.1	11.6	0.0	30.4	28.7	0.0	28.8	28.4	0.0
Incr Delay (d2), s/veh	0.5	0.3	0.0	6.7	0.0	0.0	0.3	0.4	0.0	0.2	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	5.0	0.0	4.1	1.4	0.0	0.5	1.1	0.0	0.6	2.5	0.0
Lane Grp Delay (d), s/veh	30.4	18.4	0.0	34.8	11.7	0.0	30.7	29.1	0.0	29.1	30.1	0.0
Lane Grp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		1262			683			200			224	
Approach Delay, s/veh		19.3			19.2			29.6			29.8	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.7	30.6		16.8	36.7		9.8	12.9		11.6	14.7	
Change Period (Y+Rc), s	5.5	6.1		6.5	6.1		5.5	6.1		5.5	6.1	
Max Green Setting (Gmax), s	6.0	32.3		10.5	37.8		6.0	40.0		8.0	42.0	
Max Q Clear Time (g_c+l1), s	4.0	13.9		10.5	5.5		3.2	4.4		3.4	7.4	
Green Ext Time (p_c), s	0.1	10.6		0.0	14.4		0.0	1.1		0.1	1.1	
Intersection Summary												
HCM 2010 Ctrl Delay				21.1								
HCM 2010 LOS				C								
Notes												

Intersection

Intersection Delay, s/veh 374.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	288	20	76	0	0	0	0	482	258	269	48	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	100	100	100	85	85	85	80	80	80
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	9	9	9
Mvmt Flow	324	22	85	0	0	0	0	567	304	336	60	0

Major/Minor

	Minor2			Major1			Major2		
Conflicting Flow All	1452	1604	60	60	0	0	871	0	0
Stage 1	733	733	-	-	-	-	-	-	-
Stage 2	719	871	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	2.218	-	-	2.281	-	-
Pot Capacity-1 Maneuver	# 144	105	1005	1544	-	-	745	-	-
Stage 1	475	426	-	-	-	-	-	-	-
Stage 2	483	368	-	-	-	-	-	-	-
Time blocked-Platoon, %									
Mov Capacity-1 Maneuver	# 77	# 0	1005	1544	-	-	745	-	-
Mov Capacity-2 Maneuver	# 77	# 0	-	-	-	-	-	-	-
Stage 1	# 253	# 0	-	-	-	-	-	-	-
Stage 2	483	# 0	-	-	-	-	-	-	-

Approach

	EB	NB	SB
HCM Control Delay, s	\$ 1462	0	11.7
HCM LOS	F		

Minor Lane / Major Mvmt

	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	83	1005	745	-	-
HCM Lane V/C Ratio	-	-	-	4.512	0.057	0.451	-	-
HCM Control Delay (s)	0	-	-\$ 1682.9	8.8	13.745	0	-	-
HCM Lane LOS	A			F	A	B	A	
HCM 95th %tile Q(veh)	0	-	-	39.957	0.18	2.359	-	-

Notes

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

Intersection

Intersection Delay, s/veh 11.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	21	3	296	16	754	0	0	296	156
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	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76
Heavy Vehicles, %	0	0	0	23	23	23	2	2	2	11	11	11
Mvmt Flow	0	0	0	28	4	395	19	898	0	0	389	205

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1325	1325	898
Stage 1	936	936	-
Stage 2	389	389	-
Follow-up Headway	3.707	4.207	3.507
Pot Capacity-1 Maneuver	155	141	# 310
Stage 1	350	317	-
Stage 2	641	573	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	150	# 0	# 310
Mov Capacity-2 Maneuver	150	# 0	-
Stage 1	339	# 0	-
Stage 2	641	# 0	-

Approach	WB	NB	SB
HCM Control Delay, s	50.5	0.2	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	261	310	720	-	-
HCM Lane V/C Ratio	0.016	-	-	0.627	0.849	-	-	-
HCM Control Delay (s)	8.128	0	-	39.4	57.4	0	-	-
HCM Lane LOS	A	A	-	E	F	A	-	-
HCM 95th %tile Q(veh)	0.05	-	-	3.831	7.426	0	-	-

Notes














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

HCM 2010 Signalized Intersection Summary
 19: CORRAL HOLLOW RD & N TRACY HILLS RD

Existing+Buildout PM
 8/1/2014























Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	400	320	240	1290	1253	160
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1
Cap, veh/h	337	301	138	1360	1360	1156
Arrive On Green	0.19	0.19	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1774	1583	379	1863	1863	1583
Grp Volume(v), veh/h	400	320	240	1290	1253	160
Grp Sat Flow(s),veh/h/ln	1774	1583	379	1863	1863	1583
Q Serve(g_s), s	19.0	19.0	17.5	60.8	55.5	3.0
Cycle Q Clear(g_c), s	19.0	19.0	73.0	60.8	55.5	3.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	337	301	138	1360	1360	1156
V/C Ratio(X)	1.19	1.06	1.73	0.95	0.92	0.14
Avail Cap(c_a), veh/h	337	301	138	1360	1360	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	40.5	45.8	11.9	11.1	4.1
Incr Delay (d2), s/veh	110.0	69.7	358.9	14.0	10.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	18.8	13.4	17.3	26.1	25.2	1.0
Lane Grp Delay (d), s/veh	150.5	110.2	404.7	25.9	21.6	4.1
Lane Grp LOS	F	F	F	C	C	A
Approach Vol, veh/h	720			1530	1413	
Approach Delay, s/veh	132.6			85.3	19.6	
Approach LOS	F			F	B	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				77.0	77.0	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				73.0	73.0	
Max Q Clear Time (g_c+l1), s				75.0	57.5	
Green Ext Time (p_c), s				0.0	14.6	
Intersection Summary						
HCM 2010 Ctrl Delay			69.3			
HCM 2010 LOS			E			
Notes						

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 					
Volume (veh/h)	920	0	80	440	61	1740
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	1	0	2
Cap, veh/h	1325	610	390	663	0	0
Arrive On Green	0.39	0.00	0.06	0.36	0.00	0.16
Sat Flow, veh/h	3442	1583	1774	1863	0	0
Grp Volume(v), veh/h	920	0	80	440	0	0
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1863	0	0
Q Serve(g_s), s	6.9	0.0	1.0	6.1	0.0	0.0
Cycle Q Clear(g_c), s	6.9	0.0	1.0	6.1	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	1325	610	390	663	0	0
V/C Ratio(X)	0.69	0.00	0.20	0.66	0.00	0.00
Avail Cap(c_a), veh/h	2230	1026	506	1931	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.0	0.0	8.2	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.3	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	0.0	0.3	2.3	0.0	0.0
Lane Grp Delay (d), s/veh	8.6	0.0	8.5	9.5	0.0	0.0
Lane Grp LOS	A		A	A		
Approach Vol, veh/h	920			520	0	
Approach Delay, s/veh	8.6			9.4	0.0	
Approach LOS	A			A		
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			6.0	15.0	9.0	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			4.0	32.0	24.0	
Max Q Clear Time (g_c+l1), s			3.0	8.1	0.0	
Green Ext Time (p_c), s			0.0	2.8	0.0	
Intersection Summary						
HCM 2010 Ctrl Delay			8.9			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 21: Business Park Driveway & SPINE RD

Existing+Buildout PM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	850	20	90	1060	240	40	0	150	280	0	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Cap, veh/h	238	1796	42	366	1459	329	548	0	536	481	0	536
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.34	0.00	0.34	0.34	0.00	0.34
Sat Flow, veh/h	422	3625	85	634	2945	664	1313	0	1583	1232	0	1583
Grp Volume(v), veh/h	60	437	433	90	669	631	40	0	150	280	0	80
Grp Sat Flow(s),veh/h/ln	422	1863	1848	634	1863	1746	1313	0	1583	1232	0	1583
Q Serve(g_s), s	6.3	7.4	7.4	5.3	13.6	13.8	1.1	0.0	3.3	10.3	0.0	1.7
Cycle Q Clear(g_c), s	20.1	7.4	7.4	12.7	13.6	13.8	2.7	0.0	3.3	13.7	0.0	1.7
Prop In Lane	1.00		0.05	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	923	915	366	923	865	548	0	536	481	0	536
V/C Ratio(X)	0.25	0.47	0.47	0.25	0.72	0.73	0.07	0.00	0.28	0.58	0.00	0.15
Avail Cap(c_a), veh/h	239	929	921	368	929	870	594	0	592	525	0	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	17.5	8.0	8.0	12.2	9.6	9.6	12.1	0.0	11.6	16.6	0.0	11.1
Incr Delay (d2), s/veh	0.6	0.4	0.4	0.3	2.8	3.1	0.1	0.0	0.3	1.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	2.9	2.9	0.8	5.9	5.7	0.3	0.0	1.2	3.1	0.0	0.6
Lane Grp Delay (d), s/veh	18.1	8.4	8.4	12.5	12.4	12.7	12.1	0.0	11.9	18.0	0.0	11.2
Lane Grp LOS	B	A	A	B	B	B	B		B	B		B
Approach Vol, veh/h		930			1390			190			360	
Approach Delay, s/veh		9.0			12.6			12.0			16.5	
Approach LOS		A			B			B			B	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		27.8			27.8			20.3			20.3	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		24.0			24.0			18.0			18.0	
Max Q Clear Time (g_c+l1), s		22.1			15.8			5.3			15.7	
Green Ext Time (p_c), s		1.8			7.0			2.0			0.6	
Intersection Summary												
HCM 2010 Ctrl Delay				11.9								
HCM 2010 LOS				B								
Notes												

Intersection

Intersection Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	60	330	450	0	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	330	450	0	0	50

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	450	0	450
Stage 1	-	-	450
Stage 2	-	-	450
Follow-up Headway	2.218	-	3.518
Pot Capacity-1 Maneuver	1110	-	609
Stage 1	-	-	642
Stage 2	-	-	642
Time blocked-Platoon, %	-	-	-
Mov Capacity-1 Maneuver	1110	-	609
Mov Capacity-2 Maneuver	-	-	-
Stage 1	-	-	642
Stage 2	-	-	600

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	11.4
HCM LOS			B

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1110	-	-	-	609
HCM Lane V/C Ratio	0.054	-	-	-	0.082
HCM Control Delay (s)	8.428	0	-	-	11.4
HCM Lane LOS	A	A			B
HCM 95th %tile Q(veh)	0.171	-	-	-	0.267

Notes

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

Intersection												
Intersection Delay, s/veh	60.3											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	290	40	540	420	540	30	40	250	240	40	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	290	40	540	420	540	30	40	250	240	40	0
Number of Lanes	1	1	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	2
HCM Control Delay	70.4	66.1	40.2	40.5
HCM LOS	F	F	E	E

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	9%	0%	0%	100%	0%	0%	86%
Vol Thru, %	12%	100%	88%	0%	100%	21%	14%
Vol Right, %	78%	0%	12%	0%	0%	79%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	320	0	330	540	280	680	280
LT Vol	40	0	290	0	280	140	40
Through Vol	250	0	40	0	0	540	0
RT Vol	30	0	0	540	0	0	240
Lane Flow Rate	320	0	330	540	280	680	280
Geometry Grp	7	8	8	7	7	7	7
Degree of Util (X)	0.805	0	0.953	1	0.688	1	0.779
Departure Headway (Hd)	9.055	10.486	10.401	9.37	8.85	8.273	10.018
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	400	0	350	389	406	442	361
Service Time	6.806	8.252	8.167	7.163	6.643	6.065	7.771
HCM Lane V/C Ratio	0.8	0	0.943	1.388	0.69	1.538	0.776
HCM Control Delay	40.2	13.3	70.4	77.4	29.2	72.4	40.5
HCM Lane LOS	E	N	F	F	D	F	E
HCM 95th-tile Q	7.1	0	10.1	11.9	5	12.7	6.4

























Notes

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

HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.





















Existing+Buildout PM

8/1/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	278	730	520	360	438	289	290	940	210	322	1060	129
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	383	1694	480	423	1759	498	393	1247	530	428	1285	546
Arrive On Green	0.11	0.30	0.30	0.12	0.31	0.31	0.11	0.33	0.33	0.12	0.34	0.34
Sat Flow, veh/h	3442	5588	1583	3442	5588	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	278	730	416	360	438	289	290	940	210	322	1060	129
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	9.5	12.8	30.3	12.5	7.1	18.7	9.9	27.4	12.4	11.0	31.8	7.1
Cycle Q Clear(g_c), s	9.5	12.8	30.3	12.5	7.1	18.7	9.9	27.4	12.4	11.0	31.8	7.1
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	383	1694	480	423	1759	498	393	1247	530	428	1285	546
V/C Ratio(X)	0.73	0.43	0.87	0.85	0.25	0.58	0.74	0.75	0.40	0.75	0.83	0.24
Avail Cap(c_a), veh/h	395	1740	493	423	1786	506	395	1282	545	451	1343	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	52.4	34.1	40.2	52.4	31.1	35.0	52.3	36.1	31.1	51.6	36.6	28.5
Incr Delay (d2), s/veh	6.3	0.2	14.8	15.2	0.1	1.6	7.1	2.5	0.5	6.6	4.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.5	6.0	14.1	6.4	3.3	7.7	4.8	13.1	5.0	5.3	15.8	2.9
Lane Grp Delay (d), s/veh	58.7	34.2	54.9	67.6	31.2	36.7	59.3	38.6	31.6	58.2	40.8	28.7
Lane Grp LOS	E	C	D	E	C	D	E	D	C	E	D	C
Approach Vol, veh/h		1424			1087			1440			1511	
Approach Delay, s/veh		45.1			44.7			41.8			43.5	
Approach LOS		D			D			D			D	
Timer												
Assigned Phs	5	2		1	6		7	4		3	8	
Phs Duration (G+Y+Rc), s	16.6	41.0		18.0	42.4		17.0	44.8		18.2	46.1	
Change Period (Y+Rc), s	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Max Green Setting (Gmax), s	12.0	36.0		13.0	37.0		12.0	40.0		14.0	42.0	
Max Q Clear Time (g_c+l1), s	11.5	32.3		14.5	20.7		11.9	29.4		13.0	33.8	
Green Ext Time (p_c), s	0.1	2.7		0.0	8.2		0.0	7.7		0.2	6.3	
Intersection Summary												
HCM 2010 Ctrl Delay			43.7									
HCM 2010 LOS			D									
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & CENTRAL AVE

Existing+Buildout PM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	52	30	240	40	53	50	650	230	63	580	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	49	94	54	284	158	210	95	1138	403	108	1525	97
Arrive On Green	0.03	0.08	0.08	0.16	0.22	0.22	0.05	0.43	0.43	0.06	0.44	0.44
Sat Flow, veh/h	1774	1110	640	1774	728	965	1774	2631	930	1774	3466	221
Grp Volume(v), veh/h	20	0	82	240	0	93	50	460	420	63	311	306
Grp Sat Flow(s),veh/h/ln	1774	0	1750	1774	0	1693	1774	1863	1699	1774	1863	1824
Q Serve(g_s), s	0.8	0.0	3.1	9.1	0.0	3.1	1.9	12.8	12.8	2.4	7.7	7.8
Cycle Q Clear(g_c), s	0.8	0.0	3.1	9.1	0.0	3.1	1.9	12.8	12.8	2.4	7.7	7.8
Prop In Lane	1.00		0.37	1.00		0.57	1.00		0.55	1.00		0.12
Lane Grp Cap(c), veh/h	49	0	149	284	0	368	95	806	735	108	820	803
V/C Ratio(X)	0.41	0.00	0.55	0.84	0.00	0.25	0.53	0.57	0.57	0.58	0.38	0.38
Avail Cap(c_a), veh/h	167	0	713	672	0	1171	183	1008	919	270	1100	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	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	32.9	0.0	30.3	28.1	0.0	22.3	31.8	14.7	14.7	31.5	13.0	13.0
Incr Delay (d2), s/veh	2.0	0.0	1.2	2.7	0.0	0.1	1.7	1.1	1.2	1.8	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 Back of Q (50%), veh/ln	0.4	0.0	1.4	4.1	0.0	1.3	0.9	5.7	5.3	1.1	3.2	3.2
Lane Grp Delay (d), s/veh	34.9	0.0	31.5	30.8	0.0	22.5	33.4	15.8	15.9	33.3	13.5	13.5
Lane Grp LOS	C		C	C		C	C	B	B	C	B	B
Approach Vol, veh/h		102			333			930			680	
Approach Delay, s/veh		32.1			28.5			16.8			15.3	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.4	10.4		15.5	19.5		8.2	34.3		8.7	34.8	
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	6.5	28.1		26.1	47.7		7.1	37.3		10.5	40.7	
Max Q Clear Time (g_c+l1), s	2.8	5.1		11.1	5.1		3.9	14.8		4.4	9.8	
Green Ext Time (p_c), s	0.0	0.4		0.1	0.4		0.0	15.0		0.0	18.6	
Intersection Summary												
HCM 2010 Ctrl Delay				19.0								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Existing+Buildout PM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	250	740	303	200	640	189	290	600	160	142	660	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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	396	1184	503	339	1123	477	438	1200	510	272	1020	434
Arrive On Green	0.11	0.32	0.32	0.10	0.30	0.30	0.13	0.32	0.32	0.08	0.27	0.27
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	250	740	303	200	640	189	290	600	160	142	660	230
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	5.3	13.0	12.4	4.3	11.1	7.3	6.2	10.0	5.8	3.0	12.0	9.5
Cycle Q Clear(g_c), s	5.3	13.0	12.4	4.3	11.1	7.3	6.2	10.0	5.8	3.0	12.0	9.5
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	396	1184	503	339	1123	477	438	1200	510	272	1020	434
V/C Ratio(X)	0.63	0.62	0.60	0.59	0.57	0.40	0.66	0.50	0.31	0.52	0.65	0.53
Avail Cap(c_a), veh/h	942	1797	764	942	1797	764	942	1797	764	942	1797	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(l)	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	32.4	22.3	22.1	33.1	22.6	21.3	31.9	21.0	19.6	33.9	24.6	23.7
Incr Delay (d2), s/veh	0.6	0.4	0.9	0.6	0.3	0.4	0.6	0.1	0.1	0.6	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.3	5.9	4.8	1.8	4.9	2.8	2.7	4.4	2.2	1.3	5.4	3.7
Lane Grp Delay (d), s/veh	33.0	22.7	22.9	33.7	22.9	21.7	32.5	21.1	19.7	34.5	24.8	24.0
Lane Grp LOS	C	C	C	C	C	C	C	C	B	C	C	C
Approach Vol, veh/h		1293			1029			1050			1032	
Approach Delay, s/veh		24.7			24.8			24.1			26.0	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	12.3	27.9		11.0	26.6		13.3	28.2		9.6	24.5	
Change Period (Y+Rc), s	4.5	5.5		4.5	5.5		4.5	5.5		4.5	5.5	
Max Green Setting (Gmax), s	20.0	35.0		20.0	35.0		20.0	35.0		20.0	35.0	
Max Q Clear Time (g_c+l1), s	7.3	15.0		6.3	13.1		8.2	12.0		5.0	14.0	
Green Ext Time (p_c), s	0.5	7.4		0.4	7.7		0.6	5.1		0.3	5.0	
Intersection Summary												
HCM 2010 Ctrl Delay			24.9									
HCM 2010 LOS			C									
Notes												























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE

Existing+Buildout PM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	160	190	90	12	150	73	60	59	13	88	77	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	412	342	566	175	637	566	377	307	51	283	160	248
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	551	958	1583	48	1781	1583	517	973	163	304	508	787
Grp Volume(v), veh/h	350	0	90	162	0	73	132	0	0	325	0	0
Grp Sat Flow(s),veh/h/ln	1509	0	1583	1829	0	1583	1652	0	0	1600	0	0
Q Serve(g_s), s	3.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.9	1.5	0.0	0.8	1.3	0.0	0.0	4.1	0.0	0.0
Prop In Lane	0.46		1.00	0.07		1.00	0.45		0.10	0.27		0.49
Lane Grp Cap(c), veh/h	754	0	566	812	0	566	735	0	0	691	0	0
V/C Ratio(X)	0.46	0.00	0.16	0.20	0.00	0.13	0.18	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	1305	0	1166	1483	0	1166	1336	0	0	1347	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(l)	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	6.4	0.0	5.3	5.5	0.0	5.3	6.2	0.0	0.0	7.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	0.2	0.4	0.0	0.2	0.4	0.0	0.0	1.2	0.0	0.0
Lane Grp Delay (d), s/veh	6.9	0.0	5.5	5.6	0.0	5.4	6.3	0.0	0.0	7.6	0.0	0.0
Lane Grp LOS	A		A	A		A	A			A		
Approach Vol, veh/h		440			235			132			325	
Approach Delay, s/veh		6.6			5.6			6.3			7.6	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		12.7			12.7			11.7			11.7	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			18.0			18.0	
Max Q Clear Time (g_c+l1), s		6.5			3.5			3.3			6.1	
Green Ext Time (p_c), s		2.3			2.5			1.7			1.6	
Intersection Summary												
HCM 2010 Ctrl Delay			6.6									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Existing+Buildout PM
 7/28/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	620	120	470	390	3	90	30	460	11	40	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	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	1	2	1	1	2	1	0	1	1	0	1	1
Cap, veh/h	61	1093	465	556	2133	906	258	65	728	117	238	232
Arrive On Green	0.03	0.29	0.29	0.31	0.57	0.57	0.15	0.15	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	876	444	1583	183	1628	1583
Grp Volume(v), veh/h	40	620	120	470	390	3	120	0	0	51	0	60
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1320	0	1583	1811	0	1583
Q Serve(g_s), s	1.1	6.9	2.8	12.0	2.4	0.0	3.2	0.0	0.0	0.0	0.0	1.6
Cycle Q Clear(g_c), s	1.1	6.9	2.8	12.0	2.4	0.0	4.3	0.0	0.0	1.2	0.0	1.6
Prop In Lane	1.00		1.00	1.00		1.00	0.75		1.00	0.22		1.00
Lane Grp Cap(c), veh/h	61	1093	465	556	2133	906	323	0	728	355	0	232
V/C Ratio(X)	0.66	0.57	0.26	0.85	0.18	0.00	0.37	0.00	0.00	0.14	0.00	0.26
Avail Cap(c_a), veh/h	584	2911	1237	803	3371	1433	923	0	1408	1098	0	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.2	14.6	13.1	15.6	5.0	4.5	19.7	0.0	0.0	18.2	0.0	18.4
Incr Delay (d2), s/veh	11.4	0.5	0.3	5.7	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	2.7	1.0	5.3	0.7	0.0	1.2	0.0	0.0	0.5	0.0	0.6
Lane Grp Delay (d), s/veh	34.6	15.0	13.4	21.3	5.0	4.5	20.4	0.0	0.0	18.4	0.0	19.0
Lane Grp LOS	C	B	B	C	A	A	C			B		B
Approach Vol, veh/h		780			863			120			111	
Approach Delay, s/veh		15.8			13.9			20.4			18.7	
Approach LOS		B			B			C			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	5.7	18.3		19.2	31.8			11.1				11.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	16.0	38.0		22.0	44.0			28.0				28.0
Max Q Clear Time (g_c+l1), s	3.1	8.9		14.0	4.4			6.3				3.6
Green Ext Time (p_c), s	0.1	5.4		1.2	5.6			0.8				0.8
Intersection Summary												
HCM 2010 Ctrl Delay				15.4								
HCM 2010 LOS				B								
Notes												

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	80	390	20	5	260	48	30	40	20	65	4	110
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	390	20	5	260	48	30	40	20	65	4	110
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	20.5	13.2	10.7	11.5
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	16%	2%	36%
Vol Thru, %	44%	80%	83%	2%
Vol Right, %	22%	4%	15%	61%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	490	313	179
LT Vol	40	390	260	4
Through Vol	20	20	48	110
RT Vol	30	80	5	65
Lane Flow Rate	90	490	313	179
Geometry Grp	1	1	1	1
Degree of Util (X)	0.159	0.715	0.47	0.294
Departure Headway (Hd)	6.365	5.254	5.41	5.917
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	560	686	664	603
Service Time	4.449	3.304	3.469	3.989
HCM Lane V/C Ratio	0.161	0.714	0.471	0.297
HCM Control Delay	10.7	20.5	13.2	11.5
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	0.6	6	2.5	1.2

Notes

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

Intersection

Intersection Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	24	7	30	40	6	52	30	1280	71	154	1540	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	-	-	-	-	-	-	250	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	7	30	40	6	52	30	1280	71	154	1540	50
























Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2576	3284	795	2458	3274	676	1590	0	0	1351	0	0
Stage 1	1873	1873	-	1376	1376	-	-	-	-	-	-	-
Stage 2	703	1411	-	1082	1898	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	# 13	9	330	# 16	9	396	409	-	-	505	-	-
Stage 1	74	120	-	153	211	-	-	-	-	-	-	-
Stage 2	394	203	-	232	116	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	-	# 6	330	-	6	396	409	-	-	505	-	-
Mov Capacity-2 Maneuver	-	# 6	-	-	6	-	-	-	-	-	-	-
Stage 1	69	83	-	142	196	-	-	-	-	-	-	-
Stage 2	307	188	-	134	81	-	-	-	-	-	-	-



















Approach	EB	WB	NB	SB
HCM Control Delay, s	+	+	0.3	1.3
HCM LOS	-	-		



















Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	409	-	-	+	+	505	-	-
HCM Lane V/C Ratio	0.073	-	-	+	+	0.305	-	-
HCM Control Delay (s)	14.498	-	-	+	+	15.226	-	-
HCM Lane LOS	B			+	+	C		
HCM 95th %tile Q(veh)	0.236	-	-	+	+	1.279	-	-












Notes

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	60	110	140	60	150	90	410	550	120	202	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	321	539	229	245	142	355	590	1410	599	231	1975	839
Arrive On Green	0.14	0.14	0.14	0.07	0.30	0.30	0.38	0.38	0.38	0.07	0.53	0.53
Sat Flow, veh/h	1167	3725	1583	3442	473	1182	1157	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	65	60	110	140	0	210	90	410	550	120	202	17
Grp Sat Flow(s),veh/h/ln	1167	1863	1583	1721	0	1654	1157	1863	1583	1721	1863	1583
Q Serve(g_s), s	2.4	0.7	3.0	1.9	0.0	4.8	2.5	3.6	15.6	1.6	1.3	0.2
Cycle Q Clear(g_c), s	2.4	0.7	3.0	1.9	0.0	4.8	2.5	3.6	15.6	1.6	1.3	0.2
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	539	229	245	0	497	590	1410	599	231	1975	839
V/C Ratio(X)	0.20	0.11	0.48	0.57	0.00	0.42	0.15	0.29	0.92	0.52	0.10	0.02
Avail Cap(c_a), veh/h	597	1419	603	291	0	910	593	1419	603	291	2050	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	17.6	18.6	21.2	0.0	13.2	9.9	10.3	14.0	21.3	5.5	5.3
Incr Delay (d2), s/veh	0.3	0.1	1.6	2.1	0.0	0.6	0.1	0.1	19.1	1.8	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 Back of Q (50%), veh/ln	0.7	0.3	1.2	0.8	0.0	1.8	0.6	1.4	8.3	0.7	0.5	0.1
Lane Grp Delay (d), s/veh	18.6	17.7	20.1	23.3	0.0	13.8	10.0	10.4	33.1	23.1	5.5	5.3
Lane Grp LOS	B	B	C	C		B	B	B	C	C	A	A
Approach Vol, veh/h		235			350			1050			339	
Approach Delay, s/veh		19.1			17.6			22.2			11.7	
Approach LOS		B			B			C			B	
Timer												
Assigned Phs		4		3	8			2		1		6
Phs Duration (G+Y+Rc), s		10.8		7.4	18.2			21.9		7.2		29.0
Change Period (Y+Rc), s		4.0		4.0	4.0			4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0		4.0	26.0			18.0		4.0		26.0
Max Q Clear Time (g_c+l1), s		5.0		3.9	6.8			17.6		3.6		3.3
Green Ext Time (p_c), s		1.8		0.0	2.1			0.2		0.0		6.5
Intersection Summary												
HCM 2010 Ctrl Delay				19.2								
HCM 2010 LOS				B								
Notes												



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	450	2	640	0	0	0	0	1040	320	377	1161	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	175.9	175.9	190.0				0.0	186.3	186.3	172.7	172.7	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	521	547	0				0	1338	569	398	1089	0
Arrive On Green	0.31	0.31	0.00				0.00	0.36	0.36	0.24	0.63	0.00
Sat Flow, veh/h	1675	1759	0				0	3725	1583	1645	1727	0
Grp Volume(v), veh/h	495	2	0				0	1182	364	449	1382	0
Grp Sat Flow(s),veh/h/ln	1675	1759	0				0	1863	1583	1645	1727	0
Q Serve(g_s), s	39.4	0.1	0.0				0.0	40.6	26.1	33.0	86.0	0.0
Cycle Q Clear(g_c), s	39.4	0.1	0.0				0.0	40.6	26.1	33.0	86.0	0.0
Prop In Lane	1.00		0.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	521	547	0				0	1338	569	398	1089	0
V/C Ratio(X)	0.95	0.00	0.00				0.00	0.88	0.64	1.13	1.27	0.00
Avail Cap(c_a), veh/h	565	593	0				0	1338	569	398	1089	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.0	32.4	0.0				0.0	41.0	36.4	51.7	25.2	0.0
Incr Delay (d2), s/veh	25.1	0.0	0.0				0.0	7.3	2.4	84.8	128.4	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
%ile Back of Q (50%), veh/ln	20.7	0.0	0.0				0.0	20.7	11.0	23.4	74.8	0.0
Lane Grp Delay (d), s/veh	71.1	32.4	0.0				0.0	48.3	38.8	136.5	153.6	0.0
Lane Grp LOS	E	C						D	D	F	F	
Approach Vol, veh/h		497						1546			1831	
Approach Delay, s/veh		70.9						46.1			149.4	
Approach LOS		E						D			F	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		46.4						53.0		37.0	90.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		46.0						49.0		33.0	86.0	
Max Q Clear Time (g_c+l1), s		41.4						42.6		35.0	88.0	
Green Ext Time (p_c), s		1.0						5.9		0.0	0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			98.1									
HCM 2010 LOS			F									
Notes												





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	130	1	150	160	1330	0	0	1408	525
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	182.7	182.7	186.3	186.3	0.0	0.0	177.6	177.6
Lanes				0	1	1	1	1	0	0	2	1
Cap, veh/h				164	1	147	215	1580	0	0	2481	1054
Arrive On Green				0.09	0.09	0.00	0.12	0.85	0.00	0.00	0.70	0.70
Sat Flow, veh/h				1728	12	1553	1774	1863	0	0	3551	1509
Grp Volume(v), veh/h				141	0	0	188	1565	0	0	1760	656
Grp Sat Flow(s),veh/h/ln				1741	0	1553	1774	1863	0	0	1776	1509
Q Serve(g_s), s				11.3	0.0	0.0	14.7	112.4	0.0	0.0	41.7	32.7
Cycle Q Clear(g_c), s				11.3	0.0	0.0	14.7	112.4	0.0	0.0	41.7	32.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				165	0	147	215	1580	0	0	2481	1054
V/C Ratio(X)				0.85	0.00	0.00	0.87	0.99	0.00	0.00	0.71	0.62
Avail Cap(c_a), veh/h				222	0	198	327	1638	0	0	2481	1054
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				62.9	0.0	0.0	60.9	10.1	0.0	0.0	12.7	11.3
Incr Delay (d2), s/veh				20.7	0.0	0.0	15.1	19.7	0.0	0.0	1.0	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
%ile Back of Q (50%), veh/ln				6.1	0.0	0.0	7.7	49.1	0.0	0.0	17.7	11.8
Lane Grp Delay (d), s/veh				83.6	0.0	0.0	76.0	29.8	0.0	0.0	13.7	12.5
Lane Grp LOS				F			E	C			B	B
Approach Vol, veh/h					141			1753			2416	
Approach Delay, s/veh					83.6			34.7			13.3	
Approach LOS					F			C			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					17.4		21.1	123.6			102.5	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					18.0		26.0	124.0			94.0	
Max Q Clear Time (g_c+l1), s					13.3		16.7	114.4			43.7	
Green Ext Time (p_c), s					0.2		0.4	5.3			46.3	
Intersection Summary												
HCM 2010 Ctrl Delay				24.3								
HCM 2010 LOS				C								
Notes												










						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	570	53	1065	635	52	830
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	182.7	190.0	182.7	182.7	182.7	182.7
Lanes	1	0	1	1	1	1
Cap, veh/h	0	0	1529	1300	74	1717
Arrive On Green	0.00	0.00	0.84	0.84	0.04	0.94
Sat Flow, veh/h	0	0	1827	1553	1740	1827
Grp Volume(v), veh/h	0	0	1224	730	59	943
Grp Sat Flow(s),veh/h/ln	0	0	1827	1553	1740	1827
Q Serve(g_s), s	0.0	0.0	21.9	9.6	2.2	4.3
Cycle Q Clear(g_c), s	0.0	0.0	21.9	9.6	2.2	4.3
Prop In Lane	0.00	0.00		1.00	1.00	
Lane Grp Cap(c), veh/h	0	0	1529	1300	74	1717
V/C Ratio(X)	0.00	0.00	0.80	0.56	0.80	0.55
Avail Cap(c_a), veh/h	0	0	2206	1875	105	2426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	2.7	1.7	31.5	0.2
Incr Delay (d2), s/veh	0.0	0.0	1.4	0.4	24.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	2.6	0.7	1.4	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	4.1	2.0	55.9	0.5
Lane Grp LOS			A	A	E	A
Approach Vol, veh/h	0		1954			1002
Approach Delay, s/veh	0.0		3.3			3.8
Approach LOS			A			A
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			59.5		6.8	66.3
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			80.0		4.0	88.0
Max Q Clear Time (g_c+l1), s			23.9		4.2	6.3
Green Ext Time (p_c), s			31.5		0.0	37.3
Intersection Summary						
HCM 2010 Ctrl Delay			3.5			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 5: TRACY BLVD & LINNE

Existing+Buildout PM Mitigated TMP
 9/3/2014

























													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	320	340	30	3	310	71	30	30	16	93	21	300	
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	182.7	182.7	190.0	190.0	182.7	190.0	190.0	182.7	190.0	190.0	182.7	182.7	
Lanes	1	1	0	0	1	0	0	1	0	0	1	1	
Cap, veh/h	391	1013	89	61	460	105	169	154	64	364	71	396	
Arrive On Green	0.22	0.61	0.61	0.32	0.32	0.32	0.26	0.26	0.26	0.26	0.26	0.26	
Sat Flow, veh/h	1740	1657	145	3	1435	328	333	606	251	1000	277	1553	
Grp Volume(v), veh/h	344	0	398	512	0	0	109	0	0	126	0	333	
Grp Sat Flow(s),veh/h/ln	1740	0	1801	1766	0	0	1190	0	0	1277	0	1553	
Q Serve(g_s), s	11.5	0.0	6.6	2.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	12.2	
Cycle Q Clear(g_c), s	11.5	0.0	6.6	16.7	0.0	0.0	5.9	0.0	0.0	5.7	0.0	12.2	
Prop In Lane	1.00		0.08	0.01		0.19	0.39		0.21	0.82		1.00	
Lane Grp Cap(c), veh/h	391	0	1102	626	0	0	387	0	0	434	0	396	
V/C Ratio(X)	0.88	0.00	0.36	0.82	0.00	0.00	0.28	0.00	0.00	0.29	0.00	0.84	
Avail Cap(c_a), veh/h	405	0	1139	648	0	0	469	0	0	518	0	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(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh	22.5	0.0	5.8	19.5	0.0	0.0	17.8	0.0	0.0	18.7	0.0	21.2	
Incr Delay (d2), s/veh	18.9	0.0	0.2	7.9	0.0	0.0	0.4	0.0	0.0	0.4	0.0	10.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile Back of Q (50%), veh/ln	6.5	0.0	2.2	7.8	0.0	0.0	1.2	0.0	0.0	1.4	0.0	5.3	
Lane Grp Delay (d), s/veh	41.4	0.0	6.0	27.4	0.0	0.0	18.2	0.0	0.0	19.0	0.0	31.6	
Lane Grp LOS	D		A	C			B			B		C	
Approach Vol, veh/h		742			512			109				459	
Approach Delay, s/veh		22.4			27.4			18.2				28.2	
Approach LOS		C			C			B				C	
Timer													
Assigned Phs	7	4			8			2				6	
Phs Duration (G+Y+Rc), s	17.5	40.8			23.3			19.3				19.3	
Change Period (Y+Rc), s	4.0	4.0			4.0			4.0				4.0	
Max Green Setting (Gmax), s	14.0	38.0			20.0			19.0				19.0	
Max Q Clear Time (g_c+l1), s	13.5	8.6			18.7			7.9				14.2	
Green Ext Time (p_c), s	0.1	3.9			0.6			1.9				1.1	
Intersection Summary													
HCM 2010 Ctrl Delay			25.0										
HCM 2010 LOS			C										
Notes													












												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	254	130	120	95	133	100	750	150	169	670	7
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	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	246	316	162	133	192	267	327	887	178	157	1083	12
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1069	1140	584	922	692	965	689	1478	296	550	1804	19
Grp Volume(v), veh/h	6	0	446	150	0	285	111	0	1000	190	0	761
Grp Sat Flow(s),veh/h/ln	1069	0	1724	922	0	1657	689	0	1775	550	0	1824
Q Serve(g_s), s	0.3	0.0	16.4	1.6	0.0	9.8	8.6	0.0	33.6	5.4	0.0	18.6
Cycle Q Clear(g_c), s	10.1	0.0	16.4	18.0	0.0	9.8	27.2	0.0	33.6	39.0	0.0	18.6
Prop In Lane	1.00		0.34	1.00		0.58	1.00		0.17	1.00		0.01
Lane Grp Cap(c), veh/h	246	0	477	133	0	459	327	0	1065	157	0	1094
V/C Ratio(X)	0.02	0.00	0.93	1.12	0.00	0.62	0.34	0.00	0.94	1.21	0.00	0.70
Avail Cap(c_a), veh/h	246	0	477	133	0	459	327	0	1065	157	0	1094
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	0.0	22.9	32.4	0.0	20.5	18.3	0.0	11.9	31.7	0.0	8.9
Incr Delay (d2), s/veh	0.0	0.0	25.7	115.2	0.0	2.6	0.6	0.0	15.2	140.0	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 Back of Q (50%), veh/ln	0.1	0.0	9.7	6.3	0.0	3.9	1.4	0.0	15.0	8.5	0.0	6.7
Lane Grp Delay (d), s/veh	25.0	0.0	48.6	147.5	0.0	23.1	18.9	0.0	27.1	171.8	0.0	10.9
Lane Grp LOS	C		D	F		C	B		C	F		B
Approach Vol, veh/h		452			435			1111			951	
Approach Delay, s/veh		48.3			66.0			26.3			43.0	
Approach LOS		D			E			C			D	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		22.0			22.0			43.0			43.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		18.0			18.0			39.0			39.0	
Max Q Clear Time (g_c+l1), s		18.4			20.0			35.6			41.0	
Green Ext Time (p_c), s		0.0			0.0			2.7			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			40.9									
HCM 2010 LOS			D									
Notes												

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	80	150	200	70	420	360
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	182.7	190.0	182.7	190.0	190.0	182.7
Lanes	0	1	1	0	0	1
Cap, veh/h	0	0	1112	390	712	516
Arrive On Green	0.00	0.00	0.86	0.86	0.86	0.86
Sat Flow, veh/h	0	0	1293	454	602	600
Grp Volume(v), veh/h	0	0	0	466	940	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1747	1202	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	12.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.5	13.4	0.0
Prop In Lane	0.00	0.00		0.26	0.54	
Lane Grp Cap(c), veh/h	0	0	0	1501	1228	0
V/C Ratio(X)	0.00	0.00	0.00	0.31	0.77	0.00
Avail Cap(c_a), veh/h	0	0	0	6996	4940	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.4	1.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.3	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	0.5	2.1	0.0
Lane Grp LOS				A	A	
Approach Vol, veh/h	0		466			940
Approach Delay, s/veh	0.0		0.5			2.1
Approach LOS			A			A
Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			28.8			28.8
Change Period (Y+Rc), s			4.0			4.0
Max Green Setting (Gmax), s			114.0			114.0
Max Q Clear Time (g_c+l1), s			3.5			15.4
Green Ext Time (p_c), s			9.8			9.8
Intersection Summary						
HCM 2010 Ctrl Delay			1.6			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing+Buildout PM Mitigated TMP
 8/5/2014

















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	34	30	80	56	326	40	950	100	508	1009	85
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	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	0	2	1	2	0	2	2	0
Cap, veh/h	100	568	241	110	0	500	76	1257	132	638	1770	148
Arrive On Green	0.06	0.16	0.16	0.06	0.00	0.16	0.04	0.39	0.39	0.19	0.53	0.53
Sat Flow, veh/h	1740	3654	1553	1740	0	3106	1740	3253	341	3375	3326	279
Grp Volume(v), veh/h	79	42	37	87	0	395	43	568	549	564	615	600
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	0	1553	1740	1827	1767	1688	1827	1778
Q Serve(g_s), s	4.1	0.9	1.9	4.6	0.0	11.3	2.2	25.5	25.6	15.0	22.0	22.0
Cycle Q Clear(g_c), s	4.1	0.9	1.9	4.6	0.0	11.3	2.2	25.5	25.6	15.0	22.0	22.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.16
Lane Grp Cap(c), veh/h	100	568	241	110	0	500	76	706	683	638	972	946
V/C Ratio(X)	0.79	0.07	0.15	0.79	0.00	0.79	0.57	0.80	0.80	0.88	0.63	0.63
Avail Cap(c_a), veh/h	126	1566	666	181	0	1429	115	791	765	797	1102	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	43.0	33.3	33.8	42.6	0.0	37.2	43.3	25.2	25.2	36.5	15.2	15.3
Incr Delay (d2), s/veh	17.4	0.1	0.3	4.6	0.0	1.1	2.5	5.5	5.7	8.6	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.3	0.4	0.7	2.1	0.0	4.3	1.0	12.0	11.6	6.9	9.2	8.9
Lane Grp Delay (d), s/veh	60.4	33.4	34.0	47.3	0.0	38.3	45.8	30.7	30.9	45.1	16.2	16.3
Lane Grp LOS	E	C	C	D		D	D	C	C	D	B	B
Approach Vol, veh/h		158			482			1160			1779	
Approach Delay, s/veh		47.0			39.9			31.4			25.4	
Approach LOS		D			D			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	9.8	19.4		10.4	19.9		8.5	40.7		22.0	54.2	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	6.7	39.6		9.6	42.5		6.1	40.0		21.8	55.7	
Max Q Clear Time (g_c+l1), s	6.1	3.9		6.6	13.3		4.2	27.6		17.0	24.0	
Green Ext Time (p_c), s	0.0	1.6		0.0	1.6		0.0	8.1		0.4	13.8	
Intersection Summary												
HCM 2010 Ctrl Delay			30.2									
HCM 2010 LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	105	530	110	180	250	13
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	190.0	186.3	186.3	186.3	186.3
Lanes	0	1	1	1	1	1
Cap, veh/h	0	0	1251	1114	1114	947
Arrive On Green	0.00	0.00	0.60	0.60	0.60	0.60
Sat Flow, veh/h	0	0	1031	1863	1863	1583
Grp Volume(v), veh/h	0	0	125	205	329	17
Grp Sat Flow(s),veh/h/ln	0	0	1031	1863	1863	1583
Q Serve(g_s), s	0.0	0.0	0.7	0.5	0.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.5	0.5	0.9	0.0
Prop In Lane	0.00	0.00	1.00			1.00
Lane Grp Cap(c), veh/h	0	0	1251	1114	1114	947
V/C Ratio(X)	0.00	0.00	0.10	0.18	0.30	0.02
Avail Cap(c_a), veh/h	0	0	2498	3368	3368	2863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.3	0.9	1.0	0.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	1.4	1.0	1.1	0.8
Lane Grp LOS			A	A	A	A
Approach Vol, veh/h	0			330	346	
Approach Delay, s/veh	0.0			1.1	1.1	
Approach LOS				A	A	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				10.0	10.0	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				18.0	18.0	
Max Q Clear Time (g_c+l1), s				3.5	2.9	
Green Ext Time (p_c), s				2.4	2.5	
Intersection Summary						
HCM 2010 Ctrl Delay			1.1			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

HCM 2010 Signalized Intersection Summary
 13: PATTERSON PASS RD & I-580 SOUTH OFF RAMP

Existing+Buildout PM Mitigated TMP

















9/3/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	288	20	76	0	0	0	0	482	258	269	48	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	190.0	190.0	174.3	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	407	28	387				0	671	360	833	149	0
Arrive On Green	0.24	0.24	0.00				0.00	0.59	0.59	0.59	0.59	0.00
Sat Flow, veh/h	1666	113	1583				0	1142	612	1419	253	0
Grp Volume(v), veh/h	346	0	0				0	0	871	396	0	0
Grp Sat Flow(s),veh/h/ln	1779	0	1583				0	0	1755	1672	0	0
Q Serve(g_s), s	8.7	0.0	0.0				0.0	0.0	19.3	6.1	0.0	0.0
Cycle Q Clear(g_c), s	8.7	0.0	0.0				0.0	0.0	19.3	6.1	0.0	0.0
Prop In Lane	0.94		1.00				0.00		0.35	0.85		0.00
Lane Grp Cap(c), veh/h	434	0	387				0	0	1030	982	0	0
V/C Ratio(X)	0.80	0.00	0.00				0.00	0.00	0.85	0.40	0.00	0.00
Avail Cap(c_a), veh/h	788	0	701				0	0	1924	982	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	0.0				0.0	0.0	8.0	5.3	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.0	0.0				0.0	0.0	2.0	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
%ile Back of Q (50%), veh/ln	3.9	0.0	0.0				0.0	0.0	6.6	1.9	0.0	0.0
Lane Grp Delay (d), s/veh	20.2	0.0	0.0				0.0	0.0	10.0	5.6	0.0	0.0
Lane Grp LOS	C								B	A		
Approach Vol, veh/h		346						871			396	
Approach Delay, s/veh		20.2						10.0			5.6	
Approach LOS		C						B			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		15.6						31.8			31.8	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		21.0						52.0			25.0	
Max Q Clear Time (g_c+l1), s		10.7						21.3			8.1	
Green Ext Time (p_c), s		1.0						6.6			6.3	
Intersection Summary												
HCM 2010 Ctrl Delay			11.1									
HCM 2010 LOS			B									
Notes												

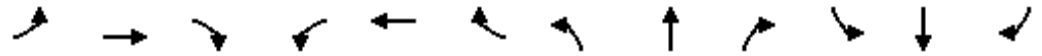
HCM 2010 Signalized Intersection Summary
 14: PATTERSON PASS RD & I-580 NORTH OFF RAMP

Existing+Buildout PM Mitigated TMP

8/5/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	21	3	296	16	754	0	0	296	156
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	154.5	190.0	190.0	186.3	0.0	0.0	171.2	171.2
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				41	6	0	147	1227	0	0	1142	971
Arrive On Green				0.03	0.03	0.00	0.67	0.67	0.00	0.00	0.67	0.00
Sat Flow, veh/h				1295	185	0	13	1839	0	0	1712	1455
Grp Volume(v), veh/h				32	0	0	917	0	0	0	389	0
Grp Sat Flow(s),veh/h/ln				1480	0	0	1852	0	0	0	1712	1455
Q Serve(g_s), s				0.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0
Cycle Q Clear(g_c), s				0.6	0.0	0.0	8.6	0.0	0.0	0.0	2.6	0.0
Prop In Lane				0.87		0.00	0.02		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				47	0	0	1374	0	0	0	1142	971
V/C Ratio(X)				0.68	0.00	0.00	0.67	0.00	0.00	0.00	0.34	0.00
Avail Cap(c_a), veh/h				1002	0	0	2493	0	0	0	2189	1861
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				12.7	0.0	0.0	2.9	0.0	0.0	0.0	1.9	0.0
Incr Delay (d2), s/veh				16.1	0.0	0.0	0.6	0.0	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.4	0.0	0.0	1.0	0.0	0.0	0.0	0.3	0.0
Lane Grp Delay (d), s/veh				28.8	0.0	0.0	3.5	0.0	0.0	0.0	2.1	0.0
Lane Grp LOS				C			A				A	
Approach Vol, veh/h					32			917			389	
Approach Delay, s/veh					28.8			3.5			2.1	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					4.8			21.7			21.7	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					18.0			34.0			34.0	
Max Q Clear Time (g_c+l1), s					2.6			10.6			4.6	
Green Ext Time (p_c), s					0.0			7.2			7.6	
Intersection Summary												
HCM 2010 Ctrl Delay				3.7								
HCM 2010 LOS				A								
Notes												

HCM Signalized Intersection Capacity Analysis Exsiting+Buildout PM Mitigated Beyond TMP
 1: CORRAL HOLLOW RD & I-580 EB OFF RAMP/I-580 EB ON RAMP 10/2/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖↖					↖↖	↖	↖	↖↖	
Volume (vph)	450	2	640	0	0	0	0	1040	320	377	1161	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95	0.88					0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1588	1592	2632					3539	1583	1641	3282	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1588	1592	2632					3539	1583	1641	3282	
Peak-hour factor, PHF	0.91	0.91	0.91	1.00	1.00	1.00	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	495	2	703	0	0	0	0	1182	364	449	1382	0
RTOR Reduction (vph)	0	0	126	0	0	0	0	0	204	0	0	0
Lane Group Flow (vph)	247	250	577	0	0	0	0	1182	160	449	1382	0
Heavy Vehicles (%)	8%	8%	8%	0%	0%	0%	2%	2%	2%	10%	10%	10%
Turn Type	Perm	NA	Prot					NA	Perm	Prot	NA	
Protected Phases		4	4					2		1	6	
Permitted Phases	4								2			
Actuated Green, G (s)	19.0	19.0	19.0					44.0	44.0	25.0	73.0	
Effective Green, g (s)	19.0	19.0	19.0					44.0	44.0	25.0	73.0	
Actuated g/C Ratio	0.19	0.19	0.19					0.44	0.44	0.25	0.73	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	301	302	500					1557	696	410	2395	
v/s Ratio Prot			c0.22					c0.33		c0.27	0.42	
v/s Ratio Perm	0.16	0.16							0.10			
v/c Ratio	0.82	0.83	1.15					0.76	0.23	1.10	0.58	
Uniform Delay, d1	38.9	38.9	40.5					23.5	17.4	37.5	6.3	
Progression Factor	1.00	1.00	1.00					1.00	1.00	1.19	0.58	
Incremental Delay, d2	16.2	16.8	90.4					2.2	0.2	66.0	0.2	
Delay (s)	55.1	55.7	130.9					25.7	17.6	110.5	3.9	
Level of Service	E	E	F					C	B	F	A	
Approach Delay (s)		99.6			0.0			23.8			30.0	
Approach LOS		F			A			C			C	

Intersection Summary		
HCM 2000 Control Delay	46.2	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.94	D
Actuated Cycle Length (s)	100.0	Sum of lost time (s)
Intersection Capacity Utilization	72.2%	12.0
Analysis Period (min)	15	ICU Level of Service
		C

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis Exsiting+Buildout PM Mitigated Beyond TMP
 2: CORRAL HOLLOW RD & I-580 WB ON RAMP/I-580 WB ON/OFF RAMP 10/2/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗		↕↕	↗↗		↕↕	↗
Volume (vph)	0	0	0	130	1	150	0	1330	160	0	1408	525
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		0.95	0.88		0.95	1.00
Frt					1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)					1741	1553		3539	2787		3374	1509
Flt Permitted					0.95	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)					1741	1553		3539	2787		3374	1509
Peak-hour factor, PHF	1.00	1.00	1.00	0.93	0.93	0.93	0.85	0.85	0.85	0.80	0.80	0.80
Adj. Flow (vph)	0	0	0	140	1	161	0	1565	188	0	1760	656
RTOR Reduction (vph)	0	0	0	0	0	130	0	0	90	0	0	177
Lane Group Flow (vph)	0	0	0	0	141	31	0	1565	98	0	1760	479
Heavy Vehicles (%)	0%	0%	0%	4%	4%	4%	2%	2%	2%	7%	7%	7%
Turn Type				Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8			2			6
Actuated Green, G (s)					19.0	19.0		44.0	44.0		73.0	73.0
Effective Green, g (s)					19.0	19.0		44.0	44.0		73.0	73.0
Actuated g/C Ratio					0.19	0.19		0.44	0.44		0.73	0.73
Clearance Time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)					3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)					330	295		1557	1226		2463	1101
v/s Ratio Prot								c0.44			c0.52	
v/s Ratio Perm					0.08	0.02			0.04			0.32
v/c Ratio					0.43	0.10		1.01	0.08		0.71	0.43
Uniform Delay, d1					35.7	33.5		28.0	16.3		7.6	5.3
Progression Factor					1.00	1.00		0.75	1.19		1.00	1.00
Incremental Delay, d2					0.9	0.2		19.6	0.0		1.0	0.3
Delay (s)					36.6	33.6		40.5	19.3		8.6	5.6
Level of Service					D	C		D	B		A	A
Approach Delay (s)		0.0			35.0			38.2			7.8	
Approach LOS		A			D			D			A	

Intersection Summary

HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis Exsiting+Buildout PM Mitigated Beyond TMP
 1: CORRAL HOLLOW RD & I-580 EB OFF RAMP/I-580 EB ON RAMP

8/5/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↙	↗↘					↕	↗	↘	↕	
Volume (vph)	450	2	640	0	0	0	0	1040	320	377	1161	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95	0.88					0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1588	1592	2632					3539	1583	1641	3282	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1588	1592	2632					3539	1583	1641	3282	
Peak-hour factor, PHF	0.91	0.91	0.91	1.00	1.00	1.00	0.88	0.88	0.88	0.84	0.84	0.84
Adj. Flow (vph)	495	2	703	0	0	0	0	1182	364	449	1382	0
RTOR Reduction (vph)	0	0	261	0	0	0	0	0	200	0	0	0
Lane Group Flow (vph)	247	250	442	0	0	0	0	1182	164	449	1382	0
Heavy Vehicles (%)	8%	8%	8%	0%	0%	0%	2%	2%	2%	10%	10%	10%
Turn Type	Perm	NA	Prot					NA	Perm	Prot	NA	
Protected Phases		4	4					2		1	6	
Permitted Phases	4								2			
Actuated Green, G (s)	18.0	18.0	18.0					45.0	45.0	25.0	62.0	
Effective Green, g (s)	18.0	18.0	18.0					45.0	45.0	25.0	62.0	
Actuated g/C Ratio	0.18	0.18	0.18					0.45	0.45	0.25	0.62	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	285	286	473					1592	712	410	2034	
v/s Ratio Prot			c0.17					c0.33		c0.27	0.42	
v/s Ratio Perm	0.16	0.16							0.10			
v/c Ratio	0.87	0.87	0.93					0.74	0.23	1.10	0.68	
Uniform Delay, d1	39.8	39.9	40.4					22.7	16.9	37.5	12.5	
Progression Factor	1.00	1.00	1.00					1.00	1.00	1.42	0.72	
Incremental Delay, d2	23.0	24.2	25.8					1.9	0.2	47.0	0.1	
Delay (s)	62.9	64.1	66.2					24.6	17.0	100.0	9.1	
Level of Service	E	E	E					C	B	F	A	
Approach Delay (s)		65.1			0.0			22.8			31.4	
Approach LOS		E			A			C			C	

Intersection Summary

























HCM 2000 Control Delay	37.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
3: CORRAL HOLLOW RD & SPINE RD

Exsiting+Buildout PM Mitigated Beyond TMP

9/3/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	490	180	610	670	360	510	550	530	400	440	653	480
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	2	1	1	2	2	1	2	2	1
Cap, veh/h	497	399	603	738	517	440	574	936	727	512	869	598
Arrive On Green	0.14	0.21	0.21	0.21	0.28	0.28	0.17	0.25	0.25	0.15	0.23	0.23
Sat Flow, veh/h	3442	1863	1583	3548	1863	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	490	180	610	670	472	435	550	530	400	440	653	480
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	12.8	7.6	19.3	16.6	22.1	24.6	14.3	11.2	16.4	11.2	14.7	21.0
Cycle Q Clear(g_c), s	12.8	7.6	19.3	16.6	22.1	24.6	14.3	11.2	16.4	11.2	14.7	21.0
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	497	399	603	738	517	440	574	936	727	512	869	598
V/C Ratio(X)	0.99	0.45	1.01	0.91	0.91	0.99	0.96	0.57	0.55	0.86	0.75	0.80
Avail Cap(c_a), veh/h	497	399	603	749	517	440	574	936	727	535	869	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	30.8	27.9	34.8	31.4	32.4	37.2	29.4	17.6	37.4	32.1	25.0
Incr Delay (d2), s/veh	36.5	0.8	39.6	14.7	20.5	39.9	27.5	0.8	0.9	12.9	3.7	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	8.0	3.6	19.7	9.0	13.0	14.4	8.3	5.3	6.4	5.8	7.2	10.6
Lane Grp Delay (d), s/veh	74.9	31.6	67.5	49.5	52.0	72.3	64.7	30.2	18.5	50.3	35.8	32.8
Lane Grp LOS	E	C	F	D	D	E	E	C	B	D	D	C
Approach Vol, veh/h		1280			1577			1480			1573	
Approach Delay, s/veh		65.3			56.5			39.9			38.9	
Approach LOS		E			E			D			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	17.0	23.3		22.7	29.0		19.0	26.6		17.4	25.0	
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	19.0		19.0	25.0		15.0	22.0		14.0	21.0	
Max Q Clear Time (g_c+l1), s	14.8	21.3		18.6	26.6		16.3	18.4		13.2	23.0	
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0		0.0	2.9		0.2	0.0	
Intersection Summary												
HCM 2010 Ctrl Delay	49.6											
HCM 2010 LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 2010 Signalized Intersection Summary Exsiting+Buildout PM Mitigated Beyond TMP
 19: CORRAL HOLLOW RD & N TRACY HILLS RD 8/5/2014
























Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	400	320	240	1290	1253	160
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1
Cap, veh/h	388	346	233	2650	2031	863
Arrive On Green	0.22	0.22	0.13	0.71	0.55	0.55
Sat Flow, veh/h	1774	1583	1774	3725	3725	1583
Grp Volume(v), veh/h	400	320	240	1290	1253	160
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	25.0	22.6	15.0	17.5	26.4	5.8
Cycle Q Clear(g_c), s	25.0	22.6	15.0	17.5	26.4	5.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	388	346	233	2650	2031	863
V/C Ratio(X)	1.03	0.92	1.03	0.49	0.62	0.19
Avail Cap(c_a), veh/h	388	346	233	3161	2542	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.7	43.7	49.7	7.3	17.8	13.2
Incr Delay (d2), s/veh	53.9	29.8	67.3	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	17.2	2.9	11.1	6.5	11.7	2.2
Lane Grp Delay (d), s/veh	98.5	73.5	116.9	7.4	18.1	13.3
Lane Grp LOS	F	E	F	A	B	B
Approach Vol, veh/h	720			1530	1413	
Approach Delay, s/veh	87.4			24.6	17.6	
Approach LOS	F			C	B	

Timer				
Assigned Phs		5	2	6
Phs Duration (G+Y+Rc), s		19.0	85.3	66.3
Change Period (Y+Rc), s		4.0	4.0	4.0
Max Green Setting (Gmax), s		15.0	97.0	78.0
Max Q Clear Time (g_c+l1), s		17.0	19.5	28.4
Green Ext Time (p_c), s		0.0	44.4	34.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.2
HCM 2010 LOS	C

Notes

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	290	40	540	420	540	30	40	250	240	40	0
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	0	1	2	1	0	1	1	2	1	0
Cap, veh/h	103	385	53	596	2360	1003	118	129	158	329	258	0
Arrive On Green	0.00	0.24	0.24	0.34	0.63	0.63	0.10	0.10	0.00	0.10	0.14	0.00
Sat Flow, veh/h	583	1603	221	1774	3725	1583	447	1291	1583	3442	1863	0
Grp Volume(v), veh/h	0	0	330	540	420	540	70	0	0	240	40	0
Grp Sat Flow(s),veh/h/ln	583	0	1824	1774	1863	1583	1738	0	1583	1721	1863	0
Q Serve(g_s), s	0.0	0.0	11.8	20.4	3.3	13.3	4.7	0.0	0.0	4.8	1.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.8	20.4	3.3	13.3	4.7	0.0	0.0	4.8	1.3	0.0
Prop In Lane	1.00		0.12	1.00		1.00	0.43		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	103	0	438	596	2360	1003	0	0	158	329	258	0
V/C Ratio(X)	0.00	0.00	0.75	0.91	0.18	0.54	0.00	0.00	0.00	0.73	0.16	0.00
Avail Cap(c_a), veh/h	121	0	494	759	2816	1197	0	0	406	344	770	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(l)	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	24.7	22.2	5.3	7.2	0.0	0.0	0.0	30.8	26.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	5.7	12.3	0.0	0.5	0.0	0.0	0.0	7.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	5.9	10.6	1.2	4.3	0.0	0.0	0.0	2.4	0.6	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	30.4	34.5	5.3	7.6	0.0	0.0	0.0	38.1	26.9	0.0
Lane Grp LOS			C	C	A	A				D	C	
Approach Vol, veh/h		330			1500			70			280	
Approach Delay, s/veh		30.4			16.7			0.0			36.5	
Approach LOS		C			B			A			D	
Timer												
Assigned Phs		6		5	2		7	4		3	8	
Phs Duration (G+Y+Rc), s		20.8		27.6	48.4		8.0	11.0		10.7	13.7	
Change Period (Y+Rc), s		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s		19.0		30.0	53.0		29.0	18.0		7.0	29.0	
Max Q Clear Time (g_c+l1), s		13.8		22.4	15.3		0.0	6.7		6.8	3.3	
Green Ext Time (p_c), s		3.1		1.2	8.6		0.0	0.3		0.0	0.5	
Intersection Summary												
HCM 2010 Ctrl Delay				20.8								
HCM 2010 LOS				C								
Notes												

Intersection

Intersection Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	30	0	0	52	30	1280	71	154	1540	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	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	30	0	0	52	30	1280	71	154	1540	50

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2573	3284	795	2454	3274	676	1590	0	0	1351	0	0
Stage 1	1873	1873	-	1376	1376	-	-	-	-	-	-	-
Stage 2	700	1411	-	1078	1898	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	13	9	330	16	9	396	409	-	-	505	-	-
Stage 1	74	120	-	153	211	-	-	-	-	-	-	-
Stage 2	396	203	-	233	116	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	9	6	330	11	6	396	409	-	-	505	-	-
Mov Capacity-2 Maneuver	9	6	-	11	6	-	-	-	-	-	-	-
Stage 1	52	120	-	106	147	-	-	-	-	-	-	-
Stage 2	239	141	-	212	116	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	17			15.5			2.3			6.9		
HCM LOS	C			C								



















Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	409	-	-	330	396	505	-	-
HCM Lane V/C Ratio	0.073	-	-	0.091	0.131	0.305	-	-
HCM Control Delay (s)	14.498	2.1	-	17	15.5	15.226	6.3	-
HCM Lane LOS	B	A	-	C	C	C	A	-
HCM 95th %tile Q(veh)	0.236	-	-	0.298	0.449	1.279	-	-

Notes

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



















HCM 2010 Signalized Intersection Summary
 1: CORRAL HOLLOW RD & I-580 EAST OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	132	6	39	0	0	0	0	51	30	73	447	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	222	27	175				0	785	333	118	888	0
Arrive On Green	0.12	0.12	0.12				0.00	0.21	0.21	0.07	0.48	0.00
Sat Flow, veh/h	1774	215	1400				0	3725	1583	1774	1863	0
Grp Volume(v), veh/h	132	0	45				0	51	30	73	447	0
Grp Sat Flow(s),veh/h/ln	1774	0	1616				0	1863	1583	1774	1863	0
Q Serve(g_s), s	1.4	0.0	0.5				0.0	0.2	0.3	0.8	3.3	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.5				0.0	0.2	0.3	0.8	3.3	0.0
Prop In Lane	1.00		0.87				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	222	0	202				0	785	333	118	888	0
V/C Ratio(X)	0.60	0.00	0.22				0.00	0.07	0.09	0.62	0.50	0.00
Avail Cap(c_a), veh/h	1414	0	1288				0	2969	1262	530	2413	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.3	0.0	7.9				0.0	6.3	6.4	9.1	3.6	0.0
Incr Delay (d2), s/veh	2.5	0.0	0.6				0.0	0.0	0.1	5.2	0.4	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
%ile Back of Q (50%), veh/ln	0.6	0.0	0.2				0.0	0.1	0.1	0.4	0.7	0.0
Lane Grp Delay (d), s/veh	10.8	0.0	8.5				0.0	6.4	6.5	14.3	4.1	0.0
Lane Grp LOS	B		A					A	A	B	A	
Approach Vol, veh/h		177						81			520	
Approach Delay, s/veh		10.2						6.4			5.5	
Approach LOS		B						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		6.5						8.2		5.3	13.6	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						16.0		6.0	26.0	
Max Q Clear Time (g_c+l1), s		3.4						2.3		2.8	5.3	
Green Ext Time (p_c), s		0.5						1.9		0.0	2.2	
Intersection Summary												
HCM 2010 Ctrl Delay			6.7									
HCM 2010 LOS			A									
Notes												























HCM 2010 Signalized Intersection Summary
 2: CORRAL HOLLOW RD & I-580 WEST OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	250	0	221	11	172	0	0	270	610
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				337	0	301	21	2167	0	0	1698	722
Arrive On Green				0.19	0.00	0.00	0.01	0.58	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1774	0	1583	1774	3725	0	0	3725	1583
Grp Volume(v), veh/h				250	0	0	11	172	0	0	270	610
Grp Sat Flow(s),veh/h/ln				1774	0	1583	1774	1863	0	0	1863	1583
Q Serve(g_s), s				4.7	0.0	0.0	0.2	0.7	0.0	0.0	1.5	12.0
Cycle Q Clear(g_c), s				4.7	0.0	0.0	0.2	0.7	0.0	0.0	1.5	12.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				337	0	301	21	2167	0	0	1698	722
V/C Ratio(X)				0.74	0.00	0.00	0.53	0.08	0.00	0.00	0.16	0.85
Avail Cap(c_a), veh/h				810	0	723	202	2763	0	0	1913	813
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.4	0.0	0.0	17.2	3.2	0.0	0.0	5.6	8.4
Incr Delay (d2), s/veh				3.2	0.0	0.0	19.9	0.0	0.0	0.0	0.0	7.5
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 Back of Q (50%), veh/ln				2.0	0.0	0.0	0.2	0.2	0.0	0.0	0.5	5.1
Lane Grp Delay (d), s/veh				16.6	0.0	0.0	37.1	3.2	0.0	0.0	5.6	15.9
Lane Grp LOS				B			D	A			A	B
Approach Vol, veh/h					250			183			880	
Approach Delay, s/veh					16.6			5.3			12.8	
Approach LOS					B			A			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					10.7		4.4	24.4			20.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		4.0	26.0			18.0	
Max Q Clear Time (g_c+l1), s					6.7		2.2	2.7			14.0	
Green Ext Time (p_c), s					0.7		0.0	5.6			2.0	
Intersection Summary												
HCM 2010 Ctrl Delay				12.4								
HCM 2010 LOS				B								
Notes												




















HCM 2010 Signalized Intersection Summary
4: CORRAL HOLLOW RD & LINNE ROAD

Cumulative AM
3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	180	40	230	360	129	10	204	189	100	419	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	0	2	2	0	1	1	1	1	1	0
Cap, veh/h	1105	953	207	1105	846	298	715	751	638	715	613	117
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.40	0.40	0.00	0.40	0.40	0.40
Sat Flow, veh/h	3442	2967	644	3442	2633	929	1774	1863	1583	1774	1521	290
Grp Volume(v), veh/h	70	111	109	230	253	236	10	204	0	100	0	499
Grp Sat Flow(s),veh/h/ln	1721	1863	1749	1721	1863	1699	1774	1863	1583	1774	0	1811
Q Serve(g_s), s	0.4	1.3	1.3	1.4	3.1	3.2	0.1	2.1	0.0	1.0	0.0	6.6
Cycle Q Clear(g_c), s	0.4	1.3	1.3	1.4	3.1	3.2	0.1	2.1	0.0	1.0	0.0	6.6
Prop In Lane	1.00		0.37	1.00		0.55	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	1105	598	562	1105	598	546	715	751	638	715	0	730
V/C Ratio(X)	0.06	0.19	0.19	0.21	0.42	0.43	0.01	0.27	0.00	0.14	0.00	0.68
Avail Cap(c_a), veh/h	2610	1413	1327	2610	1413	1289	1346	1413	1201	1407	0	1436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.8	7.1	7.1	7.2	7.7	7.8	5.2	5.8	0.0	5.5	0.0	7.1
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.1	0.5	0.5	0.0	0.2	0.0	0.1	0.0	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 Back of Q (50%), veh/ln	0.1	0.4	0.4	0.4	1.1	1.1	0.0	0.7	0.0	0.3	0.0	2.3
Lane Grp Delay (d), s/veh	6.8	7.3	7.3	7.3	8.2	8.3	5.2	6.0	0.0	5.6	0.0	8.3
Lane Grp LOS	A	A	A	A	A	A	A	A		A		A
Approach Vol, veh/h		290			719			214			599	
Approach Delay, s/veh		7.2			7.9			6.0			7.8	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		13.3			13.3			15.7			15.7	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		22.0			22.0			22.0			23.0	
Max Q Clear Time (g_c+l1), s		3.3			5.2			4.1			8.6	
Green Ext Time (p_c), s		4.3			4.1			3.3			3.1	
Intersection Summary												
HCM 2010 Ctrl Delay				7.5								
HCM 2010 LOS				A								
Notes												





























HCM 2010 Signalized Intersection Summary
5: TRACY BLVD & LINNE ROAD

Cumulative AM
3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	158	215	70	34	354	302	30	24	24	224	47	370
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	190.0	190.0	186.3	186.3
Lanes	2	2	0	1	2	0	0	1	0	0	1	1
Cap, veh/h	258	826	261	52	485	407	299	239	239	663	139	710
Arrive On Green	0.08	0.30	0.30	0.03	0.26	0.26	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	3442	2715	859	1774	1874	1574	667	534	534	1479	310	1583
Grp Volume(v), veh/h	158	146	139	34	352	304	78	0	0	271	0	370
Grp Sat Flow(s),veh/h/ln	1721	1863	1711	1774	1863	1585	1735	0	0	1789	0	1583
Q Serve(g_s), s	2.5	3.2	3.4	1.0	9.5	9.7	1.4	0.0	0.0	5.4	0.0	9.3
Cycle Q Clear(g_c), s	2.5	3.2	3.4	1.0	9.5	9.7	1.4	0.0	0.0	5.4	0.0	9.3
Prop In Lane	1.00		0.50	1.00		0.99	0.38		0.31	0.83		1.00
Lane Grp Cap(c), veh/h	258	567	521	52	482	410	778	0	0	802	0	710
V/C Ratio(X)	0.61	0.26	0.27	0.65	0.73	0.74	0.10	0.00	0.00	0.34	0.00	0.52
Avail Cap(c_a), veh/h	375	676	621	161	642	547	778	0	0	812	0	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	14.5	14.5	26.5	18.7	18.7	8.8	0.0	0.0	9.9	0.0	10.9
Incr Delay (d2), s/veh	2.3	0.2	0.3	12.8	2.9	3.7	0.1	0.0	0.0	0.2	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	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	1.4	1.4	0.6	4.4	4.0	0.6	0.0	0.0	2.2	0.0	3.3
Lane Grp Delay (d), s/veh	27.0	14.7	14.8	39.3	21.5	22.5	8.8	0.0	0.0	10.1	0.0	11.6
Lane Grp LOS	C	B	B	D	C	C	A			B		B
Approach Vol, veh/h		443			690			78			641	
Approach Delay, s/veh		19.1			22.8			8.8			11.0	
Approach LOS		B			C			A			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	8.1	20.8		5.6	18.3			28.7				28.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	6.0	20.0		5.0	19.0			19.0				25.0
Max Q Clear Time (g_c+l1), s	4.5	5.4		3.0	11.7			3.4				11.3
Green Ext Time (p_c), s	0.1	3.7		0.0	2.6			3.0				2.5
Intersection Summary												
HCM 2010 Ctrl Delay				17.2								
HCM 2010 LOS				B								
Notes												























HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Cumulative AM
3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	80	541	127	50	612	519	10	731	300	90	686	157
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	101	1140	266	135	1387	589	617	1296	551	617	1021	234
Arrive On Green	0.06	0.39	0.39	0.04	0.37	0.37	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	2922	683	3442	3725	1583	1774	3725	1583	1774	2936	671
Grp Volume(v), veh/h	80	344	324	50	612	519	10	731	300	90	435	408
Grp Sat Flow(s),veh/h/ln	1774	1863	1742	1721	1863	1583	1774	1863	1583	1774	1863	1744
Q Serve(g_s), s	2.4	7.4	7.5	0.8	6.6	16.5	0.2	8.6	8.2	1.9	10.7	10.7
Cycle Q Clear(g_c), s	2.4	7.4	7.5	0.8	6.6	16.5	0.2	8.6	8.2	1.9	10.7	10.7
Prop In Lane	1.00		0.39	1.00		1.00	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	101	727	680	135	1387	589	617	1296	551	617	648	607
V/C Ratio(X)	0.79	0.47	0.48	0.37	0.44	0.88	0.02	0.56	0.54	0.15	0.67	0.67
Avail Cap(c_a), veh/h	132	727	680	447	1522	647	692	1453	617	725	761	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	12.3	12.3	25.2	12.7	15.8	11.5	14.2	14.1	12.1	14.9	14.9
Incr Delay (d2), s/veh	21.1	0.5	0.5	1.7	0.2	12.6	0.0	0.4	0.8	0.1	1.8	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.5	2.9	2.7	0.3	2.5	7.4	0.1	3.7	2.8	0.8	4.8	4.5
Lane Grp Delay (d), s/veh	46.2	12.8	12.8	26.9	12.9	28.4	11.5	14.6	15.0	12.2	16.8	16.9
Lane Grp LOS	D	B	B	C	B	C	B	B	B	B	B	B
Approach Vol, veh/h		748			1181			1041			933	
Approach Delay, s/veh		16.4			20.3			14.7			16.4	
Approach LOS		B			C			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	7.1	25.0		6.1	24.0			22.7				22.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	19.0		7.0	22.0			21.0				22.0
Max Q Clear Time (g_c+l1), s	4.4	9.5		2.8	18.5			10.6				12.7
Green Ext Time (p_c), s	0.0	5.4		0.0	1.6			6.6				6.0
Intersection Summary												
HCM 2010 Ctrl Delay				17.1								
HCM 2010 LOS				B								
Notes												













HCM 2010 Signalized Intersection Summary
7: CORRAL HOLLOW RD & VALPICO RD.

Cumulative AM
3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	213	222	70	652	91	50	550	80	112	213	177
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	0	1	2	1
Cap, veh/h	66	555	472	99	1180	501	563	1010	146	563	1183	562
Arrive On Green	0.04	0.30	0.30	0.06	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	1863	1583	1774	3725	1583	1774	3183	461	1774	3725	1583
Grp Volume(v), veh/h	41	213	222	70	652	91	50	321	309	112	213	177
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1781	1774	1863	1583
Q Serve(g_s), s	0.8	3.3	4.2	1.4	5.3	1.5	0.7	5.2	5.2	1.7	1.5	3.0
Cycle Q Clear(g_c), s	0.8	3.3	4.2	1.4	5.3	1.5	0.7	5.2	5.2	1.7	1.5	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	66	555	472	99	1180	501	563	591	565	563	1183	562
V/C Ratio(X)	0.62	0.38	0.47	0.71	0.55	0.18	0.09	0.54	0.55	0.20	0.18	0.32
Avail Cap(c_a), veh/h	243	969	824	292	2041	867	972	1020	976	923	1939	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	10.2	10.5	16.9	10.3	9.0	8.8	10.3	10.3	9.1	9.0	8.6
Incr Delay (d2), s/veh	9.1	0.4	0.7	9.0	0.4	0.2	0.1	0.8	0.8	0.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.2	1.3	0.8	1.8	0.4	0.3	2.0	1.9	0.6	0.6	0.8
Lane Grp Delay (d), s/veh	26.4	10.6	11.2	25.9	10.7	9.2	8.8	11.1	11.1	9.2	9.1	8.9
Lane Grp LOS	C	B	B	C	B	A	A	B	B	A	A	A
Approach Vol, veh/h		476			813			680			502	
Approach Delay, s/veh		12.2			11.9			10.9			9.1	
Approach LOS		B			B			B			A	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	5.4	14.9		6.0	15.6			15.6				15.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	5.0	19.0		6.0	20.0			20.0				19.0
Max Q Clear Time (g_c+l1), s	2.8	6.2		3.4	7.3			7.2				5.0
Green Ext Time (p_c), s	0.0	4.3		0.0	4.3			4.4				4.6
Intersection Summary												
HCM 2010 Ctrl Delay				11.1								
HCM 2010 LOS				B								
Notes												
























HCM 2010 Signalized Intersection Summary
8: LAMMERS RD & VALPICO RD.

Cumulative AM
3/13/2014

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	38	811	557	97	211	253
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	3	1	1	3
Cap, veh/h	916	818	1548	439	491	1548
Arrive On Green	0.52	0.52	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1774	1583	5588	1583	1774	5588
Grp Volume(v), veh/h	38	811	557	97	211	253
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	0.4	19.7	3.1	1.8	3.8	1.3
Cycle Q Clear(g_c), s	0.4	19.7	3.1	1.8	3.8	1.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	916	818	1548	439	491	1548
V/C Ratio(X)	0.04	0.99	0.36	0.22	0.43	0.16
Avail Cap(c_a), veh/h	916	818	2309	654	1008	3174
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.6	9.3	11.2	10.8	11.5	10.6
Incr Delay (d2), s/veh	0.0	29.4	0.1	0.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	11.2	1.2	0.6	1.4	0.5
Lane Grp Delay (d), s/veh	4.6	38.7	11.4	11.0	12.1	10.7
Lane Grp LOS	A	D	B	B	B	B
Approach Vol, veh/h	849		654			464
Approach Delay, s/veh	37.1		11.3			11.3
Approach LOS	D		B			B
Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			14.7			14.7
Change Period (Y+Rc), s			4.0			4.0
Max Green Setting (Gmax), s			16.0			22.0
Max Q Clear Time (g_c+l1), s			5.1			5.8
Green Ext Time (p_c), s			4.1			4.9
Intersection Summary						
HCM 2010 Ctrl Delay			22.5			
HCM 2010 LOS			C			
Notes						

















HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & SCHULTE ROAD

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	366	261	37	350	369	806	85	1088	239	546	662	396
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	1	1	2	0	1	2	1	2	3	0
Cap, veh/h	1519	1644	699	783	822	699	750	1575	669	1455	1575	669
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	3442	3725	1583	1774	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	366	261	37	350	369	806	85	1088	239	546	662	396
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	3.9	2.5	0.8	8.1	8.1	26.0	1.7	14.0	6.0	6.4	7.3	11.3
Cycle Q Clear(g_c), s	3.9	2.5	0.8	8.1	8.1	26.0	1.7	14.0	6.0	6.4	7.3	11.3
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	1519	1644	699	783	822	699	750	1575	669	1455	1575	669
V/C Ratio(X)	0.24	0.16	0.05	0.45	0.45	1.15	0.11	0.69	0.36	0.38	0.42	0.59
Avail Cap(c_a), veh/h	1519	1644	699	783	822	699	934	1960	833	1455	1575	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(l)	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	10.3	9.9	9.4	11.5	11.5	16.5	10.3	13.9	11.6	11.7	11.9	13.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.4	0.4	84.8	0.1	0.8	0.3	0.2	0.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.5	1.0	0.3	2.9	3.1	24.6	0.7	5.9	2.1	2.5	3.0	4.2
Lane Grp Delay (d), s/veh	10.4	9.9	9.4	11.9	11.8	101.2	10.4	14.6	11.9	11.8	12.1	14.5
Lane Grp LOS	B	A	A	B	B	F	B	B	B	B	B	B
Approach Vol, veh/h		664			1525			1412			1604	
Approach Delay, s/veh		10.1			59.1			13.9			12.6	
Approach LOS		B			E			B			B	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		30.0			30.0			28.9			28.9	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		25.0			26.0			31.0			22.0	
Max Q Clear Time (g_c+l1), s		5.9			28.0			16.0			13.3	
Green Ext Time (p_c), s		10.8			0.0			8.9			7.5	
Intersection Summary												
HCM 2010 Ctrl Delay				26.3								
HCM 2010 LOS				C								
Notes												

























HCM 2010 Signalized Intersection Summary
 10: LAMMERS RD & OLD SHULTE RD

Cumulative AM
 3/13/2014

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				  	  	
Volume (veh/h)	191	64	270	1286	542	141
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	3	3	1
Cap, veh/h	251	224	351	3565	1844	522
Arrive On Green	0.14	0.00	0.20	0.64	0.33	0.33
Sat Flow, veh/h	1774	1583	1774	5588	5588	1583
Grp Volume(v), veh/h	191	0	270	1286	542	141
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	3.8	0.0	5.2	3.9	2.6	2.4
Cycle Q Clear(g_c), s	3.8	0.0	5.2	3.9	2.6	2.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	251	224	351	3565	1844	522
V/C Ratio(X)	0.76	0.00	0.77	0.36	0.29	0.27
Avail Cap(c_a), veh/h	489	437	587	4930	2465	698
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	15.0	0.0	13.8	3.1	9.0	8.9
Incr Delay (d2), s/veh	4.7	0.0	3.6	0.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	0.0	2.4	1.1	1.0	0.8
Lane Grp Delay (d), s/veh	19.7	0.0	17.4	3.1	9.1	9.2
Lane Grp LOS	B		B	A	A	A
Approach Vol, veh/h	191			1556	683	
Approach Delay, s/veh	19.7			5.6	9.1	
Approach LOS	B			A	A	
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			11.2	27.1	16.0	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			12.0	32.0	16.0	
Max Q Clear Time (g_c+l1), s			7.2	5.9	4.6	
Green Ext Time (p_c), s			0.5	12.1	7.4	
Intersection Summary						
HCM 2010 Ctrl Delay			7.7			
HCM 2010 LOS			A			
Notes						
















HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	593	575	810	1506	140	336	194	825	102	290	130
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	1054	3320	941	2044	3320	941	775	839	357	775	839	357
Arrive On Green	0.59	0.59	0.00	0.59	0.59	0.00	0.23	0.23	0.00	0.23	0.23	0.00
Sat Flow, veh/h	1774	5588	1583	3442	5588	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	76	593	0	810	1506	0	336	194	0	102	290	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.8	2.1	0.0	5.5	6.6	0.0	3.7	1.9	0.0	1.0	2.9	0.0
Cycle Q Clear(g_c), s	0.8	2.1	0.0	5.5	6.6	0.0	3.7	1.9	0.0	1.0	2.9	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	1054	3320	941	2044	3320	941	775	839	357	775	839	357
V/C Ratio(X)	0.07	0.18	0.00	0.40	0.45	0.00	0.43	0.23	0.00	0.13	0.35	0.00
Avail Cap(c_a), veh/h	1054	3320	941	2800	4546	1288	1944	2105	895	1400	1515	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	3.8	4.1	0.0	4.8	5.0	0.0	14.7	14.0	0.0	13.7	14.4	0.0
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.1	0.1	0.0	0.4	0.1	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.6	0.0	1.3	1.7	0.0	1.5	0.8	0.0	0.4	1.2	0.0
Lane Grp Delay (d), s/veh	3.9	4.2	0.0	4.9	5.1	0.0	15.1	14.2	0.0	13.8	14.6	0.0
Lane Grp LOS	A	A		A	A		B	B		B	B	
Approach Vol, veh/h		669			2316			530			392	
Approach Delay, s/veh		4.2			5.0			14.8			14.4	
Approach LOS		A			A			B			B	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		30.3			30.3			14.0			14.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		23.0			36.0			25.0			18.0	
Max Q Clear Time (g_c+l1), s		4.1			8.6			5.7			4.9	
Green Ext Time (p_c), s		14.2			17.7			4.3			3.7	
Intersection Summary												
HCM 2010 Ctrl Delay				7.1								
HCM 2010 LOS				A								
Notes												

















HCM 2010 Signalized Intersection Summary
 13: MOUNTAIN HOUSE PKWY & I-580E OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	115	6	21	0	0	0	0	63	34	144	565	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	0				0	1	0	0	1	0
Cap, veh/h	155	8	28				0	1257	0	0	1257	0
Arrive On Green	0.11	0.11	0.11				0.00	0.67	0.00	0.00	0.67	0.00
Sat Flow, veh/h	1414	74	258				0	1863	0	0	1863	0
Grp Volume(v), veh/h	142	0	0				0	63	0	0	565	0
Grp Sat Flow(s),veh/h/ln	1746	0	0				0	1863	0	0	1863	0
Q Serve(g_s), s	2.9	0.0	0.0				0.0	0.4	0.0	0.0	5.2	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0				0.0	0.4	0.0	0.0	5.2	0.0
Prop In Lane	0.81		0.15				0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	191	0	0				0	1257	0	0	1257	0
V/C Ratio(X)	0.74	0.00	0.00				0.00	0.05	0.00	0.00	0.45	0.00
Avail Cap(c_a), veh/h	801	0	0				0	1257	0	0	1257	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.0	0.0	0.0				0.0	2.0	0.0	0.0	2.8	0.0
Incr Delay (d2), s/veh	5.6	0.0	0.0				0.0	0.1	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	0.0				0.0	0.1	0.0	0.0	1.7	0.0
Lane Grp Delay (d), s/veh	21.6	0.0	0.0				0.0	2.1	0.0	0.0	4.0	0.0
Lane Grp LOS	C							A			A	
Approach Vol, veh/h		142						63			565	
Approach Delay, s/veh		21.6						2.1			4.0	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		8.1						29.0		0.0	29.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		17.0						17.0		4.0	25.0	
Max Q Clear Time (g_c+l1), s		4.9						2.4		0.0	7.2	
Green Ext Time (p_c), s		0.4						2.4		0.0	2.6	
Intersection Summary												
HCM 2010 Ctrl Delay			7.1									
HCM 2010 LOS			A									
Notes												



















HCM 2010 Signalized Intersection Summary
 14: MOUNTAIN HOUSE PKWY & I-580W OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	153	3	311	9	169	0	0	556	347
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				208	4	0	129	1155	0	0	1188	1010
Arrive On Green				0.12	0.12	0.00	0.64	0.64	0.00	0.00	0.64	0.00
Sat Flow, veh/h				1742	34	0	23	1812	0	0	1863	1583
Grp Volume(v), veh/h				156	0	0	178	0	0	0	556	0
Grp Sat Flow(s),veh/h/ln				1776	0	0	1835	0	0	0	1863	1583
Q Serve(g_s), s				2.8	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0
Cycle Q Clear(g_c), s				2.8	0.0	0.0	1.3	0.0	0.0	0.0	5.1	0.0
Prop In Lane				0.98		0.00	0.05		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				212	0	0	1285	0	0	0	1188	1010
V/C Ratio(X)				0.74	0.00	0.00	0.14	0.00	0.00	0.00	0.47	0.00
Avail Cap(c_a), veh/h				863	0	0	1285	0	0	0	1188	1010
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				14.0	0.0	0.0	2.4	0.0	0.0	0.0	3.1	0.0
Incr Delay (d2), s/veh				4.9	0.0	0.0	0.2	0.0	0.0	0.0	1.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				1.4	0.0	0.0	0.3	0.0	0.0	0.0	1.5	0.0
Lane Grp Delay (d), s/veh				18.9	0.0	0.0	2.6	0.0	0.0	0.0	4.4	0.0
Lane Grp LOS				B			A				A	
Approach Vol, veh/h					156			178			556	
Approach Delay, s/veh					18.9			2.6			4.4	
Approach LOS					B			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					7.9			25.0			25.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					16.0			21.0			21.0	
Max Q Clear Time (g_c+l1), s					4.8			3.3			7.1	
Green Ext Time (p_c), s					0.4			3.0			2.8	
Intersection Summary												
HCM 2010 Ctrl Delay					6.6							
HCM 2010 LOS					A							
Notes												



















HCM 2010 Signalized Intersection Summary
 15: LAMMERS RD & I-580E OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	0	1	0	0	0	0	1	1	40	40	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3				0.0	186.3	190.0	186.3	186.3	0.0
Lanes	2	0	1				0	2	0	1	2	0
Cap, veh/h	173	0	77				0	1160	986	63	2817	0
Arrive On Green	0.05	0.00	0.05				0.00	0.62	0.62	0.04	0.76	0.00
Sat Flow, veh/h	3548	0	1583				0	1863	1583	1774	3725	0
Grp Volume(v), veh/h	60	0	1				0	1	1	40	40	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	0.7	0.0	0.0				0.0	0.0	0.0	0.9	0.1	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0				0.0	0.0	0.0	0.9	0.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	173	0	77				0	1160	986	63	2817	0
V/C Ratio(X)	0.35	0.00	0.01				0.00	0.00	0.00	0.63	0.01	0.00
Avail Cap(c_a), veh/h	1385	0	618				0	1160	986	303	2817	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	0.0	18.6				0.0	2.9	2.9	19.5	1.2	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.1				0.0	0.0	0.0	9.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.0				0.0	0.0	0.0	0.5	0.0	0.0
Lane Grp Delay (d), s/veh	20.0	0.0	18.6				0.0	2.9	2.9	29.4	1.2	0.0
Lane Grp LOS	C		B					A	A	C	A	
Approach Vol, veh/h		61						2			80	
Approach Delay, s/veh		20.0						2.9			15.3	
Approach LOS		C						A			B	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		6.0						29.5		5.5	35.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						20.0		7.0	31.0	
Max Q Clear Time (g_c+l1), s		2.7						2.0		2.9	2.1	
Green Ext Time (p_c), s		0.1						0.1		0.0	0.1	
Intersection Summary												
HCM 2010 Ctrl Delay			17.2									
HCM 2010 LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												
















HCM 2010 Signalized Intersection Summary
 16: LAMMERS RD & I-580 WEST OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	0	0	110	1	60	0	0	80	110
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				0	164	140	166	2700	0	0	2003	851
Arrive On Green				0.00	0.00	0.09	0.09	0.72	0.00	0.00	0.54	0.54
Sat Flow, veh/h				0	1863	1583	1774	3725	0	0	3725	1583
Grp Volume(v), veh/h				0	0	110	1	60	0	0	80	110
Grp Sat Flow(s),veh/h/ln				0	1863	1583	1774	1863	0	0	1863	1583
Q Serve(g_s), s				0.0	0.0	2.9	0.0	0.2	0.0	0.0	0.4	1.5
Cycle Q Clear(g_c), s				0.0	0.0	2.9	0.0	0.2	0.0	0.0	0.4	1.5
Prop In Lane				0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	164	140	166	2700	0	0	2003	851
V/C Ratio(X)				0.00	0.00	0.79	0.01	0.02	0.00	0.00	0.04	0.13
Avail Cap(c_a), veh/h				0	697	592	166	2700	0	0	2003	851
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	19.1	17.6	1.6	0.0	0.0	4.7	4.9
Incr Delay (d2), s/veh				0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.2	0.5
Lane Grp Delay (d), s/veh				0.0	0.0	28.5	17.6	1.7	0.0	0.0	4.7	5.2
Lane Grp LOS						C	B	A			A	A
Approach Vol, veh/h					110			61			190	
Approach Delay, s/veh					28.5			1.9			5.0	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					7.8		8.0	35.0			27.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		4.0	31.0			23.0	
Max Q Clear Time (g_c+l1), s					4.9		2.0	2.2			3.5	
Green Ext Time (p_c), s					0.3		0.0	0.2			0.7	
Intersection Summary												
HCM 2010 Ctrl Delay					11.6							
HCM 2010 LOS					B							
Notes												

























HCM 2010 Signalized Intersection Summary
 18: LAMMERS RD & LINNE ROAD

Cumulative AM
 3/13/2014

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations					  	 
Volume (veh/h)	100	310	120	50	240	90
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	3	1	3	3
Cap, veh/h	501	447	830	235	619	2351
Arrive On Green	0.28	0.28	0.15	0.15	0.12	0.42
Sat Flow, veh/h	1774	1583	5588	1583	5003	5588
Grp Volume(v), veh/h	100	310	120	50	240	90
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1668	1863
Q Serve(g_s), s	1.2	4.7	0.5	0.7	1.2	0.3
Cycle Q Clear(g_c), s	1.2	4.7	0.5	0.7	1.2	0.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	501	447	830	235	619	2351
V/C Ratio(X)	0.20	0.69	0.14	0.21	0.39	0.04
Avail Cap(c_a), veh/h	1053	940	5392	1528	1114	7466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	8.6	10.0	10.1	10.9	4.6
Incr Delay (d2), s/veh	0.2	1.9	0.1	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	1.6	0.2	0.3	0.4	0.1
Lane Grp Delay (d), s/veh	7.5	10.6	10.1	10.5	11.3	4.6
Lane Grp LOS	A	B	B	B	B	A
Approach Vol, veh/h	410		170			330
Approach Delay, s/veh	9.8		10.2			9.4
Approach LOS	A		B			A
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			8.0		7.3	15.3
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			26.0		6.0	36.0
Max Q Clear Time (g_c+l1), s			2.7		3.2	2.3
Green Ext Time (p_c), s			1.1		0.3	1.2
Intersection Summary						
HCM 2010 Ctrl Delay			9.8			
HCM 2010 LOS			A			
Notes						



















HCM 2010 Signalized Intersection Summary
 24: LAMMERS RD & HANSEN RD

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	20	40	80	40	260	120	300	20	150	220	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		0.80	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Cap, veh/h	136	570	622	157	592	403	153	853	242	191	840	111
Arrive On Green	0.08	0.31	0.31	0.09	0.32	0.32	0.09	0.15	0.15	0.11	0.17	0.17
Sat Flow, veh/h	1774	1863	1583	1774	1863	1269	1774	5588	1583	1774	4837	638
Grp Volume(v), veh/h	30	20	40	80	40	260	120	300	20	150	168	82
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1269	1774	1863	1583	1774	1863	1750
Q Serve(g_s), s	0.7	0.3	0.7	2.0	0.7	8.1	3.1	2.2	0.5	3.8	1.8	1.9
Cycle Q Clear(g_c), s	0.7	0.3	0.7	2.0	0.7	8.1	3.1	2.2	0.5	3.8	1.8	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	136	570	622	157	592	403	153	853	242	191	647	304
V/C Ratio(X)	0.22	0.04	0.06	0.51	0.07	0.64	0.78	0.35	0.08	0.79	0.26	0.27
Avail Cap(c_a), veh/h	613	643	684	613	643	439	230	1930	547	230	1287	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	11.3	8.8	20.2	11.0	13.6	20.7	17.6	16.8	20.2	16.6	16.6
Incr Delay (d2), s/veh	0.8	0.0	0.0	2.6	0.0	2.9	9.6	0.2	0.1	13.8	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.1	0.2	0.9	0.3	2.5	1.7	1.0	0.2	2.3	0.8	0.8
Lane Grp Delay (d), s/veh	20.9	11.3	8.8	22.7	11.1	16.4	30.3	17.8	17.0	34.0	16.8	17.1
Lane Grp LOS	C	B	A	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		90			380			440			400	
Approach Delay, s/veh		13.4			17.2			21.2			23.3	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.6	18.2		8.1	18.7		8.0	11.1		9.0	12.0	
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		16.0	16.0		6.0	16.0		6.0	16.0	
Max Q Clear Time (g_c+l1), s	2.7	2.7		4.0	10.1		5.1	4.2		5.8	3.9	
Green Ext Time (p_c), s	0.0	1.3		0.1	0.8		0.0	2.8		0.0	2.9	
Intersection Summary												
HCM 2010 Ctrl Delay	20.1											
HCM 2010 LOS	C											
Notes												




















HCM 2010 Signalized Intersection Summary
 25: LAMMERS RD/LAMMERS EXTN & I-205 EAST ON-OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	0	630	0	0	0	0	1410	760	0	1470	330
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	186.3	0.0	186.3	186.3
Lanes	0	1	1				0	3	2	0	3	1
Cap, veh/h	94	0	84				0	3724	2110	0	3724	1055
Arrive On Green	0.05	0.00	0.00				0.00	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h	1774	0	1583				0	5588	3167	0	5588	1583
Grp Volume(v), veh/h	60	0	0				0	1410	760	0	1470	330
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	1583	0	1863	1583
Q Serve(g_s), s	0.9	0.0	0.0				0.0	3.2	3.0	0.0	3.4	2.5
Cycle Q Clear(g_c), s	0.9	0.0	0.0				0.0	3.2	3.0	0.0	3.4	2.5
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	94	0	84				0	3724	2110	0	3724	1055
V/C Ratio(X)	0.64	0.00	0.00				0.00	0.38	0.36	0.00	0.39	0.31
Avail Cap(c_a), veh/h	809	0	722				0	3724	2110	0	3724	1055
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	0.91	0.91
Uniform Delay (d), s/veh	13.2	0.0	0.0				0.0	2.1	2.1	0.0	2.2	2.0
Incr Delay (d2), s/veh	7.0	0.0	0.0				0.0	0.3	0.5	0.0	0.3	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 Back of Q (50%), veh/ln	0.5	0.0	0.0				0.0	0.6	0.5	0.0	0.6	0.2
Lane Grp Delay (d), s/veh	20.2	0.0	0.0				0.0	2.4	2.6	0.0	2.4	2.7
Lane Grp LOS	C							A	A		A	A
Approach Vol, veh/h		60						2170			1800	
Approach Delay, s/veh		20.2						2.5			2.5	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		5.5						23.0			23.0	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		13.0						19.0			19.0	
Max Q Clear Time (g_c+l1), s		2.9						5.2			5.4	
Green Ext Time (p_c), s		0.1						12.9			12.7	
Intersection Summary												
HCM 2010 Ctrl Delay			2.7									
HCM 2010 LOS			A									
Notes												






























HCM 2010 Signalized Intersection Summary
 26: LAMMERS EXTN & I-205 WB ON RAMP/I-205 WEST ON-OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1170	0	745	0	1080	390	0	630	30
Number				1	6	16	3	8	18	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				186.3	186.3	186.3	0.0	186.3	186.3	0.0	186.3	186.3
Lanes				3	0	1	0	2	2	0	3	1
Cap, veh/h				2838	0	844	0	1242	1056	0	1863	528
Arrive On Green				0.53	0.00	0.00	0.00	0.33	0.33	0.00	0.33	0.33
Sat Flow, veh/h				5322	0	1583	0	3725	3167	0	5588	1583
Grp Volume(v), veh/h				1170	0	0	0	1080	390	0	630	30
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1863	1583	0	1863	1583
Q Serve(g_s), s				7.9	0.0	0.0	0.0	16.3	5.6	0.0	5.1	0.8
Cycle Q Clear(g_c), s				7.9	0.0	0.0	0.0	16.3	5.6	0.0	5.1	0.8
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				2838	0	844	0	1242	1056	0	1863	528
V/C Ratio(X)				0.41	0.00	0.00	0.00	0.87	0.37	0.00	0.34	0.06
Avail Cap(c_a), veh/h				2838	0	844	0	1242	1056	0	1863	528
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.00	0.94	0.94	0.00	1.00	1.00
Uniform Delay (d), s/veh				8.4	0.0	0.0	0.0	18.8	15.2	0.0	15.0	13.6
Incr Delay (d2), s/veh				0.4	0.0	0.0	0.0	6.5	0.2	0.0	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
%ile Back of Q (50%), veh/ln				2.9	0.0	0.0	0.0	8.0	5.4	0.0	2.2	0.3
Lane Grp Delay (d), s/veh				8.8	0.0	0.0	0.0	25.3	15.4	0.0	15.5	13.8
Lane Grp LOS				A				C	B		B	B
Approach Vol, veh/h				1170				1470			660	
Approach Delay, s/veh				8.8				22.7			15.4	
Approach LOS				A				C			B	
Timer												
Assigned Phs				6				8			4	
Phs Duration (G+Y+Rc), s				36.0				24.0			24.0	
Change Period (Y+Rc), s				4.0				4.0			4.0	
Max Green Setting (Gmax), s				32.0				20.0			20.0	
Max Q Clear Time (g_c+l1), s				9.9				18.3			7.1	
Green Ext Time (p_c), s				6.6				1.4			8.6	
Intersection Summary												
HCM 2010 Ctrl Delay				16.3								
HCM 2010 LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												

























HCM 2010 Signalized Intersection Summary
 27: LAMMERS EXTN/BYRON & PAVILLION PKWY

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		  	 				 	  		
Volume (veh/h)	30	560	20	190	390	450	110	160	550	430	140	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	3	0	3	2	1	1	1	2	2	1	0
Cap, veh/h	49	1260	45	409	1076	457	141	289	750	573	360	77
Arrive On Green	0.03	0.23	0.23	0.08	0.29	0.00	0.08	0.16	0.00	0.17	0.24	0.24
Sat Flow, veh/h	1774	5364	191	5003	3725	1583	1774	1863	3167	3442	1488	319
Grp Volume(v), veh/h	30	388	192	190	390	0	110	160	0	430	0	170
Grp Sat Flow(s),veh/h/ln	1774	1863	1829	1668	1863	1583	1774	1863	1583	1721	0	1806
Q Serve(g_s), s	0.7	3.9	4.0	1.6	3.7	0.0	2.7	3.5	0.0	5.3	0.0	3.5
Cycle Q Clear(g_c), s	0.7	3.9	4.0	1.6	3.7	0.0	2.7	3.5	0.0	5.3	0.0	3.5
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	49	875	430	409	1076	457	141	289	750	573	0	437
V/C Ratio(X)	0.61	0.44	0.45	0.46	0.36	0.00	0.78	0.55	0.00	0.75	0.00	0.39
Avail Cap(c_a), veh/h	160	1348	662	452	1348	573	321	674	1404	623	0	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	14.4	14.5	19.4	12.5	0.0	20.0	17.3	0.0	17.6	0.0	14.0
Incr Delay (d2), s/veh	11.4	0.4	0.7	0.8	0.2	0.0	8.8	7.5	0.0	4.7	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	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.7	1.7	0.6	1.5	0.0	1.4	2.1	0.0	2.4	0.0	1.7
Lane Grp Delay (d), s/veh	32.6	14.8	15.2	20.2	12.7	0.0	28.8	24.7	0.0	22.2	0.0	16.6
Lane Grp LOS	C	B	B	C	B		C	C		C		B
Approach Vol, veh/h		610			580			270			600	
Approach Delay, s/veh		15.8			15.2			26.4			20.6	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1		6
Phs Duration (G+Y+Rc), s	5.2	14.4		7.6	16.8		7.5	10.9		11.4		14.7
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	16.0		4.0	16.0		8.0	16.0		8.0		16.0
Max Q Clear Time (g_c+l1), s	2.7	6.0		3.6	5.7		4.7	5.5		7.3		5.5
Green Ext Time (p_c), s	0.0	4.4		0.0	4.5		0.1	1.3		0.1		1.3
Intersection Summary												
HCM 2010 Ctrl Delay				18.4								
HCM 2010 LOS				B								
Notes												






















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	84	1282	120	241	1485	46	470	2048	150	335	1117	324
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Cap, veh/h	1406	2283	647	1406	2283	647	1662	2699	765	1662	2699	765
Arrive On Green	0.41	0.41	0.00	0.41	0.41	0.41	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	3442	5588	1583	3442	5588	1583	3442	5588	1583	3442	5588	1583
Grp Volume(v), veh/h	84	1282	0	241	1485	46	470	2048	150	335	1117	324
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.1	13.0	0.0	3.3	15.8	1.3	6.0	22.1	4.0	4.1	9.5	9.8
Cycle Q Clear(g_c), s	1.1	13.0	0.0	3.3	15.8	1.3	6.0	22.1	4.0	4.1	9.5	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1406	2283	647	1406	2283	647	1662	2699	765	1662	2699	765
V/C Ratio(X)	0.06	0.56	0.00	0.17	0.65	0.07	0.28	0.76	0.20	0.20	0.41	0.42
Avail Cap(c_a), veh/h	1494	2425	687	1540	2501	709	1960	3183	902	1662	2699	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	16.7	0.0	13.9	17.6	13.3	11.4	15.6	10.9	10.9	12.3	12.4
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.1	0.5	0.0	0.1	0.9	0.1	0.1	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	5.4	0.0	1.2	6.6	0.5	2.4	9.7	1.5	1.6	4.1	3.7
Lane Grp Delay (d), s/veh	13.2	17.0	0.0	13.9	18.1	13.3	11.5	16.5	11.0	11.0	12.4	12.8
Lane Grp LOS	B	B		B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1366			1772			2668			1776	
Approach Delay, s/veh		16.8			17.4			15.3			12.2	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		2			6			4			8	
Phs Duration (G+Y+Rc), s		34.1			34.1			39.6			39.6	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		32.0			33.0			42.0			27.0	
Max Q Clear Time (g_c+l1), s		15.0			17.8			24.1			11.8	
Green Ext Time (p_c), s		13.5			12.3			11.6			14.5	
Intersection Summary												
HCM 2010 Ctrl Delay				15.3								
HCM 2010 LOS				B								
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & W CENTRAL AVE

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	94	86	26	260	84	264	16	1056	260	44	644	62
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	121	203	61	296	98	307	27	1244	305	58	1498	144
Arrive On Green	0.07	0.15	0.15	0.17	0.25	0.25	0.02	0.43	0.43	0.03	0.45	0.45
Sat Flow, veh/h	1774	1374	415	1774	397	1246	1774	2892	708	1774	3347	322
Grp Volume(v), veh/h	94	0	112	260	0	348	16	678	638	44	358	348
Grp Sat Flow(s),veh/h/ln	1774	0	1789	1774	0	1643	1774	1863	1738	1774	1863	1806
Q Serve(g_s), s	3.7	0.0	4.1	10.3	0.0	14.5	0.6	23.4	23.7	1.8	9.4	9.5
Cycle Q Clear(g_c), s	3.7	0.0	4.1	10.3	0.0	14.5	0.6	23.4	23.7	1.8	9.4	9.5
Prop In Lane	1.00		0.23	1.00		0.76	1.00		0.41	1.00		0.18
Lane Grp Cap(c), veh/h	121	0	264	296	0	405	27	801	747	58	834	808
V/C Ratio(X)	0.78	0.00	0.42	0.88	0.00	0.86	0.59	0.85	0.85	0.76	0.43	0.43
Avail Cap(c_a), veh/h	173	0	398	296	0	480	99	830	774	99	834	808
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	33.0	0.0	27.8	29.2	0.0	25.9	35.2	18.3	18.4	34.5	13.6	13.6
Incr Delay (d2), s/veh	13.2	0.0	1.1	24.4	0.0	12.8	19.0	7.9	8.9	18.4	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 Back of Q (50%), veh/ln	2.1	0.0	1.9	6.5	0.0	7.2	0.4	11.7	11.2	1.1	4.1	3.9
Lane Grp Delay (d), s/veh	46.2	0.0	28.9	53.6	0.0	38.7	54.1	26.3	27.4	52.9	13.9	13.9
Lane Grp LOS	D		C	D		D	D	C	C	D	B	B
Approach Vol, veh/h		206			608			1332			750	
Approach Delay, s/veh		36.8			45.0			27.1			16.2	
Approach LOS		D			D			C			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.9	14.6		16.0	21.7		5.1	34.9		6.3	36.2	
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	7.0	16.0		12.0	21.0		4.0	32.0		4.0	32.0	
Max Q Clear Time (g_c+l1), s	5.7	6.1		12.3	16.5		2.6	25.7		3.8	11.5	
Green Ext Time (p_c), s	0.0	2.1		0.0	1.2		0.0	5.2		0.0	14.0	
Intersection Summary												
HCM 2010 Ctrl Delay				28.8								
HCM 2010 LOS				C								
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	296	1041	367	200	1127	263	508	1315	366	227	975	143
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	1430	1603	658	1430	1603	681	1511	1690	718	1461	1690	695
Arrive On Green	0.42	0.43	0.42	0.42	0.43	0.43	0.44	0.45	0.45	0.42	0.45	0.44
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	296	1041	367	200	1127	263	508	1315	366	227	975	143
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	3.8	15.2	12.1	2.5	17.0	7.8	6.7	20.5	11.3	2.8	13.3	3.8
Cycle Q Clear(g_c), s	3.8	15.2	12.1	2.5	17.0	7.8	6.7	20.5	11.3	2.8	13.3	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1430	1603	658	1430	1603	681	1511	1690	718	1461	1690	695
V/C Ratio(X)	0.21	0.65	0.56	0.14	0.70	0.39	0.34	0.78	0.51	0.16	0.58	0.21
Avail Cap(c_a), veh/h	1600	1786	736	1550	1732	736	1700	1894	805	1461	1690	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	12.9	15.5	15.3	12.5	16.0	13.4	12.7	15.9	13.4	12.2	13.9	11.9
Incr Delay (d2), s/veh	0.3	2.1	3.4	0.0	1.1	0.3	0.0	1.6	0.2	0.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.5	6.7	4.8	0.9	7.1	2.8	2.6	9.0	4.1	1.1	5.6	1.4
Lane Grp Delay (d), s/veh	13.2	17.6	18.7	12.5	17.1	13.7	12.8	17.5	13.6	12.2	14.2	12.0
Lane Grp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1704			1590			2189			1345	
Approach Delay, s/veh		17.0			16.0			15.7			13.7	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		33.6			33.6			35.2			35.2	
Change Period (Y+Rc), s		6.0			6.0			6.0			6.0	
Max Green Setting (Gmax), s		31.0			30.0			33.0			27.0	
Max Q Clear Time (g_c+l1), s		17.2			19.0			22.5			15.3	
Green Ext Time (p_c), s		10.3			8.6			6.7			8.8	
Intersection Summary												
HCM 2010 Ctrl Delay				15.7								
HCM 2010 LOS				B								
Notes												





























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE ROAD/LINNE

Cumulative AM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	376	86	10	471	147	127	156	10	196	96	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	0	740	629	0	740	629	354	334	18	438	171	75
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	0	1863	1583	0	1863	1583	538	1028	55	744	526	230
Grp Volume(v), veh/h	0	376	86	0	471	147	293	0	0	345	0	0
Grp Sat Flow(s),veh/h/ln	0	1863	1583	0	1863	1583	1621	0	0	1500	0	0
Q Serve(g_s), s	0.0	4.4	1.0	0.0	5.9	1.8	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.4	1.0	0.0	5.9	1.8	4.0	0.0	0.0	5.5	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00	0.43		0.03	0.57		0.15
Lane Grp Cap(c), veh/h	0	740	629	0	740	629	706	0	0	683	0	0
V/C Ratio(X)	0.00	0.51	0.14	0.00	0.64	0.23	0.42	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	0	1166	991	0	1166	991	1058	0	0	1008	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(l)	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.5	5.5	0.0	7.0	5.8	7.8	0.0	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.1	0.0	0.9	0.2	0.4	0.0	0.0	0.6	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 Back of Q (50%), veh/ln	0.0	1.5	0.3	0.0	2.0	0.5	1.3	0.0	0.0	1.6	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	7.1	5.6	0.0	7.9	5.9	8.2	0.0	0.0	8.9	0.0	0.0
Lane Grp LOS		A	A		A	A	A			A		
Approach Vol, veh/h		462			618			293			345	
Approach Delay, s/veh		6.8			7.4			8.2			8.9	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	0.0	15.4		0.0	15.4			13.3				13.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	18.0		4.0	18.0			16.0				16.0
Max Q Clear Time (g_c+l1), s	0.0	6.4		0.0	7.9			6.0				7.5
Green Ext Time (p_c), s	0.0	3.8		0.0	3.6			2.0				1.9
Intersection Summary												
HCM 2010 Ctrl Delay			7.7									
HCM 2010 LOS			A									
Notes												



















HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Volume (veh/h)	78	767	104	452	931	34	200	517	623	23	184	401
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	1	2	1	1	2	1	1	1	1
Cap, veh/h	140	925	604	494	1810	801	237	955	406	35	266	226
Arrive On Green	0.04	0.25	0.25	0.28	0.49	0.49	0.13	0.26	0.00	0.02	0.14	0.00
Sat Flow, veh/h	3442	3725	1583	1774	3725	1583	1774	3725	1583	1774	1863	1583
Grp Volume(v), veh/h	78	767	104	452	931	34	200	517	0	23	184	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.8	15.8	3.5	20.0	13.9	0.9	8.9	9.7	0.0	1.0	7.6	0.0
Cycle Q Clear(g_c), s	1.8	15.8	3.5	20.0	13.9	0.9	8.9	9.7	0.0	1.0	7.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	925	604	494	1810	801	237	955	406	35	266	226
V/C Ratio(X)	0.56	0.83	0.17	0.92	0.51	0.04	0.85	0.54	0.00	0.65	0.69	0.00
Avail Cap(c_a), veh/h	212	964	621	546	1881	831	240	1055	449	109	390	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	38.2	28.9	16.6	28.4	14.3	10.1	34.4	26.1	0.0	39.5	33.1	0.0
Incr Delay (d2), s/veh	3.4	6.0	0.1	19.1	0.2	0.0	23.0	0.5	0.0	18.3	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	7.8	1.3	11.0	5.6	0.3	5.5	4.5	0.0	0.6	3.8	0.0
Lane Grp Delay (d), s/veh	41.6	34.8	16.7	47.5	14.5	10.2	57.4	26.5	0.0	57.8	36.3	0.0
Lane Grp LOS	D	C	B	D	B	B	E	C		E	D	
Approach Vol, veh/h		949			1417			717			207	
Approach Delay, s/veh		33.4			24.9			35.2			38.7	
Approach LOS		C			C			D			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.3	24.2		26.6	43.4		14.8	24.8		5.6	15.6	
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	5.0	21.0		25.0	41.0		11.0	23.0		5.0	17.0	
Max Q Clear Time (g_c+l1), s	3.8	17.8		22.0	15.9		10.9	11.7		3.0	9.6	
Green Ext Time (p_c), s	0.0	2.3		0.6	9.8		0.0	2.5		0.0	2.0	
Intersection Summary												
HCM 2010 Ctrl Delay				30.5								
HCM 2010 LOS				C								
Notes												


















HCM 2010 Signalized Intersection Summary
 33: CHRISMAN & I-205 EAST ON/OFF RAMP/I-205 EAST ON RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	310	0	200	0	0	0	0	150	530	10	420	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	3	1	0				0	2	1	1	2	0
Cap, veh/h	1306	0	413				0	845	359	19	1508	0
Arrive On Green	0.26	0.00	0.26				0.00	0.23	0.00	0.01	0.40	0.00
Sat Flow, veh/h	5003	0	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	310	0	200				0	150	0	10	420	0
Grp Sat Flow(s),veh/h/ln	1668	0	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	1.2	0.0	2.6				0.0	0.8	0.0	0.1	1.8	0.0
Cycle Q Clear(g_c), s	1.2	0.0	2.6				0.0	0.8	0.0	0.1	1.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1306	0	413				0	845	359	19	1508	0
V/C Ratio(X)	0.24	0.00	0.48				0.00	0.18	0.00	0.52	0.28	0.00
Avail Cap(c_a), veh/h	3344	0	1058				0	4358	1852	296	5604	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	0.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	7.0	0.0	7.5				0.0	7.5	0.0	11.8	4.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.9				0.0	0.5	0.0	20.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.8				0.0	0.3	0.0	0.2	0.6	0.0
Lane Grp Delay (d), s/veh	7.1	0.0	8.4				0.0	7.9	0.0	32.0	5.2	0.0
Lane Grp LOS	A		A					A		C	A	
Approach Vol, veh/h		510						150			430	
Approach Delay, s/veh		7.6						7.9			5.9	
Approach LOS		A						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		10.2						9.4		4.3	13.7	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						28.0		4.0	36.0	
Max Q Clear Time (g_c+l1), s		4.6						2.8		2.1	3.8	
Green Ext Time (p_c), s		1.9						2.7		0.0	2.7	
Intersection Summary												
HCM 2010 Ctrl Delay			6.9									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 34: CHRISMAN & I-205 WEST ON/OFF RAMP

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	270	0	10	230	230	0	0	160	460
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	1	3	0	0	1	1
Cap, veh/h				350	0	13	296	3376	0	0	637	542
Arrive On Green				0.21	0.00	0.21	0.17	0.60	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1703	0	63	1774	5588	0	0	1863	1583
Grp Volume(v), veh/h				280	0	0	230	230	0	0	160	460
Grp Sat Flow(s),veh/h/ln				1766	0	0	1774	1863	0	0	1863	1583
Q Serve(g_s), s				6.3	0.0	0.0	5.2	0.7	0.0	0.0	2.6	11.3
Cycle Q Clear(g_c), s				6.3	0.0	0.0	5.2	0.7	0.0	0.0	2.6	11.3
Prop In Lane				0.96		0.04	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				363	0	0	296	3376	0	0	637	542
V/C Ratio(X)				0.77	0.00	0.00	0.78	0.07	0.00	0.00	0.25	0.85
Avail Cap(c_a), veh/h				674	0	0	465	4128	0	0	710	604
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				15.7	0.0	0.0	16.7	3.4	0.0	0.0	9.9	12.8
Incr Delay (d2), s/veh				3.5	0.0	0.0	4.3	0.0	0.0	0.0	0.9	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
%ile Back of Q (50%), veh/ln				2.8	0.0	0.0	2.4	0.2	0.0	0.0	1.1	6.0
Lane Grp Delay (d), s/veh				19.3	0.0	0.0	21.0	3.5	0.0	0.0	10.9	28.1
Lane Grp LOS				B			C	A			B	C
Approach Vol, veh/h					280			460			620	
Approach Delay, s/veh					19.3			12.2			23.6	
Approach LOS					B			B			C	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					12.6		11.0	29.4			18.4	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		11.0	31.0			16.0	
Max Q Clear Time (g_c+l1), s					8.3		7.2	2.7			13.3	
Green Ext Time (p_c), s					0.7		0.3	3.6			1.1	
Intersection Summary												
HCM 2010 Ctrl Delay				18.9								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	41.1											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	21	366	33	89	480	132	12	20	43	156	39	124
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	366	33	89	480	132	12	20	43	156	39	124
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	26.6	62.3	12.3	20.3
HCM LOS	D	F	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	5%	13%	49%
Vol Thru, %	27%	87%	68%	12%
Vol Right, %	57%	8%	19%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	420	701	319
LT Vol	20	366	480	39
Through Vol	43	33	132	124
RT Vol	12	21	89	156
Lane Flow Rate	75	420	701	319
Geometry Grp	1	1	1	1
Degree of Util (X)	0.163	0.752	1	0.611
Departure Headway (Hd)	7.802	6.443	6.246	6.898
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	463	559	589	523
Service Time	5.802	4.511	4.246	4.965
HCM Lane V/C Ratio	0.162	0.751	1.19	0.61
HCM Control Delay	12.3	26.6	62.3	20.3
HCM Lane LOS	B	D	F	C
HCM 95th-tile Q	0.6	6.6	14.7	4.1

Notes

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

Intersection

Intersection Delay, s/veh 754.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	17	44	23	14	260	22	2155	83	203	1537	73
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	-	-	-	-	-	-	248	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	17	44	23	14	260	22	2155	83	203	1537	73

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	3109	4262	805	3424	4257	1119	1610	0	0	2238	0	0
Stage 1	1980	1980	-	2241	2241	-	-	-	-	-	-	-
Stage 2	1129	2282	-	1183	2016	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	# 5	# 2	325	# 3	# 2	# 201	402	-	-	228	-	-
Stage 1	63	106	-	43	78	-	-	-	-	-	-	-
Stage 2	217	74	-	201	101	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	-	# 0	325	# 1	# 0	# 201	402	-	-	228	-	-
Mov Capacity-2 Maneuver	-	# 0	-	# 1	# 0	-	-	-	-	-	-	-
Stage 1	60	# 12	-	41	74	-	-	-	-	-	-	-
Stage 2	-	70	-	-	# 11	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	+	\$ 11296.5	0.1	8.9
HCM LOS	-	F		
























Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	402	-	-	+	12	228	-	-
HCM Lane V/C Ratio	0.055	-	-	+	24.75	0.89	-	-
HCM Control Delay (s)	14.473	-	-	\$	11296.5	79.394	-	-
HCM Lane LOS	B			+	F	F		
HCM 95th %tile Q(veh)	0.173	-	-	+	38.517	7.301	-	-

Notes

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



















HCM 2010 Signalized Intersection Summary
 37: MOUNTAIN HOUSE PKWY & OLD SCHULTE RD

Cumulative AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	183	30	581	29	214	32	259	189	203	292	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	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	42	506	215	717	62	455	52	828	352	298	1043	443
Arrive On Green	0.02	0.14	0.14	0.21	0.32	0.32	0.03	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	1774	3725	1583	3442	192	1420	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	25	183	30	581	0	243	32	259	189	203	292	195
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1612	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.6	2.1	0.8	7.4	0.0	5.6	0.8	2.7	4.9	2.6	2.8	4.7
Cycle Q Clear(g_c), s	0.6	2.1	0.8	7.4	0.0	5.6	0.8	2.7	4.9	2.6	2.8	4.7
Prop In Lane	1.00		1.00	1.00		0.88	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	42	506	215	717	0	517	52	828	352	298	1043	443
V/C Ratio(X)	0.59	0.36	0.14	0.81	0.00	0.47	0.62	0.31	0.54	0.68	0.28	0.44
Avail Cap(c_a), veh/h	269	1292	549	746	0	664	154	1534	652	298	1534	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	22.3	18.1	17.6	17.4	0.0	12.5	22.1	15.0	15.8	20.4	13.0	13.6
Incr Delay (d2), s/veh	12.6	0.4	0.3	6.5	0.0	0.7	11.4	0.2	1.3	6.1	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.9	0.3	3.6	0.0	2.1	0.5	1.1	1.8	1.3	1.2	1.7
Lane Grp Delay (d), s/veh	34.9	18.5	17.8	23.9	0.0	13.2	33.6	15.2	17.1	26.6	13.1	14.3
Lane Grp LOS	C	B	B	C		B	C	B	B	C	B	B
Approach Vol, veh/h		238			824			480			690	
Approach Delay, s/veh		20.2			20.8			17.2			17.4	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.1	10.3		13.6	18.8		5.3	14.3		8.0	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	7.0	16.0		10.0	19.0		4.0	19.0		4.0	19.0	
Max Q Clear Time (g_c+l1), s	2.6	4.1		9.4	7.6		2.8	6.9		4.6	6.7	
Green Ext Time (p_c), s	0.0	2.2		0.2	2.2		0.0	3.4		0.0	3.4	
Intersection Summary												
HCM 2010 Ctrl Delay			18.9									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 1: CORRAL HOLLOW RD & I-580 EAST OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	464	3	24	0	0	0	0	379	493	199	99	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	540	54	435				0	1243	528	248	1020	0
Arrive On Green	0.30	0.30	0.30				0.00	0.33	0.33	0.14	0.55	0.00
Sat Flow, veh/h	1774	179	1431				0	3725	1583	1774	1863	0
Grp Volume(v), veh/h	464	0	27				0	379	493	199	99	0
Grp Sat Flow(s),veh/h/ln	1774	0	1610				0	1863	1583	1774	1863	0
Q Serve(g_s), s	13.3	0.0	0.6				0.0	4.1	16.3	5.9	1.4	0.0
Cycle Q Clear(g_c), s	13.3	0.0	0.6				0.0	4.1	16.3	5.9	1.4	0.0
Prop In Lane	1.00		0.89				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	540	0	490				0	1243	528	248	1020	0
V/C Ratio(X)	0.86	0.00	0.06				0.00	0.30	0.93	0.80	0.10	0.00
Avail Cap(c_a), veh/h	690	0	627				0	1243	528	296	1070	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.7	0.0	13.3				0.0	13.3	17.4	22.5	5.8	0.0
Incr Delay (d2), s/veh	8.7	0.0	0.0				0.0	0.1	23.8	12.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	6.6	0.0	0.2				0.0	1.7	9.2	3.4	0.5	0.0
Lane Grp Delay (d), s/veh	26.4	0.0	13.3				0.0	13.5	41.2	35.0	5.9	0.0
Lane Grp LOS	C		B					B	D	D	A	
Approach Vol, veh/h		491						872			298	
Approach Delay, s/veh		25.7						29.2			25.4	
Approach LOS		C						C			C	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		20.4						22.0		11.5	33.5	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		21.0						18.0		9.0	31.0	
Max Q Clear Time (g_c+l1), s		15.3						18.3		7.9	3.4	
Green Ext Time (p_c), s		1.1						0.0		0.1	5.0	
Intersection Summary												
HCM 2010 Ctrl Delay			27.5									
HCM 2010 LOS			C									
Notes												























HCM 2010 Signalized Intersection Summary
 2: CORRAL HOLLOW RD & I-580 WEST OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	19	2	85	45	798	0	0	279	224
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				35	4	34	77	2409	0	0	1630	693
Arrive On Green				0.02	0.02	0.00	0.04	0.65	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1612	170	1583	1774	3725	0	0	3725	1583
Grp Volume(v), veh/h				21	0	0	45	798	0	0	279	224
Grp Sat Flow(s),veh/h/ln				1782	0	1583	1774	1863	0	0	1863	1583
Q Serve(g_s), s				0.3	0.0	0.0	0.6	2.3	0.0	0.0	1.1	2.2
Cycle Q Clear(g_c), s				0.3	0.0	0.0	0.6	2.3	0.0	0.0	1.1	2.2
Prop In Lane				0.90		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				39	0	34	77	2409	0	0	1630	693
V/C Ratio(X)				0.54	0.00	0.00	0.59	0.33	0.00	0.00	0.17	0.32
Avail Cap(c_a), veh/h				1330	0	1182	515	5252	0	0	3553	1510
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.7	0.0	0.0	11.3	1.9	0.0	0.0	4.1	4.4
Incr Delay (d2), s/veh				11.2	0.0	0.0	7.0	0.1	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.2	0.0	0.0	0.3	0.2	0.0	0.0	0.3	0.5
Lane Grp Delay (d), s/veh				22.9	0.0	0.0	18.3	2.0	0.0	0.0	4.2	4.7
Lane Grp LOS				C			B	A			A	A
Approach Vol, veh/h					21			843			503	
Approach Delay, s/veh					22.9			2.9			4.4	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					4.5		5.0	19.6			14.5	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					18.0		7.0	34.0			23.0	
Max Q Clear Time (g_c+l1), s					2.3		2.6	4.3			4.2	
Green Ext Time (p_c), s					0.0		0.0	7.2			6.3	
Intersection Summary												
HCM 2010 Ctrl Delay				3.7								
HCM 2010 LOS				A								
Notes												




















HCM 2010 Signalized Intersection Summary
4: CORRAL HOLLOW RD & LINNE ROAD

Cumulative PM
3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	220	330	20	280	368	457	10	387	496	150	202	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	0	2	2	0	1	1	1	1	1	0
Cap, veh/h	1542	1559	94	1542	835	710	589	618	525	589	330	245
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.33	0.33	0.00	0.33	0.33	0.33
Sat Flow, veh/h	3442	3479	210	3442	1863	1583	1774	1863	1583	1774	994	738
Grp Volume(v), veh/h	220	176	174	280	368	457	10	387	0	150	0	352
Grp Sat Flow(s),veh/h/ln	1721	1863	1826	1721	1863	1583	1774	1863	1583	1774	0	1732
Q Serve(g_s), s	1.4	2.1	2.1	1.8	4.9	8.1	0.1	6.4	0.0	2.2	0.0	6.2
Cycle Q Clear(g_c), s	1.4	2.1	2.1	1.8	4.9	8.1	0.1	6.4	0.0	2.2	0.0	6.2
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	1542	835	818	1542	835	710	589	618	525	589	0	575
V/C Ratio(X)	0.14	0.21	0.21	0.18	0.44	0.64	0.02	0.63	0.00	0.25	0.00	0.61
Avail Cap(c_a), veh/h	2083	1127	1105	2083	1127	958	1269	1332	1133	927	0	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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.9	6.1	6.1	6.0	6.9	7.8	8.2	10.2	0.0	8.9	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.1	0.4	1.0	0.0	1.0	0.0	0.2	0.0	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 Back of Q (50%), veh/ln	0.4	0.8	0.8	0.6	1.8	2.6	0.1	2.5	0.0	0.8	0.0	2.3
Lane Grp Delay (d), s/veh	6.0	6.2	6.2	6.1	7.3	8.8	8.2	11.3	0.0	9.1	0.0	11.2
Lane Grp LOS	A	A	A	A	A	A	A	B		A		B
Approach Vol, veh/h		570			1105			397				502
Approach Delay, s/veh		6.1			7.6			11.2				10.6
Approach LOS		A			A			B				B
Timer												
Assigned Phs		4			8			2				6
Phs Duration (G+Y+Rc), s		20.3			20.3			16.1				16.1
Change Period (Y+Rc), s		4.0			4.0			4.0				4.0
Max Green Setting (Gmax), s		22.0			22.0			26.0				19.0
Max Q Clear Time (g_c+l1), s		4.1			10.1			8.4				8.2
Green Ext Time (p_c), s		7.7			6.2			3.7				3.0
Intersection Summary												
HCM 2010 Ctrl Delay				8.4								
HCM 2010 LOS				A								
Notes												
User approved pedestrian interval to be less than phase max green.												





























HCM 2010 Signalized Intersection Summary
 5: TRACY BLVD & LINNE ROAD

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	352	550	49	2	670	66	92	28	24	176	26	343
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	190.0	190.0	186.3	186.3
Lanes	2	2	0	1	2	0	0	1	0	0	1	1
Cap, veh/h	454	1319	117	4	873	86	456	139	119	633	94	644
Arrive On Green	0.13	0.39	0.39	0.00	0.26	0.26	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	3442	3373	300	1774	3339	329	1121	341	293	1555	230	1583
Grp Volume(v), veh/h	352	303	296	2	373	363	144	0	0	202	0	343
Grp Sat Flow(s),veh/h/ln	1721	1863	1810	1774	1863	1805	1755	0	0	1785	0	1583
Q Serve(g_s), s	5.9	7.1	7.2	0.1	11.1	11.2	3.2	0.0	0.0	4.5	0.0	9.9
Cycle Q Clear(g_c), s	5.9	7.1	7.2	0.1	11.1	11.2	3.2	0.0	0.0	4.5	0.0	9.9
Prop In Lane	1.00		0.17	1.00		0.18	0.64		0.17	0.87		1.00
Lane Grp Cap(c), veh/h	454	729	708	4	487	472	714	0	0	727	0	644
V/C Ratio(X)	0.78	0.42	0.42	0.52	0.77	0.77	0.20	0.00	0.00	0.28	0.00	0.53
Avail Cap(c_a), veh/h	458	729	708	118	589	570	714	0	0	742	0	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	13.3	13.3	30.0	20.5	20.5	11.5	0.0	0.0	11.9	0.0	13.5
Incr Delay (d2), s/veh	8.1	0.4	0.4	78.5	5.0	5.2	0.1	0.0	0.0	0.2	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 Back of Q (50%), veh/ln	3.0	3.0	3.0	0.1	5.5	5.4	1.3	0.0	0.0	1.8	0.0	3.5
Lane Grp Delay (d), s/veh	33.3	13.7	13.7	108.5	25.5	25.7	11.6	0.0	0.0	12.1	0.0	14.3
Lane Grp LOS	C	B	B	F	C	C	B			B		B
Approach Vol, veh/h		951			738			144			545	
Approach Delay, s/veh		20.9			25.8			11.6			13.5	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	11.9	27.5		4.1	19.7			28.5				28.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	8.0	23.0		4.0	19.0			19.0				25.0
Max Q Clear Time (g_c+l1), s	7.9	9.2		2.1	13.2			5.2				11.9
Green Ext Time (p_c), s	0.0	5.0		0.0	2.6			2.7				2.1
Intersection Summary												
HCM 2010 Ctrl Delay				20.2								
HCM 2010 LOS				C								
Notes												























HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Cumulative PM
3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	129	641	163	70	673	329	20	929	454	145	892	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	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	163	1026	260	165	1169	497	664	1394	592	664	1185	178
Arrive On Green	0.09	0.36	0.36	0.05	0.31	0.31	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1774	2868	728	3442	3725	1583	1774	3725	1583	1774	3166	476
Grp Volume(v), veh/h	129	416	388	70	673	329	20	929	454	145	525	501
Grp Sat Flow(s),veh/h/ln	1774	1863	1734	1721	1863	1583	1774	1863	1583	1774	1863	1779
Q Serve(g_s), s	3.9	10.1	10.1	1.1	8.2	9.8	0.4	11.3	13.7	3.0	13.4	13.4
Cycle Q Clear(g_c), s	3.9	10.1	10.1	1.1	8.2	9.8	0.4	11.3	13.7	3.0	13.4	13.4
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	163	666	620	165	1169	497	664	1394	592	664	697	666
V/C Ratio(X)	0.79	0.62	0.63	0.42	0.58	0.66	0.03	0.67	0.77	0.22	0.75	0.75
Avail Cap(c_a), veh/h	163	666	620	506	1505	640	664	1394	592	717	752	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	24.2	14.5	14.5	25.2	15.7	16.2	10.8	14.2	15.0	11.6	14.8	14.8
Incr Delay (d2), s/veh	22.8	1.8	2.0	1.7	0.5	1.7	0.0	1.2	6.0	0.2	4.0	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 Back of Q (50%), veh/ln	2.6	4.2	3.9	0.5	3.3	3.5	0.2	5.0	5.4	1.2	6.3	6.1
Lane Grp Delay (d), s/veh	47.0	16.3	16.5	26.9	16.1	17.9	10.8	15.4	20.9	11.8	18.8	19.0
Lane Grp LOS	D	B	B	C	B	B	B	B	C	B	B	B
Approach Vol, veh/h		933			1072			1403			1171	
Approach Delay, s/veh		20.6			17.4			17.1			18.0	
Approach LOS		C			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	9.0	23.5		6.6	21.1			24.4			24.4	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	5.0	19.0		8.0	22.0			20.0			22.0	
Max Q Clear Time (g_c+l1), s	5.9	12.1		3.1	11.8			15.7			15.4	
Green Ext Time (p_c), s	0.0	4.3		0.1	5.3			3.7			5.0	
Intersection Summary												
HCM 2010 Ctrl Delay				18.1								
HCM 2010 LOS				B								
Notes												













HCM 2010 Signalized Intersection Summary
7: CORRAL HOLLOW RD & VALPICO RD.

Cumulative PM
3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	689	189	24	511	266	30	565	48	259	344	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	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	0	1	2	1
Cap, veh/h	75	1084	297	41	1364	579	535	1022	87	535	1124	544
Arrive On Green	0.04	0.38	0.38	0.02	0.37	0.37	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1774	2817	772	1774	3725	1583	1774	3388	287	1774	3725	1583
Grp Volume(v), veh/h	50	456	422	24	511	266	30	310	303	259	344	107
Grp Sat Flow(s),veh/h/ln	1774	1863	1726	1774	1863	1583	1774	1863	1812	1774	1863	1583
Q Serve(g_s), s	1.1	8.2	8.2	0.6	4.2	5.3	0.5	5.8	5.8	4.9	2.9	2.0
Cycle Q Clear(g_c), s	1.1	8.2	8.2	0.6	4.2	5.3	0.5	5.8	5.8	4.9	2.9	2.0
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	75	717	665	41	1364	579	535	562	546	535	1124	544
V/C Ratio(X)	0.67	0.64	0.64	0.58	0.37	0.46	0.06	0.55	0.55	0.48	0.31	0.20
Avail Cap(c_a), veh/h	257	991	918	172	1802	766	815	856	833	815	1712	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	10.4	10.4	20.0	9.6	10.0	10.3	12.1	12.1	11.8	11.1	9.5
Incr Delay (d2), s/veh	9.8	0.9	1.0	12.2	0.2	0.6	0.0	0.8	0.9	0.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	3.0	2.8	0.3	1.5	1.6	0.2	2.4	2.3	1.9	1.2	0.6
Lane Grp Delay (d), s/veh	29.3	11.3	11.4	32.2	9.8	10.6	10.3	13.0	13.0	12.5	11.3	9.7
Lane Grp LOS	C	B	B	C	A	B	B	B	B	B	B	A
Approach Vol, veh/h		928			801			643			710	
Approach Delay, s/veh		12.3			10.7			12.8			11.5	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.7	19.9		5.0	19.1			16.5			16.5	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	6.0	22.0		4.0	20.0			19.0			19.0	
Max Q Clear Time (g_c+l1), s	3.1	10.2		2.6	7.3			7.8			6.9	
Green Ext Time (p_c), s	0.0	5.7		0.0	5.9			4.7			4.9	
Intersection Summary												
HCM 2010 Ctrl Delay				11.8								
HCM 2010 LOS				B								
Notes												

HCM 2010 Signalized Intersection Summary
8: LAMMERS RD & VALPICO RD.

Cumulative PM
3/13/2014

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	224	344	572	42	880	927
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	3	1	1	3
Cap, veh/h	416	371	3471	983	1102	3471
Arrive On Green	0.23	0.23	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1774	1583	5588	1583	1774	5588
Grp Volume(v), veh/h	224	344	572	42	880	927
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	6.1	11.8	2.4	0.6	20.7	4.2
Cycle Q Clear(g_c), s	6.1	11.8	2.4	0.6	20.7	4.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	416	371	3471	983	1102	3471
V/C Ratio(X)	0.54	0.93	0.16	0.04	0.80	0.27
Avail Cap(c_a), veh/h	416	371	3471	983	1536	4840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	20.7	4.4	4.1	7.9	4.8
Incr Delay (d2), s/veh	1.4	28.8	0.0	0.0	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.5	7.1	0.8	0.1	7.2	1.4
Lane Grp Delay (d), s/veh	20.0	49.6	4.5	4.1	10.0	4.8
Lane Grp LOS	B	D	A	A	A	A
Approach Vol, veh/h	568		614			1807
Approach Delay, s/veh	37.9		4.4			7.3
Approach LOS	D		A			A
Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			38.4			38.4
Change Period (Y+Rc), s			4.0			4.0
Max Green Setting (Gmax), s			17.0			48.0
Max Q Clear Time (g_c+l1), s			4.4			22.7
Green Ext Time (p_c), s			9.3			11.8
Intersection Summary						
HCM 2010 Ctrl Delay			12.5			
HCM 2010 LOS			B			
Notes						

















HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & SCHULTE ROAD

Cumulative PM
 3/13/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	462	372	180	159	354	625	122	763	200	845	1130	307
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	1	1	2	0	1	2	1	2	3	0
Cap, veh/h	1036	1122	477	534	561	477	337	954	405	1006	1517	412
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.19	0.26	0.26	0.29	0.36	0.36
Sat Flow, veh/h	3442	3725	1583	1774	1863	1583	1774	3725	1583	3442	4235	1150
Grp Volume(v), veh/h	462	372	180	159	354	625	122	763	200	845	994	443
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1721	1863	1660
Q Serve(g_s), s	8.6	6.2	7.1	5.5	13.1	24.0	4.8	15.3	8.6	18.4	18.6	18.6
Cycle Q Clear(g_c), s	8.6	6.2	7.1	5.5	13.1	24.0	4.8	15.3	8.6	18.4	18.6	18.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	1036	1122	477	534	561	477	337	954	405	1006	1334	595
V/C Ratio(X)	0.45	0.33	0.38	0.30	0.63	1.31	0.36	0.80	0.49	0.84	0.74	0.74
Avail Cap(c_a), veh/h	1080	1169	497	534	561	477	337	1215	517	1252	2057	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	21.6	22.0	21.4	24.0	27.8	28.1	27.7	25.2	26.5	22.4	22.4
Incr Delay (d2), s/veh	0.3	0.2	0.5	0.3	2.3	154.3	0.7	3.0	0.9	4.4	0.8	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 Back of Q (50%), veh/ln	3.6	2.8	2.6	2.3	6.1	29.3	2.2	7.4	3.4	8.4	8.6	7.8
Lane Grp Delay (d), s/veh	22.8	21.8	22.4	21.7	26.3	182.1	28.7	30.8	26.2	30.8	23.2	24.3
Lane Grp LOS	C	C	C	C	C	F	C	C	C	C	C	C
Approach Vol, veh/h		1014			1138			1085			2282	
Approach Delay, s/veh		22.4			111.2			29.7			26.2	
Approach LOS		C			F			C			C	
Timer												
Assigned Phs		4			8		5	2		1		6
Phs Duration (G+Y+Rc), s		28.0			28.0		19.1	24.4		27.3		32.5
Change Period (Y+Rc), s		4.0			4.0		4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s		25.0			24.0		11.0	26.0		29.0		44.0
Max Q Clear Time (g_c+l1), s		10.6			26.0		6.8	17.3		20.4		20.6
Green Ext Time (p_c), s		8.7			0.0		2.1	3.1		2.9		7.9
Intersection Summary												
HCM 2010 Ctrl Delay				43.7								
HCM 2010 LOS				D								
Notes												

























HCM 2010 Signalized Intersection Summary
 10: LAMMERS RD & OLD SHULTE RD

Cumulative PM
 3/13/2014

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				  	  	
Volume (veh/h)	199	626	141	840	1448	31
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	3	3	1
Cap, veh/h	272	242	179	3645	2536	719
Arrive On Green	0.15	0.00	0.10	0.65	0.45	0.45
Sat Flow, veh/h	1774	1583	1774	5588	5588	1583
Grp Volume(v), veh/h	199	0	141	840	1448	31
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	4.4	0.0	3.2	2.5	7.8	0.2
Cycle Q Clear(g_c), s	4.4	0.0	3.2	2.5	7.8	0.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	272	242	179	3645	2536	719
V/C Ratio(X)	0.73	0.00	0.79	0.23	0.57	0.04
Avail Cap(c_a), veh/h	907	809	216	4216	2992	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	18.0	2.9	8.3	0.8
Incr Delay (d2), s/veh	3.8	0.0	14.7	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.0	0.0	2.0	0.7	2.9	0.1
Lane Grp Delay (d), s/veh	20.4	0.0	32.7	3.0	8.5	0.8
Lane Grp LOS	C		C	A	A	A
Approach Vol, veh/h	199			981	1479	
Approach Delay, s/veh	20.4			7.2	8.3	
Approach LOS	C			A	A	
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			8.2	30.8	22.7	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			5.0	31.0	22.0	
Max Q Clear Time (g_c+l1), s			5.2	4.5	9.8	
Green Ext Time (p_c), s			0.0	15.0	8.8	
Intersection Summary						
HCM 2010 Ctrl Delay			8.8			
HCM 2010 LOS			A			
Notes						
















HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	1657	564	470	938	70	466	398	962	73	358	145
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	1079	3398	963	2093	3398	963	896	970	412	896	970	412
Arrive On Green	0.61	0.61	0.00	0.61	0.61	0.00	0.26	0.26	0.00	0.26	0.26	0.00
Sat Flow, veh/h	1774	5588	1583	3442	5588	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	230	1657	0	470	938	0	466	398	0	73	358	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	3.6	10.0	0.0	3.8	4.8	0.0	7.0	5.4	0.0	1.0	4.8	0.0
Cycle Q Clear(g_c), s	3.6	10.0	0.0	3.8	4.8	0.0	7.0	5.4	0.0	1.0	4.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1079	3398	963	2093	3398	963	896	970	412	896	970	412
V/C Ratio(X)	0.21	0.49	0.00	0.22	0.28	0.00	0.52	0.41	0.00	0.08	0.37	0.00
Avail Cap(c_a), veh/h	1079	3398	963	2093	3398	963	1923	2082	885	1018	1102	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	5.4	6.6	0.0	5.4	5.6	0.0	19.2	18.6	0.0	17.0	18.4	0.0
Incr Delay (d2), s/veh	0.5	0.5	0.0	0.1	0.0	0.0	0.5	0.3	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	3.4	0.0	1.1	1.6	0.0	2.8	2.4	0.0	0.4	2.1	0.0
Lane Grp Delay (d), s/veh	5.8	7.1	0.0	5.5	5.7	0.0	19.7	18.9	0.0	17.0	18.6	0.0
Lane Grp LOS	A	A		A	A		B	B		B	B	
Approach Vol, veh/h		1887			1408			864			431	
Approach Delay, s/veh		7.0			5.6			19.3			18.4	
Approach LOS		A			A			B			B	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		41.0			41.0			19.8			19.8	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		37.0			25.0			34.0			18.0	
Max Q Clear Time (g_c+l1), s		12.0			6.8			9.0			6.8	
Green Ext Time (p_c), s		18.9			14.7			6.8			4.8	
Intersection Summary												
HCM 2010 Ctrl Delay			10.0									
HCM 2010 LOS			A									
Notes												

















HCM 2010 Signalized Intersection Summary
 13: MOUNTAIN HOUSE PKWY & I-580E OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	199	4	178	0	0	0	0	431	267	387	126	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	0				0	1	0	0	1	0
Cap, veh/h	239	5	214				0	1016	0	0	1016	0
Arrive On Green	0.27	0.27	0.27				0.00	0.55	0.00	0.00	0.55	0.00
Sat Flow, veh/h	878	18	785				0	1863	0	0	1863	0
Grp Volume(v), veh/h	381	0	0				0	431	0	0	126	0
Grp Sat Flow(s),veh/h/ln	1680	0	0				0	1863	0	0	1863	0
Q Serve(g_s), s	9.4	0.0	0.0				0.0	6.0	0.0	0.0	1.5	0.0
Cycle Q Clear(g_c), s	9.4	0.0	0.0				0.0	6.0	0.0	0.0	1.5	0.0
Prop In Lane	0.52		0.47				0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	458	0	0				0	1016	0	0	1016	0
V/C Ratio(X)	0.83	0.00	0.00				0.00	0.42	0.00	0.00	0.12	0.00
Avail Cap(c_a), veh/h	611	0	0				0	1016	0	0	1016	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	0.0	0.0				0.0	5.9	0.0	0.0	4.9	0.0
Incr Delay (d2), s/veh	7.2	0.0	0.0				0.0	1.3	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.3	0.0	0.0				0.0	2.3	0.0	0.0	0.5	0.0
Lane Grp Delay (d), s/veh	22.3	0.0	0.0				0.0	7.2	0.0	0.0	5.1	0.0
Lane Grp LOS	C							A			A	
Approach Vol, veh/h		381						431			126	
Approach Delay, s/veh		22.3						7.2			5.1	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		16.0						28.0		0.0	28.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						16.0		4.0	24.0	
Max Q Clear Time (g_c+l1), s		11.4						8.0		0.0	3.5	
Green Ext Time (p_c), s		0.7						1.5		0.0	2.2	
Intersection Summary												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 14: MOUNTAIN HOUSE PKWY & I-580W OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	43	26	173	33	597	0	0	470	208
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				68	41	0	172	1118	0	0	1167	992
Arrive On Green				0.06	0.06	0.00	0.63	0.63	0.00	0.00	0.63	0.00
Sat Flow, veh/h				1126	681	0	39	1785	0	0	1863	1583
Grp Volume(v), veh/h				69	0	0	630	0	0	0	470	0
Grp Sat Flow(s),veh/h/ln				1806	0	0	1823	0	0	0	1863	1583
Q Serve(g_s), s				1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0
Cycle Q Clear(g_c), s				1.0	0.0	0.0	4.9	0.0	0.0	0.0	3.2	0.0
Prop In Lane				0.62		0.00	0.05		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				110	0	0	1290	0	0	0	1167	992
V/C Ratio(X)				0.63	0.00	0.00	0.49	0.00	0.00	0.00	0.40	0.00
Avail Cap(c_a), veh/h				1131	0	0	1290	0	0	0	1167	992
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.7	0.0	0.0	2.7	0.0	0.0	0.0	2.4	0.0
Incr Delay (d2), s/veh				5.8	0.0	0.0	1.3	0.0	0.0	0.0	1.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.5	0.0	0.0	1.2	0.0	0.0	0.0	0.9	0.0
Lane Grp Delay (d), s/veh				17.6	0.0	0.0	4.0	0.0	0.0	0.0	3.4	0.0
Lane Grp LOS				B			A				A	
Approach Vol, veh/h					69			630			470	
Approach Delay, s/veh					17.6			4.0			3.4	
Approach LOS					B			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					5.5			20.0			20.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					16.0			16.0			16.0	
Max Q Clear Time (g_c+l1), s					3.0			6.9			5.2	
Green Ext Time (p_c), s					0.1			3.5			3.9	
Intersection Summary												
HCM 2010 Ctrl Delay				4.6								
HCM 2010 LOS				A								
Notes												



















HCM 2010 Signalized Intersection Summary
 15: LAMMERS RD & I-580E OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	310	0	0	0	0	0	0	0	0	250	130	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3				0.0	186.3	190.0	186.3	186.3	0.0
Lanes	2	0	1				0	2	0	1	2	0
Cap, veh/h	493	0	220				0	7	0	1250	2624	0
Arrive On Green	0.14	0.00	0.00				0.00	0.00	0.00	0.70	0.70	0.00
Sat Flow, veh/h	3548	0	1583				0	-72647	0	1774	3725	0
Grp Volume(v), veh/h	310	0	0				0	0	0	250	130	0
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	0	1774	1863	0
Q Serve(g_s), s	4.2	0.0	0.0				0.0	0.0	0.0	2.5	0.5	0.0
Cycle Q Clear(g_c), s	4.2	0.0	0.0				0.0	0.0	0.0	2.5	0.5	0.0
Prop In Lane	1.00		1.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	493	0	220				0	7	0	1250	2624	0
V/C Ratio(X)	0.63	0.00	0.00				0.00	0.00	0.00	0.20	0.05	0.00
Avail Cap(c_a), veh/h	1111	0	496				0	1385	0	1250	2624	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.8	0.0	0.0				0.0	0.0	0.0	2.6	2.3	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0				0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	0.0	0.0				0.0	0.0	0.0	0.7	0.2	0.0
Lane Grp Delay (d), s/veh	22.1	0.0	0.0				0.0	0.0	0.0	2.7	2.3	0.0
Lane Grp LOS	C									A		A
Approach Vol, veh/h	310							0		380		
Approach Delay, s/veh	22.1							0.0		2.6		
Approach LOS	C									A		
Timer												
Assigned Phs	4							2		1	6	
Phs Duration (G+Y+Rc), s	11.1							0.0		40.0	40.0	
Change Period (Y+Rc), s	4.0							4.0		4.0	4.0	
Max Green Setting (Gmax), s	16.0							19.0		13.0	36.0	
Max Q Clear Time (g_c+l1), s	6.2							0.0		4.5	2.5	
Green Ext Time (p_c), s	1.0							0.0		1.0	1.7	
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
 16: LAMMERS RD & I-580 WEST OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	0	0	90	0	310	0	0	380	240
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				0	133	113	153	2817	0	0	2173	923
Arrive On Green				0.00	0.00	0.07	0.00	1.00	0.00	0.00	0.58	0.58
Sat Flow, veh/h				0	1863	1583	1774	3725	0	0	3725	1583
Grp Volume(v), veh/h				0	0	90	0	310	0	0	380	240
Grp Sat Flow(s),veh/h/ln				0	1863	1583	1774	1863	0	0	1863	1583
Q Serve(g_s), s				0.0	0.0	2.6	0.0	0.0	0.0	0.0	2.2	3.4
Cycle Q Clear(g_c), s				0.0	0.0	2.6	0.0	0.0	0.0	0.0	2.2	3.4
Prop In Lane				0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	133	113	153	2817	0	0	2173	923
V/C Ratio(X)				0.00	0.00	0.80	0.00	0.11	0.00	0.00	0.17	0.26
Avail Cap(c_a), veh/h				0	684	581	153	2817	0	0	2173	923
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				0.00	0.00	1.00	0.00	0.85	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				0.0	0.0	21.2	0.0	0.0	0.0	0.0	4.5	4.7
Incr Delay (d2), s/veh				0.0	0.0	12.1	0.0	0.1	0.0	0.0	0.2	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 Back of Q (50%), veh/ln				0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.8	1.2
Lane Grp Delay (d), s/veh				0.0	0.0	33.3	0.0	0.1	0.0	0.0	4.7	5.4
Lane Grp LOS						C		A			A	A
Approach Vol, veh/h					90			310			620	
Approach Delay, s/veh					33.3			0.1			4.9	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					7.3		8.0	39.0			31.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					17.0		4.0	35.0			27.0	
Max Q Clear Time (g_c+l1), s					4.6		0.0	2.0			5.4	
Green Ext Time (p_c), s					0.2		0.0	1.4			2.8	
Intersection Summary												
HCM 2010 Ctrl Delay				6.0								
HCM 2010 LOS				A								
Notes												

























HCM 2010 Signalized Intersection Summary
 18: LAMMERS RD & LINNE ROAD

Cumulative PM
 3/13/2014

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	160	370	140	260	310	480
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	3	1	3	3
Cap, veh/h	542	484	1620	459	596	2817
Arrive On Green	0.31	0.31	0.29	0.29	0.12	0.50
Sat Flow, veh/h	1774	1583	5588	1583	5003	5588
Grp Volume(v), veh/h	160	370	140	260	310	480
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1668	1863
Q Serve(g_s), s	2.9	8.9	0.8	5.9	2.4	2.0
Cycle Q Clear(g_c), s	2.9	8.9	0.8	5.9	2.4	2.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	542	484	1620	459	596	2817
V/C Ratio(X)	0.30	0.77	0.09	0.57	0.52	0.17
Avail Cap(c_a), veh/h	971	867	3990	1131	1191	5853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	13.2	10.9	12.7	17.4	5.7
Incr Delay (d2), s/veh	0.3	2.6	0.0	1.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	3.2	0.3	2.1	1.0	0.7
Lane Grp Delay (d), s/veh	11.4	15.8	10.9	13.8	18.1	5.7
Lane Grp LOS	B	B	B	B	B	A
Approach Vol, veh/h	530		400			790
Approach Delay, s/veh	14.5		12.8			10.5
Approach LOS	B		B			B
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			16.2		9.0	25.2
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			30.0		10.0	44.0
Max Q Clear Time (g_c+l1), s			7.9		4.4	4.0
Green Ext Time (p_c), s			4.3		0.7	4.7
Intersection Summary						
HCM 2010 Ctrl Delay			12.3			
HCM 2010 LOS			B			
Notes						



















HCM 2010 Signalized Intersection Summary
 24: LAMMERS RD & HANSEN RD

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	100	240	9	80	310	40	440	30	350	541	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		0.76	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Cap, veh/h	117	491	469	117	491	318	57	1002	284	403	1964	108
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.03	0.18	0.18	0.23	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	1774	1863	1205	1774	5588	1583	1774	5248	289
Grp Volume(v), veh/h	50	100	240	9	80	310	40	440	30	350	383	188
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1205	1774	1863	1583	1774	1863	1812
Q Serve(g_s), s	1.6	2.5	7.6	0.3	2.0	15.5	1.4	4.3	1.0	11.5	4.3	4.4
Cycle Q Clear(g_c), s	1.6	2.5	7.6	0.3	2.0	15.5	1.4	4.3	1.0	11.5	4.3	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	117	491	469	117	491	318	57	1002	284	403	1394	678
V/C Ratio(X)	0.43	0.20	0.51	0.08	0.16	0.97	0.70	0.44	0.11	0.87	0.27	0.28
Avail Cap(c_a), veh/h	468	491	469	468	491	318	176	1474	418	468	1597	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	17.4	17.7	26.6	17.2	22.1	29.0	22.2	20.8	22.6	13.2	13.3
Incr Delay (d2), s/veh	2.5	0.2	0.9	0.3	0.2	43.5	14.1	0.3	0.2	14.3	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	1.1	2.9	0.1	0.9	8.2	0.8	1.9	0.4	6.4	1.8	1.8
Lane Grp Delay (d), s/veh	29.7	17.6	18.6	26.9	17.3	65.7	43.2	22.5	21.0	36.9	13.3	13.5
Lane Grp LOS	C	B	B	C	B	E	D	C	C	D	B	B
Approach Vol, veh/h		390			399			510			921	
Approach Delay, s/veh		19.8			55.1			24.0			22.3	
Approach LOS		B			E			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.0	20.0		8.0	20.0		6.0	14.9		17.8	26.7	
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	16.0	16.0		16.0	16.0		6.0	16.0		16.0	26.0	
Max Q Clear Time (g_c+l1), s	3.6	9.6		2.3	17.5		3.4	6.3		13.5	6.4	
Green Ext Time (p_c), s	0.1	1.9		0.0	0.0		0.0	4.6		0.3	6.8	
Intersection Summary												
HCM 2010 Ctrl Delay			28.2									
HCM 2010 LOS			C									
Notes												




















HCM 2010 Signalized Intersection Summary
 25: LAMMERS RD/LAMMERS EXTN & I-205 EAST ON-OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	0	900	0	0	0	0	1810	1510	0	2740	960
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	186.3	0.0	186.3	186.3
Lanes	0	1	1				0	3	2	0	3	1
Cap, veh/h	158	0	141				0	4223	2393	0	4223	1196
Arrive On Green	0.09	0.00	0.00				0.00	0.76	0.76	0.00	0.76	0.76
Sat Flow, veh/h	1774	0	1583				0	5588	3167	0	5588	1583
Grp Volume(v), veh/h	120	0	0				0	1810	1510	0	2740	960
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	1583	0	1863	1583
Q Serve(g_s), s	3.4	0.0	0.0				0.0	6.0	11.5	0.0	12.1	19.4
Cycle Q Clear(g_c), s	3.4	0.0	0.0				0.0	6.0	11.5	0.0	12.1	19.4
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	158	0	141				0	4223	2393	0	4223	1196
V/C Ratio(X)	0.76	0.00	0.00				0.00	0.43	0.63	0.00	0.65	0.80
Avail Cap(c_a), veh/h	447	0	399				0	4223	2393	0	4223	1196
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	0.38	0.38
Uniform Delay (d), s/veh	23.0	0.0	0.0				0.0	2.3	2.9	0.0	3.0	3.9
Incr Delay (d2), s/veh	7.2	0.0	0.0				0.0	0.3	1.3	0.0	0.3	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
%ile Back of Q (50%), veh/ln	1.7	0.0	0.0				0.0	1.5	2.7	0.0	2.9	0.8
Lane Grp Delay (d), s/veh	30.1	0.0	0.0				0.0	2.6	4.2	0.0	3.3	6.2
Lane Grp LOS	C							A	A		A	A
Approach Vol, veh/h		120						3320			3700	
Approach Delay, s/veh		30.1						3.3			4.1	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		8.6						43.0			43.0	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		13.0						39.0			39.0	
Max Q Clear Time (g_c+l1), s		5.4						13.5			21.4	
Green Ext Time (p_c), s		0.2						25.4			17.5	
Intersection Summary												
HCM 2010 Ctrl Delay			4.2									
HCM 2010 LOS			A									
Notes												























HCM 2010 Signalized Intersection Summary
 26: LAMMERS EXTN & I-205 WB ON RAMP/I-205 WEST ON-OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1980	0	840	0	1230	700	0	1720	180
Number				1	6	16	3	8	18	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				186.3	186.3	186.3	0.0	186.3	186.3	0.0	186.3	186.3
Lanes				3	0	1	0	2	2	0	3	1
Cap, veh/h				2838	0	844	0	1341	1140	0	2012	570
Arrive On Green				0.53	0.00	0.00	0.00	0.36	0.36	0.00	0.12	0.12
Sat Flow, veh/h				5322	0	1583	0	3725	3167	0	5588	1583
Grp Volume(v), veh/h				1980	0	0	0	1230	700	0	1720	180
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1863	1583	0	1863	1583
Q Serve(g_s), s				20.7	0.0	0.0	0.0	23.7	13.6	0.0	22.6	7.8
Cycle Q Clear(g_c), s				20.7	0.0	0.0	0.0	23.7	13.6	0.0	22.6	7.8
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				2838	0	844	0	1341	1140	0	2012	570
V/C Ratio(X)				0.70	0.00	0.00	0.00	0.92	0.61	0.00	0.85	0.32
Avail Cap(c_a), veh/h				2838	0	844	0	1341	1140	0	2012	570
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(l)				1.00	0.00	0.00	0.00	0.86	0.86	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.0	0.0	0.0	0.0	22.9	19.7	0.0	31.1	24.6
Incr Delay (d2), s/veh				1.4	0.0	0.0	0.0	9.0	0.9	0.0	4.9	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 Back of Q (50%), veh/ln				8.4	0.0	0.0	0.0	12.1	12.0	0.0	12.2	3.5
Lane Grp Delay (d), s/veh				14.5	0.0	0.0	0.0	31.9	20.6	0.0	36.0	26.0
Lane Grp LOS				B				C	C		D	C
Approach Vol, veh/h					1980			1930			1900	
Approach Delay, s/veh					14.5			27.8			35.1	
Approach LOS					B			C			D	
Timer												
Assigned Phs					6			8			4	
Phs Duration (G+Y+Rc), s					44.0			31.0			31.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					40.0			27.0			27.0	
Max Q Clear Time (g_c+l1), s					22.7			25.7			24.6	
Green Ext Time (p_c), s					10.8			1.3			2.3	
Intersection Summary												
HCM 2010 Ctrl Delay				25.6								
HCM 2010 LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

























HCM 2010 Signalized Intersection Summary
 27: LAMMERS EXTN/BYRON & PAVILLION PKWY

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1370	50	870	940	840	160	290	1000	560	257	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	3	0	3	2	1	1	1	2	2	1	0
Cap, veh/h	31	1495	55	914	1655	703	194	343	1161	590	438	17
Arrive On Green	0.02	0.28	0.28	0.18	0.44	0.00	0.11	0.18	0.00	0.17	0.25	0.25
Sat Flow, veh/h	1774	5358	196	5003	3725	1583	1774	1863	3167	3442	1781	69
Grp Volume(v), veh/h	20	953	467	870	940	0	160	290	0	560	0	267
Grp Sat Flow(s),veh/h/ln	1774	1863	1828	1668	1863	1583	1774	1863	1583	1721	0	1851
Q Serve(g_s), s	1.0	21.7	21.7	15.1	16.4	0.0	7.7	13.2	0.0	14.1	0.0	11.1
Cycle Q Clear(g_c), s	1.0	21.7	21.7	15.1	16.4	0.0	7.7	13.2	0.0	14.1	0.0	11.1
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	31	1040	510	914	1655	703	194	343	1161	590	0	455
V/C Ratio(X)	0.64	0.92	0.92	0.95	0.57	0.00	0.82	0.85	0.00	0.95	0.00	0.59
Avail Cap(c_a), veh/h	81	1064	522	914	1655	703	223	383	1230	590	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(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	30.6	30.6	35.4	18.1	0.0	38.2	34.5	0.0	35.9	0.0	29.1
Incr Delay (d2), s/veh	19.8	12.0	20.8	19.0	0.5	0.0	19.4	22.0	0.0	25.1	0.0	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 Back of Q (50%), veh/ln	0.6	11.8	12.8	7.9	7.4	0.0	4.5	8.2	0.0	8.1	0.0	5.9
Lane Grp Delay (d), s/veh	62.5	42.6	51.3	54.4	18.5	0.0	57.6	56.5	0.0	61.0	0.0	34.5
Lane Grp LOS	E	D	D	D	B		E	E		E		C
Approach Vol, veh/h		1440			1810			450			827	
Approach Delay, s/veh		45.7			35.8			56.9			52.5	
Approach LOS		D			D			E			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.5	28.4		20.0	42.9		13.6	20.1		19.0	25.5	
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	4.0	25.0		16.0	37.0		11.0	18.0		15.0	22.0	
Max Q Clear Time (g_c+l1), s	3.0	23.7		17.1	18.4		9.7	15.2		16.1	13.1	
Green Ext Time (p_c), s	0.0	0.8		0.0	14.7		0.1	0.9		0.0	2.2	
Intersection Summary												
HCM 2010 Ctrl Delay				44.1								
HCM 2010 LOS				D								
Notes												






















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	565	1966	498	275	1451	603	250	1473	255	101	1745	446
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Cap, veh/h	1585	2574	729	1585	2574	729	1488	2416	685	1488	2416	685
Arrive On Green	0.46	0.46	0.00	0.46	0.46	0.46	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	3442	5588	1583	3442	5588	1583	3442	5588	1583	3442	5588	1583
Grp Volume(v), veh/h	565	1966	0	275	1451	603	250	1473	255	101	1745	446
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	7.9	21.9	0.0	3.5	14.1	24.8	3.3	15.2	8.1	1.3	19.3	16.6
Cycle Q Clear(g_c), s	7.9	21.9	0.0	3.5	14.1	24.8	3.3	15.2	8.1	1.3	19.3	16.6
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	1585	2574	729	1585	2574	729	1488	2416	685	1488	2416	685
V/C Ratio(X)	0.36	0.76	0.00	0.17	0.56	0.83	0.17	0.61	0.37	0.07	0.72	0.65
Avail Cap(c_a), veh/h	1750	2842	805	1585	2574	729	1488	2416	685	1566	2543	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	16.8	0.0	11.8	14.7	17.6	13.0	16.3	14.3	12.4	17.5	16.8
Incr Delay (d2), s/veh	0.1	1.2	0.0	0.1	0.3	7.8	0.1	0.4	0.3	0.0	1.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.0	9.2	0.0	1.3	5.8	10.1	1.3	6.6	3.0	0.5	8.6	6.6
Lane Grp Delay (d), s/veh	13.1	17.9	0.0	11.9	15.0	25.4	13.0	16.8	14.7	12.4	18.5	18.7
Lane Grp LOS	B	B		B	B	C	B	B	B	B	B	B
Approach Vol, veh/h		2531			2329			1978			2292	
Approach Delay, s/veh		16.9			17.3			16.0			18.3	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		2			6			4			8	
Phs Duration (G+Y+Rc), s		38.4			38.4			36.3			36.3	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		38.0			31.0			31.0			34.0	
Max Q Clear Time (g_c+l1), s		23.9			26.8			17.2			21.3	
Green Ext Time (p_c), s		10.5			4.1			13.1			11.1	
Intersection Summary												
HCM 2010 Ctrl Delay				17.1								
HCM 2010 LOS				B								
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & W CENTRAL AVE

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	97	28	311	75	99	62	1061	326	118	898	69
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	50	146	42	347	199	263	80	1145	348	148	1559	120
Arrive On Green	0.03	0.11	0.11	0.20	0.27	0.27	0.04	0.42	0.42	0.08	0.46	0.46
Sat Flow, veh/h	1774	1391	401	1774	730	963	1774	2743	835	1774	3417	263
Grp Volume(v), veh/h	37	0	125	311	0	174	62	717	670	118	490	477
Grp Sat Flow(s),veh/h/ln	1774	0	1792	1774	0	1693	1774	1863	1715	1774	1863	1816
Q Serve(g_s), s	1.7	0.0	5.4	13.8	0.0	6.7	2.8	29.5	30.2	5.3	15.7	15.7
Cycle Q Clear(g_c), s	1.7	0.0	5.4	13.8	0.0	6.7	2.8	29.5	30.2	5.3	15.7	15.7
Prop In Lane	1.00		0.22	1.00		0.57	1.00		0.49	1.00		0.14
Lane Grp Cap(c), veh/h	50	0	189	347	0	462	80	778	716	148	850	829
V/C Ratio(X)	0.75	0.00	0.66	0.90	0.00	0.38	0.78	0.92	0.94	0.79	0.58	0.58
Avail Cap(c_a), veh/h	132	0	355	351	0	544	175	806	742	154	850	829
HCM Platoon Ratio	1.00	1.00	1.00	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	39.0	0.0	34.8	31.7	0.0	23.8	38.2	22.3	22.5	36.4	16.2	16.2
Incr Delay (d2), s/veh	19.8	0.0	3.9	24.1	0.0	0.5	15.0	15.7	18.8	23.8	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	0.0	2.6	8.5	0.0	2.8	1.6	16.5	16.2	3.3	7.0	6.9
Lane Grp Delay (d), s/veh	58.8	0.0	38.7	55.8	0.0	24.3	53.2	38.0	41.3	60.2	17.2	17.2
Lane Grp LOS	E		D	E		C	D	D	D	E	B	B
Approach Vol, veh/h		162			485			1449			1085	
Approach Delay, s/veh		43.3			44.5			40.2			21.9	
Approach LOS		D			D			D			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.3	12.5		19.8	26.1		7.6	37.8		10.8	40.9	
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	6.0	16.0		16.0	26.0		8.0	35.0		7.0	34.0	
Max Q Clear Time (g_c+l1), s	3.7	7.4		15.8	8.7		4.8	32.2		7.3	17.7	
Green Ext Time (p_c), s	0.0	1.1		0.0	1.6		0.0	1.6		0.0	13.2	
Intersection Summary												
HCM 2010 Ctrl Delay			34.7									
HCM 2010 LOS			C									
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	522	1455	276	338	1094	307	520	1189	325	262	1174	382
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	1627	1812	749	1627	1812	770	1351	1512	643	1304	1512	621
Arrive On Green	0.47	0.49	0.47	0.47	0.49	0.49	0.39	0.41	0.41	0.38	0.41	0.39
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	522	1455	276	338	1094	307	520	1189	325	262	1174	382
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	7.0	24.4	8.3	4.3	15.9	9.2	8.0	20.7	11.4	3.8	20.3	14.3
Cycle Q Clear(g_c), s	7.0	24.4	8.3	4.3	15.9	9.2	8.0	20.7	11.4	3.8	20.3	14.3
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	1627	1812	749	1627	1812	770	1351	1512	643	1304	1512	621
V/C Ratio(X)	0.32	0.80	0.37	0.21	0.60	0.40	0.38	0.79	0.51	0.20	0.78	0.61
Avail Cap(c_a), veh/h	1669	1857	768	1627	1812	770	1391	1556	661	1345	1556	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	12.2	16.1	12.5	11.4	13.9	12.2	16.1	19.2	16.5	15.5	19.1	18.1
Incr Delay (d2), s/veh	0.5	3.9	1.4	0.0	0.5	0.2	0.1	2.4	0.2	0.0	2.2	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 Back of Q (50%), veh/ln	2.7	10.9	3.1	1.6	6.5	3.2	3.3	9.6	4.3	1.6	9.4	5.6
Lane Grp Delay (d), s/veh	12.7	20.0	13.9	11.5	14.4	12.4	16.2	21.7	16.7	15.5	21.3	19.2
Lane Grp LOS	B	B	B	B	B	B	B	C	B	B	C	B
Approach Vol, veh/h		2253			1739			2034			1818	
Approach Delay, s/veh		17.5			13.5			19.5			20.1	
Approach LOS		B			B			B			C	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		40.1			40.1			34.1			34.1	
Change Period (Y+Rc), s		6.0			6.0			6.0			6.0	
Max Green Setting (Gmax), s		35.0			28.0			29.0			29.0	
Max Q Clear Time (g_c+l1), s		26.4			17.9			22.7			22.3	
Green Ext Time (p_c), s		7.7			8.9			5.5			5.8	
Intersection Summary												
HCM 2010 Ctrl Delay				17.7								
HCM 2010 LOS				B								
Notes												

























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE ROAD/LINNE

Cumulative PM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	95	505	175	13	281	144	82	116	18	173	120	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	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	0	760	646	0	760	646	304	352	44	383	201	100
Arrive On Green	0.00	0.41	0.41	0.00	0.41	0.41	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	0	1863	1583	0	1863	1583	422	1101	138	633	627	314
Grp Volume(v), veh/h	0	505	175	0	281	144	216	0	0	366	0	0
Grp Sat Flow(s),veh/h/ln	0	1863	1583	0	1863	1583	1661	0	0	1574	0	0
Q Serve(g_s), s	0.0	6.5	2.2	0.0	3.1	1.7	0.0	0.0	0.0	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.5	2.2	0.0	3.1	1.7	2.7	0.0	0.0	5.8	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00	0.38		0.08	0.47		0.20
Lane Grp Cap(c), veh/h	0	760	646	0	760	646	700	0	0	684	0	0
V/C Ratio(X)	0.00	0.66	0.27	0.00	0.37	0.22	0.31	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	0	1139	968	0	1139	968	1039	0	0	1013	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(l)	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.1	5.8	0.0	6.1	5.7	7.7	0.0	0.0	8.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.2	0.0	0.3	0.2	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	2.3	0.6	0.0	1.0	0.5	0.9	0.0	0.0	1.9	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	8.1	6.0	0.0	6.4	5.8	8.0	0.0	0.0	9.3	0.0	0.0
Lane Grp LOS		A	A		A	A	A			A		
Approach Vol, veh/h		680			425			216			366	
Approach Delay, s/veh		7.5			6.2			8.0			9.3	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	0.0	16.0		0.0	16.0			13.4				13.4
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	18.0		4.0	18.0			16.0				16.0
Max Q Clear Time (g_c+l1), s	0.0	8.5		0.0	5.1			4.7				7.8
Green Ext Time (p_c), s	0.0	3.5		0.0	4.1			2.0				1.7
Intersection Summary												
HCM 2010 Ctrl Delay			7.6									
HCM 2010 LOS			A									
Notes												



















HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	375	861	86	350	506	230	82	526	493	81	427	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	1	2	1	1	2	1	1	1	1
Cap, veh/h	489	953	496	359	1177	592	102	941	400	104	472	401
Arrive On Green	0.14	0.26	0.26	0.20	0.32	0.32	0.06	0.25	0.00	0.06	0.25	0.00
Sat Flow, veh/h	3442	3725	1583	1774	3725	1583	1774	3725	1583	1774	1863	1583
Grp Volume(v), veh/h	375	861	86	350	506	230	82	526	0	81	427	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	7.3	15.5	2.7	13.6	7.4	7.4	3.2	8.5	0.0	3.1	15.4	0.0
Cycle Q Clear(g_c), s	7.3	15.5	2.7	13.6	7.4	7.4	3.2	8.5	0.0	3.1	15.4	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	489	953	496	359	1177	592	102	941	400	104	472	401
V/C Ratio(X)	0.77	0.90	0.17	0.98	0.43	0.39	0.80	0.56	0.00	0.78	0.91	0.00
Avail Cap(c_a), veh/h	646	969	503	359	1177	592	102	941	400	128	484	412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	28.6	24.9	17.2	27.4	18.8	15.9	32.2	22.5	0.0	32.2	25.1	0.0
Incr Delay (d2), s/veh	4.0	11.5	0.2	40.9	0.2	0.4	34.8	0.7	0.0	21.7	20.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.2	8.1	1.0	9.7	3.2	2.6	2.4	3.9	0.0	2.0	9.5	0.0
Lane Grp Delay (d), s/veh	32.6	36.5	17.4	68.3	19.0	16.3	67.0	23.3	0.0	53.8	45.3	0.0
Lane Grp LOS	C	D	B	E	B	B	E	C		D	D	
Approach Vol, veh/h		1322			1086			608			508	
Approach Delay, s/veh		34.1			34.3			29.2			46.6	
Approach LOS		C			C			C			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	13.8	21.7		18.0	25.9		8.0	21.5		8.0	21.5	
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	13.0	18.0		14.0	19.0		4.0	17.0		5.0	18.0	
Max Q Clear Time (g_c+l1), s	9.3	17.5		15.6	9.4		5.2	10.5		5.1	17.4	
Green Ext Time (p_c), s	0.6	0.2		0.0	5.3		0.0	2.5		0.0	0.1	
Intersection Summary												
HCM 2010 Ctrl Delay			35.1									
HCM 2010 LOS			D									
Notes												




















HCM 2010 Signalized Intersection Summary
 33: CHRISMAN & I-205 EAST ON/OFF RAMP/I-205 EAST ON RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	900	0	290	0	0	0	0	1390	960	10	240	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	3	1	0				0	2	1	1	2	0
Cap, veh/h	1337	0	423				0	1781	757	18	2123	0
Arrive On Green	0.27	0.00	0.27				0.00	0.48	0.00	0.02	1.00	0.00
Sat Flow, veh/h	5003	0	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	900	0	290				0	1390	0	10	240	0
Grp Sat Flow(s),veh/h/ln	1668	0	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	7.9	0.0	8.1				0.0	15.3	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	8.1				0.0	15.3	0.0	0.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1337	0	423				0	1781	757	18	2123	0
V/C Ratio(X)	0.67	0.00	0.69				0.00	0.78	0.00	0.54	0.11	0.00
Avail Cap(c_a), veh/h	1629	0	515				0	2123	902	144	2729	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	0.00	0.99	0.99	0.00
Uniform Delay (d), s/veh	16.1	0.0	16.2				0.0	10.7	0.0	23.9	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	2.9				0.0	3.5	0.0	22.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.1	0.0	3.2				0.0	6.6	0.0	0.2	0.0	0.0
Lane Grp Delay (d), s/veh	16.9	0.0	19.0				0.0	14.1	0.0	46.2	0.1	0.0
Lane Grp LOS	B		B					B		D	A	
Approach Vol, veh/h		1190						1390			250	
Approach Delay, s/veh		17.4						14.1			2.0	
Approach LOS		B						B			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		17.1						27.5		4.5	32.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						28.0		4.0	36.0	
Max Q Clear Time (g_c+l1), s		10.1						17.3		2.3	2.0	
Green Ext Time (p_c), s		3.1						6.2		0.0	11.1	
Intersection Summary												
HCM 2010 Ctrl Delay			14.4									
HCM 2010 LOS			B									
Notes												

HCM 2010 Signalized Intersection Summary
 34: CHRISMAN & I-205 WEST ON/OFF RAMP

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  				
Volume (veh/h)	0	0	0	50	0	10	290	2000	0	0	200	480
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	1	3	0	0	1	1
Cap, veh/h				72	0	14	363	4132	0	0	800	680
Arrive On Green				0.05	0.00	0.05	0.41	1.00	0.00	0.00	0.43	0.43
Sat Flow, veh/h				1449	0	290	1774	5588	0	0	1863	1583
Grp Volume(v), veh/h				60	0	0	290	2000	0	0	200	480
Grp Sat Flow(s),veh/h/ln				1739	0	0	1774	1863	0	0	1863	1583
Q Serve(g_s), s				1.3	0.0	0.0	5.4	0.0	0.0	0.0	2.6	9.4
Cycle Q Clear(g_c), s				1.3	0.0	0.0	5.4	0.0	0.0	0.0	2.6	9.4
Prop In Lane				0.83		0.17	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				86	0	0	363	4132	0	0	800	680
V/C Ratio(X)				0.70	0.00	0.00	0.80	0.48	0.00	0.00	0.25	0.71
Avail Cap(c_a), veh/h				734	0	0	702	5309	0	0	836	710
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.67	0.67	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.7	0.0	0.0	10.5	0.0	0.0	0.0	6.9	8.9
Incr Delay (d2), s/veh				9.8	0.0	0.0	2.8	0.3	0.0	0.0	0.7	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
%ile Back of Q (50%), veh/ln				0.7	0.0	0.0	1.9	0.1	0.0	0.0	1.1	3.9
Lane Grp Delay (d), s/veh				27.5	0.0	0.0	13.3	0.3	0.0	0.0	7.7	14.9
Lane Grp LOS				C			B	A			A	B
Approach Vol, veh/h					60			2290			680	
Approach Delay, s/veh					27.5			1.9			12.8	
Approach LOS					C			A			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					5.9		11.7	32.0			20.3	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		15.0	36.0			17.0	
Max Q Clear Time (g_c+l1), s					3.3		7.4	2.0			11.4	
Green Ext Time (p_c), s					0.1		0.7	20.4			4.9	
Intersection Summary												
HCM 2010 Ctrl Delay				4.9								
HCM 2010 LOS				A								
Notes												

Intersection												
Intersection Delay, s/veh	55.2											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	107	630	12	9	490	93	47	35	44	145	6	172
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	630	12	9	490	93	47	35	44	145	6	172
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	66.4	65.9	15.3	25
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	14%	2%	45%
Vol Thru, %	28%	84%	83%	2%
Vol Right, %	35%	2%	16%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	749	592	323
LT Vol	35	630	490	6
Through Vol	44	12	93	172
RT Vol	47	107	9	145
Lane Flow Rate	126	749	592	323
Geometry Grp	1	1	1	1
Degree of Util (X)	0.3	1	1	0.676
Departure Headway (Hd)	8.574	7.065	6.955	7.535
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	418	524	527	478
Service Time	6.654	5.065	4.955	5.582
HCM Lane V/C Ratio	0.301	1.429	1.123	0.676
HCM Control Delay	15.3	66.4	65.9	25
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	1.2	13.8	13.9	5

Notes

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

Intersection

Intersection Delay, s/veh 19

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	136	153	152	5	38	116	80	1649	121	468	2125	112
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	-	-	-	-	-	-	248	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	136	153	152	5	38	116	80	1649	121	468	2125	112

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	4121	5047	1119	3945	5043	885	2237	0	0	1770	0	0
Stage 1	3117	3117	-	1870	1870	-	-	-	-	-	-	-
Stage 2	1004	1930	-	2075	3173	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	# 1	# 1	201	# 1	# 1	288	228	-	-	# 348	-	-
Stage 1	# 11	# 27	-	75	120	-	-	-	-	-	-	-
Stage 2	259	# 112	-	55	# 25	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	-	# 1	201	-	# 1	288	228	-	-	# 348	-	-
Mov Capacity-2 Maneuver	-	# 1	-	-	# 1	-	-	-	-	-	-	-
Stage 1	# 7	# 27	-	49	78	-	-	-	-	-	-	-
Stage 2	# 51	# 73	-	-	# 25	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	+	+	1.3	35.3
HCM LOS	-	-		
























Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	228	-	-	+	+	# 348	-	-
HCM Lane V/C Ratio	0.351	-	-	+	+	1.345	-	-
HCM Control Delay (s)	29.089	-	-	+	+	203.746	-	-
HCM Lane LOS	D			+	+	F		
HCM 95th %tile Q(veh)	1.5	-	-	+	+	22.723	-	-

Notes

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



















HCM 2010 Signalized Intersection Summary
 37: MOUNTAIN HOUSE PKWY & OLD SCHULTE RD

Cumulative PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	323	52	271	203	100	32	438	300	117	355	72
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	61	686	292	425	322	159	51	1074	457	228	1213	516
Arrive On Green	0.03	0.18	0.18	0.12	0.27	0.27	0.03	0.29	0.29	0.07	0.33	0.33
Sat Flow, veh/h	1774	3725	1583	3442	1179	581	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	40	323	52	271	0	303	32	438	300	117	355	72
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1760	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.1	3.7	1.3	3.6	0.0	7.2	0.8	4.5	7.9	1.6	3.4	1.5
Cycle Q Clear(g_c), s	1.1	3.7	1.3	3.6	0.0	7.2	0.8	4.5	7.9	1.6	3.4	1.5
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	61	686	292	425	0	481	51	1074	457	228	1213	516
V/C Ratio(X)	0.65	0.47	0.18	0.64	0.00	0.63	0.62	0.41	0.66	0.51	0.29	0.14
Avail Cap(c_a), veh/h	225	1258	534	726	0	743	150	1493	635	290	1493	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	22.6	17.3	16.3	19.8	0.0	15.1	22.8	13.6	14.8	21.4	11.9	11.3
Incr Delay (d2), s/veh	11.1	0.5	0.3	1.6	0.0	1.4	11.6	0.2	1.6	1.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	1.6	0.5	1.5	0.0	3.0	0.5	1.9	2.9	0.7	1.4	0.5
Lane Grp Delay (d), s/veh	33.7	17.8	16.6	21.4	0.0	16.5	34.4	13.9	16.4	23.2	12.0	11.4
Lane Grp LOS	C	B	B	C		B	C	B	B	C	B	B
Approach Vol, veh/h		415			574			770			544	
Approach Delay, s/veh		19.2			18.8			15.7			14.4	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.6	12.7		9.9	17.0		5.4	17.7		7.1	19.4	
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	6.0	16.0		10.0	20.0		4.0	19.0		4.0	19.0	
Max Q Clear Time (g_c+l1), s	3.1	5.7		5.6	9.2		2.8	9.9		3.6	5.4	
Green Ext Time (p_c), s	0.0	3.1		0.5	3.1		0.0	3.8		0.0	4.7	
Intersection Summary												
HCM 2010 Ctrl Delay			16.8									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 1: CORRAL HOLLOW RD & I-580 EAST OFF RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	142	6	59	0	0	0	0	231	40	83	627	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	159.7	159.7	190.0				0.0	162.4	162.4	182.7	182.7	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	223	19	184				0	921	392	123	951	0
Arrive On Green	0.15	0.15	0.15				0.00	0.28	0.28	0.07	0.52	0.00
Sat Flow, veh/h	1521	127	1249				0	3248	1380	1740	1827	0
Grp Volume(v), veh/h	142	0	65				0	231	40	83	627	0
Grp Sat Flow(s),veh/h/ln	1521	0	1376				0	1624	1380	1740	1827	0
Q Serve(g_s), s	2.1	0.0	1.0				0.0	1.3	0.5	1.1	6.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	1.0				0.0	1.3	0.5	1.1	6.0	0.0
Prop In Lane	1.00		0.91				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	223	0	202				0	921	392	123	951	0
V/C Ratio(X)	0.64	0.00	0.32				0.00	0.25	0.10	0.67	0.66	0.00
Avail Cap(c_a), veh/h	1011	0	915				0	2159	918	434	1974	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.7	0.0	9.2				0.0	6.6	6.4	10.9	4.2	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.9				0.0	0.1	0.1	6.3	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	0.3				0.0	0.4	0.1	0.6	1.4	0.0
Lane Grp Delay (d), s/veh	12.6	0.0	10.1				0.0	6.8	6.5	17.2	5.0	0.0
Lane Grp LOS	B		B					A	A	B	A	
Approach Vol, veh/h		207						271			710	
Approach Delay, s/veh		11.8						6.7			6.4	
Approach LOS		B						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		7.5						10.8		5.7	16.5	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						16.0		6.0	26.0	
Max Q Clear Time (g_c+l1), s		4.1						3.3		3.1	8.0	
Green Ext Time (p_c), s		0.6						3.5		0.1	4.0	
Intersection Summary												
HCM 2010 Ctrl Delay			7.4									
HCM 2010 LOS			A									
Notes												
























HCM 2010 Signalized Intersection Summary
 2: CORRAL HOLLOW RD & I-580 WEST OFF RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	330	0	221	61	312	0	0	380	640
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	166.7	166.7	157.0	157.0	0.0	0.0	182.7	182.7
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				393	0	351	69	1841	0	0	1670	710
Arrive On Green				0.25	0.00	0.00	0.05	0.59	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1587	0	1417	1495	3140	0	0	3654	1553
Grp Volume(v), veh/h				330	0	0	61	312	0	0	380	640
Grp Sat Flow(s),veh/h/ln				1587	0	1417	1495	1570	0	0	1827	1553
Q Serve(g_s), s				9.5	0.0	0.0	2.0	2.2	0.0	0.0	3.0	18.4
Cycle Q Clear(g_c), s				9.5	0.0	0.0	2.0	2.2	0.0	0.0	3.0	18.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				393	0	351	69	1841	0	0	1670	710
V/C Ratio(X)				0.84	0.00	0.00	0.88	0.17	0.00	0.00	0.23	0.90
Avail Cap(c_a), veh/h				526	0	470	124	2018	0	0	1742	740
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.2	0.0	0.0	22.9	4.6	0.0	0.0	7.9	12.1
Incr Delay (d2), s/veh				8.8	0.0	0.0	27.5	0.0	0.0	0.0	0.1	13.9
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 Back of Q (50%), veh/ln				4.4	0.0	0.0	1.2	0.6	0.0	0.0	1.2	8.8
Lane Grp Delay (d), s/veh				26.1	0.0	0.0	50.3	4.6	0.0	0.0	8.0	26.0
Lane Grp LOS				C			D	A			A	C
Approach Vol, veh/h					330			373			1020	
Approach Delay, s/veh					26.1			12.1			19.3	
Approach LOS					C			B			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					16.0		6.2	32.3			26.1	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		4.0	31.0			23.0	
Max Q Clear Time (g_c+l1), s					11.5		4.0	4.2			20.4	
Green Ext Time (p_c), s					0.6		0.0	7.7			1.7	
Intersection Summary												
HCM 2010 Ctrl Delay				19.0								
HCM 2010 LOS				B								
Notes												























HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD/SPINE RD EXT

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	100	30	70	80	150	30	423	80	240	920	80
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Cap, veh/h	73	222	189	151	305	259	49	861	162	300	1579	671
Arrive On Green	0.04	0.12	0.12	0.09	0.16	0.16	0.03	0.28	0.28	0.17	0.42	0.42
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	3052	573	1774	3725	1583
Grp Volume(v), veh/h	50	100	30	70	80	150	30	257	246	240	920	80
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1762	1774	1863	1583
Q Serve(g_s), s	1.3	2.3	0.8	1.7	1.7	4.1	0.8	5.3	5.4	6.0	8.8	1.4
Cycle Q Clear(g_c), s	1.3	2.3	0.8	1.7	1.7	4.1	0.8	5.3	5.4	6.0	8.8	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	73	222	189	151	305	259	49	525	497	300	1579	671
V/C Ratio(X)	0.69	0.45	0.16	0.46	0.26	0.58	0.61	0.49	0.50	0.80	0.58	0.12
Avail Cap(c_a), veh/h	229	641	545	611	1042	885	153	641	606	420	1843	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	19.0	18.4	20.3	17.0	18.0	22.4	13.9	13.9	18.6	10.3	8.1
Incr Delay (d2), s/veh	11.0	1.4	0.4	2.2	0.5	2.0	11.7	0.7	0.8	7.2	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	1.1	0.3	0.8	0.8	1.6	0.5	2.3	2.2	3.1	3.4	0.5
Lane Grp Delay (d), s/veh	33.0	20.5	18.8	22.5	17.4	20.0	34.1	14.6	14.7	25.8	10.6	8.2
Lane Grp LOS	C	C	B	C	B	C	C	B	B	C	B	A
Approach Vol, veh/h		180			300			533			1240	
Approach Delay, s/veh		23.7			19.9			15.7			13.4	
Approach LOS		C			B			B			B	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	5.9	9.6		8.0	11.6		5.3	17.1		11.9	23.7	
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	6.0	16.0		16.0	26.0		4.0	16.0		11.0	23.0	
Max Q Clear Time (g_c+l1), s	3.3	4.3		3.7	6.1		2.8	7.4		8.0	10.8	
Green Ext Time (p_c), s	0.0	1.2		0.1	1.5		0.0	5.7		0.2	7.4	
Intersection Summary												
HCM 2010 Ctrl Delay				15.6								
HCM 2010 LOS				B								
Notes												




















HCM 2010 Signalized Intersection Summary
4: CORRAL HOLLOW RD & LINNE ROAD

Cumulative+Proj AM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	350	70	350	520	129	30	254	349	100	629	150
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	0	2	2	0	1	1	1	1	1	0
Cap, veh/h	230	531	105	470	709	175	43	788	670	131	688	164
Arrive On Green	0.07	0.18	0.18	0.14	0.25	0.25	0.02	0.42	0.00	0.07	0.47	0.47
Sat Flow, veh/h	3442	3022	598	3442	2887	713	1774	1863	1583	1774	1455	347
Grp Volume(v), veh/h	150	214	206	350	335	314	30	254	0	100	0	779
Grp Sat Flow(s),veh/h/ln	1721	1863	1757	1721	1863	1737	1774	1863	1583	1774	0	1802
Q Serve(g_s), s	3.6	9.0	9.2	8.2	13.8	14.0	1.4	7.6	0.0	4.6	0.0	33.6
Cycle Q Clear(g_c), s	3.6	9.0	9.2	8.2	13.8	14.0	1.4	7.6	0.0	4.6	0.0	33.6
Prop In Lane	1.00		0.34	1.00		0.41	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	230	327	309	470	457	426	43	788	670	131	0	852
V/C Ratio(X)	0.65	0.65	0.67	0.74	0.73	0.74	0.70	0.32	0.00	0.76	0.00	0.91
Avail Cap(c_a), veh/h	411	489	462	904	756	705	85	934	794	381	0	1204
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	38.1	32.2	32.2	34.8	29.1	29.1	40.6	16.1	0.0	38.1	0.0	20.5
Incr Delay (d2), s/veh	3.1	2.2	2.5	2.4	2.3	2.5	19.1	0.2	0.0	8.9	0.0	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	4.4	4.3	3.7	6.7	6.3	0.9	3.4	0.0	2.4	0.0	16.2
Lane Grp Delay (d), s/veh	41.2	34.4	34.7	37.1	31.3	31.6	59.7	16.4	0.0	47.0	0.0	28.8
Lane Grp LOS	D	C	C	D	C	C	E	B		D		C
Approach Vol, veh/h		570			999			284			879	
Approach Delay, s/veh		36.3			33.5			21.0			30.9	
Approach LOS		D			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1		6
Phs Duration (G+Y+Rc), s	9.6	18.7		15.4	24.6		6.0	39.4		10.2		43.6
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	10.0	22.0		22.0	34.0		4.0	42.0		18.0		56.0
Max Q Clear Time (g_c+l1), s	5.6	11.2		10.2	16.0		3.4	9.6		6.6		35.6
Green Ext Time (p_c), s	0.2	3.6		1.3	4.4		0.1	1.1		0.2		3.9
Intersection Summary												
HCM 2010 Ctrl Delay				31.9								
HCM 2010 LOS				C								
Notes												





























HCM 2010 Signalized Intersection Summary
5: TRACY BLVD & LINNE ROAD

Cumulative+Proj AM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	248	495	80	34	584	302	50	24	24	224	47	410
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	190.0	190.0	186.3	186.3
Lanes	2	2	0	1	2	0	0	1	0	0	1	1
Cap, veh/h	344	1131	182	51	672	347	365	175	175	607	127	650
Arrive On Green	0.10	0.36	0.36	0.03	0.29	0.29	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	3442	3133	504	1774	2317	1197	889	427	427	1479	310	1583
Grp Volume(v), veh/h	248	293	282	34	469	417	98	0	0	271	0	410
Grp Sat Flow(s),veh/h/ln	1721	1863	1774	1774	1863	1651	1743	0	0	1789	0	1583
Q Serve(g_s), s	4.2	7.2	7.2	1.1	14.4	14.4	2.1	0.0	0.0	6.3	0.0	12.4
Cycle Q Clear(g_c), s	4.2	7.2	7.2	1.1	14.4	14.4	2.1	0.0	0.0	6.3	0.0	12.4
Prop In Lane	1.00		0.28	1.00		0.72	0.51		0.24	0.83		1.00
Lane Grp Cap(c), veh/h	344	672	640	51	540	479	716	0	0	734	0	650
V/C Ratio(X)	0.72	0.44	0.44	0.66	0.87	0.87	0.14	0.00	0.00	0.37	0.00	0.63
Avail Cap(c_a), veh/h	344	672	640	177	589	522	716	0	0	744	0	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	14.6	14.6	28.9	20.3	20.3	11.1	0.0	0.0	12.3	0.0	14.1
Incr Delay (d2), s/veh	7.2	0.4	0.5	13.8	12.5	13.9	0.1	0.0	0.0	0.3	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 Back of Q (50%), veh/ln	2.1	3.1	3.1	0.7	8.1	7.4	0.8	0.0	0.0	2.6	0.0	4.6
Lane Grp Delay (d), s/veh	33.5	15.0	15.1	42.7	32.7	34.1	11.1	0.0	0.0	12.6	0.0	16.0
Lane Grp LOS	C	B	B	D	C	C	B			B		B
Approach Vol, veh/h		823			920			98			681	
Approach Delay, s/veh		20.6			33.7			11.1			14.7	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	10.0	25.7		5.7	21.4			28.7				28.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	6.0	19.0		6.0	19.0			19.0				25.0
Max Q Clear Time (g_c+l1), s	6.2	9.2		3.1	16.4			4.1				14.4
Green Ext Time (p_c), s	0.0	4.7		0.0	1.0			3.2				2.4
Intersection Summary												
HCM 2010 Ctrl Delay			23.4									
HCM 2010 LOS			C									
Notes												























HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Cumulative+Proj AM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	110	561	127	70	652	519	40	761	310	90	716	167
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	141	1172	264	163	1363	579	607	1274	541	607	1000	233
Arrive On Green	0.08	0.40	0.40	0.05	0.37	0.37	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	2944	664	3442	3725	1583	1774	3725	1583	1774	2924	682
Grp Volume(v), veh/h	110	354	334	70	652	519	40	761	310	90	456	427
Grp Sat Flow(s),veh/h/ln	1774	1863	1746	1721	1863	1583	1774	1863	1583	1774	1863	1742
Q Serve(g_s), s	3.4	8.0	8.0	1.1	7.6	17.4	0.9	9.5	9.0	2.0	12.0	12.0
Cycle Q Clear(g_c), s	3.4	8.0	8.0	1.1	7.6	17.4	0.9	9.5	9.0	2.0	12.0	12.0
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	141	741	695	163	1363	579	607	1274	541	607	637	596
V/C Ratio(X)	0.78	0.48	0.48	0.43	0.48	0.90	0.07	0.60	0.57	0.15	0.72	0.72
Avail Cap(c_a), veh/h	189	741	695	549	1453	618	607	1274	541	692	727	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	12.6	12.6	26.1	13.7	16.9	12.5	15.3	15.2	12.9	16.2	16.2
Incr Delay (d2), s/veh	13.9	0.5	0.5	1.8	0.3	15.1	0.0	0.8	1.5	0.1	2.9	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 Back of Q (50%), veh/ln	1.9	3.1	2.9	0.5	2.9	8.2	0.4	4.2	3.1	0.8	5.7	5.4
Lane Grp Delay (d), s/veh	39.3	13.1	13.2	27.9	14.0	32.0	12.5	16.1	16.6	13.0	19.1	19.3
Lane Grp LOS	D	B	B	C	B	C	B	B	B	B	B	B
Approach Vol, veh/h		798			1241			1111			973	
Approach Delay, s/veh		16.7			22.3			16.1			18.6	
Approach LOS		B			C			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	8.5	26.5		6.7	24.6			23.3				23.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	6.0	19.0		9.0	22.0			19.0				22.0
Max Q Clear Time (g_c+l1), s	5.4	10.0		3.1	19.4			11.5				14.0
Green Ext Time (p_c), s	0.0	5.4		0.1	1.2			5.3				5.2
Intersection Summary												
HCM 2010 Ctrl Delay				18.7								
HCM 2010 LOS				B								
Notes												

























HCM 2010 Signalized Intersection Summary
7: CORRAL HOLLOW RD & VALPICO RD.

Cumulative+Proj AM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	51	223	272	100	682	91	70	650	90	112	443	177
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	0	1	2	1
Cap, veh/h	76	555	472	127	1219	518	601	1086	150	601	1263	605
Arrive On Green	0.04	0.30	0.30	0.07	0.33	0.33	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	1863	1583	1774	3725	1583	1774	3204	443	1774	3725	1583
Grp Volume(v), veh/h	51	223	272	100	682	91	70	377	363	112	443	177
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1785	1774	1863	1583
Q Serve(g_s), s	1.2	3.9	6.0	2.3	6.2	1.7	1.1	6.9	6.9	1.8	3.7	3.2
Cycle Q Clear(g_c), s	1.2	3.9	6.0	2.3	6.2	1.7	1.1	6.9	6.9	1.8	3.7	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	76	555	472	127	1219	518	601	631	605	601	1263	605
V/C Ratio(X)	0.67	0.40	0.58	0.78	0.56	0.18	0.12	0.60	0.60	0.19	0.35	0.29
Avail Cap(c_a), veh/h	215	858	730	301	1897	806	817	858	822	817	1717	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	11.5	12.3	18.8	11.4	9.9	9.4	11.3	11.3	9.6	10.2	8.9
Incr Delay (d2), s/veh	9.7	0.5	1.1	10.1	0.4	0.2	0.1	0.9	1.0	0.1	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 Back of Q (50%), veh/ln	0.6	1.4	2.0	1.2	2.2	0.5	0.4	2.9	2.8	0.7	1.4	0.9
Lane Grp Delay (d), s/veh	29.2	12.0	13.4	28.9	11.8	10.1	9.5	12.2	12.3	9.8	10.4	9.1
Lane Grp LOS	C	B	B	C	B	B	A	B	B	A	B	A
Approach Vol, veh/h		546			873			810			732	
Approach Delay, s/veh		14.3			13.6			12.0			10.0	
Approach LOS		B			B			B			A	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	5.8	16.3		7.0	17.5			18.0			18.0	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	5.0	19.0		7.0	21.0			19.0			19.0	
Max Q Clear Time (g_c+l1), s	3.2	8.0		4.3	8.2			8.9			5.7	
Green Ext Time (p_c), s	0.0	4.3		0.1	4.6			5.0			5.9	
Intersection Summary												
HCM 2010 Ctrl Delay				12.4								
HCM 2010 LOS				B								
Notes												
























HCM 2010 Signalized Intersection Summary
 8: LAMMERS RD & VALPICO ROAD/VALPICO RD.

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	10	30	88	10	821	20	2007	127	251	1273	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	3	1	1	3	1
Cap, veh/h	1	622	529	181	863	734	855	2693	763	855	2693	763
Arrive On Green	0.00	0.33	0.33	0.10	0.46	0.46	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	5588	1583	1774	5588	1583
Grp Volume(v), veh/h	0	10	30	88	10	821	20	2007	127	251	1273	30
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.0	0.5	1.9	6.9	0.4	68.0	0.9	42.6	6.6	12.5	22.4	1.5
Cycle Q Clear(g_c), s	0.0	0.5	1.9	6.9	0.4	68.0	0.9	42.6	6.6	12.5	22.4	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1	622	529	181	863	734	855	2693	763	855	2693	763
V/C Ratio(X)	0.00	0.02	0.06	0.49	0.01	1.12	0.02	0.75	0.17	0.29	0.47	0.04
Avail Cap(c_a), veh/h	48	635	540	266	863	734	1088	3428	971	855	2693	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.7	33.2	62.2	21.2	39.4	19.9	30.7	21.4	22.9	25.5	20.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.0	0.0	70.9	0.0	0.7	0.1	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.3	0.8	3.3	0.2	40.9	0.4	20.1	2.6	5.6	10.5	0.6
Lane Grp Delay (d), s/veh	0.0	32.7	33.2	64.2	21.2	110.2	19.9	31.4	21.5	23.1	25.6	20.1
Lane Grp LOS		C	C	E	C	F	B	C	C	C	C	C
Approach Vol, veh/h		40			919			2154			1554	
Approach Delay, s/veh		33.1			104.8			30.7			25.1	
Approach LOS		C			F			C			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	0.0	53.0		19.0	72.0			74.7				74.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	50.0		22.0	68.0			90.0				57.0
Max Q Clear Time (g_c+l1), s	0.0	3.9		8.9	70.0			44.6				24.4
Green Ext Time (p_c), s	0.0	5.3		0.2	0.0			26.1				27.2
Intersection Summary												
HCM 2010 Ctrl Delay				43.5								
HCM 2010 LOS				D								
Notes												

















HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & SCHULTE ROAD

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	396	281	47	370	379	806	105	1148	249	546	832	416
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	1	1	2	0	1	2	1	2	3	0
Cap, veh/h	1598	1729	735	824	865	735	801	1682	715	1553	1682	715
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	3442	3725	1583	1774	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	396	281	47	370	379	806	105	1148	249	546	832	416
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	6.6	4.1	1.6	13.4	13.0	44.0	3.3	23.2	9.7	9.8	15.0	18.5
Cycle Q Clear(g_c), s	6.6	4.1	1.6	13.4	13.0	44.0	3.3	23.2	9.7	9.8	15.0	18.5
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	1598	1729	735	824	865	735	801	1682	715	1553	1682	715
V/C Ratio(X)	0.25	0.16	0.06	0.45	0.44	1.10	0.13	0.68	0.35	0.35	0.49	0.58
Avail Cap(c_a), veh/h	1598	1729	735	824	865	735	861	1808	768	1816	1965	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	15.4	14.7	14.0	17.2	17.1	25.4	15.2	20.6	16.9	17.0	18.4	19.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.4	0.4	62.7	0.1	1.0	0.3	0.1	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 Back of Q (50%), veh/ln	2.7	1.8	0.6	5.5	5.6	28.7	1.4	10.6	3.7	4.0	6.6	7.2
Lane Grp Delay (d), s/veh	15.5	14.8	14.1	17.6	17.4	88.1	15.2	21.6	17.2	17.1	18.6	20.1
Lane Grp LOS	B	B	B	B	B	F	B	C	B	B	B	C
Approach Vol, veh/h		724			1555			1502			1794	
Approach Delay, s/veh		15.1			54.1			20.4			18.5	
Approach LOS		B			D			C			B	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		48.0			48.0			46.8			46.8	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		27.0			44.0			46.0			50.0	
Max Q Clear Time (g_c+l1), s		8.6			46.0			25.2			20.5	
Green Ext Time (p_c), s		11.0			0.0			16.9			22.2	
Intersection Summary												
HCM 2010 Ctrl Delay				28.5								
HCM 2010 LOS				C								
Notes												

























HCM 2010 Signalized Intersection Summary
 10: LAMMERS RD & OLD SHULTE RD

Cumulative+Proj AM
 7/26/2014

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				  	  	
Volume (veh/h)	191	124	450	2296	1372	141
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	3	3	1
Cap, veh/h	237	212	501	4064	2099	595
Arrive On Green	0.13	0.00	0.28	0.73	0.38	0.38
Sat Flow, veh/h	1774	1583	1774	5588	5588	1583
Grp Volume(v), veh/h	191	0	450	2296	1372	141
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	6.0	0.0	14.0	11.0	11.7	3.5
Cycle Q Clear(g_c), s	6.0	0.0	14.0	11.0	11.7	3.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	237	212	501	4064	2099	595
V/C Ratio(X)	0.80	0.00	0.90	0.56	0.65	0.24
Avail Cap(c_a), veh/h	277	247	524	4173	2135	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	19.9	3.6	14.9	12.3
Incr Delay (d2), s/veh	13.8	0.0	17.8	0.2	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.5	0.0	8.2	3.3	5.0	1.2
Lane Grp Delay (d), s/veh	38.0	0.0	37.7	3.8	15.6	12.5
Lane Grp LOS	D		D	A	B	B
Approach Vol, veh/h	191			2746	1513	
Approach Delay, s/veh	38.0			9.4	15.3	
Approach LOS	D			A	B	
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			20.3	45.9	25.6	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			17.0	43.0	22.0	
Max Q Clear Time (g_c+l1), s			16.0	13.0	13.7	
Green Ext Time (p_c), s			0.2	26.3	7.9	
Intersection Summary						
HCM 2010 Ctrl Delay			12.6			
HCM 2010 LOS			B			
Notes						
















HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	613	715	910	1516	140	806	284	965	142	320	130
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	901	2838	804	1748	2838	804	1231	1333	566	1231	1333	566
Arrive On Green	0.51	0.51	0.00	0.51	0.51	0.00	0.36	0.36	0.00	0.36	0.36	0.00
Sat Flow, veh/h	1774	5588	1583	3442	5588	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	76	613	0	910	1516	0	806	284	0	142	320	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.3	3.6	0.0	10.5	10.9	0.0	11.7	3.2	0.0	1.6	3.6	0.0
Cycle Q Clear(g_c), s	1.3	3.6	0.0	10.5	10.9	0.0	11.7	3.2	0.0	1.6	3.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	901	2838	804	1748	2838	804	1231	1333	566	1231	1333	566
V/C Ratio(X)	0.08	0.22	0.00	0.52	0.53	0.00	0.65	0.21	0.00	0.12	0.24	0.00
Avail Cap(c_a), veh/h	901	2838	804	2197	3567	1011	2370	2565	1090	1231	1333	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.5	8.1	0.0	9.8	9.9	0.0	16.0	13.3	0.0	12.8	13.4	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.2	0.2	0.0	0.6	0.1	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.4	0.0	3.6	4.0	0.0	4.7	1.4	0.0	0.7	1.6	0.0
Lane Grp Delay (d), s/veh	7.7	8.3	0.0	10.0	10.0	0.0	16.6	13.4	0.0	12.9	13.5	0.0
Lane Grp LOS	A	A		B	B		B	B		B	B	
Approach Vol, veh/h		689			2426			1090			462	
Approach Delay, s/veh		8.2			10.0			15.8			13.3	
Approach LOS		A			B			B			B	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		34.2			34.2			25.3			25.3	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		27.0			38.0			41.0			18.0	
Max Q Clear Time (g_c+l1), s		5.6			12.9			13.7			5.6	
Green Ext Time (p_c), s		16.1			17.3			7.6			6.2	
Intersection Summary												
HCM 2010 Ctrl Delay				11.4								
HCM 2010 LOS				B								
Notes												

















HCM 2010 Signalized Intersection Summary
 13: MOUNTAIN HOUSE PKWY & I-580E OFF RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	175	6	21	0	0	0	0	73	44	194	705	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	147.3	190.0				0.0	154.5	190.0	190.0	181.0	0.0
Lanes	0	1	0				0	1	0	0	1	0
Cap, veh/h	214	7	26				0	1028	0	0	1204	0
Arrive On Green	0.18	0.18	0.18				0.00	0.67	0.00	0.00	0.67	0.00
Sat Flow, veh/h	1202	41	144				0	1545	0	0	1810	0
Grp Volume(v), veh/h	202	0	0				0	73	0	0	705	0
Grp Sat Flow(s),veh/h/ln	1387	0	0				0	1545	0	0	1810	0
Q Serve(g_s), s	7.2	0.0	0.0				0.0	0.8	0.0	0.0	10.9	0.0
Cycle Q Clear(g_c), s	7.2	0.0	0.0				0.0	0.8	0.0	0.0	10.9	0.0
Prop In Lane	0.87		0.10				0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	247	0	0				0	1028	0	0	1204	0
V/C Ratio(X)	0.82	0.00	0.00				0.00	0.07	0.00	0.00	0.59	0.00
Avail Cap(c_a), veh/h	489	0	0				0	1028	0	0	1204	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.2	0.0	0.0				0.0	3.0	0.0	0.0	4.7	0.0
Incr Delay (d2), s/veh	6.5	0.0	0.0				0.0	0.1	0.0	0.0	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.7	0.0	0.0				0.0	0.3	0.0	0.0	4.2	0.0
Lane Grp Delay (d), s/veh	26.7	0.0	0.0				0.0	3.1	0.0	0.0	6.8	0.0
Lane Grp LOS	C							A			A	
Approach Vol, veh/h		202						73			705	
Approach Delay, s/veh		26.7						3.1			6.8	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		13.1						38.0		0.0	38.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		18.0						23.0		7.0	34.0	
Max Q Clear Time (g_c+l1), s		9.2						2.8		0.0	12.9	
Green Ext Time (p_c), s		0.5						3.6		0.0	3.7	
Intersection Summary												
HCM 2010 Ctrl Delay			10.6									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 14: MOUNTAIN HOUSE PKWY & I-580W OFF RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	163	3	381	9	239	0	0	736	377
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	168.1	190.0	190.0	150.8	0.0	0.0	174.3	174.3
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				204	4	0	62	1123	0	0	1349	1146
Arrive On Green				0.13	0.13	0.00	0.77	0.77	0.00	0.00	0.77	0.00
Sat Flow, veh/h				1574	29	0	22	1451	0	0	1743	1482
Grp Volume(v), veh/h				166	0	0	248	0	0	0	736	0
Grp Sat Flow(s),veh/h/ln				1603	0	0	1473	0	0	0	1743	1482
Q Serve(g_s), s				8.3	0.0	0.0	0.0	0.0	0.0	0.0	13.7	0.0
Cycle Q Clear(g_c), s				8.3	0.0	0.0	3.7	0.0	0.0	0.0	13.7	0.0
Prop In Lane				0.98		0.00	0.04		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				208	0	0	1185	0	0	0	1349	1146
V/C Ratio(X)				0.80	0.00	0.00	0.21	0.00	0.00	0.00	0.55	0.00
Avail Cap(c_a), veh/h				736	0	0	1185	0	0	0	1349	1146
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				35.0	0.0	0.0	2.5	0.0	0.0	0.0	3.7	0.0
Incr Delay (d2), s/veh				6.9	0.0	0.0	0.4	0.0	0.0	0.0	1.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				3.7	0.0	0.0	1.1	0.0	0.0	0.0	4.7	0.0
Lane Grp Delay (d), s/veh				41.9	0.0	0.0	2.9	0.0	0.0	0.0	5.3	0.0
Lane Grp LOS				D			A				A	
Approach Vol, veh/h					166			248			736	
Approach Delay, s/veh					41.9			2.9			5.3	
Approach LOS					D			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					14.7			68.0			68.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					38.0			64.0			64.0	
Max Q Clear Time (g_c+l1), s					10.3			5.7			15.7	
Green Ext Time (p_c), s					0.6			5.3			5.3	
Intersection Summary												
HCM 2010 Ctrl Delay				10.0								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 15: LAMMERS RD & I-580E OFF RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	0	50	0	0	0	0	1050	10	60	460	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	159.7	159.7	159.7				0.0	162.4	190.0	182.7	182.7	0.0
Lanes	2	0	1				0	2	0	1	2	0
Cap, veh/h	228	0	102				0	2013	19	80	2766	0
Arrive On Green	0.07	0.00	0.07				0.00	0.63	0.63	0.05	0.76	0.00
Sat Flow, veh/h	3041	0	1357				0	3212	31	1740	3654	0
Grp Volume(v), veh/h	100	0	50				0	531	529	60	460	0
Grp Sat Flow(s),veh/h/ln	1521	0	1357				0	1624	1619	1740	1827	0
Q Serve(g_s), s	1.5	0.0	1.7				0.0	8.6	8.6	1.6	1.7	0.0
Cycle Q Clear(g_c), s	1.5	0.0	1.7				0.0	8.6	8.6	1.6	1.7	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	228	0	102				0	1018	1014	80	2766	0
V/C Ratio(X)	0.44	0.00	0.49				0.00	0.52	0.52	0.75	0.17	0.00
Avail Cap(c_a), veh/h	1023	0	457				0	1018	1014	439	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	21.0	0.0	21.1				0.0	4.9	4.9	22.4	1.6	0.0
Incr Delay (d2), s/veh	1.3	0.0	3.7				0.0	1.9	1.9	12.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	0.6				0.0	2.9	2.9	0.9	0.4	0.0
Lane Grp Delay (d), s/veh	22.4	0.0	24.8				0.0	6.8	6.8	35.0	1.7	0.0
Lane Grp LOS	C		C					A	A	D	A	
Approach Vol, veh/h		150						1060			520	
Approach Delay, s/veh		23.2						6.8			5.6	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		7.6						33.8		6.2	40.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						20.0		12.0	36.0	
Max Q Clear Time (g_c+l1), s		3.7						10.6		3.6	3.7	
Green Ext Time (p_c), s		0.4						4.9		0.1	8.5	
Intersection Summary												
HCM 2010 Ctrl Delay			7.9									
HCM 2010 LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												
























HCM 2010 Signalized Intersection Summary
 16: LAMMERS RD & I-580 WEST OFF RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	10	0	270	130	1020	0	0	510	260
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	166.7	166.7	157.0	157.0	0.0	0.0	182.7	182.7
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				361	0	322	118	1928	0	0	1665	707
Arrive On Green				0.23	0.00	0.23	0.08	0.61	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1587	0	1417	1495	3140	0	0	3654	1553
Grp Volume(v), veh/h				10	0	270	130	1020	0	0	510	260
Grp Sat Flow(s),veh/h/ln				1587	0	1417	1495	1570	0	0	1827	1553
Q Serve(g_s), s				0.2	0.0	9.2	4.0	9.4	0.0	0.0	4.5	5.5
Cycle Q Clear(g_c), s				0.2	0.0	9.2	4.0	9.4	0.0	0.0	4.5	5.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				361	0	322	118	1928	0	0	1665	707
V/C Ratio(X)				0.03	0.00	0.84	1.10	0.53	0.00	0.00	0.31	0.37
Avail Cap(c_a), veh/h				503	0	449	118	1928	0	0	1665	707
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	1.00	0.85	0.85	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				15.2	0.0	18.6	23.2	5.6	0.0	0.0	8.7	9.0
Incr Delay (d2), s/veh				0.0	0.0	9.6	104.6	0.9	0.0	0.0	0.5	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
%ile Back of Q (50%), veh/ln				0.1	0.0	3.8	4.8	2.9	0.0	0.0	1.8	2.1
Lane Grp Delay (d), s/veh				15.2	0.0	28.2	127.8	6.5	0.0	0.0	9.2	10.4
Lane Grp LOS				B		C	F	A			A	B
Approach Vol, veh/h					280			1150			770	
Approach Delay, s/veh					27.7			20.2			9.6	
Approach LOS					C			C			A	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					15.5		8.0	35.0			27.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		4.0	31.0			23.0	
Max Q Clear Time (g_c+l1), s					11.2		6.0	11.4			7.5	
Green Ext Time (p_c), s					0.5		0.0	6.0			3.3	
Intersection Summary												
HCM 2010 Ctrl Delay				17.4								
HCM 2010 LOS				B								
Notes												
















HCM 2010 Signalized Intersection Summary
 17: LAMMERS RD & SPINE RD













Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	270	10	60	110	30	560	70	1160	60	550	600	330
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	0	1	1	1	1	2	1	2	2	1
Cap, veh/h	404	21	128	146	106	90	90	1488	632	672	2026	861
Arrive On Green	0.12	0.09	0.09	0.08	0.06	0.00	0.05	0.40	0.40	0.20	0.54	0.00
Sat Flow, veh/h	3442	231	1387	1774	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	270	0	70	110	30	0	70	1160	60	550	600	0
Grp Sat Flow(s),veh/h/ln	1721	0	1618	1774	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	5.2	0.0	2.8	4.2	1.1	0.0	2.7	18.8	1.6	10.6	6.1	0.0
Cycle Q Clear(g_c), s	5.2	0.0	2.8	4.2	1.1	0.0	2.7	18.8	1.6	10.6	6.1	0.0
Prop In Lane	1.00		0.86	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	404	0	149	146	106	90	90	1488	632	672	2026	861
V/C Ratio(X)	0.67	0.00	0.47	0.76	0.28	0.00	0.78	0.78	0.09	0.82	0.30	0.00
Avail Cap(c_a), veh/h	945	0	515	487	592	504	231	1723	732	796	2100	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	0.00	1.00	1.00	1.00	0.00	0.80	0.80	0.80	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.2	0.0	29.8	31.1	31.3	0.0	32.4	18.1	13.0	26.7	8.6	0.0
Incr Delay (d2), s/veh	1.9	0.0	2.3	7.7	1.4	0.0	10.8	3.3	0.2	5.8	0.4	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 Back of Q (50%), veh/ln	2.3	0.0	1.2	2.1	0.5	0.0	1.5	8.7	0.6	5.0	2.5	0.0
Lane Grp Delay (d), s/veh	31.2	0.0	32.1	38.8	32.7	0.0	43.2	21.4	13.2	32.5	9.0	0.0
Lane Grp LOS	C		C	D	C		D	C	B	C	A	
Approach Vol, veh/h		340			140			1290			1150	
Approach Delay, s/veh		31.4			37.5			22.2			20.2	
Approach LOS		C			D			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	12.1	10.4		9.7	7.9		7.5	31.6		17.5	41.6	
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	19.0	22.0		19.0	22.0		9.0	32.0		16.0	39.0	
Max Q Clear Time (g_c+l1), s	7.2	4.8		6.2	3.1		4.7	20.8		12.6	8.1	
Green Ext Time (p_c), s	0.9	0.3		0.3	0.3		0.1	6.8		0.9	11.8	
Intersection Summary												
HCM 2010 Ctrl Delay			23.2									
HCM 2010 LOS			C									
Notes												

HCM 2010 Signalized Intersection Summary
 18: LAMMERS RD & LINNE ROAD





















Cumulative+Proj AM
 7/26/2014

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations					  	 
Volume (veh/h)	270	390	1660	330	240	1210
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	3	1	3	3
Cap, veh/h	484	432	2464	698	399	3294
Arrive On Green	0.27	0.27	0.44	0.44	0.08	0.59
Sat Flow, veh/h	1774	1583	5588	1583	5003	5588
Grp Volume(v), veh/h	270	390	1660	330	240	1210
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1668	1863
Q Serve(g_s), s	7.6	13.8	13.7	8.6	2.7	6.6
Cycle Q Clear(g_c), s	7.6	13.8	13.7	8.6	2.7	6.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	484	432	2464	698	399	3294
V/C Ratio(X)	0.56	0.90	0.67	0.47	0.60	0.37
Avail Cap(c_a), veh/h	488	435	2593	735	430	3458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	20.4	12.9	11.5	25.9	6.3
Incr Delay (d2), s/veh	1.4	21.5	0.7	0.5	2.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.3	7.6	5.7	3.0	1.2	2.4
Lane Grp Delay (d), s/veh	19.5	41.9	13.6	12.0	28.0	6.3
Lane Grp LOS	B	D	B	B	C	A
Approach Vol, veh/h	660		1990			1450
Approach Delay, s/veh	32.8		13.3			9.9
Approach LOS	C		B			A
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			29.7		8.6	38.3
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			27.0		5.0	36.0
Max Q Clear Time (g_c+l1), s			15.7		4.7	8.6
Green Ext Time (p_c), s			9.9		0.0	21.1
Intersection Summary						
HCM 2010 Ctrl Delay			15.2			
HCM 2010 LOS			B			
Notes						

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	190	1	1	81	487	200
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1
Cap, veh/h	258	230	123	2016	1175	500
Arrive On Green	0.15	0.15	0.07	0.54	0.32	0.32
Sat Flow, veh/h	1774	1583	1774	3725	3725	1583
Grp Volume(v), veh/h	190	1	1	81	487	200
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	2.6	0.0	0.0	0.3	2.6	2.5
Cycle Q Clear(g_c), s	2.6	0.0	0.0	0.3	2.6	2.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	258	230	123	2016	1175	500
V/C Ratio(X)	0.74	0.00	0.01	0.04	0.41	0.40
Avail Cap(c_a), veh/h	1112	992	1112	5254	2335	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	9.3	11.1	2.7	6.9	6.8
Incr Delay (d2), s/veh	4.1	0.0	0.0	0.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	0.0	0.1	0.8	0.7
Lane Grp Delay (d), s/veh	14.5	9.3	11.1	2.8	7.1	7.4
Lane Grp LOS	B	A	B	A	A	A
Approach Vol, veh/h	191			82	687	
Approach Delay, s/veh	14.5			2.9	7.2	
Approach LOS	B			A	A	
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			5.8	17.8	12.1	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			16.0	36.0	16.0	
Max Q Clear Time (g_c+l1), s			2.0	2.3	4.6	
Green Ext Time (p_c), s			0.0	5.0	3.5	
Intersection Summary						
HCM 2010 Ctrl Delay			8.3			
HCM 2010 LOS			A			
Notes						

HCM 2010 Signalized Intersection Summary
 21: ST 1C/SCHOOL ACCESS RD & SPINE RD

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	110	60	40	90	60	20	0	20	50	0	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Cap, veh/h	751	703	360	740	654	402	670	0	368	727	0	368
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.23	0.00	0.23	0.23	0.00	0.23
Sat Flow, veh/h	1232	2325	1190	1210	2162	1329	1313	0	1583	1386	0	1583
Grp Volume(v), veh/h	120	87	83	40	77	73	20	0	20	50	0	80
Grp Sat Flow(s),veh/h/ln	1232	1863	1653	1210	1863	1628	1313	0	1583	1386	0	1583
Q Serve(g_s), s	1.4	0.6	0.6	0.4	0.5	0.6	0.2	0.0	0.2	0.5	0.0	0.7
Cycle Q Clear(g_c), s	1.9	0.6	0.6	1.1	0.5	0.6	0.9	0.0	0.2	0.7	0.0	0.7
Prop In Lane	1.00		0.72	1.00		0.82	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	751	563	500	740	563	492	670	0	368	727	0	368
V/C Ratio(X)	0.16	0.15	0.17	0.05	0.14	0.15	0.03	0.00	0.05	0.07	0.00	0.22
Avail Cap(c_a), veh/h	1524	1732	1537	1499	1732	1514	1586	0	1473	1694	0	1473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	5.1	4.4	4.4	4.8	4.4	4.4	5.7	0.0	5.1	5.4	0.0	5.3
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.2
Lane Grp Delay (d), s/veh	5.2	4.5	4.6	4.8	4.5	4.5	5.7	0.0	5.2	5.4	0.0	5.6
Lane Grp LOS	A	A	A	A	A	A	A		A	A		A
Approach Vol, veh/h		290			190			40			130	
Approach Delay, s/veh		4.8			4.6			5.5			5.6	
Approach LOS		A			A			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		9.2			9.2			8.0			8.0	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		16.0			16.0			16.0			16.0	
Max Q Clear Time (g_c+l1), s		3.9			3.1			2.9			2.7	
Green Ext Time (p_c), s		1.9			1.9			0.6			0.6	
Intersection Summary												
HCM 2010 Ctrl Delay				4.9								
HCM 2010 LOS				A								
Notes												

Intersection						
Intersection Delay, s/veh	11.8					
Intersection LOS	B					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	130	260	460	0	0	330
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	260	460	0	0	330
Number of Lanes	0	2	2	0	0	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	12.1	10.6	13
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	60%	0%	0%	0%	0%
Vol Thru, %	40%	100%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	217	173	230	230	330
LT Vol	87	173	230	230	0
Through Vol	0	0	0	0	330
RT Vol	130	0	0	0	0
Lane Flow Rate	217	173	230	230	330
Geometry Grp	7	7	7	7	2
Degree of Util (X)	0.38	0.29	0.385	0.272	0.479
Departure Headway (Hd)	6.319	6.015	6.026	4.264	5.221
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	570	596	598	840	690
Service Time	4.061	3.756	3.766	2.004	3.261
HCM Lane V/C Ratio	0.381	0.29	0.385	0.274	0.478
HCM Control Delay	12.9	11.2	12.5	8.6	13
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	1.8	1.2	1.8	1.1	2.6

Notes

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

Intersection												
Intersection Delay, s/veh	12.6											
Intersection LOS	B											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	90	80	90	40	210	10	250	10	70	20	10	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	90	80	90	40	210	10	250	10	70	20	10	0
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	10	10.3	16.7	10
HCM LOS	A	B	C	A

























Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	76%	100%	0%	0%	100%	0%	0%	67%
Vol Thru, %	3%	0%	100%	23%	0%	100%	88%	33%
Vol Right, %	21%	0%	0%	77%	0%	0%	12%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	330	90	53	117	40	140	80	30
LT Vol	10	0	53	27	0	140	70	10
Through Vol	70	0	0	90	0	0	10	0
RT Vol	250	90	0	0	40	0	0	20
Lane Flow Rate	330	90	53	117	40	140	80	30
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.566	0.166	0.091	0.181	0.074	0.239	0.134	0.057
Departure Headway (Hd)	6.174	6.658	6.148	5.597	6.65	6.14	6.051	6.833
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	584	538	582	641	538	585	592	524
Service Time	3.903	4.401	3.891	3.34	4.392	3.881	3.792	4.581
HCM Lane V/C Ratio	0.565	0.167	0.091	0.183	0.074	0.239	0.135	0.057
HCM Control Delay	16.7	10.7	9.5	9.6	9.9	10.8	9.7	10
HCM Lane LOS	C	B	A	A	A	B	A	A
HCM 95th-tile Q	3.5	0.6	0.3	0.7	0.2	0.9	0.5	0.2

Notes

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



















HCM 2010 Signalized Intersection Summary
 24: LAMMERS RD & ELLIS DRIVE




















Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	20	80	100	40	260	160	1870	30	150	1290	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		0.71	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Cap, veh/h	92	340	466	147	398	404	198	2351	666	186	2251	52
Arrive On Green	0.05	0.18	0.18	0.08	0.21	0.21	0.11	0.42	0.42	0.10	0.41	0.41
Sat Flow, veh/h	1774	1863	1583	1774	1863	1118	1774	5588	1583	1774	5439	126
Grp Volume(v), veh/h	30	20	80	100	40	260	160	1870	30	150	883	437
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1118	1774	1863	1583	1774	1863	1840
Q Serve(g_s), s	1.2	0.7	2.9	4.2	1.3	15.8	6.7	22.3	0.9	6.3	13.9	13.9
Cycle Q Clear(g_c), s	1.2	0.7	2.9	4.2	1.3	15.8	6.7	22.3	0.9	6.3	13.9	13.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	92	340	466	147	398	404	198	2351	666	186	1542	762
V/C Ratio(X)	0.33	0.06	0.17	0.68	0.10	0.64	0.81	0.80	0.05	0.81	0.57	0.57
Avail Cap(c_a), veh/h	371	390	508	371	398	404	255	2411	683	209	1542	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	35.0	25.8	20.1	34.1	24.2	23.2	33.2	19.3	13.1	33.5	17.2	17.2
Incr Delay (d2), s/veh	2.0	0.1	0.2	5.4	0.1	3.5	13.8	1.9	0.0	18.7	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.3	1.1	2.1	0.6	4.6	3.7	10.3	0.3	3.8	6.1	6.2
Lane Grp Delay (d), s/veh	37.0	25.9	20.2	39.5	24.3	26.6	47.0	21.2	13.1	52.2	17.7	18.3
Lane Grp LOS	D	C	C	D	C	C	D	C	B	D	B	B
Approach Vol, veh/h		130			400			2060			1470	
Approach Delay, s/veh		25.0			29.6			23.1			21.4	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.0	18.0		10.3	20.3		12.5	36.2		12.0	35.7	
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	16.0	16.0		16.0	16.0		11.0	33.0		9.0	31.0	
Max Q Clear Time (g_c+l1), s	3.2	4.9		6.2	17.8		8.7	24.3		8.3	15.9	
Green Ext Time (p_c), s	0.0	0.5		0.1	0.0		0.1	7.9		0.0	14.1	
Intersection Summary												
HCM 2010 Ctrl Delay			23.2									
HCM 2010 LOS			C									
Notes												

HCM 2010 Signalized Intersection Summary
 25: LAMMERS RD/LAMMERS EXTN & I-205 EAST ON-OFF RAMP
























Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	0	660	0	0	0	0	1680	920	0	1680	330
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	186.3	0.0	186.3	186.3
Lanes	0	1	1				0	3	2	0	3	1
Cap, veh/h	94	0	84				0	3724	2110	0	3724	1055
Arrive On Green	0.05	0.00	0.00				0.00	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h	1774	0	1583				0	5588	3167	0	5588	1583
Grp Volume(v), veh/h	60	0	0				0	1680	920	0	1680	330
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	1583	0	1863	1583
Q Serve(g_s), s	0.9	0.0	0.0				0.0	4.1	3.9	0.0	4.1	2.5
Cycle Q Clear(g_c), s	0.9	0.0	0.0				0.0	4.1	3.9	0.0	4.1	2.5
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	94	0	84				0	3724	2110	0	3724	1055
V/C Ratio(X)	0.64	0.00	0.00				0.00	0.45	0.44	0.00	0.45	0.31
Avail Cap(c_a), veh/h	809	0	722				0	3724	2110	0	3724	1055
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	0.88	0.88
Uniform Delay (d), s/veh	13.2	0.0	0.0				0.0	2.3	2.2	0.0	2.3	2.0
Incr Delay (d2), s/veh	7.0	0.0	0.0				0.0	0.4	0.7	0.0	0.3	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 Back of Q (50%), veh/ln	0.5	0.0	0.0				0.0	0.8	0.7	0.0	0.7	0.2
Lane Grp Delay (d), s/veh	20.2	0.0	0.0				0.0	2.7	2.9	0.0	2.6	2.7
Lane Grp LOS	C							A	A		A	A
Approach Vol, veh/h		60						2600			2010	
Approach Delay, s/veh		20.2						2.7			2.6	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		5.5						23.0			23.0	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		13.0						19.0			19.0	
Max Q Clear Time (g_c+l1), s		2.9						6.1			6.1	
Green Ext Time (p_c), s		0.1						12.5			12.5	
Intersection Summary												
HCM 2010 Ctrl Delay			2.9									
HCM 2010 LOS			A									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1290	0	745	0	1340	400	0	730	30
Number				1	6	16	3	8	18	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				186.3	186.3	186.3	0.0	186.3	186.3	0.0	186.3	186.3
Lanes				3	0	1	0	2	2	0	3	1
Cap, veh/h				2620	0	779	0	1433	1218	0	2149	609
Arrive On Green				0.49	0.00	0.00	0.00	0.38	0.38	0.00	0.38	0.38
Sat Flow, veh/h				5322	0	1583	0	3725	3167	0	5588	1583
Grp Volume(v), veh/h				1290	0	0	0	1340	400	0	730	30
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1863	1583	0	1863	1583
Q Serve(g_s), s				10.6	0.0	0.0	0.0	22.5	5.8	0.0	6.0	0.8
Cycle Q Clear(g_c), s				10.6	0.0	0.0	0.0	22.5	5.8	0.0	6.0	0.8
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				2620	0	779	0	1433	1218	0	2149	609
V/C Ratio(X)				0.49	0.00	0.00	0.00	0.94	0.33	0.00	0.34	0.05
Avail Cap(c_a), veh/h				2620	0	779	0	1433	1218	0	2149	609
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.00	0.91	0.91	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.1	0.0	0.0	0.0	19.2	14.1	0.0	14.2	12.5
Incr Delay (d2), s/veh				0.7	0.0	0.0	0.0	10.8	0.1	0.0	0.4	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				4.2	0.0	0.0	0.0	11.6	5.8	0.0	2.6	0.3
Lane Grp Delay (d), s/veh				11.7	0.0	0.0	0.0	30.1	14.2	0.0	14.6	12.7
Lane Grp LOS				B				C	B		B	B
Approach Vol, veh/h					1290			1740			760	
Approach Delay, s/veh					11.7			26.4			14.5	
Approach LOS					B			C			B	
Timer												
Assigned Phs					6			8			4	
Phs Duration (G+Y+Rc), s					36.0			29.0			29.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					32.0			25.0			25.0	
Max Q Clear Time (g_c+l1), s					12.6			24.5			8.0	
Green Ext Time (p_c), s					7.1			0.5			12.1	
Intersection Summary												
HCM 2010 Ctrl Delay				19.0								
HCM 2010 LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												

























HCM 2010 Signalized Intersection Summary
 27: LAMMERS EXTN/BYRON & PAVILLION PKWY

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	560	20	250	400	450	110	170	760	430	150	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	3	0	3	2	1	1	1	2	2	1	0
Cap, veh/h	49	1247	44	441	1091	464	142	298	786	569	370	74
Arrive On Green	0.03	0.23	0.23	0.09	0.29	0.00	0.08	0.16	0.00	0.17	0.25	0.25
Sat Flow, veh/h	1774	5364	191	5003	3725	1583	1774	1863	3167	3442	1508	302
Grp Volume(v), veh/h	30	388	192	250	400	0	110	170	0	430	0	180
Grp Sat Flow(s),veh/h/ln	1774	1863	1829	1668	1863	1583	1774	1863	1583	1721	0	1810
Q Serve(g_s), s	0.8	4.0	4.1	2.2	3.8	0.0	2.7	3.8	0.0	5.4	0.0	3.8
Cycle Q Clear(g_c), s	0.8	4.0	4.1	2.2	3.8	0.0	2.7	3.8	0.0	5.4	0.0	3.8
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	49	866	425	441	1091	464	142	298	786	569	0	444
V/C Ratio(X)	0.61	0.45	0.45	0.57	0.37	0.00	0.78	0.57	0.00	0.76	0.00	0.41
Avail Cap(c_a), veh/h	157	1319	648	443	1319	561	314	659	1400	609	0	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(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	14.9	14.9	19.8	12.7	0.0	20.4	17.5	0.0	18.0	0.0	14.3
Incr Delay (d2), s/veh	11.5	0.4	0.7	1.7	0.2	0.0	8.8	7.7	0.0	5.0	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	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.7	1.7	0.9	1.6	0.0	1.5	2.2	0.0	2.5	0.0	1.9
Lane Grp Delay (d), s/veh	33.3	15.2	15.6	21.5	12.9	0.0	29.2	25.3	0.0	23.0	0.0	17.0
Lane Grp LOS	C	B	B	C	B		C	C		C		B
Approach Vol, veh/h		610			650			280			610	
Approach Delay, s/veh		16.2			16.2			26.8			21.3	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1		6
Phs Duration (G+Y+Rc), s	5.3	14.5		8.0	17.2		7.6	11.2		11.5		15.1
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	4.0	16.0		4.0	16.0		8.0	16.0		8.0		16.0
Max Q Clear Time (g_c+l1), s	2.8	6.1		4.2	5.8		4.7	5.8		7.4		5.8
Green Ext Time (p_c), s	0.0	4.4		0.0	4.5		0.1	1.4		0.1		1.4
Intersection Summary												
HCM 2010 Ctrl Delay			19.0									
HCM 2010 LOS			B									
Notes												





















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	104	1372	150	281	1555	46	480	2358	160	335	1307	434
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Cap, veh/h	1392	2261	641	1392	2261	641	1681	2729	773	1681	2729	773
Arrive On Green	0.40	0.40	0.00	0.40	0.40	0.40	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	3442	5588	1583	3442	5588	1583	3442	5588	1583	3442	5588	1583
Grp Volume(v), veh/h	104	1372	0	281	1555	46	480	2358	160	335	1307	434
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.4	14.5	0.0	4.0	17.2	1.3	6.2	27.9	4.3	4.1	11.7	14.4
Cycle Q Clear(g_c), s	1.4	14.5	0.0	4.0	17.2	1.3	6.2	27.9	4.3	4.1	11.7	14.4
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	1392	2261	641	1392	2261	641	1681	2729	773	1681	2729	773
V/C Ratio(X)	0.07	0.61	0.00	0.20	0.69	0.07	0.29	0.86	0.21	0.20	0.48	0.56
Avail Cap(c_a), veh/h	1473	2393	678	1473	2393	678	1888	3065	869	1681	2729	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	17.6	0.0	14.4	18.4	13.6	11.4	16.9	10.9	10.8	12.8	13.5
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.1	0.8	0.0	0.1	2.6	0.1	0.1	0.1	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 Back of Q (50%), veh/ln	0.5	6.1	0.0	1.5	7.2	0.5	2.5	12.7	1.6	1.6	5.0	5.5
Lane Grp Delay (d), s/veh	13.7	18.0	0.0	14.5	19.1	13.7	11.5	19.5	11.0	10.9	12.9	14.4
Lane Grp LOS	B	B		B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1476			1882			2998			2076	
Approach Delay, s/veh		17.7			18.3			17.7			12.9	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		2			6			4			8	
Phs Duration (G+Y+Rc), s		34.2			34.2			40.5			40.5	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		32.0			32.0			41.0			29.0	
Max Q Clear Time (g_c+l1), s		16.5			19.2			29.9			16.4	
Green Ext Time (p_c), s		13.1			11.1			6.6			12.3	
Intersection Summary												
HCM 2010 Ctrl Delay				16.7								
HCM 2010 LOS				B								
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & W CENTRAL AVE

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	104	86	26	290	94	264	26	1136	280	44	664	62
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	132	191	58	328	108	302	39	1302	318	55	1542	144
Arrive On Green	0.07	0.14	0.14	0.18	0.25	0.25	0.02	0.45	0.45	0.03	0.46	0.46
Sat Flow, veh/h	1774	1374	415	1774	433	1215	1774	2894	707	1774	3357	313
Grp Volume(v), veh/h	104	0	112	290	0	358	26	728	688	44	368	358
Grp Sat Flow(s),veh/h/ln	1774	0	1789	1774	0	1648	1774	1863	1738	1774	1863	1807
Q Serve(g_s), s	4.7	0.0	4.7	13.0	0.0	17.1	1.2	28.8	29.5	2.0	10.9	10.9
Cycle Q Clear(g_c), s	4.7	0.0	4.7	13.0	0.0	17.1	1.2	28.8	29.5	2.0	10.9	10.9
Prop In Lane	1.00		0.23	1.00		0.74	1.00		0.41	1.00		0.17
Lane Grp Cap(c), veh/h	132	0	248	328	0	410	39	838	782	55	855	830
V/C Ratio(X)	0.79	0.00	0.45	0.89	0.00	0.87	0.67	0.87	0.88	0.80	0.43	0.43
Avail Cap(c_a), veh/h	173	0	350	347	0	483	108	865	807	87	855	830
HCM Platoon Ratio	1.00	1.00	1.00	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	32.4	32.5	0.0	29.5	39.7	20.3	20.5	39.4	14.9	14.9
Incr Delay (d2), s/veh	15.9	0.0	1.3	22.0	0.0	14.3	18.3	9.2	10.8	23.5	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.7	0.0	2.2	7.7	0.0	8.6	0.7	14.9	14.6	1.3	4.9	4.8
Lane Grp Delay (d), s/veh	53.1	0.0	33.7	54.6	0.0	43.8	58.0	29.5	31.3	62.9	15.3	15.3
Lane Grp LOS	D		C	D		D	E	C	C	E	B	B
Approach Vol, veh/h		216			648			1442			770	
Approach Delay, s/veh		43.0			48.6			30.9			18.0	
Approach LOS		D			D			C			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	10.1	15.4		19.1	24.4		5.8	40.8		6.5	41.6	
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	8.0	16.0		16.0	24.0		5.0	38.0		4.0	37.0	
Max Q Clear Time (g_c+l1), s	6.7	6.7		15.0	19.1		3.2	31.5		4.0	12.9	
Green Ext Time (p_c), s	0.0	2.0		0.1	1.3		0.0	5.3		0.0	16.6	
Intersection Summary												
HCM 2010 Ctrl Delay			32.2									
HCM 2010 LOS			C									
Notes												



















HCM 2010 Signalized Intersection Summary
30: TRACY BLVD & ELEVENTH ST.

Cumulative+Proj AM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	336	1111	377	220	1167	263	568	1385	416	227	1015	193
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	1443	1615	664	1443	1615	687	1510	1687	717	1461	1687	695
Arrive On Green	0.42	0.43	0.42	0.42	0.43	0.43	0.44	0.45	0.45	0.42	0.45	0.44
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	336	1111	377	220	1167	263	568	1385	416	227	1015	193
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	4.4	17.0	12.8	2.8	18.2	8.0	7.8	22.8	13.7	2.9	14.4	5.5
Cycle Q Clear(g_c), s	4.4	17.0	12.8	2.8	18.2	8.0	7.8	22.8	13.7	2.9	14.4	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	1443	1615	664	1443	1615	687	1510	1687	717	1461	1687	695
V/C Ratio(X)	0.23	0.69	0.57	0.15	0.72	0.38	0.38	0.82	0.58	0.16	0.60	0.28
Avail Cap(c_a), veh/h	1562	1744	719	1513	1691	719	1660	1850	786	1461	1687	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	13.2	16.1	15.6	12.7	16.5	13.6	13.3	16.8	14.3	12.5	14.5	12.6
Incr Delay (d2), s/veh	0.4	2.4	3.5	0.0	1.4	0.3	0.1	2.5	0.5	0.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	7.3	5.0	1.0	7.6	2.8	3.1	10.2	5.1	1.1	6.2	2.0
Lane Grp Delay (d), s/veh	13.5	18.5	19.1	12.7	17.8	13.8	13.4	19.3	14.8	12.5	14.9	12.7
Lane Grp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1824			1650			2369			1435	
Approach Delay, s/veh		17.7			16.5			17.1			14.3	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		34.6			34.6			35.9			35.9	
Change Period (Y+Rc), s		6.0			6.0			6.0			6.0	
Max Green Setting (Gmax), s		31.0			30.0			33.0			27.0	
Max Q Clear Time (g_c+l1), s		19.0			20.2			24.8			16.4	
Green Ext Time (p_c), s		9.6			8.1			5.1			8.5	
Intersection Summary												
HCM 2010 Ctrl Delay				16.6								
HCM 2010 LOS				B								
Notes												

























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE ROAD/LINNE

Cumulative+Proj AM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	170	466	96	10	501	147	137	156	10	196	96	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	0	731	622	0	731	622	340	336	18	365	155	191
Arrive On Green	0.00	0.39	0.39	0.00	0.39	0.39	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	0	1863	1583	0	1863	1583	498	913	48	571	421	520
Grp Volume(v), veh/h	0	466	96	0	501	147	303	0	0	445	0	0
Grp Sat Flow(s),veh/h/ln	0	1863	1583	0	1863	1583	1460	0	0	1511	0	0
Q Serve(g_s), s	0.0	6.8	1.3	0.0	7.4	2.1	0.0	0.0	0.0	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.8	1.3	0.0	7.4	2.1	5.0	0.0	0.0	8.5	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00	0.45		0.03	0.44		0.34
Lane Grp Cap(c), veh/h	0	731	622	0	731	622	693	0	0	711	0	0
V/C Ratio(X)	0.00	0.64	0.15	0.00	0.69	0.24	0.44	0.00	0.00	0.63	0.00	0.00
Avail Cap(c_a), veh/h	0	1006	855	0	1006	855	854	0	0	873	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(l)	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	8.2	6.5	0.0	8.4	6.8	8.1	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.1	0.0	1.1	0.2	0.4	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 Back of Q (50%), veh/ln	0.0	2.5	0.4	0.0	2.9	0.6	1.6	0.0	0.0	2.7	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	9.1	6.7	0.0	9.6	7.0	8.5	0.0	0.0	10.2	0.0	0.0
Lane Grp LOS		A	A		A	A	A			B		
Approach Vol, veh/h		562			648			303			445	
Approach Delay, s/veh		8.7			9.0			8.5			10.2	
Approach LOS		A			A			A			B	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	0.0	17.1		0.0	17.1			16.2			16.2	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	4.0	18.0		4.0	18.0			16.0			16.0	
Max Q Clear Time (g_c+l1), s	0.0	8.8		0.0	9.4			7.0			10.5	
Green Ext Time (p_c), s	0.0	3.8		0.0	3.6			2.3			1.7	
Intersection Summary												
HCM 2010 Ctrl Delay			9.1									
HCM 2010 LOS			A									
Notes												



















HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	98	867	104	492	961	34	200	647	643	23	234	431
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	1	2	1	1	2	1	1	1	1
Cap, veh/h	159	935	579	509	1832	810	204	964	410	35	305	259
Arrive On Green	0.05	0.25	0.25	0.29	0.49	0.49	0.11	0.26	0.00	0.02	0.16	0.00
Sat Flow, veh/h	3442	3725	1583	1774	3725	1583	1774	3725	1583	1774	1863	1583
Grp Volume(v), veh/h	98	867	104	492	961	34	200	647	0	23	234	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.4	19.8	3.9	23.8	15.4	0.9	9.8	13.6	0.0	1.1	10.5	0.0
Cycle Q Clear(g_c), s	2.4	19.8	3.9	23.8	15.4	0.9	9.8	13.6	0.0	1.1	10.5	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	159	935	579	509	1832	810	204	964	410	35	305	259
V/C Ratio(X)	0.61	0.93	0.18	0.97	0.52	0.04	0.98	0.67	0.00	0.66	0.77	0.00
Avail Cap(c_a), veh/h	197	941	581	509	1832	810	204	983	418	81	363	309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	40.8	31.8	18.8	30.7	15.2	10.6	38.5	29.0	0.0	42.4	34.9	0.0
Incr Delay (d2), s/veh	3.8	14.8	0.1	31.4	0.3	0.0	57.8	1.7	0.0	19.4	8.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	10.8	1.4	14.6	6.5	0.3	7.7	6.5	0.0	0.7	5.6	0.0
Lane Grp Delay (d), s/veh	44.6	46.6	18.9	62.0	15.4	10.7	96.3	30.7	0.0	61.8	42.9	0.0
Lane Grp LOS	D	D	B	E	B	B	F	C		E	D	
Approach Vol, veh/h		1069			1487			847			257	
Approach Delay, s/veh		43.7			30.8			46.2			44.6	
Approach LOS		D			C			D			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.0	25.9		29.0	46.8		14.0	26.5		5.7	18.3	
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	22.0		25.0	42.0		10.0	23.0		4.0	17.0	
Max Q Clear Time (g_c+l1), s	4.4	21.8		25.8	17.4		11.8	15.6		3.1	12.5	
Green Ext Time (p_c), s	0.0	0.1		0.0	10.7		0.0	2.5		0.0	1.8	
Intersection Summary												
HCM 2010 Ctrl Delay				39.1								
HCM 2010 LOS				D								
Notes												


















HCM 2010 Signalized Intersection Summary
 33: CHRISMAN & I-205 EAST ON/OFF RAMP/I-205 EAST ON RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	330	0	210	0	0	0	0	180	570	10	440	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	3	1	0				0	2	1	1	2	0
Cap, veh/h	1350	0	427				0	842	358	19	1495	0
Arrive On Green	0.27	0.00	0.27				0.00	0.23	0.00	0.01	0.40	0.00
Sat Flow, veh/h	5003	0	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	330	0	210				0	180	0	10	440	0
Grp Sat Flow(s),veh/h/ln	1668	0	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	1.3	0.0	2.7				0.0	1.0	0.0	0.1	1.9	0.0
Cycle Q Clear(g_c), s	1.3	0.0	2.7				0.0	1.0	0.0	0.1	1.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1350	0	427				0	842	358	19	1495	0
V/C Ratio(X)	0.24	0.00	0.49				0.00	0.21	0.00	0.52	0.29	0.00
Avail Cap(c_a), veh/h	3292	0	1042				0	2758	1172	292	3983	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	0.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	6.9	0.0	7.5				0.0	7.7	0.0	12.0	4.9	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.9				0.0	0.6	0.0	20.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.8				0.0	0.4	0.0	0.2	0.7	0.0
Lane Grp Delay (d), s/veh	7.0	0.0	8.4				0.0	8.2	0.0	32.1	5.4	0.0
Lane Grp LOS	A		A					A		C	A	
Approach Vol, veh/h		540						180			450	
Approach Delay, s/veh		7.5						8.2			6.0	
Approach LOS		A						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		10.6						9.5		4.3	13.8	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						18.0		4.0	26.0	
Max Q Clear Time (g_c+l1), s		4.7						3.0		2.1	3.9	
Green Ext Time (p_c), s		2.0						2.5		0.0	2.8	
Intersection Summary												
HCM 2010 Ctrl Delay			7.1									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 34: CHRISMAN & I-205 WEST ON/OFF RAMP

Cumulative+Proj AM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	270	0	10	230	280	0	0	180	460
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	1	3	0	0	1	1
Cap, veh/h				349	0	13	296	3380	0	0	640	544
Arrive On Green				0.21	0.00	0.21	0.17	0.60	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1703	0	63	1774	5588	0	0	1863	1583
Grp Volume(v), veh/h				280	0	0	230	280	0	0	180	460
Grp Sat Flow(s),veh/h/ln				1766	0	0	1774	1863	0	0	1863	1583
Q Serve(g_s), s				6.3	0.0	0.0	5.2	0.9	0.0	0.0	3.0	11.3
Cycle Q Clear(g_c), s				6.3	0.0	0.0	5.2	0.9	0.0	0.0	3.0	11.3
Prop In Lane				0.96		0.04	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				362	0	0	296	3380	0	0	640	544
V/C Ratio(X)				0.77	0.00	0.00	0.78	0.08	0.00	0.00	0.28	0.85
Avail Cap(c_a), veh/h				671	0	0	463	4114	0	0	708	602
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				15.8	0.0	0.0	16.8	3.5	0.0	0.0	10.1	12.8
Incr Delay (d2), s/veh				3.5	0.0	0.0	4.3	0.0	0.0	0.0	1.1	15.0
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 Back of Q (50%), veh/ln				2.8	0.0	0.0	2.5	0.3	0.0	0.0	1.3	6.0
Lane Grp Delay (d), s/veh				19.3	0.0	0.0	21.1	3.5	0.0	0.0	11.1	27.8
Lane Grp LOS				B			C	A			B	C
Approach Vol, veh/h					280			510			640	
Approach Delay, s/veh					19.3			11.4			23.1	
Approach LOS					B			B			C	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					12.6		11.0	29.5			18.5	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		11.0	31.0			16.0	
Max Q Clear Time (g_c+l1), s					8.3		7.2	2.9			13.3	
Green Ext Time (p_c), s					0.7		0.3	4.0			1.1	
Intersection Summary												
HCM 2010 Ctrl Delay				18.2								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	60.3											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	71	586	53	89	600	132	32	20	43	156	39	234
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	586	53	89	600	132	32	20	43	156	39	234
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	67.9	67.6	15	43.7
HCM LOS	F	F	B	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	10%	11%	36%
Vol Thru, %	21%	83%	73%	9%
Vol Right, %	45%	7%	16%	55%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	710	821	429
LT Vol	20	586	600	39
Through Vol	43	53	132	234
RT Vol	32	71	89	156
Lane Flow Rate	95	710	821	429
Geometry Grp	1	1	1	1
Degree of Util (X)	0.239	1	1	0.879
Departure Headway (Hd)	9.071	7.294	7.243	7.377
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	396	497	509	493
Service Time	7.113	5.352	5.302	5.398
HCM Lane V/C Ratio	0.24	1.429	1.613	0.87
HCM Control Delay	15	67.9	67.6	43.7
HCM Lane LOS	B	F	F	E
HCM 95th-tile Q	0.9	13.6	13.6	9.5

Notes

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

Intersection

Intersection Delay, s/veh 32.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	17	54	53	14	260	32	2235	103	203	1697	73
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	-	-	-	-	-	-	248	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	17	54	53	14	260	32	2235	103	203	1697	73

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	3329	4542	885	3614	4527	1169	1770	0	0	2338	0	0
Stage 1	2140	2140	-	2351	2351	-	-	-	-	-	-	-
Stage 2	1189	2402	-	1263	2176	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	# 3	# 1	288	# 2	# 1	# 186	348	-	-	208	-	-
Stage 1	50	87	-	# 37	68	-	-	-	-	-	-	-
Stage 2	199	64	-	180	84	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	-	# 0	288	# 0	# 0	# 186	348	-	-	208	-	-
Mov Capacity-2 Maneuver	-	# 0	-	# 0	# 0	-	-	-	-	-	-	-
Stage 1	45	# 2	-	# 34	62	-	-	-	-	-	-	-
Stage 2	-	58	-	-	# 2	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	+	\$ 405.6	0.2	10.7
HCM LOS	-	F		
























Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	348	-	-	+	186	208	-	-
HCM Lane V/C Ratio	0.092	-	-	+	1.758	0.976	-	-
HCM Control Delay (s)	16.39	-	-	+	\$ 405.6	104.252	-	-
HCM Lane LOS	C			+	F	F		
HCM 95th %tile Q(veh)	0.301	-	-	+	22.965	8.418	-	-

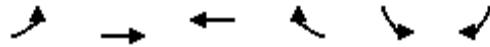
Notes

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

HCM 2010 Signalized Intersection Summary
 37: MOUNTAIN HOUSE PKWY & OLD SCHULTE RD

Cumulative+Proj AM
 7/26/2014



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	183	40	681	39	294	42	349	229	223	392	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	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	41	495	211	820	66	495	61	889	378	320	1106	470
Arrive On Green	0.02	0.13	0.13	0.24	0.35	0.35	0.03	0.24	0.24	0.09	0.30	0.30
Sat Flow, veh/h	1774	3725	1583	3442	189	1423	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	25	183	40	681	0	333	42	349	229	223	392	195
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1612	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.8	2.4	1.2	10.1	0.0	9.1	1.3	4.2	6.9	3.4	4.4	5.3
Cycle Q Clear(g_c), s	0.8	2.4	1.2	10.1	0.0	9.1	1.3	4.2	6.9	3.4	4.4	5.3
Prop In Lane	1.00		1.00	1.00		0.88	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	41	495	211	820	0	561	61	889	378	320	1106	470
V/C Ratio(X)	0.61	0.37	0.19	0.83	0.00	0.59	0.68	0.39	0.61	0.70	0.35	0.41
Avail Cap(c_a), veh/h	330	1108	471	895	0	599	165	1315	559	320	1315	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	26.0	21.3	20.7	19.5	0.0	14.4	25.7	17.2	18.2	23.7	14.9	15.2
Incr Delay (d2), s/veh	13.6	0.5	0.4	6.2	0.0	1.4	12.5	0.3	1.6	6.5	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.1	0.5	4.7	0.0	3.6	0.8	1.8	2.7	1.7	1.9	2.0
Lane Grp Delay (d), s/veh	39.7	21.7	21.2	25.7	0.0	15.8	38.2	17.5	19.8	30.2	15.1	15.8
Lane Grp LOS	D	C	C	C		B	D	B	B	C	B	B
Approach Vol, veh/h		248			1014			620			810	
Approach Delay, s/veh		23.4			22.5			19.8			19.4	
Approach LOS		C			C			B			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.2	11.2		16.8	22.7		5.9	16.8		9.0	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	10.0	16.0		14.0	20.0		5.0	19.0		5.0	19.0	
Max Q Clear Time (g_c+l1), s	2.8	4.4		12.1	11.1		3.3	8.9		5.4	7.3	
Green Ext Time (p_c), s	0.0	2.7		0.7	2.3		0.0	3.9		0.0	4.2	
Intersection Summary												
HCM 2010 Ctrl Delay				21.0								
HCM 2010 LOS				C								
Notes												



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Volume (veh/h)	130	260	460	0	0	330
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	0	2	2	0	1	1
Cap, veh/h	0	1435	1435	0	444	396
Arrive On Green	0.00	0.39	0.39	0.00	0.00	0.25
Sat Flow, veh/h	0	3725	3725	0	1774	1583
Grp Volume(v), veh/h	0	260	460	0	0	330
Grp Sat Flow(s),veh/h/ln	0	1863	1863	0	1774	1583
Q Serve(g_s), s	0.0	1.0	1.9	0.0	0.0	4.3
Cycle Q Clear(g_c), s	0.0	1.0	1.9	0.0	0.0	4.3
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1435	1435	0	444	396
V/C Ratio(X)	0.00	0.18	0.32	0.00	0.00	0.83
Avail Cap(c_a), veh/h	0	6118	2719	0	486	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.5	4.7	0.0	0.0	7.8
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.0	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.3	0.5	0.0	0.0	1.3
Lane Grp Delay (d), s/veh	0.0	4.5	4.9	0.0	0.0	20.0
Lane Grp LOS		A	A			C
Approach Vol, veh/h		260	460		330	
Approach Delay, s/veh		4.5	4.9		20.0	
Approach LOS		A	A		C	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+Rc), s	0.0	12.4	12.4			
Change Period (Y+Rc), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	16.0	36.0	16.0			
Max Q Clear Time (g_c+l1), s	0.0	3.0	3.9			
Green Ext Time (p_c), s	0.0	5.4	3.8			
Intersection Summary						
HCM 2010 Ctrl Delay			9.5			
HCM 2010 LOS			A			
Notes						






















HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE ROAD/LINNE

Cumulative+Proj AM Mitigated
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	170	466	96	10	501	147	137	156	10	196	96	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	1	1	0	0	1	1	0	1	0	0	1	0
Cap, veh/h	811	686	141	17	835	724	287	327	21	265	130	207
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	1499	309	36	1825	1583	819	933	60	758	371	592
Grp Volume(v), veh/h	170	0	562	511	0	147	303	0	0	445	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1808	1861	0	1583	1811	0	0	1720	0	0
Q Serve(g_s), s	2.4	0.0	10.2	8.5	0.0	2.3	5.4	0.0	0.0	9.4	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	10.2	8.5	0.0	2.3	5.4	0.0	0.0	9.4	0.0	0.0
Prop In Lane	1.00		0.17	0.02		1.00	0.45		0.03	0.44		0.34
Lane Grp Cap(c), veh/h	811	0	827	851	0	724	634	0	0	603	0	0
V/C Ratio(X)	0.21	0.00	0.68	0.60	0.00	0.20	0.48	0.00	0.00	0.74	0.00	0.00
Avail Cap(c_a), veh/h	1535	0	1565	1521	0	1294	1088	0	0	1199	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(l)	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	6.8	0.0	8.9	8.4	0.0	6.8	10.5	0.0	0.0	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.7	0.0	0.1	0.6	0.0	0.0	1.8	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 Back of Q (50%), veh/ln	0.8	0.0	3.8	3.3	0.0	0.7	2.2	0.0	0.0	3.8	0.0	0.0
Lane Grp Delay (d), s/veh	6.9	0.0	9.9	9.1	0.0	6.9	11.1	0.0	0.0	13.6	0.0	0.0
Lane Grp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		732			658			303			445	
Approach Delay, s/veh		9.2			8.6			11.1			13.6	
Approach LOS		A			A			B			B	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		23.0			23.0			18.6			18.6	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		36.0			34.0			25.0			29.0	
Max Q Clear Time (g_c+l1), s		12.2			10.5			7.4			11.4	
Green Ext Time (p_c), s		6.9			6.8			3.1			3.1	
Intersection Summary												
HCM 2010 Ctrl Delay			10.2									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 35: MACARTHUR (S) & LINNE ROAD

Cumulative+Proj AM Mitigated
 12/3/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	71	586	53	89	600	132	32	20	43	156	39	234
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	190.0	186.3	190.0	186.3	186.3	186.3
Lanes	1	1	0	1	1	1	0	1	0	1	1	1
Cap, veh/h	154	748	68	169	843	716	114	71	154	354	372	454
Arrive On Green	0.09	0.44	0.44	0.10	0.45	0.45	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1774	1684	152	1774	1863	1583	572	358	769	1774	1863	1583
Grp Volume(v), veh/h	71	0	639	89	600	132	95	0	0	156	39	234
Grp Sat Flow(s),veh/h/ln	1774	0	1836	1774	1863	1583	1698	0	0	1774	1863	1583
Q Serve(g_s), s	1.8	0.0	13.7	2.2	12.0	2.3	2.2	0.0	0.0	3.5	0.8	5.7
Cycle Q Clear(g_c), s	1.8	0.0	13.7	2.2	12.0	2.3	2.2	0.0	0.0	3.5	0.8	5.7
Prop In Lane	1.00		0.08	1.00		1.00	0.34		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	154	0	815	169	843	716	339	0	0	354	372	454
V/C Ratio(X)	0.46	0.00	0.78	0.53	0.71	0.18	0.28	0.00	0.00	0.44	0.10	0.52
Avail Cap(c_a), veh/h	617	0	1038	617	1053	895	591	0	0	617	648	688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	10.9	19.8	10.2	7.5	15.6	0.0	0.0	16.1	15.0	13.7
Incr Delay (d2), s/veh	2.1	0.0	3.1	2.5	1.7	0.1	0.4	0.0	0.0	0.9	0.1	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 Back of Q (50%), veh/ln	0.8	0.0	5.8	1.0	5.1	0.8	0.9	0.0	0.0	1.5	0.3	2.1
Lane Grp Delay (d), s/veh	22.1	0.0	14.0	22.4	11.9	7.6	16.0	0.0	0.0	17.0	15.2	14.6
Lane Grp LOS	C		B	C	B	A	B			B	B	B
Approach Vol, veh/h		710			821			95			429	
Approach Delay, s/veh		14.8			12.3			16.0			15.5	
Approach LOS		B			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2			6	
Phs Duration (G+Y+Rc), s	8.0	24.4		8.4	24.8			13.2			13.2	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	16.0	26.0		16.0	26.0			16.0			16.0	
Max Q Clear Time (g_c+l1), s	3.8	15.7		4.2	14.0			4.2			7.7	
Green Ext Time (p_c), s	0.1	4.8		0.2	5.2			1.8			1.5	
Intersection Summary												
HCM 2010 Ctrl Delay			14.0									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 36: CORRAL HOLLOW RD & Tennis Ln

Cumulative+Proj AM Mitigated
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	17	54	53	14	260	32	2235	103	203	1697	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	190.0	186.3	190.0	190.0	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Cap, veh/h	124	60	191	59	16	288	1190	3557	163	1190	3568	153
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	556	270	858	263	69	1290	1774	5302	243	1774	5319	229
Grp Volume(v), veh/h	106	0	0	327	0	0	32	1566	772	203	1188	582
Grp Sat Flow(s),veh/h/ln	1684	0	0	1622	0	0	1774	1863	1820	1774	1863	1822
Q Serve(g_s), s	3.9	0.0	0.0	14.8	0.0	0.0	0.5	18.0	18.3	3.2	11.6	11.7
Cycle Q Clear(g_c), s	3.9	0.0	0.0	14.8	0.0	0.0	0.5	18.0	18.3	3.2	11.6	11.7
Prop In Lane	0.33		0.51	0.16		0.80	1.00		0.13	1.00		0.13
Lane Grp Cap(c), veh/h	376	0	0	362	0	0	1190	2499	1221	1190	2499	1223
V/C Ratio(X)	0.28	0.00	0.00	0.90	0.00	0.00	0.03	0.63	0.63	0.17	0.48	0.48
Avail Cap(c_a), veh/h	376	0	0	365	0	0	1363	2862	1398	1190	2499	1223
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	0.0	28.5	0.0	0.0	4.2	7.1	7.1	4.6	6.0	6.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	24.7	0.0	0.0	0.0	0.4	0.7	0.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	0.0	0.0	8.4	0.0	0.0	0.2	6.9	6.9	1.1	4.3	4.3
Lane Grp Delay (d), s/veh	24.7	0.0	0.0	53.3	0.0	0.0	4.2	7.4	7.9	4.7	6.1	6.3
Lane Grp LOS	C			D			A	A	A	A	A	A
Approach Vol, veh/h		106			327			2370			1973	
Approach Delay, s/veh		24.7			53.3			7.5			6.0	
Approach LOS		C			D			A			A	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		20.8			20.8			54.6			54.6	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		16.0			17.0			58.0			43.0	
Max Q Clear Time (g_c+l1), s		5.9			16.8			20.3			13.7	
Green Ext Time (p_c), s		2.0			0.0			30.3			28.5	
Intersection Summary												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 1: CORRAL HOLLOW RD & I-580 EAST OFF RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	504	3	124	0	0	0	0	599	583	289	429	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	175.9	175.9	190.0				0.0	186.3	186.3	172.7	172.7	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	560	12	490				0	1272	541	329	1007	0
Arrive On Green	0.33	0.33	0.33				0.00	0.34	0.34	0.20	0.58	0.00
Sat Flow, veh/h	1675	35	1465				0	3725	1583	1645	1727	0
Grp Volume(v), veh/h	504	0	127				0	599	583	289	429	0
Grp Sat Flow(s),veh/h/ln	1675	0	1501				0	1863	1583	1645	1727	0
Q Serve(g_s), s	27.7	0.0	5.9				0.0	12.2	33.0	16.5	13.3	0.0
Cycle Q Clear(g_c), s	27.7	0.0	5.9				0.0	12.2	33.0	16.5	13.3	0.0
Prop In Lane	1.00		0.98				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	560	0	502				0	1272	541	329	1007	0
V/C Ratio(X)	0.90	0.00	0.25				0.00	0.47	1.08	0.88	0.43	0.00
Avail Cap(c_a), veh/h	797	0	714				0	1272	541	494	1179	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.6	0.0	23.4				0.0	25.0	31.8	37.5	11.2	0.0
Incr Delay (d2), s/veh	9.9	0.0	0.3				0.0	0.3	61.6	11.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	13.0	0.0	2.3				0.0	5.6	22.2	8.0	5.4	0.0
Lane Grp Delay (d), s/veh	40.6	0.0	23.6				0.0	25.3	93.4	49.0	11.5	0.0
Lane Grp LOS	D		C					C	F	D	B	
Approach Vol, veh/h		631						1182			718	
Approach Delay, s/veh		37.2						58.9			26.6	
Approach LOS		D						E			C	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		36.3						37.0		23.3	60.3	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		46.0						33.0		29.0	66.0	
Max Q Clear Time (g_c+l1), s		29.7						35.0		18.5	15.3	
Green Ext Time (p_c), s		2.7						0.0		0.9	10.5	
Intersection Summary												
HCM 2010 Ctrl Delay			44.3									
HCM 2010 LOS			D									
Notes												
























HCM 2010 Signalized Intersection Summary
 2: CORRAL HOLLOW RD & I-580 WEST OFF RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	79	2	125	95	1008	0	0	639	314
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	182.7	182.7	186.3	186.3	0.0	0.0	177.6	177.6
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				113	3	103	131	2442	0	0	1571	668
Arrive On Green				0.07	0.07	0.00	0.07	0.66	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1699	43	1553	1774	3725	0	0	3551	1509
Grp Volume(v), veh/h				81	0	0	95	1008	0	0	639	314
Grp Sat Flow(s),veh/h/ln				1742	0	1553	1774	1863	0	0	1776	1509
Q Serve(g_s), s				1.3	0.0	0.0	1.5	3.7	0.0	0.0	3.5	4.2
Cycle Q Clear(g_c), s				1.3	0.0	0.0	1.5	3.7	0.0	0.0	3.5	4.2
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				115	0	103	131	2442	0	0	1571	668
V/C Ratio(X)				0.70	0.00	0.00	0.72	0.41	0.00	0.00	0.41	0.47
Avail Cap(c_a), veh/h				970	0	864	370	3370	0	0	1977	840
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.1	0.0	0.0	13.0	2.3	0.0	0.0	5.5	5.6
Incr Delay (d2), s/veh				7.5	0.0	0.0	7.3	0.1	0.0	0.0	0.2	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.7	0.0	0.0	0.8	0.6	0.0	0.0	1.1	1.1
Lane Grp Delay (d), s/veh				20.6	0.0	0.0	20.4	2.5	0.0	0.0	5.6	6.2
Lane Grp LOS				C			C	A			A	A
Approach Vol, veh/h					81			1103			953	
Approach Delay, s/veh					20.6			4.0			5.8	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					5.9		6.1	22.8			16.7	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		6.0	26.0			16.0	
Max Q Clear Time (g_c+l1), s					3.3		3.5	5.7			6.2	
Green Ext Time (p_c), s					0.2		0.1	10.5			6.5	
Intersection Summary												
HCM 2010 Ctrl Delay				5.4								
HCM 2010 LOS				A								
Notes												























HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD/SPINE RD EXT

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	210	140	50	170	140	420	50	943	140	270	733	130
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	2	0	1	2	1
Cap, veh/h	249	407	346	211	368	570	63	995	148	289	1641	698
Arrive On Green	0.14	0.22	0.22	0.12	0.20	0.20	0.04	0.31	0.31	0.16	0.44	0.44
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	3172	471	1774	3725	1583
Grp Volume(v), veh/h	210	140	50	170	140	420	50	554	529	270	733	130
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1780	1774	1863	1583
Q Serve(g_s), s	9.9	5.5	2.2	8.0	5.6	17.0	2.4	25.0	25.0	12.9	11.8	4.3
Cycle Q Clear(g_c), s	9.9	5.5	2.2	8.0	5.6	17.0	2.4	25.0	25.0	12.9	11.8	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	249	407	346	211	368	570	63	584	558	289	1641	698
V/C Ratio(X)	0.84	0.34	0.14	0.80	0.38	0.74	0.79	0.95	0.95	0.94	0.45	0.19
Avail Cap(c_a), veh/h	330	407	346	330	368	570	124	584	558	289	1641	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	36.1	28.4	27.1	36.9	30.0	24.0	41.2	28.8	28.9	35.6	16.8	14.7
Incr Delay (d2), s/veh	14.0	0.5	0.2	7.8	0.6	5.0	19.0	24.9	25.7	36.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.3	2.6	0.9	4.0	2.7	8.4	1.4	15.6	15.0	8.7	5.3	1.6
Lane Grp Delay (d), s/veh	50.1	28.9	27.3	44.7	30.6	28.9	60.1	53.7	54.6	71.8	17.0	14.8
Lane Grp LOS	D	C	C	D	C	C	E	D	D	E	B	B
Approach Vol, veh/h		400			730			1133			1133	
Approach Delay, s/veh		39.8			32.9			54.4			29.8	
Approach LOS		D			C			D			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	16.1	22.8		14.3	21.0		7.1	31.0		18.0	41.9	
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	16.0	17.0		16.0	17.0		6.0	27.0		14.0	35.0	
Max Q Clear Time (g_c+l1), s	11.9	7.5		10.0	19.0		4.4	27.0		14.9	13.8	
Green Ext Time (p_c), s	0.2	2.4		0.2	0.0		0.0	0.0		0.0	13.5	
Intersection Summary												
HCM 2010 Ctrl Delay				39.9								
HCM 2010 LOS				D								
Notes												




















HCM 2010 Signalized Intersection Summary
4: CORRAL HOLLOW RD & LINNE ROAD

Cumulative+Proj PM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	300	600	50	570	608	457	30	757	796	150	512	280
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	0	2	2	0	1	1	1	1	1	0
Cap, veh/h	1324	1306	109	1324	761	571	885	929	789	885	565	309
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.50	0.50	0.00	0.50	0.50	0.50
Sat Flow, veh/h	3442	3393	282	3442	1978	1485	1774	1863	1583	1774	1133	620
Grp Volume(v), veh/h	300	329	321	570	572	493	30	757	0	150	0	792
Grp Sat Flow(s),veh/h/ln	1721	1863	1813	1721	1863	1601	1774	1863	1583	1774	0	1753
Q Serve(g_s), s	4.0	9.1	9.1	8.4	18.7	18.8	0.6	23.6	0.0	3.2	0.0	28.3
Cycle Q Clear(g_c), s	4.0	9.1	9.1	8.4	18.7	18.8	0.6	23.6	0.0	3.2	0.0	28.3
Prop In Lane	1.00		0.16	1.00		0.93	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	1324	717	698	1324	717	616	885	929	789	885	0	874
V/C Ratio(X)	0.23	0.46	0.46	0.43	0.80	0.80	0.03	0.82	0.00	0.17	0.00	0.91
Avail Cap(c_a), veh/h	1324	717	698	1405	760	653	1008	1059	900	931	0	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.2	15.8	15.8	15.6	18.7	18.8	8.8	14.5	0.0	9.4	0.0	15.7
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.2	5.7	6.7	0.0	4.5	0.0	0.1	0.0	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.6	4.0	3.9	3.4	9.3	8.3	0.2	11.0	0.0	1.3	0.0	14.1
Lane Grp Delay (d), s/veh	14.3	16.2	16.3	15.8	24.5	25.4	8.8	19.0	0.0	9.5	0.0	27.8
Lane Grp LOS	B	B	B	B	C	C	A	B		A		C
Approach Vol, veh/h		950			1635			787			942	
Approach Delay, s/veh		15.6			21.7			18.6			24.9	
Approach LOS		B			C			B			C	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		30.4			30.4			38.2			38.2	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		26.0			28.0			39.0			36.0	
Max Q Clear Time (g_c+l1), s		11.1			20.8			25.6			30.3	
Green Ext Time (p_c), s		10.6			5.6			7.3			3.9	
Intersection Summary												
HCM 2010 Ctrl Delay				20.5								
HCM 2010 LOS				C								
Notes												
























HCM 2010 Signalized Intersection Summary
5: TRACY BLVD & LINNE ROAD

Cumulative+Proj PM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	472	1020	49	2	1040	66	92	28	24	176	26	513
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	190.0	186.3	190.0	190.0	186.3	186.3
Lanes	2	2	0	1	2	0	0	1	0	0	1	1
Cap, veh/h	606	1602	77	4	972	62	411	125	107	570	84	580
Arrive On Green	0.18	0.45	0.45	0.00	0.28	0.28	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	3442	3526	169	1774	3467	220	1121	341	293	1555	230	1583
Grp Volume(v), veh/h	472	539	530	2	559	547	144	0	0	202	0	513
Grp Sat Flow(s),veh/h/ln	1721	1863	1833	1774	1863	1824	1755	0	0	1785	0	1583
Q Serve(g_s), s	8.9	15.0	15.1	0.1	19.0	19.0	3.8	0.0	0.0	5.5	0.0	20.6
Cycle Q Clear(g_c), s	8.9	15.0	15.1	0.1	19.0	19.0	3.8	0.0	0.0	5.5	0.0	20.6
Prop In Lane	1.00		0.09	1.00		0.12	0.64		0.17	0.87		1.00
Lane Grp Cap(c), veh/h	606	846	833	4	522	511	643	0	0	654	0	580
V/C Ratio(X)	0.78	0.64	0.64	0.52	1.07	1.07	0.22	0.00	0.00	0.31	0.00	0.88
Avail Cap(c_a), veh/h	813	852	838	105	522	511	643	0	0	658	0	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	14.2	14.2	33.8	24.4	24.4	14.8	0.0	0.0	15.3	0.0	20.1
Incr Delay (d2), s/veh	3.5	1.6	1.6	78.9	59.4	59.9	0.2	0.0	0.0	0.3	0.0	14.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.0	6.7	6.6	0.1	17.0	16.7	1.6	0.0	0.0	2.3	0.0	9.9
Lane Grp Delay (d), s/veh	30.1	15.8	15.8	112.7	83.8	84.3	15.0	0.0	0.0	15.6	0.0	35.0
Lane Grp LOS	C	B	B	F	F	F	B			B		D
Approach Vol, veh/h		1541			1108			144			715	
Approach Delay, s/veh		20.2			84.1			15.0			29.5	
Approach LOS		C			F			B			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	15.9	34.8		4.1	23.0			28.8				28.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	16.0	31.0		4.0	19.0			19.0				25.0
Max Q Clear Time (g_c+l1), s	10.9	17.1		2.1	21.0			5.8				22.6
Green Ext Time (p_c), s	1.1	8.6		0.0	0.0			3.5				0.9
Intersection Summary												
HCM 2010 Ctrl Delay				42.0								
HCM 2010 LOS				D								
Notes												























HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Cumulative+Proj PM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	199	761	183	90	713	329	50	979	474	145	1062	234
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	246	1064	256	160	1021	434	746	1566	665	746	1245	273
Arrive On Green	0.14	0.37	0.37	0.05	0.27	0.27	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1774	2904	698	3442	3725	1583	1774	3725	1583	1774	2961	650
Grp Volume(v), veh/h	199	488	456	90	713	329	50	979	474	145	666	630
Grp Sat Flow(s),veh/h/ln	1774	1863	1740	1721	1863	1583	1774	1863	1583	1774	1863	1748
Q Serve(g_s), s	7.8	16.2	16.2	1.8	12.3	13.7	1.2	14.8	17.8	3.7	23.2	23.4
Cycle Q Clear(g_c), s	7.8	16.2	16.2	1.8	12.3	13.7	1.2	14.8	17.8	3.7	23.2	23.4
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	246	682	637	160	1021	434	746	1566	665	746	783	735
V/C Ratio(X)	0.81	0.72	0.72	0.56	0.70	0.76	0.07	0.63	0.71	0.19	0.85	0.86
Avail Cap(c_a), veh/h	395	682	637	575	1141	485	746	1566	665	766	804	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	19.6	19.6	33.5	23.4	23.9	12.4	16.4	17.2	13.1	18.8	18.9
Incr Delay (d2), s/veh	6.4	3.6	3.8	3.1	1.7	6.1	0.0	0.8	3.6	0.1	8.5	9.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.7	7.5	7.0	0.8	5.6	5.8	0.5	6.6	6.7	1.6	11.9	11.4
Lane Grp Delay (d), s/veh	36.4	23.1	23.4	36.6	25.1	30.0	12.5	17.2	20.8	13.3	27.3	28.3
Lane Grp LOS	D	C	C	D	C	C	B	B	C	B	C	C
Approach Vol, veh/h		1143			1132			1503			1441	
Approach Delay, s/veh		25.5			27.4			18.2			26.4	
Approach LOS		C			C			B			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	14.0	30.3		7.3	23.7			34.2				34.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	16.0	26.0		12.0	22.0			30.0				31.0
Max Q Clear Time (g_c+l1), s	9.8	18.2		3.8	15.7			19.8				25.4
Green Ext Time (p_c), s	0.3	5.1		0.2	4.0			8.6				4.7
Intersection Summary												
HCM 2010 Ctrl Delay				24.0								
HCM 2010 LOS				C								
Notes												

























HCM 2010 Signalized Intersection Summary
7: CORRAL HOLLOW RD & VALPICO RD.

Cumulative+Proj PM
7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	809	209	64	581	266	80	915	108	259	774	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	0	1	2	1
Cap, veh/h	89	1076	278	81	1385	589	681	1255	148	681	1429	687
Arrive On Green	0.05	0.38	0.38	0.05	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1774	2857	738	1774	3725	1583	1774	3271	386	1774	3725	1583
Grp Volume(v), veh/h	70	527	491	64	581	266	80	521	502	259	774	127
Grp Sat Flow(s),veh/h/ln	1774	1863	1732	1774	1863	1583	1774	1863	1795	1774	1863	1583
Q Serve(g_s), s	2.4	15.2	15.2	2.2	7.2	7.8	1.8	14.8	14.8	6.5	10.0	3.0
Cycle Q Clear(g_c), s	2.4	15.2	15.2	2.2	7.2	7.8	1.8	14.8	14.8	6.5	10.0	3.0
Prop In Lane	1.00		0.43	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	89	702	653	81	1385	589	681	715	689	681	1429	687
V/C Ratio(X)	0.78	0.75	0.75	0.79	0.42	0.45	0.12	0.73	0.73	0.38	0.54	0.18
Avail Cap(c_a), veh/h	201	844	785	115	1507	641	861	904	871	681	1429	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	29.0	16.7	16.7	29.2	14.4	14.7	12.3	16.3	16.3	13.7	14.8	10.8
Incr Delay (d2), s/veh	13.9	3.1	3.3	21.5	0.2	0.5	0.1	2.2	2.3	0.4	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	6.6	6.2	1.4	2.9	2.7	0.7	6.8	6.6	2.7	4.4	1.0
Lane Grp Delay (d), s/veh	42.9	19.9	20.1	50.7	14.6	15.2	12.4	18.5	18.6	14.1	15.2	10.9
Lane Grp LOS	D	B	C	D	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1088			911			1103			1160	
Approach Delay, s/veh		21.4			17.3			18.1			14.5	
Approach LOS		C			B			B			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	7.1	27.3		6.8	27.0			27.7				27.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	7.0	28.0		4.0	25.0			30.0				22.0
Max Q Clear Time (g_c+l1), s	4.4	17.2		4.2	9.8			16.8				12.0
Green Ext Time (p_c), s	0.0	6.1		0.0	7.5			6.9				7.0
Intersection Summary												
HCM 2010 Ctrl Delay				17.8								
HCM 2010 LOS				B								
Notes												
























HCM 2010 Signalized Intersection Summary
 8: LAMMERS RD & VALPICO ROAD/VALPICO RD.

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	20	230	274	60	374	80	2152	132	940	2537	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	3	1	1	3	1
Cap, veh/h	2	304	258	291	686	583	976	3073	871	976	3073	871
Arrive On Green	0.00	0.16	0.16	0.16	0.37	0.37	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	5588	1583	1774	5588	1583
Grp Volume(v), veh/h	0	20	230	274	60	374	80	2152	132	940	2537	10
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.0	0.9	13.9	14.9	2.1	19.1	2.1	27.5	4.0	49.5	36.5	0.3
Cycle Q Clear(g_c), s	0.0	0.9	13.9	14.9	2.1	19.1	2.1	27.5	4.0	49.5	36.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	304	258	291	686	583	976	3073	871	976	3073	871
V/C Ratio(X)	0.00	0.07	0.89	0.94	0.09	0.64	0.08	0.70	0.15	0.96	0.83	0.01
Avail Cap(c_a), veh/h	73	306	260	291	686	583	976	3073	871	1001	3152	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)	0.00	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	0.0	34.5	40.0	40.3	20.1	25.5	10.3	16.1	10.8	21.0	18.1	9.9
Incr Delay (d2), s/veh	0.0	0.1	29.4	37.3	0.1	2.4	0.0	0.7	0.1	19.9	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 Back of Q (50%), veh/ln	0.0	0.4	7.7	9.6	0.9	7.6	0.9	12.2	1.4	25.8	16.3	0.1
Lane Grp Delay (d), s/veh	0.0	34.6	69.3	77.6	20.2	27.9	10.4	16.8	10.9	40.9	20.0	9.9
Lane Grp LOS		C	E	E	C	C	B	B	B	D	B	A
Approach Vol, veh/h		250			708			2364			3487	
Approach Delay, s/veh		66.6			46.5			16.2			25.6	
Approach LOS		E			D			B			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	0.0	19.9		20.0	39.9			57.6				57.6
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	16.0		16.0	28.0			47.0				55.0
Max Q Clear Time (g_c+l1), s	0.0	15.9		16.9	21.1			29.5				51.5
Green Ext Time (p_c), s	0.0	0.0		0.0	1.8			17.4				2.2
Intersection Summary												
HCM 2010 Ctrl Delay			26.0									
HCM 2010 LOS			C									
Notes												

















HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & SCHULTE ROAD

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	512	382	270	159	374	625	152	1013	340	845	1540	307
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	2	2	1	1	2	0	1	2	1	2	3	0
Cap, veh/h	624	1258	535	196	497	423	761	1597	679	1476	1943	385
Arrive On Green	0.18	0.34	0.34	0.11	0.27	0.27	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	3442	3725	1583	1774	1863	1583	1774	3725	1583	3442	4531	899
Grp Volume(v), veh/h	512	382	270	159	374	625	152	1013	340	845	1265	582
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1721	1863	1704
Q Serve(g_s), s	13.9	7.4	13.3	8.5	17.9	26.0	5.2	20.8	15.2	18.1	28.6	28.9
Cycle Q Clear(g_c), s	13.9	7.4	13.3	8.5	17.9	26.0	5.2	20.8	15.2	18.1	28.6	28.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	624	1258	535	196	497	423	761	1597	679	1476	1597	731
V/C Ratio(X)	0.82	0.30	0.50	0.81	0.75	1.48	0.20	0.63	0.50	0.57	0.79	0.80
Avail Cap(c_a), veh/h	883	1258	535	401	497	423	761	1597	679	1554	1683	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	23.8	25.8	42.3	32.8	35.7	17.4	21.8	20.2	21.1	24.1	24.1
Incr Delay (d2), s/veh	4.3	0.1	0.8	7.9	6.4	228.0	0.1	0.8	0.6	0.5	2.5	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	6.4	3.4	5.3	4.2	9.0	36.7	2.3	9.6	5.6	7.6	13.6	13.1
Lane Grp Delay (d), s/veh	42.7	23.9	26.5	50.2	39.1	263.7	17.5	22.7	20.8	21.5	26.6	29.8
Lane Grp LOS	D	C	C	D	D	F	B	C	C	C	C	C
Approach Vol, veh/h		1164			1158			1505			2692	
Approach Delay, s/veh		32.8			161.9			21.7			25.7	
Approach LOS		C			F			C			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	21.7	36.9		14.8	30.0			45.8				45.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	25.0	29.0		22.0	26.0			39.0				44.0
Max Q Clear Time (g_c+l1), s	15.9	15.3		10.5	28.0			22.8				30.9
Green Ext Time (p_c), s	1.7	6.7		0.4	0.0			15.2				10.9
Intersection Summary												
HCM 2010 Ctrl Delay			50.2									
HCM 2010 LOS			D									
Notes												

HCM 2010 Signalized Intersection Summary
 10: LAMMERS RD & OLD SHULTE RD

Cumulative+Proj PM
 7/26/2014

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				  	  	
Volume (veh/h)	209	1006	291	2050	2418	31
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	3	3	1
Cap, veh/h	257	229	324	4290	3025	857
Arrive On Green	0.14	0.00	0.18	0.77	0.54	0.54
Sat Flow, veh/h	1774	1583	1774	5588	5588	1583
Grp Volume(v), veh/h	209	0	291	2050	2418	31
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	10.4	0.0	14.7	12.3	32.0	0.8
Cycle Q Clear(g_c), s	10.4	0.0	14.7	12.3	32.0	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	257	229	324	4290	3025	857
V/C Ratio(X)	0.81	0.00	0.90	0.48	0.80	0.04
Avail Cap(c_a), veh/h	990	883	330	4340	3057	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	36.5	3.9	17.0	9.8
Incr Delay (d2), s/veh	6.2	0.0	25.6	0.1	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.1	0.0	8.9	4.4	14.1	0.3
Lane Grp Delay (d), s/veh	44.1	0.0	62.1	4.0	18.5	9.8
Lane Grp LOS	D		E	A	B	A
Approach Vol, veh/h	209			2341	2449	
Approach Delay, s/veh	44.1			11.2	18.4	
Approach LOS	D			B	B	
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			20.7	74.2	53.5	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			17.0	71.0	50.0	
Max Q Clear Time (g_c+l1), s			16.7	14.3	34.0	
Green Ext Time (p_c), s			0.0	51.1	15.5	
Intersection Summary						
HCM 2010 Ctrl Delay			16.1			
HCM 2010 LOS			B			
Notes						
















HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Cumulative+Proj PM
 7/26/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	1667	834	690	958	70	586	458	1302	283	528	145
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	3	1	2	3	1	2	2	1	2	2	1
Cap, veh/h	934	2941	833	1812	2941	833	1163	1259	535	1163	1259	535
Arrive On Green	0.53	0.53	0.00	0.53	0.53	0.00	0.34	0.34	0.00	0.34	0.34	0.00
Sat Flow, veh/h	1774	5588	1583	3442	5588	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	230	1667	0	690	958	0	586	458	0	283	528	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	4.2	11.9	0.0	7.0	5.8	0.0	8.0	5.5	0.0	3.5	6.4	0.0
Cycle Q Clear(g_c), s	4.2	11.9	0.0	7.0	5.8	0.0	8.0	5.5	0.0	3.5	6.4	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	934	2941	833	1812	2941	833	1163	1259	535	1163	1259	535
V/C Ratio(X)	0.25	0.57	0.00	0.38	0.33	0.00	0.50	0.36	0.00	0.24	0.42	0.00
Avail Cap(c_a), veh/h	934	2941	833	1812	2941	833	2337	2530	1075	1163	1259	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.6	9.4	0.0	8.3	8.0	0.0	15.6	14.7	0.0	14.1	15.0	0.0
Incr Delay (d2), s/veh	0.6	0.8	0.0	0.1	0.1	0.0	0.3	0.2	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.5	4.4	0.0	2.2	2.0	0.0	3.1	2.3	0.0	1.4	2.8	0.0
Lane Grp Delay (d), s/veh	8.2	10.2	0.0	8.4	8.0	0.0	15.9	14.9	0.0	14.2	15.3	0.0
Lane Grp LOS	A	B		A	A		B	B		B	B	
Approach Vol, veh/h		1897			1648			1044			811	
Approach Delay, s/veh		10.0			8.2			15.5			14.9	
Approach LOS		A			A			B			B	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		35.0			35.0			23.9			23.9	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		31.0			25.0			40.0			18.0	
Max Q Clear Time (g_c+l1), s		13.9			9.0			10.0			8.4	
Green Ext Time (p_c), s		14.6			13.7			9.9			6.0	
Intersection Summary												
HCM 2010 Ctrl Delay				11.2								
HCM 2010 LOS				B								
Notes												

















HCM 2010 Signalized Intersection Summary
 13: MOUNTAIN HOUSE PKWY & I-580E OFF RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	229	4	208	0	0	0	0	521	347	527	146	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0				0.0	186.3	190.0	190.0	174.3	0.0
Lanes	0	1	0				0	1	0	0	1	0
Cap, veh/h	261	5	237				0	999	0	0	935	0
Arrive On Green	0.30	0.30	0.30				0.00	0.54	0.00	0.00	0.54	0.00
Sat Flow, veh/h	872	15	792				0	1863	0	0	1743	0
Grp Volume(v), veh/h	441	0	0				0	521	0	0	146	0
Grp Sat Flow(s),veh/h/ln	1679	0	0				0	1863	0	0	1743	0
Q Serve(g_s), s	12.1	0.0	0.0				0.0	8.7	0.0	0.0	2.1	0.0
Cycle Q Clear(g_c), s	12.1	0.0	0.0				0.0	8.7	0.0	0.0	2.1	0.0
Prop In Lane	0.52		0.47				0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	502	0	0				0	999	0	0	935	0
V/C Ratio(X)	0.88	0.00	0.00				0.00	0.52	0.00	0.00	0.16	0.00
Avail Cap(c_a), veh/h	554	0	0				0	999	0	0	935	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.2	0.0	0.0				0.0	7.2	0.0	0.0	5.7	0.0
Incr Delay (d2), s/veh	14.1	0.0	0.0				0.0	1.9	0.0	0.0	0.4	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
%ile Back of Q (50%), veh/ln	6.4	0.0	0.0				0.0	3.7	0.0	0.0	0.8	0.0
Lane Grp Delay (d), s/veh	30.2	0.0	0.0				0.0	9.2	0.0	0.0	6.0	0.0
Lane Grp LOS	C							A			A	
Approach Vol, veh/h		441						521			146	
Approach Delay, s/veh		30.2						9.2			6.0	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		18.5						30.0		0.0	30.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						18.0		4.0	26.0	
Max Q Clear Time (g_c+l1), s		14.1						10.7		0.0	4.1	
Green Ext Time (p_c), s		0.4						1.8		0.0	2.8	
Intersection Summary												
HCM 2010 Ctrl Delay			17.1									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 14: MOUNTAIN HOUSE PKWY & I-580W OFF RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	53	26	203	53	697	0	0	620	228
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	154.5	190.0	190.0	186.3	0.0	0.0	171.2	171.2
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				65	32	0	117	1383	0	0	1401	1190
Arrive On Green				0.06	0.06	0.00	0.82	0.82	0.00	0.00	0.82	0.00
Sat Flow, veh/h				1003	492	0	74	1691	0	0	1712	1455
Grp Volume(v), veh/h				79	0	0	750	0	0	0	620	0
Grp Sat Flow(s),veh/h/ln				1495	0	0	1765	0	0	0	1712	1455
Q Serve(g_s), s				3.6	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0
Cycle Q Clear(g_c), s				3.6	0.0	0.0	8.4	0.0	0.0	0.0	7.1	0.0
Prop In Lane				0.67		0.00	0.07		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				97	0	0	1500	0	0	0	1401	1190
V/C Ratio(X)				0.81	0.00	0.00	0.50	0.00	0.00	0.00	0.44	0.00
Avail Cap(c_a), veh/h				349	0	0	1500	0	0	0	1401	1190
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				31.6	0.0	0.0	1.9	0.0	0.0	0.0	1.8	0.0
Incr Delay (d2), s/veh				14.9	0.0	0.0	1.2	0.0	0.0	0.0	1.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				1.7	0.0	0.0	2.6	0.0	0.0	0.0	1.9	0.0
Lane Grp Delay (d), s/veh				46.5	0.0	0.0	3.1	0.0	0.0	0.0	2.8	0.0
Lane Grp LOS				D			A				A	
Approach Vol, veh/h					79			750			620	
Approach Delay, s/veh					46.5			3.1			2.8	
Approach LOS					D			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					8.4			60.0			60.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					16.0			56.0			56.0	
Max Q Clear Time (g_c+l1), s					5.6			10.4			9.1	
Green Ext Time (p_c), s					0.1			8.2			8.2	
Intersection Summary												
HCM 2010 Ctrl Delay					5.3							
HCM 2010 LOS					A							
Notes												



















HCM 2010 Signalized Intersection Summary
 15: LAMMERS RD & I-580E OFF RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	340	0	240	0	0	0	0	910	40	310	1140	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	175.9	175.9	175.9				0.0	186.3	190.0	172.7	172.7	0.0
Lanes	2	0	1				0	2	0	1	2	0
Cap, veh/h	606	0	270				0	1875	82	341	2640	0
Arrive On Green	0.18	0.00	0.18				0.00	0.53	0.53	0.21	0.76	0.00
Sat Flow, veh/h	3351	0	1495				0	3542	156	1645	3455	0
Grp Volume(v), veh/h	340	0	240				0	479	471	310	1140	0
Grp Sat Flow(s),veh/h/ln	1675	0	1495				0	1863	1835	1645	1727	0
Q Serve(g_s), s	13.4	0.0	22.8				0.0	23.6	23.6	26.7	16.9	0.0
Cycle Q Clear(g_c), s	13.4	0.0	22.8				0.0	23.6	23.6	26.7	16.9	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	606	0	270				0	986	971	341	2640	0
V/C Ratio(X)	0.56	0.00	0.89				0.00	0.49	0.49	0.91	0.43	0.00
Avail Cap(c_a), veh/h	715	0	319				0	986	971	793	2640	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	0.64	0.64	0.00
Uniform Delay (d), s/veh	54.2	0.0	58.1				0.0	21.7	21.7	56.2	6.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	22.3				0.0	1.7	1.7	6.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	6.0	0.0	10.6				0.0	11.5	11.3	12.1	6.6	0.0
Lane Grp Delay (d), s/veh	55.1	0.0	80.3				0.0	23.4	23.4	62.6	6.4	0.0
Lane Grp LOS	E		F					C	C	E	A	
Approach Vol, veh/h		580						950			1450	
Approach Delay, s/veh		65.5						23.4			18.4	
Approach LOS		E						C			B	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		30.3						80.9		34.1	115.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		31.0						37.0		70.0	111.0	
Max Q Clear Time (g_c+l1), s		24.8						25.6		28.7	18.9	
Green Ext Time (p_c), s		1.5						7.5		1.4	16.7	
Intersection Summary												
HCM 2010 Ctrl Delay			29.2									
HCM 2010 LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												
























HCM 2010 Signalized Intersection Summary
 16: LAMMERS RD & I-580 WEST OFF RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	10	0	140	200	1050	0	0	1440	390
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	182.7	182.7	186.3	186.3	0.0	0.0	177.6	177.6
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				207	0	184	160	2610	0	0	1846	784
Arrive On Green				0.12	0.00	0.12	0.09	0.70	0.00	0.00	0.52	0.52
Sat Flow, veh/h				1740	0	1553	1774	3725	0	0	3551	1509
Grp Volume(v), veh/h				10	0	140	200	1050	0	0	1440	390
Grp Sat Flow(s),veh/h/ln				1740	0	1553	1774	1863	0	0	1776	1509
Q Serve(g_s), s				0.2	0.0	3.9	4.0	5.2	0.0	0.0	14.5	7.4
Cycle Q Clear(g_c), s				0.2	0.0	3.9	4.0	5.2	0.0	0.0	14.5	7.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				207	0	184	160	2610	0	0	1846	784
V/C Ratio(X)				0.05	0.00	0.76	1.25	0.40	0.00	0.00	0.78	0.50
Avail Cap(c_a), veh/h				629	0	561	160	2610	0	0	1846	784
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	1.00	0.83	0.83	0.00	0.00	0.36	0.36
Uniform Delay (d), s/veh				17.3	0.0	18.9	20.1	2.8	0.0	0.0	8.6	6.9
Incr Delay (d2), s/veh				0.1	0.0	6.3	146.8	0.4	0.0	0.0	1.2	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
%ile Back of Q (50%), veh/ln				0.1	0.0	1.7	8.1	1.5	0.0	0.0	5.3	2.3
Lane Grp Delay (d), s/veh				17.4	0.0	25.2	167.0	3.1	0.0	0.0	9.8	7.7
Lane Grp LOS				B		C	F	A			A	A
Approach Vol, veh/h					150			1250			1830	
Approach Delay, s/veh					24.7			29.4			9.4	
Approach LOS					C			C			A	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					9.3		8.0	35.0			27.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		4.0	31.0			23.0	
Max Q Clear Time (g_c+l1), s					5.9		6.0	7.2			16.5	
Green Ext Time (p_c), s					0.4		0.0	6.7			4.7	
Intersection Summary												
HCM 2010 Ctrl Delay				17.8								
HCM 2010 LOS				B								
Notes												
















HCM 2010 Signalized Intersection Summary
 17: LAMMERS RD & SPINE RD

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	620	20	150	140	20	850	80	1000	110	670	1540	550
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	0	1	1	1	1	2	1	2	2	1
Cap, veh/h	745	32	239	182	101	86	96	1105	470	745	1710	727
Arrive On Green	0.22	0.17	0.17	0.10	0.05	0.00	0.05	0.30	0.30	0.22	0.46	0.00
Sat Flow, veh/h	3442	190	1422	1774	1863	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	620	0	170	140	20	0	80	1000	110	670	1540	0
Grp Sat Flow(s),veh/h/ln	1721	0	1612	1774	1863	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	12.7	0.0	7.3	5.7	0.8	0.0	3.3	19.1	3.9	14.0	28.2	0.0
Cycle Q Clear(g_c), s	12.7	0.0	7.3	5.7	0.8	0.0	3.3	19.1	3.9	14.0	28.2	0.0
Prop In Lane	1.00		0.88	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	745	0	271	182	101	86	96	1105	470	745	1710	727
V/C Ratio(X)	0.83	0.00	0.63	0.77	0.20	0.00	0.83	0.90	0.23	0.90	0.90	0.00
Avail Cap(c_a), veh/h	884	0	480	456	554	471	96	1109	471	745	1713	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	0.92	0.92	0.92	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.7	0.0	28.6	32.3	33.4	0.0	34.6	25.0	19.6	28.2	18.4	0.0
Incr Delay (d2), s/veh	5.9	0.0	2.4	6.8	1.0	0.0	41.3	11.3	1.1	13.9	8.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	6.0	0.0	3.1	2.9	0.4	0.0	2.5	10.2	1.6	7.3	13.9	0.0
Lane Grp Delay (d), s/veh	33.6	0.0	31.0	39.1	34.4	0.0	75.9	36.3	20.7	42.1	26.5	0.0
Lane Grp LOS	C		C	D	C		E	D	C	D	C	
Approach Vol, veh/h		790			160			1190			2210	
Approach Delay, s/veh		33.0			38.5			37.5			31.2	
Approach LOS		C			D			D			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	20.0	16.4		11.6	8.0		8.0	25.9		20.0	37.9	
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	19.0	22.0		19.0	22.0		4.0	22.0		16.0	34.0	
Max Q Clear Time (g_c+l1), s	14.7	9.3		7.7	2.8		5.3	21.1		16.0	30.2	
Green Ext Time (p_c), s	1.3	0.6		0.3	0.7		0.0	0.9		0.0	3.4	
Intersection Summary												
HCM 2010 Ctrl Delay			33.6									
HCM 2010 LOS			C									
Notes												













HCM 2010 Signalized Intersection Summary
 18: LAMMERS RD & LINNE ROAD

Cumulative+Proj PM
 7/26/2014

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations					  	 
Volume (veh/h)	460	460	1860	610	340	2300
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	3	1	3	3
Cap, veh/h	479	427	2378	674	511	3326
Arrive On Green	0.27	0.27	0.43	0.43	0.10	0.60
Sat Flow, veh/h	1774	1583	5588	1583	5003	5588
Grp Volume(v), veh/h	460	460	1860	610	340	2300
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1668	1863
Q Serve(g_s), s	15.2	16.0	17.0	21.3	3.9	16.8
Cycle Q Clear(g_c), s	15.2	16.0	17.0	21.3	3.9	16.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	479	427	2378	674	511	3326
V/C Ratio(X)	0.96	1.08	0.78	0.91	0.67	0.69
Avail Cap(c_a), veh/h	479	427	2378	674	591	3394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	21.6	14.7	15.9	25.6	8.3
Incr Delay (d2), s/veh	31.2	65.5	1.8	15.9	2.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	10.4	13.6	7.4	10.6	1.7	6.1
Lane Grp Delay (d), s/veh	52.5	87.2	16.4	31.8	27.9	8.9
Lane Grp LOS	D	F	B	C	C	A
Approach Vol, veh/h	920		2470			2640
Approach Delay, s/veh	69.9		20.2			11.3
Approach LOS	E		C			B
Timer						
Assigned Phs			2		1	6
Phs Duration (G+Y+Rc), s			29.2		10.1	39.3
Change Period (Y+Rc), s			4.0		4.0	4.0
Max Green Setting (Gmax), s			25.0		7.0	36.0
Max Q Clear Time (g_c+l1), s			23.3		5.9	18.8
Green Ext Time (p_c), s			1.6		0.2	16.5
Intersection Summary						
HCM 2010 Ctrl Delay			23.9			
HCM 2010 LOS			C			
Notes						

HCM 2010 Signalized Intersection Summary
 20: CORRAL HOLLOW RD & LAMMERS RD EXT

Cumulative+Proj PM
 7/26/2014

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	300	1	1	882	153	400
Number	5	12	3	8	4	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	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	2	2	1
Cap, veh/h	385	344	185	2140	1364	580
Arrive On Green	0.22	0.22	0.10	0.57	0.37	0.37
Sat Flow, veh/h	1774	1583	1774	3725	3725	1583
Grp Volume(v), veh/h	300	1	1	882	153	400
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1863	1863	1583
Q Serve(g_s), s	6.1	0.0	0.0	5.1	1.0	8.2
Cycle Q Clear(g_c), s	6.1	0.0	0.0	5.1	1.0	8.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	385	344	185	2140	1364	580
V/C Ratio(X)	0.78	0.00	0.01	0.41	0.11	0.69
Avail Cap(c_a), veh/h	739	660	739	3494	1553	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	11.8	15.4	4.6	8.0	10.3
Incr Delay (d2), s/veh	3.4	0.0	0.0	0.1	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.7	0.0	0.0	1.6	0.4	3.1
Lane Grp Delay (d), s/veh	17.6	11.8	15.4	4.7	8.1	12.9
Lane Grp LOS	B	B	B	A	A	B
Approach Vol, veh/h	301			883	553	
Approach Delay, s/veh	17.6			4.7	11.6	
Approach LOS	B			A	B	
Timer						
Assigned Phs			3	8	4	
Phs Duration (G+Y+Rc), s			8.0	26.0	18.0	
Change Period (Y+Rc), s			4.0	4.0	4.0	
Max Green Setting (Gmax), s			16.0	36.0	16.0	
Max Q Clear Time (g_c+l1), s			2.0	7.1	10.2	
Green Ext Time (p_c), s			0.0	10.5	3.8	
Intersection Summary						
HCM 2010 Ctrl Delay			9.1			
HCM 2010 LOS			A			
Notes						

Intersection						
Intersection Delay, s/veh	32.3					
Intersection LOS	D					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	440	510	380	0	0	320
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	440	510	380	0	0	320
Number of Lanes	0	2	2	0	0	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	46.6	11.4	14.9
HCM LOS	E	B	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	72%	0%	0%	0%	0%
Vol Thru, %	28%	100%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	610	340	190	190	320
LT Vol	170	340	190	190	0
Through Vol	0	0	0	0	320
RT Vol	440	0	0	0	0
Lane Flow Rate	610	340	190	190	320
Geometry Grp	7	7	7	7	2
Degree of Util (X)	1	0.576	0.357	0.265	0.515
Departure Headway (Hd)	6.465	6.099	6.759	5.023	5.794
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	567	595	534	718	621
Service Time	4.176	3.809	4.473	2.737	3.852
HCM Lane V/C Ratio	1.076	0.571	0.356	0.265	0.515
HCM Control Delay	63.2	16.8	13.2	9.5	14.9
HCM Lane LOS	F	C	B	A	B
HCM 95th-tile Q	14.4	3.6	1.6	1.1	3

Notes

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

Intersection												
Intersection Delay, s/veh	17.2											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	170	340	140	150	40	230	10	110	20	10	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	170	340	140	150	40	230	10	110	20	10	0
Number of Lanes	1	2	0	1	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	3	3
HCM Control Delay	17.3	11.7	22.6	11.4
HCM LOS	C	B	C	B

























Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	66%	0%	0%	0%	100%	0%	0%	67%
Vol Thru, %	3%	100%	100%	14%	0%	100%	56%	33%
Vol Right, %	31%	0%	0%	86%	0%	0%	44%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	350	0	113	397	140	100	90	30
LT Vol	10	0	113	57	0	100	50	10
Through Vol	110	0	0	340	0	0	40	0
RT Vol	230	0	0	0	140	0	0	20
Lane Flow Rate	350	0	113	397	140	100	90	30
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.669	0	0.205	0.65	0.281	0.187	0.16	0.067
Departure Headway (Hd)	6.884	6.513	6.513	5.898	7.329	6.717	6.398	8.082
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	522	0	547	607	493	530	555	446
Service Time	4.663	4.303	4.303	3.687	5.029	4.517	4.198	5.782
HCM Lane V/C Ratio	0.67	0	0.207	0.654	0.284	0.189	0.162	0.067
HCM Control Delay	22.6	9.3	11	19.1	12.9	11.1	10.4	11.4
HCM Lane LOS	C	N	B	C	B	B	B	B
HCM 95th-tile Q	4.9	0	0.8	4.7	1.1	0.7	0.6	0.2

Notes

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



















HCM 2010 Signalized Intersection Summary
 24: LAMMERS RD & HANSEN RD




















Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	140	440	39	80	310	80	2180	60	350	2161	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		0.67	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	3	1	1	3	0
Cap, veh/h	82	281	331	71	269	494	103	2513	712	381	3298	76
Arrive On Green	0.05	0.15	0.15	0.04	0.14	0.14	0.06	0.45	0.45	0.21	0.61	0.61
Sat Flow, veh/h	1774	1863	1583	1774	1863	1065	1774	5588	1583	1774	5440	126
Grp Volume(v), veh/h	50	140	440	39	80	310	80	2180	60	350	1478	733
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1065	1774	1863	1583	1774	1863	1841
Q Serve(g_s), s	3.1	7.6	16.7	2.4	4.2	16.0	4.9	38.9	2.4	21.3	28.7	28.8
Cycle Q Clear(g_c), s	3.1	7.6	16.7	2.4	4.2	16.0	4.9	38.9	2.4	21.3	28.7	28.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	82	281	331	71	269	494	103	2513	712	381	2258	1116
V/C Ratio(X)	0.61	0.50	1.33	0.55	0.30	0.63	0.77	0.87	0.08	0.92	0.65	0.66
Avail Cap(c_a), veh/h	257	281	331	257	269	494	321	2779	787	433	2258	1116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	51.8	43.1	43.7	52.1	42.3	31.2	51.4	27.5	17.4	42.5	14.2	14.2
Incr Delay (d2), s/veh	7.1	1.4	167.4	6.5	0.6	2.5	11.6	3.0	0.1	22.9	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.6	3.8	24.7	1.2	2.1	7.7	2.6	18.5	0.9	12.1	12.7	12.9
Lane Grp Delay (d), s/veh	58.9	44.5	211.1	58.6	42.9	33.7	63.0	30.4	17.5	65.4	14.9	15.7
Lane Grp LOS	E	D	F	E	D	C	E	C	B	E	B	B
Approach Vol, veh/h		630			429			2320			2561	
Approach Delay, s/veh		162.0			37.7			31.2			22.0	
Approach LOS		F			D			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	9.1	20.7		8.4	20.0		10.4	53.7		27.8	71.0	
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		16.0	16.0		20.0	55.0		27.0	62.0	
Max Q Clear Time (g_c+l1), s	5.1	18.7		4.4	18.0		6.9	40.9		23.3	30.8	
Green Ext Time (p_c), s	0.1	0.0		0.0	0.0		0.1	8.8		0.4	30.6	
Intersection Summary												
HCM 2010 Ctrl Delay			41.6									
HCM 2010 LOS			D									
Notes												

HCM 2010 Signalized Intersection Summary
 25: LAMMERS RD/LAMMERS EXTN & I-205 EAST ON-OFF RAMP
























Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	0	970	0	0	0	0	1920	1620	0	2890	960
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	186.3	0.0	186.3	186.3
Lanes	0	1	1				0	3	2	0	3	1
Cap, veh/h	158	0	141				0	4223	2393	0	4223	1196
Arrive On Green	0.09	0.00	0.00				0.00	0.76	0.76	0.00	0.76	0.76
Sat Flow, veh/h	1774	0	1583				0	5588	3167	0	5588	1583
Grp Volume(v), veh/h	120	0	0				0	1920	1620	0	2890	960
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	1583	0	1863	1583
Q Serve(g_s), s	3.4	0.0	0.0				0.0	6.6	13.2	0.0	13.5	19.4
Cycle Q Clear(g_c), s	3.4	0.0	0.0				0.0	6.6	13.2	0.0	13.5	19.4
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	158	0	141				0	4223	2393	0	4223	1196
V/C Ratio(X)	0.76	0.00	0.00				0.00	0.45	0.68	0.00	0.68	0.80
Avail Cap(c_a), veh/h	447	0	399				0	4223	2393	0	4223	1196
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	0.35	0.35
Uniform Delay (d), s/veh	23.0	0.0	0.0				0.0	2.3	3.2	0.0	3.2	3.9
Incr Delay (d2), s/veh	7.2	0.0	0.0				0.0	0.4	1.6	0.0	0.3	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 Back of Q (50%), veh/ln	1.7	0.0	0.0				0.0	1.7	3.2	0.0	3.3	0.7
Lane Grp Delay (d), s/veh	30.1	0.0	0.0				0.0	2.7	4.7	0.0	3.5	6.0
Lane Grp LOS	C							A	A		A	A
Approach Vol, veh/h		120						3540			3850	
Approach Delay, s/veh		30.1						3.6			4.1	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		8.6						43.0			43.0	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		13.0						39.0			39.0	
Max Q Clear Time (g_c+l1), s		5.4						15.2			21.4	
Green Ext Time (p_c), s		0.2						23.7			17.5	
Intersection Summary												
HCM 2010 Ctrl Delay			4.3									
HCM 2010 LOS			A									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	2080	0	840	0	1330	710	0	1770	180
Number				1	6	16	3	8	18	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				186.3	186.3	186.3	0.0	186.3	186.3	0.0	186.3	186.3
Lanes				3	0	1	0	2	2	0	3	1
Cap, veh/h				2794	0	831	0	1397	1188	0	2096	594
Arrive On Green				0.52	0.00	0.00	0.00	0.38	0.38	0.00	0.38	0.38
Sat Flow, veh/h				5322	0	1583	0	3725	3167	0	5588	1583
Grp Volume(v), veh/h				2080	0	0	0	1330	710	0	1770	180
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1863	1583	0	1863	1583
Q Serve(g_s), s				24.4	0.0	0.0	0.0	27.8	14.5	0.0	23.2	6.4
Cycle Q Clear(g_c), s				24.4	0.0	0.0	0.0	27.8	14.5	0.0	23.2	6.4
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				2794	0	831	0	1397	1188	0	2096	594
V/C Ratio(X)				0.74	0.00	0.00	0.00	0.95	0.60	0.00	0.84	0.30
Avail Cap(c_a), veh/h				2794	0	831	0	1397	1188	0	2096	594
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.00	0.84	0.84	0.00	1.00	1.00
Uniform Delay (d), s/veh				14.8	0.0	0.0	0.0	24.3	20.1	0.0	22.9	17.6
Incr Delay (d2), s/veh				1.8	0.0	0.0	0.0	12.5	0.7	0.0	4.4	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
%ile Back of Q (50%), veh/ln				10.1	0.0	0.0	0.0	14.6	12.8	0.0	11.0	2.6
Lane Grp Delay (d), s/veh				16.7	0.0	0.0	0.0	36.8	20.8	0.0	27.3	18.9
Lane Grp LOS				B				D	C		C	B
Approach Vol, veh/h				2080				2040			1950	
Approach Delay, s/veh				16.7				31.3			26.5	
Approach LOS				B				C			C	
Timer												
Assigned Phs				6				8			4	
Phs Duration (G+Y+Rc), s				46.0				34.0			34.0	
Change Period (Y+Rc), s				4.0				4.0			4.0	
Max Green Setting (Gmax), s				42.0				30.0			30.0	
Max Q Clear Time (g_c+l1), s				26.4				29.8			25.2	
Green Ext Time (p_c), s				10.6				0.2			4.7	
Intersection Summary												
HCM 2010 Ctrl Delay				24.7								
HCM 2010 LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

























HCM 2010 Signalized Intersection Summary
 27: LAMMERS EXTN/BYRON & PAVILLION PKWY

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1400	60	890	1220	840	170	310	1150	560	287	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	3	0	3	2	1	1	1	2	2	1	0
Cap, veh/h	31	1514	65	951	1703	724	204	333	1168	577	414	14
Arrive On Green	0.02	0.28	0.28	0.19	0.46	0.00	0.12	0.18	0.00	0.17	0.23	0.23
Sat Flow, veh/h	1774	5320	228	5003	3725	1583	1774	1863	3167	3442	1789	62
Grp Volume(v), veh/h	20	980	480	890	1220	0	170	310	0	560	0	297
Grp Sat Flow(s),veh/h/ln	1774	1863	1823	1668	1863	1583	1774	1863	1583	1721	0	1852
Q Serve(g_s), s	1.0	22.9	22.9	15.7	23.6	0.0	8.4	14.7	0.0	14.5	0.0	13.1
Cycle Q Clear(g_c), s	1.0	22.9	22.9	15.7	23.6	0.0	8.4	14.7	0.0	14.5	0.0	13.1
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	31	1060	519	951	1703	724	204	333	1168	577	0	428
V/C Ratio(X)	0.64	0.92	0.92	0.94	0.72	0.00	0.83	0.93	0.00	0.97	0.00	0.69
Avail Cap(c_a), veh/h	79	1083	530	951	1703	724	238	333	1168	577	0	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	31.1	31.1	35.7	19.6	0.0	38.7	36.2	0.0	37.0	0.0	31.5
Incr Delay (d2), s/veh	20.1	12.9	22.0	16.0	1.5	0.0	19.2	34.4	0.0	30.0	0.0	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 Back of Q (50%), veh/ln	0.6	12.4	13.4	8.0	10.9	0.0	4.9	10.1	0.0	8.7	0.0	7.1
Lane Grp Delay (d), s/veh	63.8	44.0	53.1	51.7	21.1	0.0	57.9	70.6	0.0	67.0	0.0	40.4
Lane Grp LOS	E	D	D	D	C		E	E		E		D
Approach Vol, veh/h		1480			2110			480			857	
Approach Delay, s/veh		47.2			34.0			66.1			57.8	
Approach LOS		D			C			E			E	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.6	29.5		21.0	44.9		14.3	20.0		19.0	24.7	
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	26.0		17.0	39.0		12.0	16.0		15.0	19.0	
Max Q Clear Time (g_c+l1), s	3.0	24.9		17.7	25.6		10.4	16.7		16.5	15.1	
Green Ext Time (p_c), s	0.0	0.6		0.0	11.9		0.1	0.0		0.0	1.3	
Intersection Summary												
HCM 2010 Ctrl Delay				45.2								
HCM 2010 LOS				D								
Notes												






















HCM 2010 Signalized Intersection Summary
 28: CORRAL HOLLOW RD & ELEVENTH ST.

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	595	2026	528	295	1501	603	300	1593	305	101	1995	656
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Cap, veh/h	1549	2515	713	1549	2515	713	1528	2481	703	1528	2481	703
Arrive On Green	0.45	0.45	0.00	0.45	0.45	0.45	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	3442	5588	1583	3442	5588	1583	3442	5588	1583	3442	5588	1583
Grp Volume(v), veh/h	595	2026	0	295	1501	603	300	1593	305	101	1995	656
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	8.7	23.6	0.0	3.9	15.3	25.6	4.0	16.8	10.0	1.3	23.3	29.7
Cycle Q Clear(g_c), s	8.7	23.6	0.0	3.9	15.3	25.6	4.0	16.8	10.0	1.3	23.3	29.7
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	1549	2515	713	1549	2515	713	1528	2481	703	1528	2481	703
V/C Ratio(X)	0.38	0.81	0.00	0.19	0.60	0.85	0.20	0.64	0.43	0.07	0.80	0.93
Avail Cap(c_a), veh/h	1730	2809	796	1549	2515	713	1528	2481	703	1593	2587	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	17.9	0.0	12.5	15.6	18.5	12.8	16.3	14.5	12.0	18.2	19.9
Incr Delay (d2), s/veh	0.2	1.6	0.0	0.1	0.4	9.3	0.1	0.6	0.4	0.0	1.9	18.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.3	9.9	0.0	1.5	6.3	10.7	1.6	7.5	3.8	0.5	10.6	14.7
Lane Grp Delay (d), s/veh	14.0	19.6	0.0	12.6	16.0	27.7	12.9	16.9	14.9	12.1	20.0	38.4
Lane Grp LOS	B	B		B	B	C	B	B	B	B	C	D
Approach Vol, veh/h		2621			2399			2198			2752	
Approach Delay, s/veh		18.3			18.5			16.1			24.1	
Approach LOS		B			B			B			C	
Timer												
Assigned Phs		2			6			4			8	
Phs Duration (G+Y+Rc), s		38.0			38.0			37.6			37.6	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		38.0			30.0			31.0			35.0	
Max Q Clear Time (g_c+l1), s		25.6			27.6			18.8			31.7	
Green Ext Time (p_c), s		8.4			2.4			12.0			1.8	
Intersection Summary												
HCM 2010 Ctrl Delay				19.5								
HCM 2010 LOS				B								
Notes												

























HCM 2010 Signalized Intersection Summary
 29: TRACY BLVD & W CENTRAL AVE

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	97	38	391	75	99	72	1161	376	118	1078	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	47	130	51	407	222	294	92	1192	379	136	1591	117
Arrive On Green	0.03	0.10	0.10	0.23	0.30	0.30	0.05	0.44	0.44	0.08	0.46	0.46
Sat Flow, veh/h	1774	1275	500	1774	730	963	1774	2712	862	1774	3430	251
Grp Volume(v), veh/h	37	0	135	391	0	174	72	791	746	118	585	572
Grp Sat Flow(s),veh/h/ln	1774	0	1775	1774	0	1693	1774	1863	1711	1774	1863	1818
Q Serve(g_s), s	2.2	0.0	7.7	22.8	0.0	8.3	4.2	43.2	45.4	6.9	25.7	25.7
Cycle Q Clear(g_c), s	2.2	0.0	7.7	22.8	0.0	8.3	4.2	43.2	45.4	6.9	25.7	25.7
Prop In Lane	1.00		0.28	1.00		0.57	1.00		0.50	1.00		0.14
Lane Grp Cap(c), veh/h	47	0	181	407	0	516	92	819	752	136	864	844
V/C Ratio(X)	0.79	0.00	0.75	0.96	0.00	0.34	0.78	0.97	0.99	0.87	0.68	0.68
Avail Cap(c_a), veh/h	102	0	271	407	0	550	136	819	752	136	864	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	50.7	0.0	45.7	39.9	0.0	28.2	49.0	28.6	29.2	47.8	21.9	21.9
Incr Delay (d2), s/veh	25.1	0.0	6.0	34.5	0.0	0.4	15.7	23.3	30.9	41.4	2.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	0.0	3.8	14.1	0.0	3.6	2.3	25.1	25.5	4.7	12.2	11.9
Lane Grp Delay (d), s/veh	75.8	0.0	51.7	74.4	0.0	28.6	64.7	51.8	60.1	89.3	24.1	24.1
Lane Grp LOS	E		D	E		C	E	D	E	F	C	C
Approach Vol, veh/h		172			565			1609			1275	
Approach Delay, s/veh		56.9			60.3			56.2			30.1	
Approach LOS		E			E			E			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.8	14.7		28.0	35.9		9.4	50.0		12.0	52.6	
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	6.0	16.0		24.0	34.0		8.0	46.0		8.0	46.0	
Max Q Clear Time (g_c+l1), s	4.2	9.7		24.8	10.3		6.2	47.4		8.9	27.7	
Green Ext Time (p_c), s	0.0	0.9		0.0	1.9		0.0	0.0		0.0	15.8	
Intersection Summary												
HCM 2010 Ctrl Delay	47.7											
HCM 2010 LOS	D											
Notes												



















HCM 2010 Signalized Intersection Summary
 30: TRACY BLVD & ELEVENTH ST.

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	592	1525	296	458	1154	307	560	1219	355	262	1234	452
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	1631	1815	750	1631	1815	771	1352	1514	643	1307	1514	622
Arrive On Green	0.47	0.49	0.47	0.47	0.49	0.49	0.39	0.41	0.41	0.38	0.41	0.39
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	592	1525	296	458	1154	307	560	1219	355	262	1234	452
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	8.2	26.7	9.1	6.1	17.3	9.3	8.9	21.7	12.9	3.8	22.1	18.2
Cycle Q Clear(g_c), s	8.2	26.7	9.1	6.1	17.3	9.3	8.9	21.7	12.9	3.8	22.1	18.2
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	1631	1815	750	1631	1815	771	1352	1514	643	1307	1514	622
V/C Ratio(X)	0.36	0.84	0.39	0.28	0.64	0.40	0.41	0.81	0.55	0.20	0.82	0.73
Avail Cap(c_a), veh/h	1649	1835	759	1631	1815	771	1374	1537	653	1329	1537	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	12.6	16.7	12.8	12.0	14.3	12.3	16.5	19.7	17.1	15.6	19.8	19.4
Incr Delay (d2), s/veh	0.6	4.9	1.6	0.1	0.7	0.2	0.1	2.9	0.5	0.0	3.2	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 Back of Q (50%), veh/ln	3.2	11.8	3.4	2.2	7.1	3.2	3.6	10.1	4.8	1.6	10.3	7.4
Lane Grp Delay (d), s/veh	13.2	21.6	14.3	12.1	15.0	12.5	16.6	22.6	17.6	15.7	23.0	22.9
Lane Grp LOS	B	C	B	B	B	B	B	C	B	B	C	C
Approach Vol, veh/h		2413			1919			2134			1948	
Approach Delay, s/veh		18.6			13.9			20.2			22.0	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		40.6			40.6			34.5			34.5	
Change Period (Y+Rc), s		6.0			6.0			6.0			6.0	
Max Green Setting (Gmax), s		35.0			28.0			29.0			29.0	
Max Q Clear Time (g_c+l1), s		28.7			19.3			23.7			24.1	
Green Ext Time (p_c), s		5.9			8.0			4.8			4.4	
Intersection Summary												
HCM 2010 Ctrl Delay			18.7									
HCM 2010 LOS			B									
Notes												

























HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE ROAD/LINNE

Cumulative+Proj PM
 10/2/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	245	655	175	13	301	144	92	116	18	173	120	263
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	1	1	0	1	1	0	1	0	0	1	0
Cap, veh/h	0	735	625	0	735	625	285	320	41	284	169	299
Arrive On Green	0.00	0.39	0.39	0.00	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	0	1863	1583	0	1863	1583	389	793	102	407	419	742
Grp Volume(v), veh/h	0	655	175	0	301	144	226	0	0	556	0	0
Grp Sat Flow(s),veh/h/ln	0	1863	1583	0	1863	1583	1284	0	0	1568	0	0
Q Serve(g_s), s	0.0	13.0	3.0	0.0	4.6	2.4	0.0	0.0	0.0	9.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	13.0	3.0	0.0	4.6	2.4	3.7	0.0	0.0	12.8	0.0	0.0
Prop In Lane	0.00		1.00	0.00		1.00	0.41		0.08	0.31		0.47
Lane Grp Cap(c), veh/h	0	735	625	0	735	625	646	0	0	752	0	0
V/C Ratio(X)	0.00	0.89	0.28	0.00	0.41	0.23	0.35	0.00	0.00	0.74	0.00	0.00
Avail Cap(c_a), veh/h	0	751	639	0	751	639	714	0	0	827	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(l)	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	11.2	8.2	0.0	8.7	8.0	8.1	0.0	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	12.7	0.2	0.0	0.4	0.2	0.3	0.0	0.0	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	7.5	1.0	0.0	1.8	0.8	1.3	0.0	0.0	4.5	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	24.0	8.4	0.0	9.0	8.2	8.4	0.0	0.0	13.9	0.0	0.0
Lane Grp LOS		C	A		A	A	A			B		
Approach Vol, veh/h		830			445			226			556	
Approach Delay, s/veh		20.7			8.8			8.4			13.9	
Approach LOS		C			A			A			B	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	0.0	19.6		0.0	19.6			20.0				20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0				4.0
Max Green Setting (Gmax), s	4.0	16.0		4.0	16.0			18.0				18.0
Max Q Clear Time (g_c+l1), s	0.0	15.0		0.0	6.6			5.7				14.8
Green Ext Time (p_c), s	0.0	0.6		0.0	4.1			3.0				1.2
Intersection Summary												
HCM 2010 Ctrl Delay			14.9									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 32: CHRISMAN & ELEVENTH ST.

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	445	901	86	400	536	230	82	636	513	81	577	320
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	1	2	1	1	2	1	1	1	1
Cap, veh/h	541	911	475	394	1153	583	99	1105	470	104	559	475
Arrive On Green	0.16	0.24	0.24	0.22	0.31	0.31	0.06	0.30	0.00	0.06	0.30	0.00
Sat Flow, veh/h	3442	3725	1583	1774	3725	1583	1774	3725	1583	1774	1863	1583
Grp Volume(v), veh/h	445	901	86	400	536	230	82	636	0	81	577	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	11.3	21.7	3.6	20.0	10.4	9.7	4.1	13.0	0.0	4.1	27.0	0.0
Cycle Q Clear(g_c), s	11.3	21.7	3.6	20.0	10.4	9.7	4.1	13.0	0.0	4.1	27.0	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	541	911	475	394	1153	583	99	1105	470	104	559	475
V/C Ratio(X)	0.82	0.99	0.18	1.01	0.46	0.39	0.83	0.58	0.00	0.78	1.03	0.00
Avail Cap(c_a), veh/h	688	911	475	394	1153	583	99	1105	470	177	559	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	36.7	33.9	23.3	35.0	25.1	21.0	42.1	26.8	0.0	41.8	31.5	0.0
Incr Delay (d2), s/veh	6.4	27.1	0.2	49.1	0.3	0.4	42.6	0.7	0.0	11.6	46.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.2	13.1	1.4	13.9	4.7	3.6	3.0	6.1	0.0	2.2	19.7	0.0
Lane Grp Delay (d), s/veh	43.1	61.0	23.5	84.1	25.3	21.4	84.7	27.6	0.0	53.3	78.2	0.0
Lane Grp LOS	D	E	C	F	C	C	F	C		D	F	
Approach Vol, veh/h		1432			1166			718			658	
Approach Delay, s/veh		53.2			44.7			34.1			75.1	
Approach LOS		D			D			C			E	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	18.1	26.0		24.0	31.9		9.0	30.7		9.3	31.0	
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	22.0		20.0	24.0		5.0	23.0		9.0	27.0	
Max Q Clear Time (g_c+l1), s	13.3	23.7		22.0	12.4		6.1	15.0		6.1	29.0	
Green Ext Time (p_c), s	0.9	0.0		0.0	6.2		0.0	3.6		0.1	0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			50.9									
HCM 2010 LOS			D									
Notes												


















HCM 2010 Signalized Intersection Summary
 33: CHRISMAN & I-205 EAST ON/OFF RAMP/I-205 EAST ON RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	950	0	300	0	0	0	0	1410	960	10	260	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	3	1	0				0	2	1	1	2	0
Cap, veh/h	1354	0	429				0	1785	759	18	2122	0
Arrive On Green	0.27	0.00	0.27				0.00	0.48	0.00	0.02	1.00	0.00
Sat Flow, veh/h	5003	0	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	950	0	300				0	1410	0	10	260	0
Grp Sat Flow(s),veh/h/ln	1668	0	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	8.6	0.0	8.5				0.0	15.9	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	8.6	0.0	8.5				0.0	15.9	0.0	0.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1354	0	429				0	1785	759	18	2122	0
V/C Ratio(X)	0.70	0.00	0.70				0.00	0.79	0.00	0.54	0.12	0.00
Avail Cap(c_a), veh/h	1599	0	506				0	2084	886	142	2679	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	0.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	16.4	0.0	16.4				0.0	10.9	0.0	24.4	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	3.5				0.0	3.6	0.0	22.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.4	0.0	3.5				0.0	7.2	0.0	0.2	0.0	0.0
Lane Grp Delay (d), s/veh	17.6	0.0	19.9				0.0	14.6	0.0	46.7	0.1	0.0
Lane Grp LOS	B		B					B		D	A	
Approach Vol, veh/h		1250						1410			270	
Approach Delay, s/veh		18.1						14.6			1.8	
Approach LOS		B						B			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		17.5						28.0		4.5	32.5	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						28.0		4.0	36.0	
Max Q Clear Time (g_c+l1), s		10.6						17.9		2.3	2.0	
Green Ext Time (p_c), s		3.0						6.1		0.0	11.5	
Intersection Summary												
HCM 2010 Ctrl Delay			14.9									
HCM 2010 LOS			B									
Notes												

HCM 2010 Signalized Intersection Summary
 34: CHRISMAN & I-205 WEST ON/OFF RAMP

Cumulative+Proj PM
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	50	0	10	290	2070	0	0	220	520
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	1	3	0	0	1	1
Cap, veh/h				71	0	14	362	4144	0	0	806	685
Arrive On Green				0.05	0.00	0.05	0.41	1.00	0.00	0.00	0.43	0.43
Sat Flow, veh/h				1449	0	290	1774	5588	0	0	1863	1583
Grp Volume(v), veh/h				60	0	0	290	2070	0	0	220	520
Grp Sat Flow(s),veh/h/ln				1739	0	0	1774	1863	0	0	1863	1583
Q Serve(g_s), s				1.3	0.0	0.0	5.5	0.0	0.0	0.0	2.9	10.6
Cycle Q Clear(g_c), s				1.3	0.0	0.0	5.5	0.0	0.0	0.0	2.9	10.6
Prop In Lane				0.83		0.17	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				86	0	0	362	4144	0	0	806	685
V/C Ratio(X)				0.70	0.00	0.00	0.80	0.50	0.00	0.00	0.27	0.76
Avail Cap(c_a), veh/h				727	0	0	696	5258	0	0	828	704
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.64	0.64	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.9	0.0	0.0	10.6	0.0	0.0	0.0	7.0	9.2
Incr Delay (d2), s/veh				9.9	0.0	0.0	2.7	0.3	0.0	0.0	0.8	7.7
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 Back of Q (50%), veh/ln				0.7	0.0	0.0	1.9	0.1	0.0	0.0	1.2	4.6
Lane Grp Delay (d), s/veh				27.8	0.0	0.0	13.3	0.3	0.0	0.0	7.8	16.9
Lane Grp LOS				C			B	A			A	B
Approach Vol, veh/h					60			2360			740	
Approach Delay, s/veh					27.8			1.9			14.2	
Approach LOS					C			A			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					5.9		11.8	32.4			20.6	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		15.0	36.0			17.0	
Max Q Clear Time (g_c+l1), s					3.3		7.5	2.0			12.6	
Green Ext Time (p_c), s					0.1		0.7	21.6			4.0	
Intersection Summary												
HCM 2010 Ctrl Delay				5.3								
HCM 2010 LOS				A								
Notes												

Intersection												
Intersection Delay, s/veh	67.6											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	297	930	12	9	690	93	47	35	44	145	6	362
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	297	930	12	9	690	93	47	35	44	145	6	362
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	70.7	70.2	17.1	68.7
HCM LOS	F	F	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	24%	1%	28%
Vol Thru, %	28%	75%	87%	1%
Vol Right, %	35%	1%	12%	71%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	1239	792	513
LT Vol	35	930	690	6
Through Vol	44	12	93	362
RT Vol	47	297	9	145
Lane Flow Rate	126	1239	792	513
Geometry Grp	1	1	1	1
Degree of Util (X)	0.332	1	1	1
Departure Headway (Hd)	9.496	7.921	7.811	7.512
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	381	471	475	487
Service Time	7.496	5.937	5.826	5.528
HCM Lane V/C Ratio	0.331	2.631	1.667	1.053
HCM Control Delay	17.1	70.7	70.2	68.7
HCM Lane LOS	C	F	F	F
HCM 95th-tile Q	1.4	13	13.1	13.4

Notes

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

Intersection

Intersection Delay, s/veh 141.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	136	153	262	15	38	116	90	1839	241	468	2425	112
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	-	-	-	-	-	-	248	-	-	230	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	136	153	262	15	38	116	90	1839	241	468	2425	112

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	4536	5677	1269	4365	5613	1040	2537	0	0	2080	0	0
Stage 1	3417	3417	-	2140	2140	-	-	-	-	-	-	-
Stage 2	1119	2260	-	2225	3473	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	# 0	# 0	# 159	# 0	# 0	227	173	-	-	# 263	-	-
Stage 1	# 7	# 18	-	50	87	-	-	-	-	-	-	-
Stage 2	220	# 76	-	44	# 17	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-	-	-	-
Mov Capacity-1 Maneuver	# 0	# 0	# 159	-	# 0	227	173	-	-	# 263	-	-
Mov Capacity-2 Maneuver	# 0	# 0	-	-	# 0	-	-	-	-	-	-	-
Stage 1	# 3	# 18	-	24	42	-	-	-	-	-	-	-
Stage 2	# 5	# 36	-	214	# 17	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 1168	+	1.9	62
HCM LOS	F	-		
























Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	173	-	-	159	+	# 263	-	-
HCM Lane V/C Ratio	0.52	-	-	3.465	+	1.779	-	-
HCM Control Delay (s)	46.408	-	-	\$ 1168	\$	398.321	-	-
HCM Lane LOS	E			F	+	F		
HCM 95th %tile Q(veh)	2.601	-	-	52.906	+	31.242	-	-

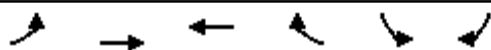
Notes

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

HCM 2010 Signalized Intersection Summary
 37: MOUNTAIN HOUSE PKWY & OLD SCHULTE RD

Cumulative+Proj PM
 7/26/2014



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	343	62	361	213	100	42	448	410	247	425	72
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	59	644	274	472	332	156	61	1132	481	354	1387	590
Arrive On Green	0.03	0.17	0.17	0.14	0.28	0.28	0.03	0.30	0.30	0.10	0.37	0.37
Sat Flow, veh/h	1774	3725	1583	3442	1200	563	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	40	343	62	361	0	313	42	448	410	247	425	72
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1763	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.3	4.7	1.9	5.7	0.0	8.8	1.3	5.4	13.7	3.9	4.6	1.7
Cycle Q Clear(g_c), s	1.3	4.7	1.9	5.7	0.0	8.8	1.3	5.4	13.7	3.9	4.6	1.7
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	644	274	472	0	488	61	1132	481	354	1387	590
V/C Ratio(X)	0.68	0.53	0.23	0.77	0.00	0.64	0.69	0.40	0.85	0.70	0.31	0.12
Avail Cap(c_a), veh/h	157	1056	449	488	0	593	157	1254	533	366	1387	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	27.0	21.3	20.1	23.5	0.0	17.9	27.0	15.6	18.5	24.5	12.6	11.6
Incr Delay (d2), s/veh	13.1	0.7	0.4	6.9	0.0	1.7	13.2	0.2	11.7	5.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	2.2	0.7	2.8	0.0	3.8	0.8	2.3	6.5	1.9	1.9	0.6
Lane Grp Delay (d), s/veh	40.1	22.0	20.5	30.4	0.0	19.6	40.2	15.8	30.2	30.0	12.7	11.7
Lane Grp LOS	D	C	C	C		B	D	B	C	C	B	B
Approach Vol, veh/h		445			674			900			744	
Approach Delay, s/veh		23.4			25.4			23.5			18.3	
Approach LOS		C			C			C			B	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.9	13.8		11.7	19.6		5.9	21.2		9.8	25.0	
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	16.0		8.0	19.0		5.0	19.0		6.0	20.0	
Max Q Clear Time (g_c+l1), s	3.3	6.7		7.7	10.8		3.3	15.7		5.9	6.6	
Green Ext Time (p_c), s	0.0	3.0		0.1	2.8		0.0	1.4		0.0	5.5	
Intersection Summary												
HCM 2010 Ctrl Delay			22.6									
HCM 2010 LOS			C									
Notes												



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Volume (veh/h)	440	510	380	0	0	320
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	190.0	186.3	186.3	190.0	186.3	186.3
Lanes	0	2	2	0	1	1
Cap, veh/h	0	1542	1542	0	508	453
Arrive On Green	0.00	0.41	0.41	0.00	0.00	0.29
Sat Flow, veh/h	0	3725	3725	0	1774	1583
Grp Volume(v), veh/h	0	510	380	0	0	320
Grp Sat Flow(s),veh/h/ln	0	1863	1863	0	1774	1583
Q Serve(g_s), s	0.0	2.5	1.8	0.0	0.0	4.8
Cycle Q Clear(g_c), s	0.0	2.5	1.8	0.0	0.0	4.8
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1542	1542	0	508	453
V/C Ratio(X)	0.00	0.33	0.25	0.00	0.00	0.71
Avail Cap(c_a), veh/h	0	4192	2795	0	1131	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.3	5.1	0.0	0.0	8.5
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.7	0.5	0.0	0.0	0.3
Lane Grp Delay (d), s/veh	0.0	5.4	5.2	0.0	0.0	10.5
Lane Grp LOS		A	A			B
Approach Vol, veh/h		510	380		320	
Approach Delay, s/veh		5.4	5.2		10.5	
Approach LOS		A	A		B	
Timer						
Assigned Phs	5	2	6			
Phs Duration (G+Y+Rc), s	0.0	15.0	15.0			
Change Period (Y+Rc), s	4.0	4.0	4.0			
Max Green Setting (Gmax), s	6.0	30.0	20.0			
Max Q Clear Time (g_c+l1), s	0.0	4.5	3.8			
Green Ext Time (p_c), s	0.0	6.6	5.5			
Intersection Summary						
HCM 2010 Ctrl Delay			6.7			
HCM 2010 LOS			A			
Notes						






















HCM 2010 Signalized Intersection Summary
 31: CHRISMAN & LINNE ROAD/LINNE

Cumulative+Proj PM Mitigated
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	245	655	175	13	301	144	92	116	18	173	120	263
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	186.3	186.3	190.0	190.0	186.3	186.3	190.0	186.3	190.0	190.0	186.3	190.0
Lanes	1	1	0	0	1	1	0	1	0	0	1	0
Cap, veh/h	924	738	197	40	928	824	270	340	53	194	135	295
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1774	1417	379	77	1782	1583	733	924	143	527	366	802
Grp Volume(v), veh/h	245	0	830	314	0	144	226	0	0	556	0	0
Grp Sat Flow(s),veh/h/ln	1774	0	1796	1859	0	1583	1801	0	0	1695	0	0
Q Serve(g_s), s	5.5	0.0	29.5	7.0	0.0	3.4	6.5	0.0	0.0	22.1	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	29.5	7.0	0.0	3.4	6.5	0.0	0.0	22.1	0.0	0.0
Prop In Lane	1.00		0.21	0.04		1.00	0.41		0.08	0.31		0.47
Lane Grp Cap(c), veh/h	924	0	935	968	0	824	662	0	0	623	0	0
V/C Ratio(X)	0.27	0.00	0.89	0.32	0.00	0.17	0.34	0.00	0.00	0.89	0.00	0.00
Avail Cap(c_a), veh/h	1312	0	1328	968	0	824	662	0	0	875	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(l)	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	9.6	0.0	15.3	9.9	0.0	9.1	16.4	0.0	0.0	21.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	5.6	0.2	0.0	0.1	0.3	0.0	0.0	8.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	0.0	13.5	2.9	0.0	1.2	2.8	0.0	0.0	10.5	0.0	0.0
Lane Grp Delay (d), s/veh	9.7	0.0	21.0	10.1	0.0	9.2	16.7	0.0	0.0	30.0	0.0	0.0
Lane Grp LOS	A		C	B		A	B			C		
Approach Vol, veh/h		1075			458			226			556	
Approach Delay, s/veh		18.4			9.8			16.7			30.0	
Approach LOS		B			A			B			C	
Timer												
Assigned Phs		2			6			8			4	
Phs Duration (G+Y+Rc), s		41.3			41.3			30.4			30.4	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		53.0			27.0			17.0			37.0	
Max Q Clear Time (g_c+l1), s		31.5			9.0			8.5			24.1	
Green Ext Time (p_c), s		5.8			7.4			2.5			2.2	
Intersection Summary												
HCM 2010 Ctrl Delay			19.3									
HCM 2010 LOS			B									
Notes												




















HCM 2010 Signalized Intersection Summary
 35: MACARTHUR (S) & LINNE ROAD

Cumulative+Proj PM Mitigated
 12/3/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	297	930	12	9	690	93	47	35	44	145	6	362
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	190.0	186.3	190.0	186.3	186.3	186.3
Lanes	1	1	0	1	1	1	0	1	0	1	1	1
Cap, veh/h	344	1115	14	87	863	733	126	94	118	348	365	617
Arrive On Green	0.19	0.61	0.61	0.05	0.46	0.46	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1774	1835	24	1774	1863	1583	643	479	602	1774	1863	1583
Grp Volume(v), veh/h	297	0	942	9	690	93	126	0	0	145	6	362
Grp Sat Flow(s),veh/h/ln	1774	0	1859	1774	1863	1583	1724	0	0	1774	1863	1583
Q Serve(g_s), s	13.2	0.0	32.9	0.4	25.8	2.7	5.2	0.0	0.0	5.8	0.2	14.8
Cycle Q Clear(g_c), s	13.2	0.0	32.9	0.4	25.8	2.7	5.2	0.0	0.0	5.8	0.2	14.8
Prop In Lane	1.00		0.01	1.00		1.00	0.37		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	344	0	1130	87	863	733	338	0	0	348	365	617
V/C Ratio(X)	0.86	0.00	0.83	0.10	0.80	0.13	0.37	0.00	0.00	0.42	0.02	0.59
Avail Cap(c_a), veh/h	457	0	1275	348	1164	989	338	0	0	348	365	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	0.0	12.7	37.1	18.7	12.5	28.5	0.0	0.0	28.7	26.5	19.7
Incr Delay (d2), s/veh	12.5	0.0	4.5	0.5	2.9	0.1	0.7	0.0	0.0	0.8	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 Back of Q (50%), veh/ln	7.0	0.0	14.5	0.2	11.8	1.0	2.3	0.0	0.0	2.7	0.1	5.8
Lane Grp Delay (d), s/veh	44.3	0.0	17.2	37.6	21.6	12.6	29.1	0.0	0.0	29.5	26.5	21.1
Lane Grp LOS	D		B	D	C	B	C			C	C	C
Approach Vol, veh/h		1239			792			126			513	
Approach Delay, s/veh		23.7			20.7			29.1			23.6	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	7	4		3	8			2				6
Phs Duration (G+Y+Rc), s	19.8	53.6		8.0	41.8			20.0			20.0	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0			4.0			4.0	
Max Green Setting (Gmax), s	21.0	56.0		16.0	51.0			16.0			16.0	
Max Q Clear Time (g_c+l1), s	15.2	34.9		2.4	27.8			7.2			16.8	
Green Ext Time (p_c), s	0.6	9.6		0.0	10.0			2.0			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			23.0									
HCM 2010 LOS			C									
Notes												



















HCM 2010 Signalized Intersection Summary
 36: CORRAL HOLLOW RD & Tennis Ln

Cumulative+Proj PM Mitigated
 7/26/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	153	262	15	38	116	90	1839	241	468	2425	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0	190.0	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	0	1	0	0	1	0	1	3	0	1	3	0
Cap, veh/h	148	167	285	52	131	401	971	2653	345	971	2902	133
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	419	472	808	147	372	1136	1774	4847	630	1774	5303	243
Grp Volume(v), veh/h	551	0	0	169	0	0	90	1410	670	468	1697	840
Grp Sat Flow(s),veh/h/ln	1699	0	0	1655	0	0	1774	1863	1752	1774	1863	1820
Q Serve(g_s), s	24.9	0.0	0.0	5.9	0.0	0.0	1.9	22.1	22.5	13.0	30.4	31.1
Cycle Q Clear(g_c), s	24.9	0.0	0.0	5.9	0.0	0.0	1.9	22.1	22.5	13.0	30.4	31.1
Prop In Lane	0.25		0.48	0.09		0.69	1.00		0.36	1.00		0.13
Lane Grp Cap(c), veh/h	600	0	0	584	0	0	971	2039	959	971	2039	996
V/C Ratio(X)	0.92	0.00	0.00	0.29	0.00	0.00	0.09	0.69	0.70	0.48	0.83	0.84
Avail Cap(c_a), veh/h	657	0	0	584	0	0	971	2039	959	1017	2136	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	0.0	0.0	18.7	0.0	0.0	8.7	13.2	13.3	11.2	15.1	15.3
Incr Delay (d2), s/veh	17.3	0.0	0.0	0.3	0.0	0.0	0.0	1.0	2.3	0.4	2.9	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	13.0	0.0	0.0	2.4	0.0	0.0	0.8	9.7	9.5	5.3	13.8	14.5
Lane Grp Delay (d), s/veh	42.1	0.0	0.0	19.0	0.0	0.0	8.7	14.2	15.6	11.5	18.0	21.4
Lane Grp LOS	D			B			A	B	B	B	B	C
Approach Vol, veh/h		551			169			2170			3005	
Approach Delay, s/veh		42.1			19.0			14.4			17.9	
Approach LOS		D			B			B			B	
Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		32.3			32.3			47.9			47.9	
Change Period (Y+Rc), s		4.0			4.0			4.0			4.0	
Max Green Setting (Gmax), s		31.0			16.0			41.0			46.0	
Max Q Clear Time (g_c+l1), s		26.9			7.9			24.5			33.1	
Green Ext Time (p_c), s		1.4			3.0			16.4			10.8	
Intersection Summary												
HCM 2010 Ctrl Delay				18.9								
HCM 2010 LOS				B								
Notes												



















HCM 2010 Signalized Intersection Summary
 1: CORRAL HOLLOW RD & I-580 EAST OFF RAMP

Cumulative+Buildout AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	222	16	69	0	0	0	0	261	50	103	637	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	1	1	0				0	2	1	1	1	0
Cap, veh/h	356	62	266				0	999	424	142	929	0
Arrive On Green	0.20	0.20	0.20				0.00	0.27	0.27	0.08	0.50	0.00
Sat Flow, veh/h	1774	307	1323				0	3725	1583	1774	1863	0
Grp Volume(v), veh/h	222	0	85				0	261	50	103	637	0
Grp Sat Flow(s),veh/h/ln	1774	0	1629				0	1863	1583	1774	1863	0
Q Serve(g_s), s	3.0	0.0	1.2				0.0	1.5	0.6	1.5	6.9	0.0
Cycle Q Clear(g_c), s	3.0	0.0	1.2				0.0	1.5	0.6	1.5	6.9	0.0
Prop In Lane	1.00		0.81				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	356	0	327				0	999	424	142	929	0
V/C Ratio(X)	0.62	0.00	0.26				0.00	0.26	0.12	0.72	0.69	0.00
Avail Cap(c_a), veh/h	1067	0	980				0	2240	952	400	1820	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.7	0.0	9.0				0.0	7.7	7.4	12.0	5.1	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.4				0.0	0.1	0.1	6.8	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	0.4				0.0	0.5	0.2	0.8	2.0	0.0
Lane Grp Delay (d), s/veh	11.5	0.0	9.4				0.0	7.8	7.5	18.8	6.0	0.0
Lane Grp LOS	B		A					A	A	B	A	
Approach Vol, veh/h		307						311			740	
Approach Delay, s/veh		10.9						7.8			7.8	
Approach LOS		B						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		9.3						11.1		6.1	17.3	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						16.0		6.0	26.0	
Max Q Clear Time (g_c+l1), s		5.0						3.5		3.5	8.9	
Green Ext Time (p_c), s		0.9						3.7		0.1	4.2	
Intersection Summary												
HCM 2010 Ctrl Delay			8.5									
HCM 2010 LOS			A									
Notes												
















HCM 2010 Signalized Intersection Summary
 2: CORRAL HOLLOW RD & I-580 WEST OFF RAMP

Cumulative+Buildout AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	340	0	271	71	412	0	0	400	730
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				427	0	381	95	2128	0	0	1578	671
Arrive On Green				0.24	0.00	0.00	0.05	0.57	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1774	0	1583	1774	3725	0	0	3725	1583
Grp Volume(v), veh/h				340	0	0	71	412	0	0	400	730
Grp Sat Flow(s),veh/h/ln				1774	0	1583	1774	1863	0	0	1863	1583
Q Serve(g_s), s				7.7	0.0	0.0	1.7	2.3	0.0	0.0	2.9	18.0
Cycle Q Clear(g_c), s				7.7	0.0	0.0	1.7	2.3	0.0	0.0	2.9	18.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				427	0	381	95	2128	0	0	1578	671
V/C Ratio(X)				0.80	0.00	0.00	0.75	0.19	0.00	0.00	0.25	1.09
Avail Cap(c_a), veh/h				668	0	596	167	2280	0	0	1578	671
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				15.2	0.0	0.0	19.8	4.4	0.0	0.0	7.9	12.2
Incr Delay (d2), s/veh				3.7	0.0	0.0	11.2	0.0	0.0	0.0	0.1	61.2
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 Back of Q (50%), veh/ln				3.5	0.0	0.0	1.0	0.8	0.0	0.0	1.1	17.2
Lane Grp Delay (d), s/veh				18.8	0.0	0.0	31.0	4.4	0.0	0.0	8.0	73.5
Lane Grp LOS				B			C	A			A	F
Approach Vol, veh/h					340			483			1130	
Approach Delay, s/veh					18.8			8.3			50.3	
Approach LOS					B			A			D	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					14.2		6.3	28.3			22.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		4.0	26.0			18.0	
Max Q Clear Time (g_c+l1), s					9.7		3.7	4.3			20.0	
Green Ext Time (p_c), s					0.8		0.0	8.6			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay				34.4								
HCM 2010 LOS				C								
Notes												

















HCM 2010 Signalized Intersection Summary
 13: MOUNTAIN HOUSE PKWY & I-580E OFF RAMP

Cumulative+Buildout AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	185	16	31	0	0	0	0	83	54	214	715	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	0				0	1	0	0	1	0
Cap, veh/h	247	21	41				0	1162	0	0	1162	0
Arrive On Green	0.18	0.18	0.18				0.00	0.62	0.00	0.00	0.62	0.00
Sat Flow, veh/h	1397	121	234				0	1863	0	0	1863	0
Grp Volume(v), veh/h	232	0	0				0	83	0	0	715	0
Grp Sat Flow(s),veh/h/ln	1752	0	0				0	1863	0	0	1863	0
Q Serve(g_s), s	5.0	0.0	0.0				0.0	0.7	0.0	0.0	9.4	0.0
Cycle Q Clear(g_c), s	5.0	0.0	0.0				0.0	0.7	0.0	0.0	9.4	0.0
Prop In Lane	0.80		0.13				0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	309	0	0				0	1162	0	0	1162	0
V/C Ratio(X)	0.75	0.00	0.00				0.00	0.07	0.00	0.00	0.62	0.00
Avail Cap(c_a), veh/h	743	0	0				0	1162	0	0	1162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.7	0.0	0.0				0.0	3.0	0.0	0.0	4.6	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.1	0.0	0.0	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
%ile Back of Q (50%), veh/ln	2.2	0.0	0.0				0.0	0.2	0.0	0.0	3.6	0.0
Lane Grp Delay (d), s/veh	19.3	0.0	0.0				0.0	3.1	0.0	0.0	7.0	0.0
Lane Grp LOS	B							A			A	
Approach Vol, veh/h		232						83			715	
Approach Delay, s/veh		19.3						3.1			7.0	
Approach LOS		B						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		11.1						29.0		0.0	29.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		17.0						17.0		4.0	25.0	
Max Q Clear Time (g_c+l1), s		7.0						2.7		0.0	11.4	
Green Ext Time (p_c), s		0.6						3.3		0.0	3.2	
Intersection Summary												
HCM 2010 Ctrl Delay			9.5									
HCM 2010 LOS			A									
Notes												



















HCM 2010 Signalized Intersection Summary
 14: MOUNTAIN HOUSE PKWY & I-580W OFF RAMP

Cumulative+Buildout AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	173	3	401	19	249	0	0	756	387
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				234	4	0	128	1155	0	0	1233	1048
Arrive On Green				0.13	0.13	0.00	0.66	0.66	0.00	0.00	0.66	0.00
Sat Flow, veh/h				1745	30	0	45	1744	0	0	1863	1583
Grp Volume(v), veh/h				176	0	0	268	0	0	0	756	0
Grp Sat Flow(s),veh/h/ln				1775	0	0	1789	0	0	0	1863	1583
Q Serve(g_s), s				3.7	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0
Cycle Q Clear(g_c), s				3.7	0.0	0.0	2.2	0.0	0.0	0.0	9.1	0.0
Prop In Lane				0.98		0.00	0.07		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				238	0	0	1283	0	0	0	1233	1048
V/C Ratio(X)				0.74	0.00	0.00	0.21	0.00	0.00	0.00	0.61	0.00
Avail Cap(c_a), veh/h				723	0	0	1283	0	0	0	1233	1048
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				16.3	0.0	0.0	2.6	0.0	0.0	0.0	3.8	0.0
Incr Delay (d2), s/veh				4.5	0.0	0.0	0.4	0.0	0.0	0.0	2.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				1.7	0.0	0.0	0.7	0.0	0.0	0.0	3.1	0.0
Lane Grp Delay (d), s/veh				20.8	0.0	0.0	3.0	0.0	0.0	0.0	6.1	0.0
Lane Grp LOS				C			A				A	
Approach Vol, veh/h					176			268			756	
Approach Delay, s/veh					20.8			3.0			6.1	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					9.3			30.0			30.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					16.0			26.0			26.0	
Max Q Clear Time (g_c+l1), s					5.7			4.2			11.1	
Green Ext Time (p_c), s					0.4			4.9			4.3	
Intersection Summary												
HCM 2010 Ctrl Delay					7.5							
HCM 2010 LOS					A							
Notes												



















HCM 2010 Signalized Intersection Summary
 15: LAMMERS RD & I-580E OFF RAMP

Cumulative+Buildout AM
 9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	0	60	0	0	0	0	1100	20	70	560	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	159.7	159.7	159.7				0.0	162.4	190.0	182.7	182.7	0.0
Lanes	2	0	1				0	2	0	1	2	0
Cap, veh/h	267	0	119				0	1840	33	92	2649	0
Arrive On Green	0.09	0.00	0.09				0.00	0.58	0.58	0.11	1.00	0.00
Sat Flow, veh/h	3041	0	1357				0	3180	58	1740	3654	0
Grp Volume(v), veh/h	110	0	60				0	562	558	70	560	0
Grp Sat Flow(s),veh/h/ln	1521	0	1357				0	1624	1614	1740	1827	0
Q Serve(g_s), s	1.5	0.0	1.8				0.0	9.5	9.5	1.7	0.0	0.0
Cycle Q Clear(g_c), s	1.5	0.0	1.8				0.0	9.5	9.5	1.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	267	0	119				0	940	934	92	2649	0
V/C Ratio(X)	0.41	0.00	0.50				0.00	0.60	0.60	0.76	0.21	0.00
Avail Cap(c_a), veh/h	1138	0	508				0	940	934	163	2649	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	18.5	0.0	18.6				0.0	5.8	5.8	18.9	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	3.3				0.0	2.8	2.8	11.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.7				0.0	3.5	3.5	0.9	0.1	0.0
Lane Grp Delay (d), s/veh	19.5	0.0	21.9				0.0	8.6	8.6	30.3	0.2	0.0
Lane Grp LOS	B		C					A	A	C	A	
Approach Vol, veh/h		170						1120			630	
Approach Delay, s/veh		20.3						8.6			3.5	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		7.8						28.7		6.3	35.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						23.0		4.0	31.0	
Max Q Clear Time (g_c+l1), s		3.8						11.5		3.7	2.0	
Green Ext Time (p_c), s		0.5						6.2		0.0	9.6	
Intersection Summary												
HCM 2010 Ctrl Delay			8.0									
HCM 2010 LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												



















HCM 2010 Signalized Intersection Summary
 16: LAMMERS RD & I-580 WEST OFF RAMP




















Cumulative+Buildout AM
 9/12/2014



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	20	0	280	150	1060	0	0	610	270
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	166.7	166.7	157.0	157.0	0.0	0.0	182.7	182.7
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				373	0	333	147	1910	0	0	1577	670
Arrive On Green				0.23	0.00	0.23	0.20	1.00	0.00	0.00	0.43	0.43
Sat Flow, veh/h				1587	0	1417	1495	3140	0	0	3654	1553
Grp Volume(v), veh/h				20	0	280	150	1060	0	0	610	270
Grp Sat Flow(s),veh/h/ln				1587	0	1417	1495	1570	0	0	1827	1553
Q Serve(g_s), s				0.5	0.0	9.6	5.0	0.0	0.0	0.0	5.8	6.1
Cycle Q Clear(g_c), s				0.5	0.0	9.6	5.0	0.0	0.0	0.0	5.8	6.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				373	0	333	147	1910	0	0	1577	670
V/C Ratio(X)				0.05	0.00	0.84	1.02	0.55	0.00	0.00	0.39	0.40
Avail Cap(c_a), veh/h				498	0	445	147	1910	0	0	1577	670
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh				15.1	0.0	18.6	20.5	0.0	0.0	0.0	9.9	10.0
Incr Delay (d2), s/veh				0.1	0.0	10.5	72.5	0.9	0.0	0.0	0.7	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 Back of Q (50%), veh/ln				0.2	0.0	4.0	4.5	0.2	0.0	0.0	2.4	2.3
Lane Grp Delay (d), s/veh				15.2	0.0	29.1	93.0	0.9	0.0	0.0	10.6	11.7
Lane Grp LOS				B		C	F	A			B	B
Approach Vol, veh/h					300			1210			880	
Approach Delay, s/veh					28.2			12.3			10.9	
Approach LOS					C			B			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					16.0		9.0	35.0			26.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		5.0	31.0			22.0	
Max Q Clear Time (g_c+l1), s					11.6		7.0	2.0			8.1	
Green Ext Time (p_c), s					0.5		0.0	7.1			3.7	
Intersection Summary												
HCM 2010 Ctrl Delay				13.8								
HCM 2010 LOS				B								
Notes												

HCM 2010 Signalized Intersection Summary
 25: LAMMERS RD/LAMMERS EXTN & I-205 EAST ON-OFF RAMP

Cumulative+Buildout AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	0	670	0	0	0	0	1740	930	0	1790	350
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	186.3	0.0	186.3	186.3
Lanes	0	1	1				0	3	2	0	3	1
Cap, veh/h	94	0	84				0	3724	2110	0	3724	1055
Arrive On Green	0.05	0.00	0.00				0.00	0.67	0.67	0.00	0.67	0.67
Sat Flow, veh/h	1774	0	1583				0	5588	3167	0	5588	1583
Grp Volume(v), veh/h	60	0	0				0	1740	930	0	1790	350
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	1583	0	1863	1583
Q Serve(g_s), s	0.9	0.0	0.0				0.0	4.3	4.0	0.0	4.5	2.7
Cycle Q Clear(g_c), s	0.9	0.0	0.0				0.0	4.3	4.0	0.0	4.5	2.7
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	94	0	84				0	3724	2110	0	3724	1055
V/C Ratio(X)	0.64	0.00	0.00				0.00	0.47	0.44	0.00	0.48	0.33
Avail Cap(c_a), veh/h	809	0	722				0	3724	2110	0	3724	1055
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	0.86	0.86
Uniform Delay (d), s/veh	13.2	0.0	0.0				0.0	2.3	2.2	0.0	2.3	2.0
Incr Delay (d2), s/veh	7.0	0.0	0.0				0.0	0.4	0.7	0.0	0.4	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 Back of Q (50%), veh/ln	0.5	0.0	0.0				0.0	0.8	0.7	0.0	0.8	0.2
Lane Grp Delay (d), s/veh	20.2	0.0	0.0				0.0	2.7	2.9	0.0	2.7	2.8
Lane Grp LOS	C							A	A		A	A
Approach Vol, veh/h		60						2670			2140	
Approach Delay, s/veh		20.2						2.8			2.7	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		5.5						23.0			23.0	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		13.0						19.0			19.0	
Max Q Clear Time (g_c+l1), s		2.9						6.3			6.5	
Green Ext Time (p_c), s		0.1						12.4			12.2	
Intersection Summary												
HCM 2010 Ctrl Delay			3.0									
HCM 2010 LOS			A									
Notes												




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	1360	0	745	0	1400	410	0	780	40
Number				1	6	16	3	8	18	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				186.3	186.3	186.3	0.0	186.3	186.3	0.0	186.3	186.3
Lanes				3	0	1	0	2	2	0	3	1
Cap, veh/h				2585	0	769	0	1490	1267	0	2235	633
Arrive On Green				0.49	0.00	0.00	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h				5322	0	1583	0	3725	3167	0	5588	1583
Grp Volume(v), veh/h				1360	0	0	0	1400	410	0	780	40
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1863	1583	0	1863	1583
Q Serve(g_s), s				12.4	0.0	0.0	0.0	25.3	6.2	0.0	6.8	1.1
Cycle Q Clear(g_c), s				12.4	0.0	0.0	0.0	25.3	6.2	0.0	6.8	1.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				2585	0	769	0	1490	1267	0	2235	633
V/C Ratio(X)				0.53	0.00	0.00	0.00	0.94	0.32	0.00	0.35	0.06
Avail Cap(c_a), veh/h				2585	0	769	0	1490	1267	0	2235	633
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.00	0.90	0.90	0.00	1.00	1.00
Uniform Delay (d), s/veh				12.4	0.0	0.0	0.0	20.2	14.5	0.0	14.6	12.9
Incr Delay (d2), s/veh				0.8	0.0	0.0	0.0	10.9	0.1	0.0	0.4	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				5.0	0.0	0.0	0.0	13.2	6.3	0.0	3.0	0.4
Lane Grp Delay (d), s/veh				13.2	0.0	0.0	0.0	31.1	14.6	0.0	15.1	13.1
Lane Grp LOS				B				C	B		B	B
Approach Vol, veh/h					1360			1810			820	
Approach Delay, s/veh					13.2			27.4			15.0	
Approach LOS					B			C			B	
Timer												
Assigned Phs					6			8			4	
Phs Duration (G+Y+Rc), s					38.0			32.0			32.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					34.0			28.0			28.0	
Max Q Clear Time (g_c+l1), s					14.4			27.3			8.8	
Green Ext Time (p_c), s					7.6			0.7			13.8	
Intersection Summary												
HCM 2010 Ctrl Delay				20.0								
HCM 2010 LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	340	0	220	0	0	0	0	190	620	20	490	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	3	1	0				0	2	1	1	2	0
Cap, veh/h	1367	0	432				0	863	367	37	1529	0
Arrive On Green	0.27	0.00	0.27				0.00	0.23	0.00	0.02	0.41	0.00
Sat Flow, veh/h	5003	0	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	340	0	220				0	190	0	20	490	0
Grp Sat Flow(s),veh/h/ln	1668	0	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	1.3	0.0	3.0				0.0	1.0	0.0	0.3	2.3	0.0
Cycle Q Clear(g_c), s	1.3	0.0	3.0				0.0	1.0	0.0	0.3	2.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1367	0	432				0	863	367	37	1529	0
V/C Ratio(X)	0.25	0.00	0.51				0.00	0.22	0.00	0.54	0.32	0.00
Avail Cap(c_a), veh/h	3165	0	1002				0	2651	1127	281	3830	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	0.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	7.2	0.0	7.8				0.0	7.9	0.0	12.3	5.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.9				0.0	0.6	0.0	11.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	0.9				0.0	0.4	0.0	0.2	0.7	0.0
Lane Grp Delay (d), s/veh	7.3	0.0	8.7				0.0	8.5	0.0	23.7	5.6	0.0
Lane Grp LOS	A		A					A		C	A	
Approach Vol, veh/h		560						190			510	
Approach Delay, s/veh		7.8						8.5			6.3	
Approach LOS		A						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		10.9						9.9		4.5	14.4	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						18.0		4.0	26.0	
Max Q Clear Time (g_c+l1), s		5.0						3.0		2.3	4.3	
Green Ext Time (p_c), s		2.1						2.8		0.0	3.1	
Intersection Summary												
HCM 2010 Ctrl Delay			7.3									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 34: CHRISMAN & I-205 WEST ON/OFF RAMP
























Cumulative+Buildout AM

3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  				
Volume (veh/h)	0	0	0	300	0	20	230	270	0	0	210	470
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	1	3	0	0	1	1
Cap, veh/h				376	0	25	293	3318	0	0	632	537
Arrive On Green				0.23	0.00	0.23	0.17	0.59	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1651	0	110	1774	5588	0	0	1863	1583
Grp Volume(v), veh/h				320	0	0	230	270	0	0	210	470
Grp Sat Flow(s),veh/h/ln				1761	0	0	1774	1863	0	0	1863	1583
Q Serve(g_s), s				7.7	0.0	0.0	5.6	0.9	0.0	0.0	3.8	12.5
Cycle Q Clear(g_c), s				7.7	0.0	0.0	5.6	0.9	0.0	0.0	3.8	12.5
Prop In Lane				0.94		0.06	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				401	0	0	293	3318	0	0	632	537
V/C Ratio(X)				0.80	0.00	0.00	0.78	0.08	0.00	0.00	0.33	0.87
Avail Cap(c_a), veh/h				629	0	0	436	3868	0	0	666	566
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.3	0.0	0.0	17.9	3.9	0.0	0.0	11.0	13.9
Incr Delay (d2), s/veh				3.9	0.0	0.0	5.4	0.0	0.0	0.0	1.4	17.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				3.5	0.0	0.0	2.7	0.3	0.0	0.0	1.7	6.8
Lane Grp Delay (d), s/veh				20.2	0.0	0.0	23.3	3.9	0.0	0.0	12.4	31.7
Lane Grp LOS				C			C	A			B	C
Approach Vol, veh/h					320			500			680	
Approach Delay, s/veh					20.2			12.8			25.8	
Approach LOS					C			B			C	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					14.2		11.4	30.6			19.2	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		11.0	31.0			16.0	
Max Q Clear Time (g_c+l1), s					9.7		7.6	2.9			14.5	
Green Ext Time (p_c), s					0.7		0.3	4.2			0.7	
Intersection Summary												
HCM 2010 Ctrl Delay				20.3								
HCM 2010 LOS				C								
Notes												

HCM 2010 Signalized Intersection Summary
 37: MOUNTAIN HOUSE PKWY & OLD SCHULTE RD

Cumulative+Buildout AM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	193	50	691	49	304	52	359	239	233	402	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	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	41	510	217	820	79	490	71	903	384	314	1093	465
Arrive On Green	0.02	0.14	0.14	0.24	0.35	0.35	0.04	0.24	0.24	0.09	0.29	0.29
Sat Flow, veh/h	1774	3725	1583	3442	224	1393	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	25	193	50	691	0	353	52	359	239	233	402	195
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1617	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.8	2.6	1.5	10.5	0.0	9.9	1.6	4.4	7.4	3.6	4.7	5.4
Cycle Q Clear(g_c), s	0.8	2.6	1.5	10.5	0.0	9.9	1.6	4.4	7.4	3.6	4.7	5.4
Prop In Lane	1.00		1.00	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	41	510	217	820	0	569	71	903	384	314	1093	465
V/C Ratio(X)	0.61	0.38	0.23	0.84	0.00	0.62	0.73	0.40	0.62	0.74	0.37	0.42
Avail Cap(c_a), veh/h	323	1086	462	878	0	589	162	1290	548	314	1290	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	21.6	21.1	19.9	0.0	14.7	26.1	17.4	18.6	24.3	15.4	15.6
Incr Delay (d2), s/veh	13.8	0.5	0.5	7.1	0.0	1.9	13.7	0.3	1.7	9.2	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.2	0.6	4.9	0.0	3.9	0.9	1.9	2.9	1.9	2.0	2.0
Lane Grp Delay (d), s/veh	40.3	22.0	21.7	27.0	0.0	16.6	39.7	17.7	20.2	33.5	15.6	16.2
Lane Grp LOS	D	C	C	C		B	D	B	C	C	B	B
Approach Vol, veh/h		268			1044			650			830	
Approach Delay, s/veh		23.7			23.5			20.4			20.8	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.3	11.5		17.1	23.3		6.2	17.3		9.0	20.1	
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	16.0		14.0	20.0		5.0	19.0		5.0	19.0	
Max Q Clear Time (g_c+l1), s	2.8	4.6		12.5	11.9		3.6	9.4		5.6	7.4	
Green Ext Time (p_c), s	0.0	2.9		0.6	2.4		0.0	3.9		0.0	4.3	
Intersection Summary												
HCM 2010 Ctrl Delay				22.0								
HCM 2010 LOS				C								
Notes												

HCM Signalized Intersection Capacity Analysis
 1: CORRAL HOLLOW RD & I-580 EAST OFF RAMP

Cumulative+Buildout PM

3/13/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	694	13	134	0	0	0	0	619	603	369	479	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00						0.95	1.00	1.00	1.00		
Frt	1.00	0.86						1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1770	1608						3539	1583	1770	1863		
Flt Permitted	0.95	1.00						1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1770	1608						3539	1583	1770	1863		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	694	13	134	0	0	0	0	619	603	369	479	0	
RTOR Reduction (vph)	0	86	0	0	0	0	0	0	407	0	0	0	
Lane Group Flow (vph)	694	61	0	0	0	0	0	619	196	369	479	0	
Turn Type	Perm	NA						NA	Perm	Prot	NA		
Protected Phases		4						2		1	6		
Permitted Phases	4								2				
Actuated Green, G (s)	36.0	36.0						32.8	32.8	20.0	43.9		
Effective Green, g (s)	36.0	36.0						32.8	32.8	20.0	43.9		
Actuated g/C Ratio	0.36	0.36						0.33	0.33	0.20	0.44		
Clearance Time (s)	4.0	4.0						4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0						3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	632	574						1151	515	351	811		
v/s Ratio Prot		0.04						0.17		c0.21	c0.26		
v/s Ratio Perm	c0.39								0.12				
v/c Ratio	1.10	0.11						0.54	0.38	1.05	0.59		
Uniform Delay, d1	32.4	21.6						27.8	26.2	40.4	21.6		
Progression Factor	1.00	1.00						1.00	1.00	1.51	0.48		
Incremental Delay, d2	65.6	0.1						0.5	0.5	59.8	1.1		
Delay (s)	98.0	21.7						28.3	26.7	120.8	11.5		
Level of Service	F	C						C	C	F	B		
Approach Delay (s)		84.7			0.0			27.5			59.1		
Approach LOS		F			A			C			E		
Intersection Summary													
HCM 2000 Control Delay			53.2									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.92										
Actuated Cycle Length (s)			100.8									Sum of lost time (s)	12.0
Intersection Capacity Utilization			106.2%									ICU Level of Service	G
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 2: CORRAL HOLLOW RD & I-580 WEST OFF RAMP

Cumulative+Buildout PM

3/13/2014


















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↑↑			↑↑	↗
Volume (vph)	0	0	0	89	12	165	105	1208	0	0	759	574
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor					1.00	1.00	1.00	0.95			0.95	1.00
Frt					1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected					0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)					1784	1583	1770	3539			3539	1583
Flt Permitted					0.96	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)					1784	1583	1770	3539			3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	89	12	165	105	1208	0	0	759	574
RTOR Reduction (vph)	0	0	0	0	0	106	0	0	0	0	0	324
Lane Group Flow (vph)	0	0	0	0	101	59	105	1208	0	0	759	250
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)					36.0	36.0	8.9	32.8			43.9	43.9
Effective Green, g (s)					36.0	36.0	8.9	32.8			43.9	43.9
Actuated g/C Ratio					0.36	0.36	0.09	0.33			0.44	0.44
Clearance Time (s)					4.0	4.0	4.0	4.0			4.0	4.0
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)					637	565	156	1151			1541	689
v/s Ratio Prot							c0.06	c0.34			c0.21	
v/s Ratio Perm					0.06	0.04						0.16
v/c Ratio					0.16	0.10	0.67	1.05			0.49	0.36
Uniform Delay, d1					22.1	21.6	44.5	34.0			20.4	19.1
Progression Factor					1.00	1.00	0.77	0.86			1.00	1.00
Incremental Delay, d2					0.1	0.1	5.9	33.7			0.2	0.3
Delay (s)					22.2	21.7	40.1	63.0			20.7	19.4
Level of Service					C	C	D	E			C	B
Approach Delay (s)		0.0			21.9			61.2			20.1	
Approach LOS		A			C			E			C	

Intersection Summary

HCM 2000 Control Delay	38.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

















HCM 2010 Signalized Intersection Summary
 13: MOUNTAIN HOUSE PKWY & I-580E OFF RAMP

Cumulative+Buildout PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	239	14	218	0	0	0	0	531	357	537	156	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	0				0	1	0	0	1	0
Cap, veh/h	266	16	243				0	981	0	0	981	0
Arrive On Green	0.31	0.31	0.31				0.00	0.53	0.00	0.00	0.53	0.00
Sat Flow, veh/h	854	50	779				0	1863	0	0	1863	0
Grp Volume(v), veh/h	471	0	0				0	531	0	0	156	0
Grp Sat Flow(s),veh/h/ln	1683	0	0				0	1863	0	0	1863	0
Q Serve(g_s), s	13.2	0.0	0.0				0.0	9.3	0.0	0.0	2.1	0.0
Cycle Q Clear(g_c), s	13.2	0.0	0.0				0.0	9.3	0.0	0.0	2.1	0.0
Prop In Lane	0.51		0.46				0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	524	0	0				0	981	0	0	981	0
V/C Ratio(X)	0.90	0.00	0.00				0.00	0.54	0.00	0.00	0.16	0.00
Avail Cap(c_a), veh/h	545	0	0				0	981	0	0	981	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	0.0				0.0	7.7	0.0	0.0	6.0	0.0
Incr Delay (d2), s/veh	17.3	0.0	0.0				0.0	2.1	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	7.4	0.0	0.0				0.0	4.0	0.0	0.0	0.9	0.0
Lane Grp Delay (d), s/veh	33.6	0.0	0.0				0.0	9.9	0.0	0.0	6.4	0.0
Lane Grp LOS	C							A			A	
Approach Vol, veh/h		471						531			156	
Approach Delay, s/veh		33.6						9.9			6.4	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		19.4						30.0		0.0	30.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						18.0		4.0	26.0	
Max Q Clear Time (g_c+l1), s		15.2						11.3		0.0	4.1	
Green Ext Time (p_c), s		0.2						1.7		0.0	2.9	
Intersection Summary												
HCM 2010 Ctrl Delay			19.0									
HCM 2010 LOS			B									
Notes												



















HCM 2010 Signalized Intersection Summary
 14: MOUNTAIN HOUSE PKWY & I-580W OFF RAMP

Cumulative+Buildout PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	63	36	263	63	707	0	0	630	238
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	0	1	0	0	1	1
Cap, veh/h				84	48	0	143	1268	0	0	1413	1201
Arrive On Green				0.07	0.07	0.00	0.76	0.76	0.00	0.00	0.76	0.00
Sat Flow, veh/h				1149	656	0	81	1672	0	0	1863	1583
Grp Volume(v), veh/h				99	0	0	770	0	0	0	630	0
Grp Sat Flow(s),veh/h/ln				1805	0	0	1753	0	0	0	1863	1583
Q Serve(g_s), s				2.6	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0
Cycle Q Clear(g_c), s				2.6	0.0	0.0	8.1	0.0	0.0	0.0	5.9	0.0
Prop In Lane				0.64		0.00	0.08		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				132	0	0	1412	0	0	0	1413	1201
V/C Ratio(X)				0.75	0.00	0.00	0.55	0.00	0.00	0.00	0.45	0.00
Avail Cap(c_a), veh/h				609	0	0	1412	0	0	0	1413	1201
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				21.6	0.0	0.0	2.4	0.0	0.0	0.0	2.1	0.0
Incr Delay (d2), s/veh				8.3	0.0	0.0	1.5	0.0	0.0	0.0	1.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				1.4	0.0	0.0	2.3	0.0	0.0	0.0	1.6	0.0
Lane Grp Delay (d), s/veh				29.8	0.0	0.0	3.9	0.0	0.0	0.0	3.1	0.0
Lane Grp LOS				C			A				A	
Approach Vol, veh/h					99			770			630	
Approach Delay, s/veh					29.8			3.9			3.1	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					7.5			40.0			40.0	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					16.0			36.0			36.0	
Max Q Clear Time (g_c+l1), s					4.6			10.1			7.9	
Green Ext Time (p_c), s					0.2			7.6			7.8	
Intersection Summary												
HCM 2010 Ctrl Delay				5.3								
HCM 2010 LOS				A								
Notes												



















HCM 2010 Signalized Intersection Summary
 15: LAMMERS RD & I-580E OFF RAMP

Cumulative+Buildout PM
 9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	350	0	250	0	0	0	0	1090	50	340	1190	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	175.9	175.9	175.9				0.0	186.3	190.0	172.7	172.7	0.0
Lanes	2	0	1				0	2	0	1	2	0
Cap, veh/h	703	0	314				0	1311	60	371	2284	0
Arrive On Green	0.21	0.00	0.21				0.00	0.37	0.37	0.23	0.66	0.00
Sat Flow, veh/h	3351	0	1495				0	3535	162	1645	3455	0
Grp Volume(v), veh/h	350	0	250				0	574	566	340	1190	0
Grp Sat Flow(s),veh/h/ln	1675	0	1495				0	1863	1834	1645	1727	0
Q Serve(g_s), s	5.7	0.0	9.8				0.0	17.4	17.4	12.5	11.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	9.8				0.0	17.4	17.4	12.5	11.0	0.0
Prop In Lane	1.00		1.00				0.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	703	0	314				0	691	680	371	2284	0
V/C Ratio(X)	0.50	0.00	0.80				0.00	0.83	0.83	0.92	0.52	0.00
Avail Cap(c_a), veh/h	865	0	386				0	691	680	371	2284	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	1.00	0.57	0.57	0.00
Uniform Delay (d), s/veh	21.6	0.0	23.2				0.0	17.7	17.7	23.4	5.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	9.2				0.0	11.2	11.4	17.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.3	0.0	4.3				0.0	9.6	9.5	6.7	3.8	0.0
Lane Grp Delay (d), s/veh	22.2	0.0	32.4				0.0	28.9	29.1	41.0	5.9	0.0
Lane Grp LOS	C		C					C	C	D	A	
Approach Vol, veh/h		600						1140			1530	
Approach Delay, s/veh		26.4						29.0			13.7	
Approach LOS		C						C			B	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		17.0						27.0		18.0	45.0	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						23.0		14.0	41.0	
Max Q Clear Time (g_c+l1), s		11.8						19.4		14.5	13.0	
Green Ext Time (p_c), s		1.2						3.0		0.0	14.9	
Intersection Summary												
HCM 2010 Ctrl Delay			21.4									
HCM 2010 LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												



















HCM 2010 Signalized Intersection Summary
 16: LAMMERS RD & I-580 WEST OFF RAMP




















Cumulative+Buildout PM
 9/12/2014



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	20	0	150	220	1220	0	0	1510	460
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	182.7	182.7	186.3	186.3	0.0	0.0	177.6	177.6
Lanes				0	1	1	1	2	0	0	2	1
Cap, veh/h				218	0	194	287	2777	0	0	1841	783
Arrive On Green				0.13	0.00	0.13	0.16	0.75	0.00	0.00	0.52	0.52
Sat Flow, veh/h				1740	0	1553	1774	3725	0	0	3551	1509
Grp Volume(v), veh/h				20	0	150	220	1220	0	0	1510	460
Grp Sat Flow(s),veh/h/ln				1740	0	1553	1774	1863	0	0	1776	1509
Q Serve(g_s), s				0.6	0.0	5.8	7.3	7.7	0.0	0.0	22.0	13.0
Cycle Q Clear(g_c), s				0.6	0.0	5.8	7.3	7.7	0.0	0.0	22.0	13.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				218	0	194	287	2777	0	0	1841	783
V/C Ratio(X)				0.09	0.00	0.77	0.77	0.44	0.00	0.00	0.82	0.59
Avail Cap(c_a), veh/h				451	0	403	287	2777	0	0	1841	783
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	1.00	0.45	0.45	0.00	0.00	0.09	0.09
Uniform Delay (d), s/veh				23.9	0.0	26.1	24.7	3.0	0.0	0.0	12.4	10.3
Incr Delay (d2), s/veh				0.2	0.0	6.4	5.5	0.2	0.0	0.0	0.4	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.3	0.0	2.5	3.6	2.3	0.0	0.0	8.5	4.3
Lane Grp Delay (d), s/veh				24.1	0.0	32.5	30.3	3.2	0.0	0.0	12.8	10.6
Lane Grp LOS				C		C	C	A			B	B
Approach Vol, veh/h					170			1440			1970	
Approach Delay, s/veh					31.5			7.3			12.3	
Approach LOS					C			A			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					11.7		14.0	50.0			36.0	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		10.0	46.0			32.0	
Max Q Clear Time (g_c+l1), s					7.8		9.3	9.7			24.0	
Green Ext Time (p_c), s					0.4		0.5	9.1			5.8	
Intersection Summary												
HCM 2010 Ctrl Delay				11.2								
HCM 2010 LOS				B								
Notes												

HCM 2010 Signalized Intersection Summary
 25: LAMMERS RD/LAMMERS EXTN & I-205 EAST ON-OFF RAMP

Cumulative+Buildout PM
 3/13/2014




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	0	980	0	0	0	0	1920	1690	0	2940	1010
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	186.3	0.0	186.3	186.3
Lanes	0	1	1				0	3	2	0	3	1
Cap, veh/h	158	0	141				0	4223	2393	0	4223	1196
Arrive On Green	0.09	0.00	0.00				0.00	0.76	0.76	0.00	0.76	0.76
Sat Flow, veh/h	1774	0	1583				0	5588	3167	0	5588	1583
Grp Volume(v), veh/h	120	0	0				0	1920	1690	0	2940	1010
Grp Sat Flow(s),veh/h/ln	1774	0	1583				0	1863	1583	0	1863	1583
Q Serve(g_s), s	3.4	0.0	0.0				0.0	6.6	14.4	0.0	14.0	22.2
Cycle Q Clear(g_c), s	3.4	0.0	0.0				0.0	6.6	14.4	0.0	14.0	22.2
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	158	0	141				0	4223	2393	0	4223	1196
V/C Ratio(X)	0.76	0.00	0.00				0.00	0.45	0.71	0.00	0.70	0.84
Avail Cap(c_a), veh/h	447	0	399				0	4223	2393	0	4223	1196
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	0.28	0.28
Uniform Delay (d), s/veh	23.0	0.0	0.0				0.0	2.3	3.3	0.0	3.3	4.3
Incr Delay (d2), s/veh	7.2	0.0	0.0				0.0	0.4	1.8	0.0	0.3	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 Back of Q (50%), veh/ln	1.7	0.0	0.0				0.0	1.7	3.4	0.0	3.4	0.7
Lane Grp Delay (d), s/veh	30.1	0.0	0.0				0.0	2.7	5.1	0.0	3.5	6.4
Lane Grp LOS	C							A	A		A	A
Approach Vol, veh/h		120						3610			3950	
Approach Delay, s/veh		30.1						3.8			4.3	
Approach LOS		C						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		8.6						43.0			43.0	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		13.0						39.0			39.0	
Max Q Clear Time (g_c+l1), s		5.4						16.4			24.2	
Green Ext Time (p_c), s		0.2						22.5			14.8	
Intersection Summary												
HCM 2010 Ctrl Delay			4.5									
HCM 2010 LOS			A									
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	2090	0	840	0	1340	720	0	1860	230
Number				1	6	16	3	8	18	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				186.3	186.3	186.3	0.0	186.3	186.3	0.0	186.3	186.3
Lanes				3	0	1	0	2	2	0	3	1
Cap, veh/h				2768	0	823	0	1391	1182	0	2086	591
Arrive On Green				0.52	0.00	0.00	0.00	0.37	0.37	0.00	0.12	0.12
Sat Flow, veh/h				5322	0	1583	0	3725	3167	0	5588	1583
Grp Volume(v), veh/h				2090	0	0	0	1340	720	0	1860	230
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1863	1583	0	1863	1583
Q Serve(g_s), s				23.3	0.0	0.0	0.0	26.4	13.8	0.0	24.6	10.0
Cycle Q Clear(g_c), s				23.3	0.0	0.0	0.0	26.4	13.8	0.0	24.6	10.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				2768	0	823	0	1391	1182	0	2086	591
V/C Ratio(X)				0.76	0.00	0.00	0.00	0.96	0.61	0.00	0.89	0.39
Avail Cap(c_a), veh/h				2768	0	823	0	1391	1182	0	2086	591
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(l)				1.00	0.00	0.00	0.00	0.84	0.84	0.00	1.00	1.00
Uniform Delay (d), s/veh				14.2	0.0	0.0	0.0	23.0	19.1	0.0	31.4	25.0
Incr Delay (d2), s/veh				2.0	0.0	0.0	0.0	14.4	0.8	0.0	6.3	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 Back of Q (50%), veh/ln				9.6	0.0	0.0	0.0	14.3	12.2	0.0	13.4	4.6
Lane Grp Delay (d), s/veh				16.2	0.0	0.0	0.0	37.4	19.8	0.0	37.7	26.9
Lane Grp LOS				B				D	B		D	C
Approach Vol, veh/h				2090				2060			2090	
Approach Delay, s/veh				16.2				31.2			36.5	
Approach LOS				B				C			D	
Timer												
Assigned Phs				6				8			4	
Phs Duration (G+Y+Rc), s				43.0				32.0			32.0	
Change Period (Y+Rc), s				4.0				4.0			4.0	
Max Green Setting (Gmax), s				39.0				28.0			28.0	
Max Q Clear Time (g_c+l1), s				25.3				28.4			26.6	
Green Ext Time (p_c), s				9.7				0.0			1.4	
Intersection Summary												
HCM 2010 Ctrl Delay				28.0								
HCM 2010 LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	980	0	310	0	0	0	0	1420	1140	20	290	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	3	1	0				0	2	1	1	2	0
Cap, veh/h	1356	0	429				0	1774	754	34	2136	0
Arrive On Green	0.27	0.00	0.27				0.00	0.48	0.00	0.04	1.00	0.00
Sat Flow, veh/h	5003	0	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	980	0	310				0	1420	0	20	290	0
Grp Sat Flow(s),veh/h/ln	1668	0	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	9.1	0.0	9.1				0.0	16.6	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	9.1	0.0	9.1				0.0	16.6	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1356	0	429				0	1774	754	34	2136	0
V/C Ratio(X)	0.72	0.00	0.72				0.00	0.80	0.00	0.58	0.14	0.00
Avail Cap(c_a), veh/h	1556	0	493				0	2028	862	138	2608	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	0.00	1.00				0.00	1.00	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	17.0	0.0	17.0				0.0	11.4	0.0	24.5	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	4.4				0.0	3.9	0.0	14.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.6	0.0	3.8				0.0	7.3	0.0	0.4	0.0	0.0
Lane Grp Delay (d), s/veh	18.4	0.0	21.4				0.0	15.3	0.0	38.9	0.1	0.0
Lane Grp LOS	B		C					B		D	A	
Approach Vol, veh/h		1290						1420			310	
Approach Delay, s/veh		19.1						15.3			2.6	
Approach LOS		B						B			A	
Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		17.9						28.5		5.0	33.5	
Change Period (Y+Rc), s		4.0						4.0		4.0	4.0	
Max Green Setting (Gmax), s		16.0						28.0		4.0	36.0	
Max Q Clear Time (g_c+l1), s		11.1						18.6		2.6	2.0	
Green Ext Time (p_c), s		2.8						5.9		0.0	11.8	
Intersection Summary												
HCM 2010 Ctrl Delay			15.6									
HCM 2010 LOS			B									
Notes												
























HCM 2010 Signalized Intersection Summary
 34: CHRISMAN & I-205 WEST ON/OFF RAMP

Cumulative+Buildout PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  				
Volume (veh/h)	0	0	0	70	0	20	290	2080	0	0	240	540
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	190.0	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	0	1	3	0	0	1	1
Cap, veh/h				90	0	26	361	4078	0	0	792	673
Arrive On Green				0.07	0.00	0.07	0.41	1.00	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1344	0	384	1774	5588	0	0	1863	1583
Grp Volume(v), veh/h				90	0	0	290	2080	0	0	240	540
Grp Sat Flow(s),veh/h/ln				1728	0	0	1774	1863	0	0	1863	1583
Q Serve(g_s), s				2.0	0.0	0.0	5.7	0.0	0.0	0.0	3.3	11.7
Cycle Q Clear(g_c), s				2.0	0.0	0.0	5.7	0.0	0.0	0.0	3.3	11.7
Prop In Lane				0.78		0.22	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				116	0	0	361	4078	0	0	792	673
V/C Ratio(X)				0.78	0.00	0.00	0.80	0.51	0.00	0.00	0.30	0.80
Avail Cap(c_a), veh/h				702	0	0	676	5110	0	0	804	684
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.63	0.63	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				18.1	0.0	0.0	11.0	0.0	0.0	0.0	7.5	9.9
Incr Delay (d2), s/veh				10.6	0.0	0.0	2.7	0.3	0.0	0.0	1.0	9.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				1.1	0.0	0.0	1.9	0.1	0.0	0.0	1.4	5.4
Lane Grp Delay (d), s/veh				28.7	0.0	0.0	13.7	0.3	0.0	0.0	8.5	19.7
Lane Grp LOS				C			B	A			A	B
Approach Vol, veh/h					90			2370			780	
Approach Delay, s/veh					28.7			1.9			16.2	
Approach LOS					C			A			B	
Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					6.6		12.0	32.7			20.7	
Change Period (Y+Rc), s					4.0		4.0	4.0			4.0	
Max Green Setting (Gmax), s					16.0		15.0	36.0			17.0	
Max Q Clear Time (g_c+l1), s					4.0		7.7	2.0			13.7	
Green Ext Time (p_c), s					0.2		0.7	22.0			3.0	
Intersection Summary												
HCM 2010 Ctrl Delay				6.1								
HCM 2010 LOS				A								
Notes												

HCM 2010 Signalized Intersection Summary
 37: MOUNTAIN HOUSE PKWY & OLD SCHULTE RD

Cumulative+Buildout PM
 3/13/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	353	72	351	223	110	52	518	400	277	445	72
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	1	0	1	2	1	2	2	1
Cap, veh/h	59	662	281	463	329	162	70	1112	473	366	1360	578
Arrive On Green	0.03	0.18	0.18	0.13	0.28	0.28	0.04	0.30	0.30	0.11	0.37	0.37
Sat Flow, veh/h	1774	3725	1583	3442	1179	581	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	40	353	72	351	0	333	52	518	400	277	445	72
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	0	1760	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	1.3	4.9	2.2	5.6	0.0	9.5	1.6	6.4	13.4	4.4	4.9	1.7
Cycle Q Clear(g_c), s	1.3	4.9	2.2	5.6	0.0	9.5	1.6	6.4	13.4	4.4	4.9	1.7
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	662	281	463	0	491	70	1112	473	366	1360	578
V/C Ratio(X)	0.68	0.53	0.26	0.76	0.00	0.68	0.74	0.47	0.85	0.76	0.33	0.12
Avail Cap(c_a), veh/h	126	1055	448	487	0	623	188	1253	532	366	1360	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	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	27.0	21.1	20.0	23.6	0.0	18.1	26.8	16.1	18.6	24.5	12.9	11.9
Incr Delay (d2), s/veh	13.1	0.7	0.5	6.4	0.0	2.1	14.2	0.3	11.0	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 Back of Q (50%), veh/ln	0.7	2.2	0.8	2.7	0.0	4.1	1.0	2.8	6.3	2.3	2.0	0.6
Lane Grp Delay (d), s/veh	40.1	21.8	20.5	30.0	0.0	20.2	41.1	16.5	29.6	33.4	13.1	12.0
Lane Grp LOS	D	C	C	C		C	D	B	C	C	B	B
Approach Vol, veh/h		465			684			970			794	
Approach Delay, s/veh		23.2			25.2			23.2			20.1	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.9	14.0		11.6	19.8		6.2	20.9		10.0	24.6	
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	4.0	16.0		8.0	20.0		6.0	19.0		6.0	19.0	
Max Q Clear Time (g_c+l1), s	3.3	6.9		7.6	11.5		3.6	15.4		6.4	6.9	
Green Ext Time (p_c), s	0.0	3.2		0.1	3.0		0.0	1.5		0.0	5.5	
Intersection Summary												
HCM 2010 Ctrl Delay				22.8								
HCM 2010 LOS				C								
Notes												

Intersection												
Intersection Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	148	2	11	0	0	0	0	8	4	68	230	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	100	100	100	75	75	75	65	65	65
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	214	3	16	0	0	0	0	11	5	105	354	0
Major/Minor	Minor2			Major1				Major2				
Conflicting Flow All	576	579	354	354				0	0	16	0	0
Stage 1	563	563	-	-				-	-	-	-	-
Stage 2	13	16	-	-				-	-	-	-	-
Follow-up Headway	3.536	4.036	3.336	2.236				-	-	2.236	-	-
Pot Capacity-1 Maneuver	476	424	685	1194				-	-	1589	-	-
Stage 1	566	506	-	-				-	-	-	-	-
Stage 2	1005	878	-	-				-	-	-	-	-
Time blocked-Platoon, %	-											
Mov Capacity-1 Maneuver	437	# 0	685	1194				-	-	1589	-	-
Mov Capacity-2 Maneuver	437	# 0	-	-				-	-	-	-	-
Stage 1	520	# 0	-	-				-	-	-	-	-
Stage 2	1005	# 0	-	-				-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	20.7						0			1.7		
HCM LOS	C											
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR				
Capacity (veh/h)	1194	-	-	441	685	1589	-	-				
HCM Lane V/C Ratio	-	-	-	0.505	0.016	0.066	-	-				
HCM Control Delay (s)	0	-	-	21.2	10.3	7.425	0	-				
HCM Lane LOS	A			C	B	A	A					
HCM 95th %tile Q(veh)	0	-	-	2.778	0.047	0.211	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection

Intersection Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	116	0	115	4	152	0	0	182	645
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	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	77	77	77	60	60	60	84	84	84
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	0	151	0	149	7	253	0	0	217	768

Major/Minor

	Minor1	Major1	Major2
Conflicting Flow All	868	1252	253
Stage 1	267	267	-
Stage 2	601	985	-
Follow-up Headway	3.536	4.036	3.336
Pot Capacity-1 Maneuver	320	171	781
Stage 1	773	684	-
Stage 2	544	324	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	316	0	781
Mov Capacity-2 Maneuver	316	0	-
Stage 1	764	0	-
Stage 2	544	0	-

Approach

	WB	NB	SB
HCM Control Delay, s	20.5	0.3	0
HCM LOS	C		

Minor Lane / Major Mvmt














	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	693	-	-	371	781	1301	-	-
HCM Lane V/C Ratio	0.01	-	-	0.54	0.127	-	-	-
HCM Control Delay (s)	10.245	0	-	25.5	10.3	0	-	-
HCM Lane LOS	B	A	-	D	B	A	-	-
HCM 95th %tile Q(veh)	0.029	-	-	3.08	0.436	0	-	-

Notes

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

HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD

Existing + Phase 1 Condition
 Timing Plan: AM PEAK

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 					
Volume (veh/h)	218	351	138	129	471	386
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	1	1	1
Cap, veh/h	980	451	405	970	970	824
Arrive On Green	0.28	0.28	0.52	0.52	0.52	0.52
Sat Flow, veh/h	3442	1583	642	1863	1863	1583
Grp Volume(v), veh/h	218	351	138	129	471	386
Grp Sat Flow(s),veh/h/ln	1721	1583	642	1863	1863	1583
Q Serve(g_s), s	2.0	8.4	7.2	1.5	6.7	6.4
Cycle Q Clear(g_c), s	2.0	8.4	13.9	1.5	6.7	6.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	980	451	405	970	970	824
V/C Ratio(X)	0.22	0.78	0.34	0.13	0.49	0.47
Avail Cap(c_a), veh/h	1507	693	602	1541	1541	1310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	13.5	10.8	5.1	6.3	6.2
Incr Delay (d2), s/veh	0.1	3.1	0.5	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	3.2	1.0	0.5	2.3	1.9
Lane Grp Delay (d), s/veh	11.3	16.6	11.3	5.1	6.7	6.7
Lane Grp LOS	B	B	B	A	A	A
Approach Vol, veh/h	569			267	857	
Approach Delay, s/veh	14.6			8.3	6.7	
Approach LOS	B			A	A	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				25.4	25.4	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				34.0	34.0	
Max Q Clear Time (g_c+l1), s				15.9	8.7	
Green Ext Time (p_c), s				5.5	6.1	
Intersection Summary						
HCM 2010 Ctrl Delay			9.6			
HCM 2010 LOS			A			
Notes						

Intersection						
Intersection Delay, s/veh	218.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	399	51	170	178	46	476
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	79	79	67	67	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	505	65	254	266	55	573
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1071	387	0	0	519	0
Stage 1	387	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Follow-up Headway	3.536	3.336	-	-	2.236	-
Pot Capacity-1 Maneuver	# 242	657	-	-	1037	-
Stage 1	682	-	-	-	-	-
Stage 2	# 497	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	# 223	657	-	-	1037	-
Mov Capacity-2 Maneuver	# 223	-	-	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	# 458	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	\$ 658.4		0		0.8	
HCM LOS	F					
Minor Lane / Major Mvmt		NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)		-	-	241	1037	-
HCM Lane V/C Ratio		-	-	2.364	0.053	-
HCM Control Delay (s)		-	-	\$ 658.4	8.667	0
HCM Lane LOS				F	A	A
HCM 95th %tile Q(veh)		-	-	45.747	0.169	-
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

Intersection												
Intersection Delay, s/veh	35.3											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	52	141	13	21	240	165	14	12	16	142	26	180
Peak Hour Factor	0.95	0.95	0.95	0.79	0.79	0.79	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	55	148	14	27	304	209	20	17	23	203	37	257
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.2	44.4	11.8	37
HCM LOS	C	E	B	E





























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	25%	5%	41%
Vol Thru, %	29%	68%	56%	7%
Vol Right, %	38%	6%	39%	52%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	206	426	348
LT Vol	12	141	240	26
Through Vol	16	13	165	180
RT Vol	14	52	21	142
Lane Flow Rate	60	217	539	497
Geometry Grp	1	1	1	1
Degree of Util (X)	0.128	0.423	0.917	0.864
Departure Headway (Hd)	7.707	7.017	6.121	6.255
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	468	510	588	577
Service Time	5.707	5.109	4.19	4.323
HCM Lane V/C Ratio	0.128	0.425	0.917	0.861
HCM Control Delay	11.8	15.2	44.4	37
HCM Lane LOS	B	C	E	E
HCM 95th-tile Q	0.4	2.1	11.4	9.6

Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing + Phase 1 Condition
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	129	221	48	180	237	222	98	366	108	175	269	80
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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	184	781	168	318	937	398	153	805	342	259	763	224
Arrive On Green	0.11	0.27	0.27	0.09	0.26	0.26	0.09	0.22	0.22	0.15	0.28	0.28
Sat Flow, veh/h	1740	2916	627	3375	3654	1553	1740	3654	1553	1740	2716	797
Grp Volume(v), veh/h	147	156	150	225	296	278	121	452	133	216	222	209
Grp Sat Flow(s),veh/h/ln	1740	1827	1716	1688	1827	1553	1740	1827	1553	1740	1827	1686
Q Serve(g_s), s	5.8	4.8	5.0	4.6	4.6	11.5	4.8	7.8	5.2	8.5	7.0	7.2
Cycle Q Clear(g_c), s	5.8	4.8	5.0	4.6	4.6	11.5	4.8	7.8	5.2	8.5	7.0	7.2
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	184	489	460	318	937	398	153	805	342	259	513	474
V/C Ratio(X)	0.80	0.32	0.33	0.71	0.32	0.70	0.79	0.56	0.39	0.84	0.43	0.44
Avail Cap(c_a), veh/h	492	1086	1020	717	1913	813	369	1913	813	492	1086	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	20.7	20.8	31.1	21.3	23.8	31.6	24.5	23.5	29.2	20.8	20.9
Incr Delay (d2), s/veh	3.0	0.4	0.5	1.1	0.2	2.7	3.4	0.7	0.9	2.7	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.6	2.1	2.0	1.9	2.0	4.4	2.2	3.4	1.9	3.7	3.0	2.8
Lane Grp Delay (d), s/veh	33.9	21.1	21.3	32.1	21.5	26.5	35.0	25.2	24.4	32.0	21.5	21.6
Lane Grp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		453			799			706			647	
Approach Delay, s/veh		25.3			26.2			26.7			25.0	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	12.0	23.9		11.2	23.1		10.7	20.6		15.0	24.8	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	20.0	42.0		15.0	37.0		15.0	37.0		20.0	42.0	
Max Q Clear Time (g_c+l1), s	7.8	7.0		6.6	13.5		6.8	9.8		10.5	9.2	
Green Ext Time (p_c), s	0.1	5.0		0.2	4.7		0.1	5.8		0.1	6.0	
Intersection Summary												
HCM 2010 Ctrl Delay				25.9								
HCM 2010 LOS				C								
Notes												

Intersection												
Intersection Delay, s/veh	67.8											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	83	78	102	228	130	160	271	28	81	284	42
Peak Hour Factor	0.76	0.76	0.76	0.87	0.87	0.87	0.81	0.81	0.81	0.88	0.88	0.88
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	29	109	103	117	262	149	198	335	35	92	323	48
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	27.2	73.7	74.4	74.2
HCM LOS	D	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	12%	22%	20%
Vol Thru, %	59%	45%	50%	70%
Vol Right, %	6%	43%	28%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	459	183	460	407
LT Vol	271	83	228	284
Through Vol	28	78	130	42
RT Vol	160	22	102	81
Lane Flow Rate	567	241	529	462
Geometry Grp	1	1	1	1
Degree of Util (X)	1	0.63	1	1
Departure Headway (Hd)	8.737	9.416	8.578	8.681
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	419	385	428	421
Service Time	6.737	7.434	6.578	6.681
HCM Lane V/C Ratio	1.353	0.626	1.236	1.097
HCM Control Delay	74.4	27.2	73.7	74.2
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	12.4	4.1	12.5	12.5

Notes

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

Intersection

Intersection Delay, s/veh 11

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	7	474	7	8	142	8
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	82	82	75	75	70	70
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	9	578	9	11	203	11

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	432	15	0
Stage 1	15	-	-
Stage 2	417	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	577	1059	-
Stage 1	1003	-	-
Stage 2	661	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	503	1059	-
Mov Capacity-2 Maneuver	503	-	-
Stage 1	1003	-	-
Stage 2	576	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	7.2
HCM LOS	B		























Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1042	1583	-
HCM Lane V/C Ratio	-	-	0.563	0.128	-
HCM Control Delay (s)	-	-	12.8	7.608	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	3.632	0.44	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing + Phase 1 Condition
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	176	72	18	157	82	464	18	642	71	236	504	115
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	218	1269	540	211	627	533	42	817	90	404	1002	229
Arrive On Green	0.13	0.35	0.35	0.12	0.34	0.34	0.02	0.25	0.25	0.12	0.35	0.35
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3233	358	3375	2879	658
Grp Volume(v), veh/h	212	87	22	185	96	546	20	403	389	352	477	447
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1764	1688	1827	1711
Q Serve(g_s), s	14.5	1.9	1.1	12.5	4.4	41.0	1.4	25.3	25.3	12.2	27.5	27.5
Cycle Q Clear(g_c), s	14.5	1.9	1.1	12.5	4.4	41.0	1.4	25.3	25.3	12.2	27.5	27.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.38
Lane Grp Cap(c), veh/h	218	1269	540	211	627	533	42	462	446	404	636	596
V/C Ratio(X)	0.97	0.07	0.04	0.88	0.15	1.02	0.47	0.87	0.87	0.87	0.75	0.75
Avail Cap(c_a), veh/h	218	1269	540	218	627	533	364	611	590	424	636	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	52.0	26.1	25.8	51.7	27.2	39.3	57.5	42.8	42.8	51.7	34.4	34.4
Incr Delay (d2), s/veh	52.2	0.0	0.0	28.9	0.0	45.5	3.0	10.4	10.9	16.2	5.0	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 Back of Q (50%), veh/ln	9.7	0.9	0.4	7.2	2.0	22.4	0.7	13.2	12.8	6.3	13.6	12.8
Lane Grp Delay (d), s/veh	104.2	26.1	25.8	80.6	27.3	84.8	60.5	53.2	53.7	67.9	39.3	39.7
Lane Grp LOS	F	C	C	F	C	F	E	D	D	E	D	D
Approach Vol, veh/h		321			827			812			1276	
Approach Delay, s/veh		77.7			77.1			53.6			47.3	
Approach LOS		E			E			D			D	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	19.5	46.5		19.0	46.0		7.4	35.2		18.8	46.6	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	15.0	41.0		15.0	41.0		25.0	40.0		15.0	30.0	
Max Q Clear Time (g_c+l1), s	16.5	3.9		14.5	43.0		3.4	27.3		14.2	29.5	
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0		0.0	2.9		0.1	0.3	
Intersection Summary												
HCM 2010 Ctrl Delay				59.5								
HCM 2010 LOS				E								
Notes												

Intersection

Intersection Delay, s/veh	37.9
Intersection LOS	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	80	33	151	535	238	68
Peak Hour Factor	0.69	0.69	0.96	0.96	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	48	157	557	294	84
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12.2	56	14.7
HCM LOS	B	F	B

























Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	22%	71%	0%
Vol Thru, %	78%	0%	78%
Vol Right, %	0%	29%	22%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	686	113	306
LT Vol	535	0	238
Through Vol	0	33	68
RT Vol	151	80	0
Lane Flow Rate	715	164	378
Geometry Grp	1	1	1
Degree of Util (X)	1	0.296	0.557
Departure Headway (Hd)	5.065	6.513	5.305
Convergence, Y/N	Yes	Yes	Yes
Cap	715	560	688
Service Time	3.097	4.464	3.28
HCM Lane V/C Ratio	1	0.293	0.549
HCM Control Delay	56	12.2	14.7
HCM Lane LOS	F	B	B
HCM 95th-tile Q	16.3	1.2	3.5

Notes

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

HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Existing + Phase 1 Condition
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	300	163	359	859	86	116	72	395	79	126	73
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	1	3	1	2	2	1	2	1	1
Cap, veh/h	251	1628	461	363	2445	693	389	529	225	456	301	256
Arrive On Green	0.07	0.29	0.00	0.20	0.44	0.00	0.11	0.14	0.00	0.13	0.16	0.00
Sat Flow, veh/h	3442	5588	1583	1774	5588	1583	3442	3725	1583	3442	1863	1583
Grp Volume(v), veh/h	35	349	0	427	1023	0	155	96	0	110	175	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.7	3.3	0.0	14.1	8.7	0.0	2.9	1.6	0.0	2.0	6.0	0.0
Cycle Q Clear(g_c), s	0.7	3.3	0.0	14.1	8.7	0.0	2.9	1.6	0.0	2.0	6.0	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	251	1628	461	363	2445	693	389	529	225	456	301	256
V/C Ratio(X)	0.14	0.21	0.00	1.18	0.42	0.00	0.40	0.18	0.00	0.24	0.58	0.00
Avail Cap(c_a), veh/h	854	4227	1198	363	4227	1198	854	2277	968	705	1139	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.9	18.4	0.0	27.4	13.3	0.0	28.4	26.0	0.0	26.8	26.7	0.0
Incr Delay (d2), s/veh	0.3	0.1	0.0	104.3	0.2	0.0	0.7	0.2	0.0	0.3	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	1.4	0.0	16.3	3.4	0.0	1.2	0.7	0.0	0.8	2.8	0.0
Lane Grp Delay (d), s/veh	30.1	18.5	0.0	131.7	13.5	0.0	29.0	26.2	0.0	27.0	28.5	0.0
Lane Grp LOS	C	B		F	B		C	C		C	C	
Approach Vol, veh/h		384			1450			251			285	
Approach Delay, s/veh		19.6			48.3			27.9			27.9	
Approach LOS		B			D			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	8.4	24.1		18.5	34.1		11.2	13.8		12.5	15.1	
Change Period (Y+Rc), s	5.5	6.1		6.5	6.1		5.5	6.1		5.5	6.1	
Max Green Setting (Gmax), s	15.0	50.0		12.0	50.0		15.0	40.0		12.0	40.0	
Max Q Clear Time (g_c+l1), s	2.7	5.3		16.1	10.7		4.9	3.6		4.0	8.0	
Green Ext Time (p_c), s	0.0	12.7		0.0	12.3		0.4	1.0		0.2	1.0	
Intersection Summary												
HCM 2010 Ctrl Delay				39.0								
HCM 2010 LOS				D								
Notes												

Intersection												
Intersection Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	72	2	13	0	0	0	0	20	11	85	685	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	100	100	100	78	78	78	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	2	16	0	0	0	0	26	14	100	806	0
Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	1039	1046	806				806	0	0	40	0	0
Stage 1	1006	1006	-				-	-	-	-	-	-
Stage 2	33	40	-				-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318				2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	255	228	382				819	-	-	1570	-	-
Stage 1	353	319	-				-	-	-	-	-	-
Stage 2	989	862	-				-	-	-	-	-	-
Time blocked-Platoon, %												
Mov Capacity-1 Maneuver	226	# 0	382				819	-	-	1570	-	-
Mov Capacity-2 Maneuver	226	# 0	-				-	-	-	-	-	-
Stage 1	312	# 0	-				-	-	-	-	-	-
Stage 2	989	# 0	-				-	-	-	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s	29.7			0			0.8					
HCM LOS	D											
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR				
Capacity (veh/h)	819	-	-	231	382	1570	-	-				
HCM Lane V/C Ratio	-	-	-	0.419	0.028	0.064	-	-				
HCM Control Delay (s)	0	-	-	31.4	14.7	7.449	0	-				
HCM Lane LOS	A			D	B	A	A					
HCM 95th %tile Q(veh)	0	-	-	1.937	0.086	0.204	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection

Intersection Delay, s/veh 9.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	163	2	202	5	90	0	0	604	185
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	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	217	3	269	6	107	0	0	795	243

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	914	914	107
Stage 1	119	119	-
Stage 2	795	795	-
Follow-up Headway	3.518	4.018	3.318
Pot Capacity-1 Maneuver	303	273	947
Stage 1	906	797	-
Stage 2	445	399	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	301	# 0	947
Mov Capacity-2 Maneuver	301	# 0	-
Stage 1	899	# 0	-
Stage 2	445	# 0	-

Approach	WB	NB	SB
HCM Control Delay, s	33	0.5	0
HCM LOS	D		





















Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	826	-	-	376	947	1484	-	-
HCM Lane V/C Ratio	0.007	-	-	0.824	0.19	-	-	-
HCM Control Delay (s)	9.39	0	-	46.5	9.7	0	-	-
HCM Lane LOS	A	A	-	E	A	A	-	-
HCM 95th %tile Q(veh)	0.022	-	-	7.407	0.697	0	-	-

















Notes

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

HCM 2010 Signalized Intersection Summary
21: SPINE RD










Existing + Phase 1 Condition
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	395	54	199	276	49	14	2	32	142	4	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Cap, veh/h	739	1635	222	668	1572	275	508	19	311	515	32	301
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1051	3212	436	937	3089	541	1359	94	1503	1369	153	1453
Grp Volume(v), veh/h	140	228	221	199	165	160	14	0	34	142	0	42
Grp Sat Flow(s),veh/h/ln	1051	1863	1786	937	1863	1767	1359	0	1597	1369	0	1606
Q Serve(g_s), s	2.3	1.9	2.0	4.3	1.3	1.4	0.2	0.0	0.5	2.6	0.0	0.6
Cycle Q Clear(g_c), s	3.7	1.9	2.0	6.2	1.3	1.4	0.8	0.0	0.5	3.1	0.0	0.6
Prop In Lane	1.00		0.24	1.00		0.31	1.00		0.94	1.00		0.90
Lane Grp Cap(c), veh/h	739	948	909	668	948	900	508	0	331	515	0	332
V/C Ratio(X)	0.19	0.24	0.24	0.30	0.17	0.18	0.03	0.00	0.10	0.28	0.00	0.13
Avail Cap(c_a), veh/h	1435	2182	2092	1289	2182	2070	1143	0	1077	1155	0	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	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	4.7	3.9	3.9	5.6	3.7	3.7	9.4	0.0	9.1	10.3	0.0	9.1
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.5	0.5	0.7	0.3	0.3	0.1	0.0	0.2	0.7	0.0	0.2
Lane Grp Delay (d), s/veh	4.9	4.0	4.0	5.9	3.8	3.8	9.5	0.0	9.2	10.6	0.0	9.3
Lane Grp LOS	A	A	A	A	A	A	A		A	B		A
Approach Vol, veh/h		589			524			48				184
Approach Delay, s/veh		4.2			4.6			9.3				10.3
Approach LOS		A			A			A				B
Timer												
Assigned Phs		4			8			2				6
Phs Duration (G+Y+Rc), s		18.3			18.3			9.8				9.8
Change Period (Y+Rc), s		4.0			4.0			4.0				4.0
Max Green Setting (Gmax), s		33.0			33.0			19.0				19.0
Max Q Clear Time (g_c+l1), s		5.7			8.2			2.8				5.1
Green Ext Time (p_c), s		6.3			6.1			0.8				0.7
Intersection Summary												
HCM 2010 Ctrl Delay				5.4								
HCM 2010 LOS				A								
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	148	2	11	0	0	0	0	8	4	68	230	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	182.7	182.7				0.0	182.7	190.0	190.0	182.7	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	302	4	273				0	480	218	344	588	0
Arrive On Green	0.18	0.18	0.00				0.00	0.40	0.40	0.40	0.40	0.00
Sat Flow, veh/h	1717	24	1553				0	1190	541	275	1459	0
Grp Volume(v), veh/h	217	0	0				0	0	16	459	0	0
Grp Sat Flow(s),veh/h/ln	1741	0	1553				0	0	1731	1734	0	0
Q Serve(g_s), s	2.2	0.0	0.0				0.0	0.0	0.1	1.7	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	0.0				0.0	0.0	0.1	4.0	0.0	0.0
Prop In Lane	0.99		1.00				0.00		0.31	0.23		0.00
Lane Grp Cap(c), veh/h	306	0	273				0	0	698	932	0	0
V/C Ratio(X)	0.71	0.00	0.00				0.00	0.00	0.02	0.49	0.00	0.00
Avail Cap(c_a), veh/h	1649	0	1471				0	0	1731	1943	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.4	0.0	0.0				0.0	0.0	3.4	4.5	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0				0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0				0.0	0.0	0.0	0.9	0.0	0.0
Lane Grp Delay (d), s/veh	10.4	0.0	0.0				0.0	0.0	3.4	4.9	0.0	0.0
Lane Grp LOS	B								A	A		
Approach Vol, veh/h		217						16			459	
Approach Delay, s/veh		10.4						3.4			4.9	
Approach LOS		B						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		7.3						11.7			11.7	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		18.0						19.0			19.0	
Max Q Clear Time (g_c+l1), s		4.2						2.1			6.0	
Green Ext Time (p_c), s		0.7						1.9			1.7	
Intersection Summary												
HCM 2010 Ctrl Delay			6.6									
HCM 2010 LOS			A									
Notes												

HCM 2010 Signalized Intersection Summary
 4: CORRAL HOLLOW RD & LINNE

Existing + Phase 1 Condition Mit 1
 Timing Plan: AM PEAK

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	399	51	170	178	46	476
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	182.7	190.0	182.7	190.0	190.0	182.7
Lanes	1	0	1	0	0	1
Cap, veh/h	0	0	571	598	345	1170
Arrive On Green	0.00	0.00	0.70	0.70	0.70	0.70
Sat Flow, veh/h	0	0	818	857	71	1677
Grp Volume(v), veh/h	0	0	0	520	628	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1676	1747	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	2.1	0.0
Prop In Lane	0.00	0.00		0.51	0.09	
Lane Grp Cap(c), veh/h	0	0	0	1169	1515	0
V/C Ratio(X)	0.00	0.00	0.00	0.44	0.41	0.00
Avail Cap(c_a), veh/h	0	0	0	3293	3623	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.9	0.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.1	0.1	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	1.1	1.1	0.0
Lane Grp LOS				A	A	
Approach Vol, veh/h	0		520			628
Approach Delay, s/veh	0.0		1.1			1.1
Approach LOS			A			A
Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			13.2			13.2
Change Period (Y+Rc), s			4.0			4.0
Max Green Setting (Gmax), s			26.0			26.0
Max Q Clear Time (g_c+l1), s			3.8			4.1
Green Ext Time (p_c), s			5.2			5.1
Intersection Summary						
HCM 2010 Ctrl Delay			1.1			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Intersection												
Intersection Delay, s/veh	21.1											
Intersection LOS	C											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	52	141	13	21	240	165	14	12	16	142	26	180
Peak Hour Factor	0.95	0.95	0.95	0.79	0.79	0.79	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	55	148	14	27	304	209	20	17	23	203	37	257
Number of Lanes	1	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	13.1	17.5	11.2	29.7
HCM LOS	B	C	B	D

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	33%	100%	0%	8%	0%	41%
Vol Thru, %	29%	0%	92%	92%	0%	7%
Vol Right, %	38%	0%	8%	0%	100%	52%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	52	154	261	165	348
LT Vol	12	0	141	240	0	26
Through Vol	16	0	13	0	165	180
RT Vol	14	52	0	21	0	142
Lane Flow Rate	60	55	162	330	209	497
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.12	0.12	0.329	0.633	0.356	0.811
Departure Headway (Hd)	7.176	7.876	7.301	6.901	6.142	5.988
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	500	457	494	525	587	607
Service Time	5.21	5.594	5.018	4.615	3.856	3.988
HCM Lane V/C Ratio	0.12	0.12	0.328	0.629	0.356	0.819
HCM Control Delay	11.2	11.7	13.6	20.8	12.2	29.7
HCM Lane LOS	B	B	B	C	B	D
HCM 95th-tile Q	0.4	0.4	1.4	4.4	1.6	8.2

Notes

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

Intersection												
Intersection Delay, s/veh	46.1											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	72	2	13	0	0	0	0	20	11	85	685	0
Peak Hour Factor	0.81	0.81	0.81	1.00	1.00	1.00	0.78	0.78	0.78	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	2	16	0	0	0	0	26	14	100	806	0
Number of Lanes	0	1	1	0	0	0	0	1	0	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	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	10.8	8.3	51.9
HCM LOS	B	A	F

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	97%	0%	11%
Vol Thru, %	65%	3%	0%	89%
Vol Right, %	35%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	74	13	770
LT Vol	20	2	0	685
Through Vol	11	0	13	0
RT Vol	0	72	0	85
Lane Flow Rate	40	91	16	906
Geometry Grp	2	7	7	2
Degree of Util (X)	0.055	0.177	0.026	1
Departure Headway (Hd)	4.951	6.968	5.784	4.371
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	725	518	622	833
Service Time	2.973	4.673	3.488	2.393
HCM Lane V/C Ratio	0.055	0.176	0.026	1.088
HCM Control Delay	8.3	11.2	8.6	51.9
HCM Lane LOS	A	B	A	F
HCM 95th-tile Q	0.2	0.6	0.1	17.5

Notes

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

Intersection												
Intersection Delay, s/veh	37.1											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	163	2	202	5	90	0	0	604	185
Peak Hour Factor	1.00	1.00	1.00	0.75	0.75	0.75	0.84	0.84	0.84	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	217	3	269	6	107	0	0	795	243
Number of Lanes	0	0	0	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	15	11.9	50.3
HCM LOS	B	B	F























Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	5%	99%	0%	0%	0%
Vol Thru, %	95%	1%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	165	202	604	185
LT Vol	90	2	0	604	0
Through Vol	0	0	202	0	185
RT Vol	5	163	0	0	0
Lane Flow Rate	113	220	269	795	243
Geometry Grp	6	7	7	7	7
Degree of Util (X)	0.219	0.449	0.461	1	0.377
Departure Headway (Hd)	6.965	7.35	6.16	6.279	5.569
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	519	488	582	588	650
Service Time	4.965	5.119	3.929	3.982	3.272
HCM Lane V/C Ratio	0.218	0.451	0.462	1.352	0.374
HCM Control Delay	11.9	16	14.1	62.2	11.6
HCM Lane LOS	B	C	B	F	B
HCM 95th-tile Q	0.8	2.3	2.4	14.7	1.8

















Notes


















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

HCM 2010 Signalized Intersection Summary
 7: CORRAL HOLLOW RD & VALPICO RD.

Existing + Phase 1 (Mitiaged 2)
 Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	83	78	102	228	130	160	271	28	81	284	42
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	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	254	275	260	406	348	198	252	651	553	117	434	64
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.14	0.36	0.36	0.07	0.28	0.28
Sat Flow, veh/h	952	865	818	1142	1095	622	1740	1827	1553	1740	1555	231
Grp Volume(v), veh/h	29	0	212	117	0	411	198	335	35	92	0	371
Grp Sat Flow(s),veh/h/ln	952	0	1683	1142	0	1717	1740	1827	1553	1740	0	1786
Q Serve(g_s), s	1.3	0.0	4.6	4.1	0.0	10.0	5.1	6.7	0.7	2.4	0.0	8.8
Cycle Q Clear(g_c), s	11.3	0.0	4.6	8.7	0.0	10.0	5.1	6.7	0.7	2.4	0.0	8.8
Prop In Lane	1.00		0.49	1.00		0.36	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	254	0	535	406	0	546	252	651	553	117	0	498
V/C Ratio(X)	0.11	0.00	0.40	0.29	0.00	0.75	0.79	0.51	0.06	0.79	0.00	0.74
Avail Cap(c_a), veh/h	320	0	652	486	0	666	375	866	736	300	0	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	12.4	15.7	0.0	14.2	19.2	11.8	9.8	21.3	0.0	15.2
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.4	0.0	3.9	6.5	0.6	0.0	11.0	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 Back of Q (50%), veh/ln	0.3	0.0	1.6	1.1	0.0	4.0	2.3	2.4	0.2	1.3	0.0	3.8
Lane Grp Delay (d), s/veh	19.4	0.0	12.8	16.1	0.0	18.1	25.6	12.4	9.9	32.3	0.0	17.5
Lane Grp LOS	B		B	B		B	C	B	A	C		B
Approach Vol, veh/h		241			528			568			463	
Approach Delay, s/veh		13.6			17.6			16.9			20.4	
Approach LOS		B			B			B			C	
Timer												
Assigned Phs		4			8		5	2		1		6
Phs Duration (G+Y+Rc), s		18.8			18.8		10.7	20.5		7.1		16.9
Change Period (Y+Rc), s		4.0			4.0		4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0			18.0		10.0	22.0		8.0		20.0
Max Q Clear Time (g_c+l1), s		13.3			12.0		7.1	8.7		4.4		10.8
Green Ext Time (p_c), s		1.5			1.8		0.2	2.6		0.1		2.2
Intersection Summary												
HCM 2010 Ctrl Delay				17.6								
HCM 2010 LOS				B								
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	72	2	13	0	0	0	0	20	11	85	685	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	127	3	116				0	717	386	227	1064	0
Arrive On Green	0.07	0.07	0.00				0.00	0.63	0.63	0.63	0.63	0.00
Sat Flow, veh/h	1737	39	1583				0	1140	614	124	1693	0
Grp Volume(v), veh/h	91	0	0				0	0	40	906	0	0
Grp Sat Flow(s),veh/h/ln	1776	0	1583				0	0	1754	1817	0	0
Q Serve(g_s), s	1.3	0.0	0.0				0.0	0.0	0.2	3.4	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0				0.0	0.0	0.2	9.7	0.0	0.0
Prop In Lane	0.98		1.00				0.00		0.35	0.11		0.00
Lane Grp Cap(c), veh/h	130	0	116				0	0	1103	1291	0	0
V/C Ratio(X)	0.70	0.00	0.00				0.00	0.00	0.04	0.70	0.00	0.00
Avail Cap(c_a), veh/h	1191	0	1061				0	0	2222	2433	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.1	0.0	0.0				0.0	0.0	1.9	3.6	0.0	0.0
Incr Delay (d2), s/veh	6.6	0.0	0.0				0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	0.0				0.0	0.0	0.0	1.5	0.0	0.0
Lane Grp Delay (d), s/veh	18.7	0.0	0.0				0.0	0.0	1.9	4.3	0.0	0.0
Lane Grp LOS	B								A	A		
Approach Vol, veh/h		91						40			906	
Approach Delay, s/veh		18.7						1.9			4.3	
Approach LOS		B						A			A	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		6.0						20.9			20.9	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		18.0						34.0			34.0	
Max Q Clear Time (g_c+l1), s		3.3						2.2			11.7	
Green Ext Time (p_c), s		0.2						5.6			5.2	
Intersection Summary												
HCM 2010 Ctrl Delay			5.5									
HCM 2010 LOS			A									
Notes												














												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	163	2	202	5	90	0	0	604	185
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	0	1	0	0	1	1
Cap, veh/h				310	4	280	144	981	0	0	1014	862
Arrive On Green				0.18	0.18	0.00	0.54	0.54	0.00	0.00	0.54	0.00
Sat Flow, veh/h				1751	24	1583	22	1801	0	0	1863	1583
Grp Volume(v), veh/h				220	0	0	113	0	0	0	795	0
Grp Sat Flow(s),veh/h/ln				1775	0	1583	1824	0	0	0	1863	1583
Q Serve(g_s), s				3.3	0.0	0.0	0.0	0.0	0.0	0.0	9.7	0.0
Cycle Q Clear(g_c), s				3.3	0.0	0.0	0.8	0.0	0.0	0.0	9.7	0.0
Prop In Lane				0.99		1.00	0.05		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				314	0	280	1125	0	0	0	1014	862
V/C Ratio(X)				0.70	0.00	0.00	0.10	0.00	0.00	0.00	0.78	0.00
Avail Cap(c_a), veh/h				1607	0	1434	1741	0	0	0	1687	1434
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.99	0.00
Uniform Delay (d), s/veh				11.1	0.0	0.0	3.2	0.0	0.0	0.0	5.2	0.0
Incr Delay (d2), s/veh				2.8	0.0	0.0	0.2	0.0	0.0	0.0	6.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				1.4	0.0	0.0	0.3	0.0	0.0	0.0	4.3	0.0
Lane Grp Delay (d), s/veh				13.9	0.0	0.0	3.4	0.0	0.0	0.0	11.2	0.0
Lane Grp LOS				B			A				B	
Approach Vol, veh/h					220			113			795	
Approach Delay, s/veh					13.9			3.4			11.2	
Approach LOS					B			A			B	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					9.1			19.6			19.6	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					26.0			26.0			26.0	
Max Q Clear Time (g_c+l1), s					5.3			2.8			11.7	
Green Ext Time (p_c), s					0.8			4.6			3.9	
Intersection Summary												
HCM 2010 Ctrl Delay				11.0								
HCM 2010 LOS				B								
Notes												

Intersection												
Intersection Delay, s/veh	280.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	628	2	4	0	0	0	0	185	243	152	13	0
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	100	100	100	88	88	88	84	84	84
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	690	2	4	0	0	0	0	210	276	181	15	0
Major/Minor	Minor2			Major1				Major2				
Conflicting Flow All	725	863	15	15				0	0	486	0	0
Stage 1	377	377	-	-				-	-	-	-	-
Stage 2	348	486	-	-				-	-	-	-	-
Follow-up Headway	3.536	4.036	3.336	2.236				-	-	2.236	-	-
Pot Capacity-1 Maneuver	# 389	290	1059	1590				-	-	1067	-	-
Stage 1	# 689	612	-	-				-	-	-	-	-
Stage 2	710	548	-	-				-	-	-	-	-
Time blocked-Platoon, %	-											
Mov Capacity-1 Maneuver	# 322	# 0	1059	1590				-	-	1067	-	-
Mov Capacity-2 Maneuver	# 322	# 0	-	-				-	-	-	-	-
Stage 1	# 571	# 0	-	-				-	-	-	-	-
Stage 2	710	# 0	-	-				-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	\$ 553.5						0			8.3		
HCM LOS	F											
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR				
Capacity (veh/h)	1590	-	-	322	1059	1067	-	-				
HCM Lane V/C Ratio	-	-	-	2.155	0.003	0.17	-	-				
HCM Control Delay (s)	0	-	-	\$ 555.8	8.4	9.062	0	-				
HCM Lane LOS	A	-	-	F	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	51.521	0.008	0.609	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection												
Intersection Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	6	1	102	17	796	0	0	159	256
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	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	93	93	93	85	85	85	80	80	80
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	0	6	1	110	20	936	0	0	199	320
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All	1335			1495			936			519		
Stage 1	976			976			-			-		
Stage 2	359			519			-			-		
Follow-up Headway	3.536			4.036			3.336			2.236		
Pot Capacity-1 Maneuver	168			122			319			1037		
Stage 1	362			327			-			-		
Stage 2	702			529			-			-		
Time blocked-Platoon, %	-			-			-			-		
Mov Capacity-1 Maneuver	161			# 0			319			1037		
Mov Capacity-2 Maneuver	161			# 0			-			-		
Stage 1	348			# 0			-			-		
Stage 2	702			# 0			-			-		
Approach	WB			NB			SB					
HCM Control Delay, s	19.9			0.2			0					
HCM LOS	C											
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR				
Capacity (veh/h)	1037	-	-	278	319	724	-	-				
HCM Lane V/C Ratio	0.019	-	-	0.159	0.229	-	-	-				
HCM Control Delay (s)	8.54	0	-	20.4	19.6	0	-	-				
HCM Lane LOS	A	A	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0.059	-	-	0.555	0.868	0	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

HCM 2010 Signalized Intersection Summary
 3: CORRAL HOLLOW RD & SPINE RD

Existing + Phase 1 Condition
 Timing Plan: PM PEAK

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 					
Volume (veh/h)	828	210	426	470	176	562
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	1	1	1	1
Cap, veh/h	972	447	508	1082	1082	920
Arrive On Green	0.28	0.28	0.58	0.58	0.58	0.58
Sat Flow, veh/h	3442	1583	717	1863	1863	1583
Grp Volume(v), veh/h	828	210	426	470	176	562
Grp Sat Flow(s),veh/h/ln	1721	1583	717	1863	1863	1583
Q Serve(g_s), s	13.3	6.4	31.4	8.3	2.6	13.5
Cycle Q Clear(g_c), s	13.3	6.4	34.0	8.3	2.6	13.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	972	447	508	1082	1082	920
V/C Ratio(X)	0.85	0.47	0.84	0.43	0.16	0.61
Avail Cap(c_a), veh/h	1058	487	508	1082	1082	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	17.4	15.0	6.9	5.7	8.0
Incr Delay (d2), s/veh	6.4	0.8	11.8	0.3	0.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	6.2	2.4	7.6	3.2	0.9	4.5
Lane Grp Delay (d), s/veh	26.2	18.1	26.8	7.1	5.7	9.2
Lane Grp LOS	C	B	C	A	A	A
Approach Vol, veh/h	1038			896	738	
Approach Delay, s/veh	24.6			16.5	8.3	
Approach LOS	C			B	A	
Timer						
Assigned Phs				2	6	
Phs Duration (G+Y+Rc), s				38.0	38.0	
Change Period (Y+Rc), s				4.0	4.0	
Max Green Setting (Gmax), s				34.0	34.0	
Max Q Clear Time (g_c+l1), s				36.0	15.5	
Green Ext Time (p_c), s				0.0	7.8	
Intersection Summary						
HCM 2010 Ctrl Delay			17.4			
HCM 2010 LOS			B			
Notes						

Intersection						
Intersection Delay, s/veh	492.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	329	53	774	524	52	431
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	77	77	87	87	88	88
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	427	69	890	602	59	490
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1799	1191	0	0	1492	0
Stage 1	1191	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Follow-up Headway	3.536	3.336	-	-	2.236	-
Pot Capacity-1 Maneuver	# 87	226	-	-	444	-
Stage 1	# 286	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	# 71	226	-	-	444	-
Mov Capacity-2 Maneuver	# 71	-	-	-	-	-
Stage 1	# 286	-	-	-	-	-
Stage 2	441	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	\$ 2516.9		0		1.5	
HCM LOS	F					
Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	78	444	-	
HCM Lane V/C Ratio	-	-	6.36	0.133	-	
HCM Control Delay (s)	-	-	\$ 2516.9	14.349	0	
HCM Lane LOS			F	B	A	
HCM 95th %tile Q(veh)	-	-	55.609	0.456	-	
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

Intersection												
Intersection Delay, s/veh	38.2											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	280	279	23	3	199	71	12	30	16	93	21	152
Peak Hour Factor	0.93	0.93	0.93	0.75	0.75	0.75	0.69	0.69	0.69	0.90	0.90	0.90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	301	300	25	4	265	95	17	43	23	103	23	169
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	62.1	19.8	12.3	17.8
HCM LOS	F	C	B	C





























Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	48%	1%	35%
Vol Thru, %	52%	48%	73%	8%
Vol Right, %	28%	4%	26%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	58	582	273	266
LT Vol	30	279	199	21
Through Vol	16	23	71	152
RT Vol	12	280	3	93
Lane Flow Rate	84	626	364	296
Geometry Grp	1	1	1	1
Degree of Util (X)	0.178	1	0.638	0.554
Departure Headway (Hd)	7.642	6.206	6.305	6.744
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	471	588	575	541
Service Time	5.669	4.206	4.331	4.729
HCM Lane V/C Ratio	0.178	1.065	0.633	0.547
HCM Control Delay	12.3	62.1	19.8	17.8
HCM Lane LOS	B	F	C	C
HCM 95th-tile Q	0.6	14.7	4.5	3.4

Notes

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

HCM 2010 Signalized Intersection Summary
6: TRACY BLVD & VALPICO RD.

Existing + Phase 1 Condition
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	103	322	72	193	241	162	128	538	176	192	410	71
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	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	2	0	2	2	1	1	2	1	1	2	0
Cap, veh/h	150	614	136	292	777	330	191	1073	456	255	1003	173
Arrive On Green	0.09	0.21	0.21	0.09	0.21	0.21	0.11	0.29	0.29	0.15	0.33	0.33
Sat Flow, veh/h	1740	2898	643	3375	3654	1553	1740	3654	1553	1740	3038	523
Grp Volume(v), veh/h	118	232	221	203	254	171	154	648	212	213	273	262
Grp Sat Flow(s),veh/h/ln	1740	1827	1713	1688	1827	1553	1740	1827	1553	1740	1827	1735
Q Serve(g_s), s	4.8	8.3	8.5	4.2	4.3	7.1	6.3	11.1	8.1	8.7	8.6	8.7
Cycle Q Clear(g_c), s	4.8	8.3	8.5	4.2	4.3	7.1	6.3	11.1	8.1	8.7	8.6	8.7
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	150	387	363	292	777	330	191	1073	456	255	603	573
V/C Ratio(X)	0.79	0.60	0.61	0.69	0.33	0.52	0.81	0.60	0.47	0.84	0.45	0.46
Avail Cap(c_a), veh/h	479	1056	990	697	1860	791	359	1860	791	479	1056	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	32.6	25.8	25.9	32.3	24.2	25.3	31.6	22.0	21.0	30.2	19.2	19.2
Incr Delay (d2), s/veh	3.4	1.8	2.0	1.1	0.3	1.5	3.0	0.7	0.9	2.8	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	3.8	3.6	1.8	1.9	2.7	2.8	4.8	3.0	3.8	3.7	3.5
Lane Grp Delay (d), s/veh	36.0	27.6	27.9	33.4	24.5	26.8	34.6	22.7	21.9	33.0	19.8	19.9
Lane Grp LOS	D	C	C	C	C	C	C	C	C	C	B	B
Approach Vol, veh/h		571			628			1014			748	
Approach Delay, s/veh		29.5			28.0			24.3			23.6	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.8	20.4		10.8	20.4		12.5	26.3		15.1	29.0	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	20.0	42.0		15.0	37.0		15.0	37.0		20.0	42.0	
Max Q Clear Time (g_c+l1), s	6.8	10.5		6.2	9.1		8.3	13.1		10.7	10.7	
Green Ext Time (p_c), s	0.1	4.9		0.2	4.8		0.1	8.3		0.1	9.0	
Intersection Summary												
HCM 2010 Ctrl Delay			25.9									
HCM 2010 LOS			C									
Notes												

Intersection												
Intersection Delay, s/veh	78.3											
Intersection LOS	F											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	254	69	79	95	133	40	587	137	169	444	7
Peak Hour Factor	0.86	0.86	0.86	0.80	0.80	0.80	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	6	295	80	99	119	166	44	652	152	190	499	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	78.1	77.7	78.2	78.8
HCM LOS	F	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	2%	26%	27%
Vol Thru, %	77%	77%	31%	72%
Vol Right, %	18%	21%	43%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	764	328	307	620
LT Vol	587	254	95	444
Through Vol	137	69	133	7
RT Vol	40	5	79	169
Lane Flow Rate	849	381	384	697
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	1	1
Departure Headway (Hd)	9.542	9.517	9.436	9.688
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	390	381	388	383
Service Time	7.568	7.542	7.457	7.713
HCM Lane V/C Ratio	2.177	1	0.99	1.82
HCM Control Delay	78.2	78.1	77.7	78.8
HCM Lane LOS	F	F	F	F
HCM 95th-tile Q	11.9	11.9	11.9	11.8

Notes

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

Intersection

Intersection Delay, s/veh 8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	133	12	2	321	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	58	58	83	83
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	6	171	21	3	387	12

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	808	22	0
Stage 1	22	-	-
Stage 2	786	-	-
Follow-up Headway	3.536	3.336	-
Pot Capacity-1 Maneuver	348	1049	-
Stage 1	995	-	-
Stage 2	446	-	-
Time blocked-Platoon, %			
Mov Capacity-1 Maneuver	262	1049	-
Mov Capacity-2 Maneuver	262	-	-
Stage 1	995	-	-
Stage 2	336	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	7.8
HCM LOS	A		























Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	946	1578	-
HCM Lane V/C Ratio	-	-	0.187	0.245	-
HCM Control Delay (s)	-	-	9.7	8.02	0
HCM Lane LOS			A	A	A
HCM 95th %tile Q(veh)	-	-	0.685	0.968	-

Notes

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

HCM 2010 Signalized Intersection Summary
 9: CORRAL HOLLOW RD & NEW SCHULTE ROAD

Existing + Phase 1 Condition
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	34	20	50	56	326	31	779	82	508	829	85
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	182.7	182.7	182.7	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	190.0
Lanes	1	2	1	1	2	0	1	2	0	2	2	0
Cap, veh/h	101	967	411	86	468	398	65	986	104	569	1417	145
Arrive On Green	0.06	0.26	0.26	0.05	0.26	0.26	0.04	0.30	0.30	0.17	0.43	0.43
Sat Flow, veh/h	1740	3654	1553	1740	1827	1553	1740	3252	341	3375	3262	333
Grp Volume(v), veh/h	79	42	25	54	61	354	33	466	450	564	516	499
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1740	1827	1553	1740	1827	1767	1688	1827	1768
Q Serve(g_s), s	4.0	0.8	1.1	2.7	2.3	19.5	1.7	21.2	21.2	14.8	19.8	19.8
Cycle Q Clear(g_c), s	4.0	0.8	1.1	2.7	2.3	19.5	1.7	21.2	21.2	14.8	19.8	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.19
Lane Grp Cap(c), veh/h	101	967	411	86	468	398	65	554	536	569	794	768
V/C Ratio(X)	0.78	0.04	0.06	0.62	0.13	0.89	0.50	0.84	0.84	0.99	0.65	0.65
Avail Cap(c_a), veh/h	293	1685	716	293	842	716	489	822	795	569	794	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	24.3	24.4	41.4	25.4	31.8	42.0	29.0	29.0	36.9	19.8	19.8
Incr Delay (d2), s/veh	4.9	0.0	0.1	2.7	0.0	2.8	2.2	5.1	5.3	35.2	1.9	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 Back of Q (50%), veh/ln	1.8	0.3	0.4	1.2	1.0	7.7	0.8	10.0	9.7	8.9	8.7	8.5
Lane Grp Delay (d), s/veh	46.2	24.3	24.5	44.2	25.5	34.6	44.2	34.1	34.3	72.1	21.7	21.8
Lane Grp LOS	D	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		146			469			949			1579	
Approach Delay, s/veh		36.2			34.5			34.5			39.7	
Approach LOS		D			C			C			D	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	9.7	28.5		8.9	27.8		7.8	32.0		19.5	43.6	
Change Period (Y+Rc), s	4.5	5.0		4.5	5.0		4.5	5.0		4.5	5.0	
Max Green Setting (Gmax), s	15.0	41.0		15.0	41.0		25.0	40.0		15.0	30.0	
Max Q Clear Time (g_c+l1), s	6.0	3.1		4.7	21.5		3.7	23.2		16.8	21.8	
Green Ext Time (p_c), s	0.0	1.4		0.0	1.3		0.0	3.8		0.0	5.1	
Intersection Summary												
HCM 2010 Ctrl Delay	37.2											
HCM 2010 LOS	D											
Notes												

Intersection

Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	105	336	71	115	156	13
Peak Hour Factor	0.86	0.86	0.88	0.88	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	391	81	131	205	17
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.6	11.5	11.4
HCM LOS	C	B	B

























Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	38%	24%	0%
Vol Thru, %	62%	0%	92%
Vol Right, %	0%	76%	8%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	186	441	169
LT Vol	115	0	156
Through Vol	0	336	13
RT Vol	71	105	0
Lane Flow Rate	211	513	222
Geometry Grp	1	1	1
Degree of Util (X)	0.334	0.662	0.343
Departure Headway (Hd)	5.69	4.764	5.556
Convergence, Y/N	Yes	Yes	Yes
Cap	634	764	649
Service Time	3.7	2.764	3.566
HCM Lane V/C Ratio	0.333	0.671	0.342
HCM Control Delay	11.5	16.6	11.4
HCM Lane LOS	B	C	B
HCM 95th-tile Q	1.5	5.1	1.5

Notes

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

HCM 2010 Signalized Intersection Summary
 12: LAMMERS RD & ELEVENTH ST.

Existing + Phase 1 Condition
 Timing Plan: PM PEAK





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	96	1075	90	166	397	65	43	80	301	57	70	33
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	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	3	1	1	3	1	2	2	1	2	1	1
Cap, veh/h	342	2288	648	278	2684	761	266	404	172	385	266	226
Arrive On Green	0.10	0.41	0.00	0.16	0.48	0.00	0.08	0.11	0.00	0.11	0.14	0.00
Sat Flow, veh/h	3442	5588	1583	1774	5588	1583	3442	3725	1583	3442	1863	1583
Grp Volume(v), veh/h	102	1144	0	193	462	0	45	84	0	72	89	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	2.0	11.3	0.0	7.6	3.5	0.0	0.9	1.5	0.0	1.4	3.2	0.0
Cycle Q Clear(g_c), s	2.0	11.3	0.0	7.6	3.5	0.0	0.9	1.5	0.0	1.4	3.2	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	342	2288	648	278	2684	761	266	404	172	385	266	226
V/C Ratio(X)	0.30	0.50	0.00	0.69	0.17	0.00	0.17	0.21	0.00	0.19	0.33	0.00
Avail Cap(c_a), veh/h	795	3932	1114	338	3932	1114	795	2118	900	655	1059	900
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	16.2	0.0	29.5	10.9	0.0	31.9	30.1	0.0	29.8	28.6	0.0
Incr Delay (d2), s/veh	0.5	0.2	0.0	3.0	0.0	0.0	0.3	0.3	0.0	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	4.7	0.0	3.5	1.4	0.0	0.4	0.7	0.0	0.6	1.5	0.0
Lane Grp Delay (d), s/veh	31.4	16.5	0.0	32.5	10.9	0.0	32.2	30.4	0.0	30.1	29.3	0.0
Lane Grp LOS	C	B		C	B		C	C		C	C	
Approach Vol, veh/h		1246			655			129			161	
Approach Delay, s/veh		17.7			17.3			31.0			29.6	
Approach LOS		B			B			C			C	
Timer												
Assigned Phs	5	2		1	6		3	8		7	4	
Phs Duration (G+Y+Rc), s	10.8	34.3		16.0	39.6		9.1	12.0		11.7	14.6	
Change Period (Y+Rc), s	5.5	6.1		6.5	6.1		5.5	6.1		5.5	6.1	
Max Green Setting (Gmax), s	15.0	50.0		12.0	50.0		15.0	40.0		12.0	40.0	
Max Q Clear Time (g_c+l1), s	4.0	13.3		9.6	5.5		2.9	3.5		3.4	5.2	
Green Ext Time (p_c), s	0.2	15.0		0.1	15.9		0.1	0.7		0.1	0.7	
Intersection Summary												
HCM 2010 Ctrl Delay				19.2								
HCM 2010 LOS				B								
Notes												

















Intersection												
Intersection Delay, s/veh	96.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	186	4	64	0	0	0	0	467	240	243	31	0
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	-	-	Stop	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	100	100	100	85	85	85	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	209	4	72	0	0	0	0	549	282	304	39	0
Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	1337	1478	39				39	0	0	832	0	0
Stage 1	646	646	-				-	-	-	-	-	-
Stage 2	691	832	-				-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318				2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	# 169	126	1033				1571	-	-	801	-	-
Stage 1	522	467	-				-	-	-	-	-	-
Stage 2	497	384	-				-	-	-	-	-	-
Time blocked-Platoon, %												
Mov Capacity-1 Maneuver	# 103	# 0	1033				1571	-	-	801	-	-
Mov Capacity-2 Maneuver	# 103	# 0	-				-	-	-	-	-	-
Stage 1	319	# 0	-				-	-	-	-	-	-
Stage 2	497	# 0	-				-	-	-	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s	\$ 482.8			0			10.8					
HCM LOS	F											
Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR				
Capacity (veh/h)	1571	-	-	114	1033	801	-	-				
HCM Lane V/C Ratio	-	-	-	2.083	0.046	0.379	-	-				
HCM Control Delay (s)	0	-	-	\$ 578.5	8.7	12.213	0	-				
HCM Lane LOS		A		F	A	B	A					
HCM 95th %tile Q(veh)	0	-	-	19.905	0.146	1.782	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

Intersection												
Intersection Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	7	3	134	4	651	0	0	265	136
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	-	-	Free	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	75	75	75	84	84	84	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	4	179	5	775	0	0	349	179
Major/Minor	Minor1			Major1			Major2					
Conflicting Flow All	1134			1134			775 349 0 0 775 0 0					
Stage 1	785			785			- - - - - - - -					
Stage 2	349			349			- - - - - - - -					
Follow-up Headway	3.518			4.018			3.318 2.218 - - 2.218 - -					
Pot Capacity-1 Maneuver	224			203			398 1210 - - 841 - -					
Stage 1	449			404			- - - - - - - -					
Stage 2	714			633			- - - - - - - -					
Time blocked-Platoon, %	-											
Mov Capacity-1 Maneuver	222			# 0			398 1210 - - 841 - -					
Mov Capacity-2 Maneuver	222			# 0			- - - - - - - -					
Stage 1	446			# 0			- - - - - - - -					
Stage 2	714			# 0			- - - - - - - -					
Approach	WB			NB			SB					
HCM Control Delay, s	17.8			0			0					
HCM LOS	C											
Minor Lane / Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR				
Capacity (veh/h)	1210	-	-	359	398	841	-	-				
HCM Lane V/C Ratio	0.004	-	-	0.203	0.299	-	-	-				
HCM Control Delay (s)	7.987	0	-	17.6	17.9	0	-	-				
HCM Lane LOS	A	A	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0.012	-	-	0.749	1.237	0	-	-				
Notes												
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined												

HCM 2010 Signalized Intersection Summary
 21: Business Park Driveway & SPINE RD










Existing + Phase 1 Condition
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	665	39	123	789	76	51	3	190	183	5	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Cap, veh/h	376	1566	92	435	1503	145	573	8	516	480	28	499
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	637	3485	204	740	3346	322	1298	25	1562	1185	86	1510
Grp Volume(v), veh/h	22	355	349	123	439	426	51	0	193	183	0	93
Grp Sat Flow(s),veh/h/ln	637	1863	1827	740	1863	1806	1298	0	1587	1185	0	1596
Q Serve(g_s), s	0.9	4.7	4.7	4.9	6.2	6.2	1.1	0.0	3.4	5.0	0.0	1.5
Cycle Q Clear(g_c), s	7.1	4.7	4.7	9.6	6.2	6.2	2.6	0.0	3.4	8.4	0.0	1.5
Prop In Lane	1.00		0.11	1.00		0.18	1.00		0.98	1.00		0.95
Lane Grp Cap(c), veh/h	376	837	821	435	837	811	573	0	524	480	0	527
V/C Ratio(X)	0.06	0.42	0.43	0.28	0.52	0.52	0.09	0.00	0.37	0.38	0.00	0.18
Avail Cap(c_a), veh/h	407	925	907	470	925	897	789	0	788	677	0	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	9.8	6.8	6.8	10.1	7.2	7.2	9.5	0.0	9.3	12.5	0.0	8.6
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.4	0.5	0.5	0.1	0.0	0.4	0.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	1.7	1.6	0.8	2.2	2.1	0.3	0.0	1.1	1.3	0.0	0.5
Lane Grp Delay (d), s/veh	9.8	7.1	7.1	10.4	7.7	7.7	9.6	0.0	9.7	13.0	0.0	8.8
Lane Grp LOS	A	A	A	B	A	A	A		A	B		A
Approach Vol, veh/h		726			988			244				276
Approach Delay, s/veh		7.2			8.1			9.7				11.6
Approach LOS		A			A			A				B
Timer												
Assigned Phs		4			8			2				6
Phs Duration (G+Y+Rc), s		20.3			20.3			16.0				16.0
Change Period (Y+Rc), s		4.0			4.0			4.0				4.0
Max Green Setting (Gmax), s		18.0			18.0			18.0				18.0
Max Q Clear Time (g_c+l1), s		9.1			11.6			5.4				10.4
Green Ext Time (p_c), s		6.1			4.7			2.1				1.6
Intersection Summary												
HCM 2010 Ctrl Delay				8.4								
HCM 2010 LOS				A								
Notes												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	628	2	4	0	0	0	0	185	243	152	13	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	182.7	182.7				0.0	182.7	190.0	190.0	182.7	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	746	2	668				0	310	407	287	19	0
Arrive On Green	0.43	0.43	0.00				0.00	0.43	0.43	0.43	0.43	0.00
Sat Flow, veh/h	1735	5	1553				0	718	943	389	44	0
Grp Volume(v), veh/h	692	0	0				0	0	486	196	0	0
Grp Sat Flow(s),veh/h/ln	1740	0	1553				0	0	1661	433	0	0
Q Serve(g_s), s	21.8	0.0	0.0				0.0	0.0	13.6	11.4	0.0	0.0
Cycle Q Clear(g_c), s	21.8	0.0	0.0				0.0	0.0	13.6	25.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.57	0.92		0.00
Lane Grp Cap(c), veh/h	749	0	668				0	0	717	307	0	0
V/C Ratio(X)	0.92	0.00	0.00				0.00	0.00	0.68	0.64	0.00	0.00
Avail Cap(c_a), veh/h	811	0	724				0	0	717	307	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.6	0.0	0.0				0.0	0.0	13.2	23.0	0.0	0.0
Incr Delay (d2), s/veh	15.5	0.0	0.0				0.0	0.0	2.6	4.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	11.5	0.0	0.0				0.0	0.0	5.4	3.0	0.0	0.0
Lane Grp Delay (d), s/veh	31.1	0.0	0.0				0.0	0.0	15.8	27.4	0.0	0.0
Lane Grp LOS	C								B	C		
Approach Vol, veh/h		692						486			196	
Approach Delay, s/veh		31.1						15.8			27.4	
Approach LOS		C						B			C	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		28.9						29.0			29.0	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		27.0						25.0			25.0	
Max Q Clear Time (g_c+l1), s		23.8						15.6			27.0	
Green Ext Time (p_c), s		1.1						2.2			0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			25.2									
HCM 2010 LOS			C									
Notes												

HCM 2010 Signalized Intersection Summary
 4: CORRAL HOLLOW RD & LINNE

Existing + Phase 1 (Mitigated)
 Timing Plan: PM PEAK

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	329	53	774	524	52	431
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	182.7	190.0	182.7	190.0	190.0	182.7
Lanes	1	0	1	0	0	1
Cap, veh/h	0	0	960	649	130	1032
Arrive On Green	0.00	0.00	0.94	0.94	0.94	0.94
Sat Flow, veh/h	0	0	1017	688	78	1093
Grp Volume(v), veh/h	0	0	0	1492	549	0
Grp Sat Flow(s),veh/h/ln	0	0	0	1705	1171	0
Q Serve(g_s), s	0.0	0.0	0.0	28.0	9.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	28.0	37.1	0.0
Prop In Lane	0.00	0.00		0.40	0.11	
Lane Grp Cap(c), veh/h	0	0	0	1610	1162	0
V/C Ratio(X)	0.00	0.00	0.00	0.93	0.47	0.00
Avail Cap(c_a), veh/h	0	0	0	2565	1862	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.9	1.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.9	0.6	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	5.2	2.2	0.0
Lane Grp LOS				A	A	
Approach Vol, veh/h	0		1492			549
Approach Delay, s/veh	0.0		5.2			2.2
Approach LOS			A			A
Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			71.1			71.1
Change Period (Y+Rc), s			4.0			4.0
Max Green Setting (Gmax), s			107.0			107.0
Max Q Clear Time (g_c+l1), s			30.0			39.1
Green Ext Time (p_c), s			29.1			28.0
Intersection Summary						
HCM 2010 Ctrl Delay			4.4			
HCM 2010 LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Intersection												
Intersection Delay, s/veh	16.6											
Intersection LOS	C											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	280	279	23	3	199	71	12	30	16	93	21	152
Peak Hour Factor	0.93	0.93	0.93	0.75	0.75	0.75	0.69	0.69	0.69	0.90	0.90	0.90
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	301	300	25	4	265	95	17	43	23	103	23	169
Number of Lanes	1	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	18.4	15.1	11.7	16.2
HCM LOS	C	C	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	100%	0%	1%	0%	35%
Vol Thru, %	52%	0%	92%	99%	0%	8%
Vol Right, %	28%	0%	8%	0%	100%	57%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	58	280	302	202	71	266
LT Vol	30	0	279	199	0	21
Through Vol	16	0	23	0	71	152
RT Vol	12	280	0	3	0	93
Lane Flow Rate	84	301	325	269	95	296
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.169	0.582	0.577	0.519	0.164	0.519
Departure Headway (Hd)	7.257	7.067	6.502	6.942	6.218	6.436
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	496	515	559	523	579	565
Service Time	5.272	4.767	4.202	4.649	3.924	4.436
HCM Lane V/C Ratio	0.169	0.584	0.581	0.514	0.164	0.524
HCM Control Delay	11.7	19.1	17.7	16.9	10.1	16.2
HCM Lane LOS	B	C	C	C	B	C
HCM 95th-tile Q	0.6	3.7	3.6	3	0.6	3

Notes

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

Intersection				
Intersection Delay, s/veh	79.7			
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	381	384	848	697
Demand Flow Rate, veh/h	396	400	882	725
Vehicles Circulating, veh/h	820	730	511	273
Vehicles Exiting, veh/h	178	663	705	857
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	34.8	27.3	166.8	27.1
Approach LOS	D	D	F	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	396	400	882	725
Cap Entry Lane, veh/h	498	545	678	860
Entry HV Adj Factor	0.963	0.961	0.961	0.961
Flow Entry, veh/h	381	384	848	697
Cap Entry, veh/h	479	523	652	827
V/C Ratio	0.796	0.735	1.301	0.843
Control Delay, s/veh	34.8	27.3	166.8	27.1
LOS	D	D	F	D
95th %tile Queue, veh	7	6	34	10

Intersection												
Intersection Delay, s/veh	39.5											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	186	4	64	0	0	0	0	467	240	243	31	0
Peak Hour Factor	0.89	0.89	0.89	1.00	1.00	1.00	0.85	0.85	0.85	0.80	0.80	0.80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	209	4	72	0	0	0	0	549	282	304	39	0
Number of Lanes	0	1	1	0	0	0	0	1	0	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	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	14.7	57.4	16.9
HCM LOS	B	F	C

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	98%	0%	89%
Vol Thru, %	66%	2%	0%	11%
Vol Right, %	34%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	707	190	64	274
LT Vol	467	4	0	31
Through Vol	240	0	64	0
RT Vol	0	186	0	243
Lane Flow Rate	832	213	72	342
Geometry Grp	2	7	7	2
Degree of Util (X)	1	0.446	0.126	0.572
Departure Headway (Hd)	5.342	7.519	6.331	6.01
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	690	476	562	596
Service Time	3.342	5.304	4.116	4.097
HCM Lane V/C Ratio	1.206	0.447	0.128	0.574
HCM Control Delay	57.4	16.3	10	16.9
HCM Lane LOS	F	C	A	C
HCM 95th-tile Q	15.9	2.3	0.4	3.6

Notes

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

Intersection												
Intersection Delay, s/veh	37.8											
Intersection LOS	E											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	7	3	134	4	651	0	0	265	136
Peak Hour Factor	1.00	1.00	1.00	0.75	0.75	0.75	0.84	0.84	0.84	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	4	179	5	775	0	0	349	179
Number of Lanes	0	0	0	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	12.3	60.3	13.9
HCM LOS	B	F	B























Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	1%	70%	0%	0%	0%
Vol Thru, %	99%	30%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	655	10	134	265	136
LT Vol	651	3	0	265	0
Through Vol	0	0	134	0	136
RT Vol	4	7	0	0	0
Lane Flow Rate	780	13	179	349	179
Geometry Grp	6	7	7	7	7
Degree of Util (X)	1	0.028	0.323	0.564	0.255
Departure Headway (Hd)	5.874	7.552	6.503	5.827	5.127
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	624	473	550	614	693
Service Time	3.874	5.315	4.266	3.622	2.922
HCM Lane V/C Ratio	1.25	0.027	0.325	0.568	0.258
HCM Control Delay	60.3	10.5	12.4	16	9.7
HCM Lane LOS	F	B	B	C	A
HCM 95th-tile Q	15.2	0.1	1.4	3.5	1

Notes

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

















HCM 2010 Signalized Intersection Summary
 7: CORRAL HOLLOW RD & VALPICO RD.

Existing + Phase 1 (Mitigated 2)
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	254	69	79	95	133	40	587	137	169	444	7
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	182.7	182.7	190.0	182.7	182.7	190.0	182.7	182.7	182.7	182.7	182.7	190.0
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	238	377	102	183	188	263	58	754	641	232	919	15
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.41	0.41	0.13	0.51	0.51
Sat Flow, veh/h	1069	1385	376	984	692	965	1740	1827	1553	1740	1793	29
Grp Volume(v), veh/h	6	0	375	99	0	285	44	652	152	190	0	507
Grp Sat Flow(s),veh/h/ln	1069	0	1761	984	0	1657	1740	1827	1553	1740	0	1822
Q Serve(g_s), s	0.3	0.0	13.0	5.0	0.0	10.0	1.7	21.5	4.2	7.0	0.0	12.4
Cycle Q Clear(g_c), s	10.3	0.0	13.0	18.0	0.0	10.0	1.7	21.5	4.2	7.0	0.0	12.4
Prop In Lane	1.00		0.21	1.00		0.58	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	238	0	479	183	0	451	58	754	641	232	0	934
V/C Ratio(X)	0.03	0.00	0.78	0.54	0.00	0.63	0.75	0.86	0.24	0.82	0.00	0.54
Avail Cap(c_a), veh/h	238	0	479	183	0	451	158	884	752	263	0	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	22.2	31.2	0.0	21.1	31.7	17.7	12.6	27.9	0.0	10.9
Incr Delay (d2), s/veh	0.0	0.0	8.2	3.2	0.0	2.8	17.6	7.9	0.2	16.5	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 Back of Q (50%), veh/ln	0.1	0.0	6.3	1.7	0.0	4.2	1.0	10.0	1.4	4.0	0.0	4.8
Lane Grp Delay (d), s/veh	25.7	0.0	30.4	34.4	0.0	24.0	49.3	25.6	12.8	44.4	0.0	11.4
Lane Grp LOS	C		C	C		C	D	C	B	D		B
Approach Vol, veh/h		381			384			848			697	
Approach Delay, s/veh		30.4			26.7			24.6			20.4	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs		4			8		5	2		1		6
Phs Duration (G+Y+Rc), s		22.0			22.0		6.2	31.3		12.8		37.9
Change Period (Y+Rc), s		4.0			4.0		4.0	4.0		4.0		4.0
Max Green Setting (Gmax), s		18.0			18.0		6.0	32.0		10.0		36.0
Max Q Clear Time (g_c+l1), s		15.0			20.0		3.7	23.5		9.0		14.4
Green Ext Time (p_c), s		1.0			0.0		0.0	3.8		0.1		5.8
Intersection Summary												
HCM 2010 Ctrl Delay				24.6								
HCM 2010 LOS				C								
Notes												


















HCM 2010 Signalized Intersection Summary
 13: PATTERSON PASS RD & I-580 SOUTH OFF RAMP

Existing + Phase 1 (Mitigated 2)
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	186	4	64	0	0	0	0	467	240	243	31	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	256	5	232				0	868	446	417	48	0
Arrive On Green	0.15	0.15	0.00				0.00	0.75	0.75	0.75	0.75	0.00
Sat Flow, veh/h	1742	33	1583				0	1161	596	439	65	0
Grp Volume(v), veh/h	213	0	0				0	0	831	343	0	0
Grp Sat Flow(s),veh/h/ln	1776	0	1583				0	0	1757	503	0	0
Q Serve(g_s), s	8.8	0.0	0.0				0.0	0.0	17.2	32.6	0.0	0.0
Cycle Q Clear(g_c), s	8.8	0.0	0.0				0.0	0.0	17.2	49.8	0.0	0.0
Prop In Lane	0.98		1.00				0.00		0.34	0.89		0.00
Lane Grp Cap(c), veh/h	261	0	232				0	0	1314	466	0	0
V/C Ratio(X)	0.82	0.00	0.00				0.00	0.00	0.63	0.74	0.00	0.00
Avail Cap(c_a), veh/h	422	0	376				0	0	1485	535	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	0.00	1.00	0.98	0.00	0.00
Uniform Delay (d), s/veh	31.3	0.0	0.0				0.0	0.0	4.6	15.9	0.0	0.0
Incr Delay (d2), s/veh	6.4	0.0	0.0				0.0	0.0	2.3	9.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.3	0.0	0.0				0.0	0.0	6.4	6.8	0.0	0.0
Lane Grp Delay (d), s/veh	37.7	0.0	0.0				0.0	0.0	6.9	25.6	0.0	0.0
Lane Grp LOS	D								A	C		
Approach Vol, veh/h		213						831			343	
Approach Delay, s/veh		37.7						6.9			25.6	
Approach LOS		D						A			C	
Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		15.1						60.6			60.6	
Change Period (Y+Rc), s		4.0						4.0			4.0	
Max Green Setting (Gmax), s		18.0						64.0			64.0	
Max Q Clear Time (g_c+l1), s		10.8						19.2			51.8	
Green Ext Time (p_c), s		0.4						7.1			4.9	
Intersection Summary												
HCM 2010 Ctrl Delay			16.3									
HCM 2010 LOS			B									
Notes												

HCM 2010 Signalized Intersection Summary
 14: PATTERSON PASS RD & I-580 NORTH OFF RAMP

Existing + Phase 1 (Mitigated 2)
 Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	7	3	134	4	651	0	0	265	136
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				190.0	186.3	186.3	190.0	186.3	0.0	0.0	186.3	186.3
Lanes				0	1	1	0	1	0	0	1	1
Cap, veh/h				17	8	22	166	1159	0	0	1162	988
Arrive On Green				0.01	0.01	0.00	0.62	0.62	0.00	0.00	0.62	0.00
Sat Flow, veh/h				1246	554	1583	3	1858	0	0	1863	1583
Grp Volume(v), veh/h				13	0	0	780	0	0	0	349	0
Grp Sat Flow(s),veh/h/ln				1800	0	1583	1860	0	0	0	1863	1583
Q Serve(g_s), s				0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0
Cycle Q Clear(g_c), s				0.2	0.0	0.0	6.0	0.0	0.0	0.0	1.9	0.0
Prop In Lane				0.69		1.00	0.01		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				25	0	22	1325	0	0	0	1162	988
V/C Ratio(X)				0.52	0.00	0.00	0.59	0.00	0.00	0.00	0.30	0.00
Avail Cap(c_a), veh/h				1467	0	1290	3021	0	0	0	2867	2437
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.75	0.00	0.00	0.00	0.99	0.00
Uniform Delay (d), s/veh				10.8	0.0	0.0	2.7	0.0	0.0	0.0	1.9	0.0
Incr Delay (d2), s/veh				15.7	0.0	0.0	1.4	0.0	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				0.2	0.0	0.0	1.2	0.0	0.0	0.0	0.4	0.0
Lane Grp Delay (d), s/veh				26.5	0.0	0.0	4.1	0.0	0.0	0.0	2.6	0.0
Lane Grp LOS				C			A				A	
Approach Vol, veh/h					13			780			349	
Approach Delay, s/veh					26.5			4.1			2.6	
Approach LOS					C			A			A	
Timer												
Assigned Phs					8			2			6	
Phs Duration (G+Y+Rc), s					4.3			17.8			17.8	
Change Period (Y+Rc), s					4.0			4.0			4.0	
Max Green Setting (Gmax), s					18.0			34.0			34.0	
Max Q Clear Time (g_c+l1), s					2.2			8.0			3.9	
Green Ext Time (p_c), s					0.0			5.8			6.0	
Intersection Summary												
HCM 2010 Ctrl Delay				3.9								
HCM 2010 LOS				A								
Notes												